

Rittal – The System.

Faster – better – worldwide.

**► Catalog 33
North American Edition 2012**

50

Rittal. Power and Vision!

ENCLOSURES

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CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES



FRIEDHELM LOH GROUP

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Rittal – The System.

Faster – better – worldwide.

Dear Customer,

In 2011, Rittal reflected on five very successful decades. For the past 50 years, we have been redefining the future, in every project. Together with our customers, we have developed an innovative, value-creating system with precise-fit solutions for almost every industry. The new Rittal Catalog 33 contains more than 800 pages of detailed information on “Rittal – The System.” Discover the many different facets of our unique range of solutions that is unrivalled anywhere else. Each day, “Rittal – The System,” with its coordinated modular system, facilitates innovative solutions with maximum cost efficiency for companies of all sizes. Embark on a voyage of discovery. The future – your success – starts right here.

Best wishes

Friedhelm Loh

Owner and CEO of the Friedhelm Loh Group

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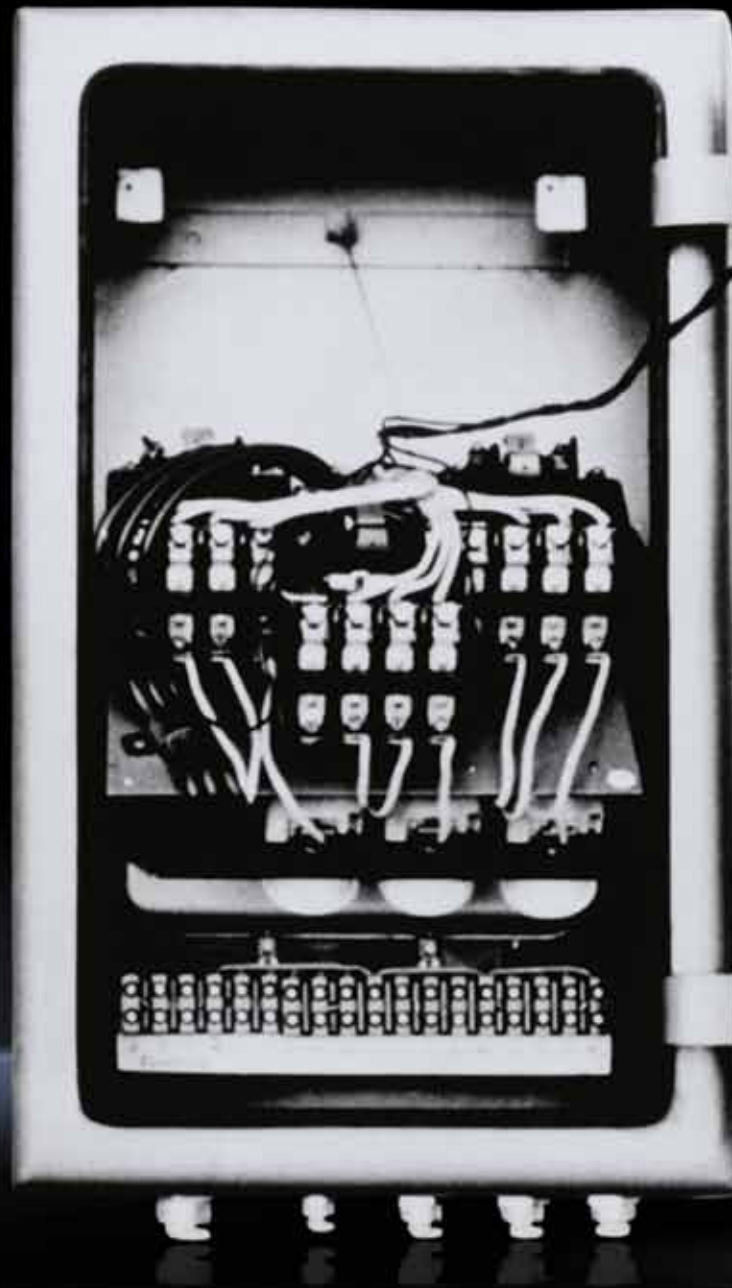
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1961

1961: Series production of the very first standard enclosure, AE, begins.

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Setting standards.

For 50 years, and well into the future.

Becoming the industry leader requires more than a good idea. To be the leader for 50 years requires the strength to deliver consistently. Rittal brought standardized enclosures to the market in 1961 with its revolutionary AE design...laying the foundation for decades of success.

Today, Rittal is the benchmark around the world and is continually striving to raise the level of expertise, engineering and design on every front. The first 50 years is just the beginning.

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1969



1985



1969: Development of the modular series enclosure system RS.

1985: Presentation of the perfect enclosure system PS 4000. With more than 7.1 million units sold, it becomes a global standard.

1999: Perfecting of the global standard PS 4000 and extending it to infinite possibilities with the Top enclosure system TS 8.

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Perfect collaboration. For 50 years, and well into the future.

Our customers are among our most vital sources of new product ideas, and our team of highly-skilled designers and engineers work closely with customers around the world to develop, test and bring to market ground-breaking products and services on a regular basis. Products like our modular enclosure system RS came to be thanks to collaboration with our customers. Rittal listens. Rittal responds.



1999

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1983



1992



1983: Development and production of enclosure cooling units

1992: Ground-breaking ProOzone initiative to develop the first CFC-free cooling units.

2002: Revolutionising enclosure climate control with cooling units in the TopTherm series with innovative air routing.

2010: Development of the TopTherm chiller as a new modular concept in machine and process cooling.

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Always two steps ahead. For 50 years, and well into the future.

Making your business more efficient is a driving force at Rittal. Identifying your concerns, working with you to develop solutions and keeping you on the leading edge of technology is what we do best. Finding ways to reduce the effects of heat generated by electronic components is a prime example — our climate control solutions, using nanotechnology and the latest engineering breakthroughs provide energy-saving cooling systems, modular installations and monitoring tools.



IT INFRASTRUCTURE

SOFTWARE & SERVICES



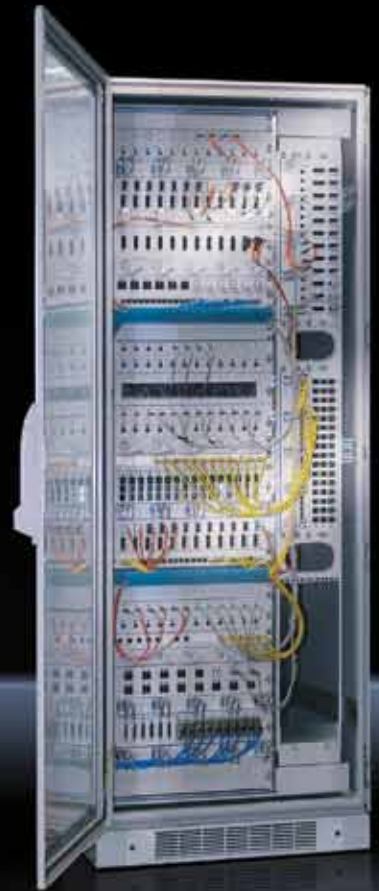
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1988



2000



1988: Start of enclosure production for network technology.
2000: Rittal IT racks with an extensive range of accessories for modern IT infrastructures.
2011: Modular, scalable system solution for complete data centers.

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We are always there for you. For 50 years, and well into the future.

As the IT and Industrial demands for secure, protective enclosures converged in the late 1980s, Rittal embraced the opportunity to apply its industrial expertise to a new and expanding global market. From adapting industrial enclosures to an IT application to creating a system of IT-specific products, Rittal, again, has stepped into a world-wide leader's role. Today, customers rely on Rittal to pioneer solutions for extremely efficient and reliable data centers, IT environments and infrastructures. And, they count on this market leader to stand behind each product for global support and service.



2011

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The future

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begins today!

Rittal has an impressive 50-year history, but has never been content with what it has done. It is always looking forward to what it will do. The future is built into every new project; the development of new materials; product improvements, enhancements and optimizations; and investing in production sites around the globe. The future revolves around our customers. The future begins today!

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Faster.

For 50 years, and well into the future.

At Rittal, “faster” is not just a slogan, it’s a promise we put onto practice throughout the company. And it reflects directly on what we deliver to you, our vital customers. You can count on:

- FAST creation, development and implementation of innovations
- FAST tapping of new markets and industries
- FAST trouble-free installation world-wide thanks to national and international approvals
- FAST customized solutions based on collaboration with our customers
- FASTER response to your needs from product development, engineering and service
- FASTER response to market demands via system solutions from a single source

20

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POWER DISTRIBUTION

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Better.

For 50 years, and well into the future.

Many claim to be “better.” Rittal really is — and independent sources have confirmed it. Others have acknowledged Rittal’s innovations, achievements and products with a host of honors and awards. More importantly, Rittal’s level of performance is supported by its customer loyalty. For 50 years customers the world over have put their trust in Rittal.

Why? Rittal is:

- BETTER with powerful resources for innovation that provide its customers competitive advantages
- BETTER thanks to certified quality management, production and environmental protection standards
- BETTER because of efficient production on state-of-the-art, automated production lines
- BETTER because we provide targeted solutions designed to make our customers’ lives easier
- BETTER because our products provide verifiable energy efficiencies resulting in tangible cost savings
- BETTER thanks to our outstanding educational programs, customer training and exceptional staff

20

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Faster – better – worldwide.



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POWER DISTRIBUTION

CLIMATE CONTROL

Worldwide.

For 50 years, and well into the future.

Wherever you are, you can benefit from Rittal's worldwide footprint. Our 50 years of global expertise can help our customers tap new markets and expand their world, too. And, we'll be expanding our global commitment in the years ahead. That commitment includes:

- WORLDWIDE presence and outstanding logistics with 63 subsidiaries, 40 agencies and 100 warehouses totaling nearly 1.8 million square feet of storage worldwide
- WORLDWIDE production capacity from sites on three continents in 10 state-of-the-art plants covering nearly 2.3 million square feet of productive space
- WORLDWIDE service from 5 support points, more than 250 service partners and more than 1,000 service engineers
- WORLDWIDE expertise with country-specific know how for efficient acceptance, approvals and registrations

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Dynamic success. For 50 years, and well into the future.

At the foundation of Rittal's 50 years of success is the dynamic Friedhelm Loh Group. This unique organization specializes in invention, innovation and investment in new technologies, new products and new markets. At the heart of the group's success is an exemplary corporate culture committed to ethical, social and environmental values and responsibility.

The Friedhelm Loh Group includes the following specialists:

Rittal

The world's leading system suppliers of enclosures, power distribution, climate control, IT infrastructure, software and services

Eplan

Software for global engineering solutions

Mind8

Specialists in variant management for machine and plant engineers

Stahlo

A modern steel service center

Neef

Shaped sheet metal components and assemblies specifically for the automotive industry

LKH

Specialists in hot pressing and injection molding of plastics

Wurz Energy

Combined heat and power (CHP) units

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For specific details on putting each phase of RittalXpress to work for you, go to www.rittal-corp.com/rittalxpress

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RittalXpress: Stock > Mod > Ship

One Program — Three Advantages.

The industry's best, most sought-after enclosures and accessories are now available as part of the industry's best support program. RittalXpress features an extensive stocking program, a custom modification program and fast and efficient shipping.

STOCK

The vital enclosures and related accessories you need most often are in our warehouse or available through your local distributor and ready for quick access and on-time delivery. The RittalXpress stocking program includes more than 2,220 part numbers, continuously in stock and ready for shipping when you need them.

MOD

Your way, is our way! Now products and accessories in our exclusive RittalXpress Stocking Program are eligible for the modifications you need. Your project will be quoted fast and your finished order can be on site within days. If one of Rittal's dozens of enclosures or hundreds of accessories doesn't do exactly what you need, we have a team of modification specialists standing by to make the custom changes and enhancements you require.

SHIP

RittalXpress shipping ensures that order processing and shipping of your off-the-shelf enclosures and accessories gets the ultimate priority attention so your order leaves the warehouse enroute to your site on the next business day.

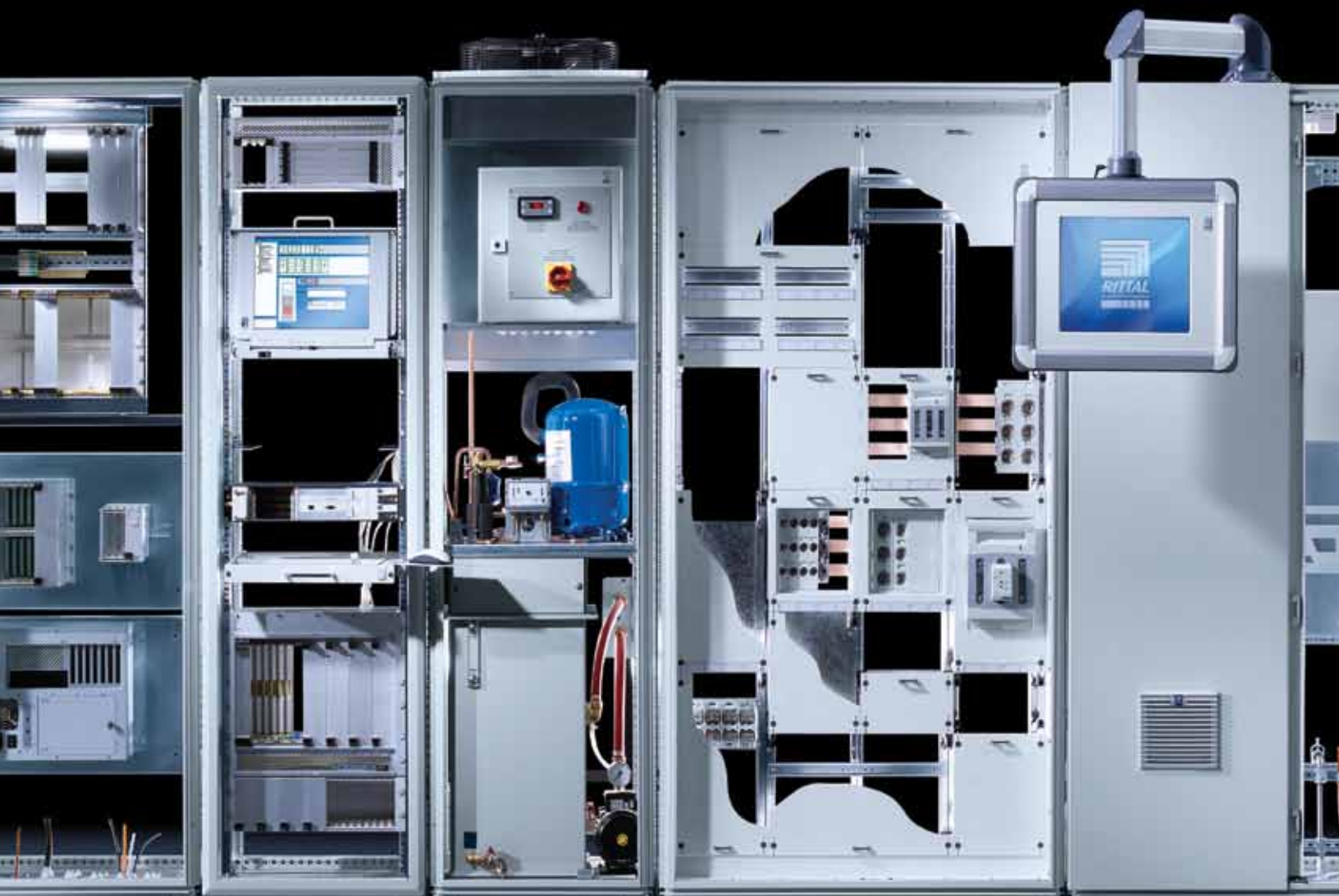
What RittalXpress can mean to you...

- **Quick turn-around — delivered to your site**
- **Thousands of part numbers in stock and ready to ship**
- **Quick, accurate quotes**
- **The best value in the industry, bar none!**

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Enclosures

Small enclosures

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Competency in enclosure systems

As a system supplier, Rittal is the world's leader in innovative enclosure and case technology, meeting the highest standards of security, ergonomics, energy- and cost-efficiency.

Your benefits:

Planning and Engineering

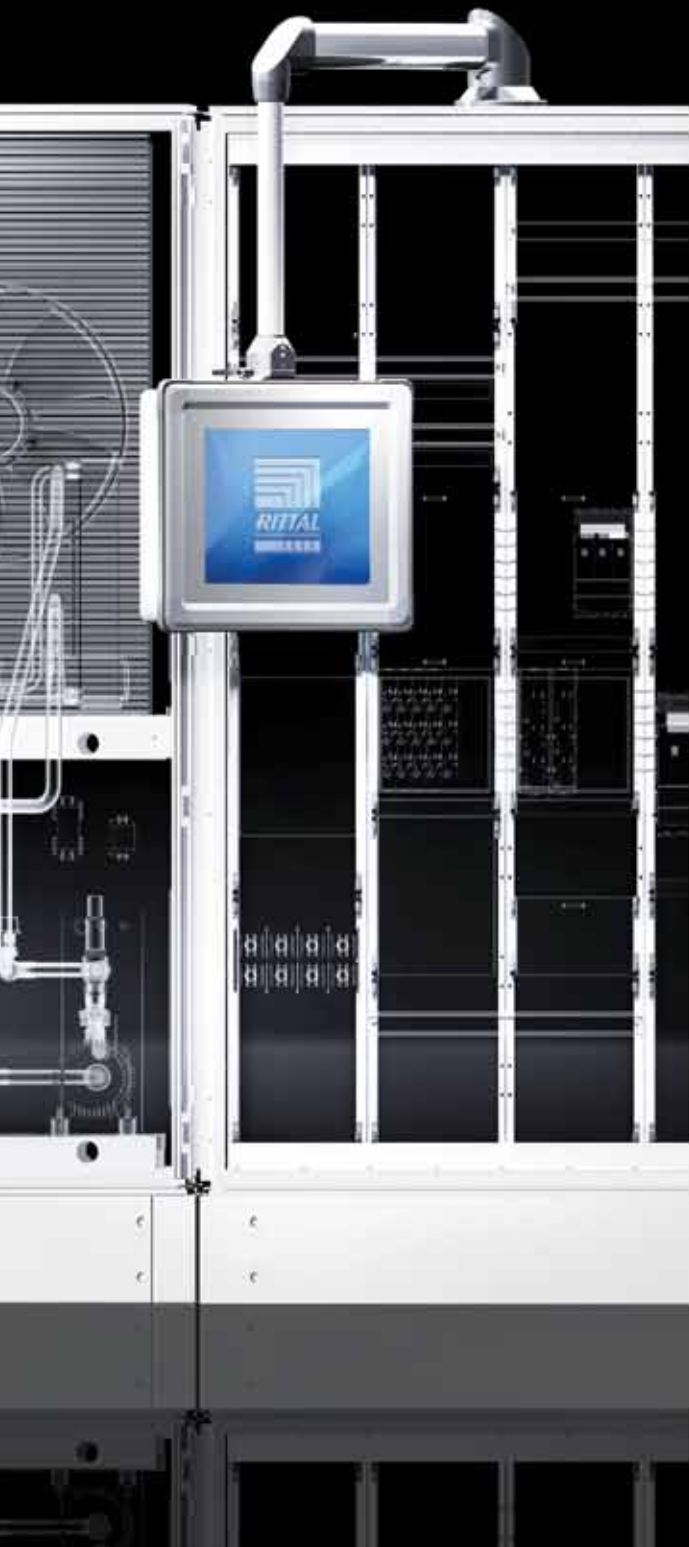
- Software tools for targeted planning and project management
- Component library RiCAD 3D for enhanced engineering

Products

- Modular enclosure and case technology
- Extensive system solutions for high-level investment reliability and maximum flexibility
- Compatibility with all types of applications: Industrial, IT, power distribution and climate control
- Comprehensive range of system accessories for individual installation and fast assembly

Service

- Contiguous global delivery and service network
- Comprehensive quality management
- Accredited laboratories for tests, trials and protection category verification
- Global spare parts service





Small enclosures

PK polycarbonate enclosures

PK polycarbonate screw cover junction box..... 30

GA cast aluminum enclosures

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LF fiberglass boxes

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Junction boxes

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BG bus enclosures

BG bus enclosures..... 45



PK polycarbonate screw cover junction box



PK accessories Page 32 System accessories Page 531 Polyamide cable gland Page 715

Material:

- Housing of fiberglass reinforced polyamide
- Cover either transparent (version .100) or grey (version .000), made from fiberglass-reinforced polycarbonate
- Cover screws from polyamide
- Insulating bung from polyethylene
- All-round foamed-in PU seal

Color:

RAL 7035

Protection rating:

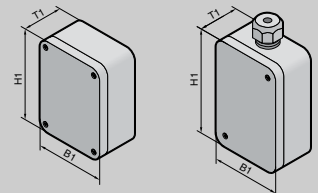
UL/cUL Type 4X
(IP 66 to EN 60 529/10.91)
UL File #: E86711

Configuration:

- Enclosure with cover
- Cover screws
- Insulating bungs for wall mounting screws

Detailed drawings:

Available at www.rittal-corp.com



Depth: 1.4 - 3.2" (35 - 81 mm), Height: 2.0 - 3.7" (52 - 94 mm)

Height (H1) inches (mm)	2.0 (52)	2.6 (65)	2.6 (65)	2.6 (65)	2.6 (65)	2.6 (65)	3.7 (94)	3.7 (94)	Page
Width (B1) inches (mm)	2.0 (50)	2.0 (50)	2.6 (65)	2.6 (65)	3.7 (94)	3.7 (94)	3.7 (94)	3.7 (94)	
Depth (T1) inches (mm)	1.4 (35)	1.4 (35)	2.2 (57)	3.2 (81)	2.2 (57)	3.2 (81)	2.2 (57)	3.2 (81)	
Part No. with cable gland	9530.000	9531.000	–	–	–	–	–	–	
Part No. with solid cover	–	–	9500.000	9501.000	9502.000	9503.000	9504.000	9505.000	
PU	10	10	12	12	8	8	6	6	

Accessories

Mounting panel		–			9541.000		9542.000		–
PU		10				12			
Support rail (PU 12)									
TS 35/7.5	Installation in the height			–			9564.000		32
	Installation in the width			–			9564.000		32

Depth: 2.2 - 3.9" (57 - 99 mm), Height: 3.7 - 5.1" (94 - 130 mm)

Height (H1) inches (mm)	3.7 (94)	3.7 (94)	3.7 (94)	3.7 (94)	4.3 (110)	4.3 (110)	5.1 (130)	5.1 (130)	Page
Width (B1) inches (mm)	5.1 (130)	5.1 (130)	7.1 (180)	7.1 (180)	4.3 (110)	4.3 (110)	5.1 (130)	5.1 (130)	
Depth (T1) inches (mm)	2.2 (57)	3.2 (81)	2.2 (57)	3.2 (81)	2.6 (66)	3.5 (90)	3.0 (75)	3.9 (99)	
Part No. with solid cover	9508.000	9509.000	9512.000	9513.000	9506.000	9507.000	9510.000	9511.000	
Part No. with transparent cover	9508.100	9509.100	9512.100	9513.100	–	–	9510.100	9511.100	
PU	4	4	2	2	6	6	4	4	

Accessories

Mounting panel		9544.000		9546.000		9543.000		9545.000	32
PU		12		10		12		10	
Support rail (PU 12)									
TS 35/7.5	Installation in the height			9564.000				9565.000	32
	Installation in the width		9565.000		9566.000		9564.000	9565.000	32

PK polycarbonate screw cover junction box

Depth: 3.5 - 6.5" (90 - 165 mm), Height: 4.3 - 7.1" (110 - 180 mm)

Height (H1) inches (mm)	4.3 (110)	4.3 (110)	4.3 (110)	7.1 (180)	7.1 (180)	7.1 (180)	Page
Width (B1) inches (mm)	7.1 (180)	7.1 (180)	7.1 (180)	7.2 (182)	7.2 (182)	7.2 (182)	
Depth (T1) inches (mm)	3.5 (90)	4.4 (111)	6.5 (165)	3.5 (90)	4.4 (111)	6.5 (165)	
Part No. with solid cover	9514.000	9515.000	9516.000	9517.000	9518.000	9519.000	
Part No. with transparent cover	9514.100	9515.100	9516.100	9517.100	9518.100	9519.100	
PU	2	2	2	1	1	1	

Accessories

Mounting panel		9547.000		9548.000		32
PU		10		10		
Support rail TS 35/7.5 (PU 12)	Installation in the height	9564.000		9566.000		32
	Installation in the width	9566.000		9566.000		32

Depth: 3.5 - 6.5" (90 - 165 mm), Height: 7.1 - 10.0" (180 - 254 mm)

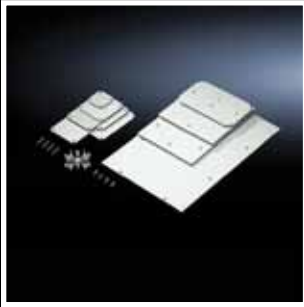
Height (H1) inches (mm)	7.1 (180)	7.1 (180)	7.1 (180)	10.0 (254)	10.0 (254)	Page
Width (B1) inches (mm)	10.0 (254)	10.0 (254)	10.0 (254)	14.2 (360)	14.2 (360)	
Depth (T1) inches (mm)	3.5 (90)	4.4 (111)	6.5 (165)	4.4 (111)	6.5 (165)	
Part No. with solid cover	9520.000	9521.000	9522.000	9523.000	9524.000	
Part No. with transparent cover	9520.100	9521.100	9522.100	9523.100	9524.100	
PU	1	1	1	1	1	

Accessories

Mounting panel		9549.000		9550.000		32
PU		8		4		
Support rail TS 35/7.5 (PU 12)	Installation in the height	9566.000		9567.000		32
	Installation in the width	9567.000		9568.000		32

PK polycarbonate screw cover junction box

Accessories



Mounting panel

For universal interior installation.

Color:

RAL 7035

Material:

0.1" (2.5 mm) melamine phenol-coated laminated paper.

Configuration:

- Mounting panel
- Self-tapping assembly screws

For enclosure	Width inches (mm)	Height inches (mm)	Packs of	Part No.
9510.000/.100, 9511.000/.100	4 (110)	4 (110)	10	9545.000
9514.000/.100, 9514.050, 9515.000/.100, 9516.000/.100	6 (150)	4 (90)	10	9547.000
9517.000/.100, 9518.000/.100, 9519.000/.100	6 (150)	6 (150)	10	9548.000
9520.000/.100, 9521.000/.100, 9521.050, 9522.000/.100	9 (220)	6 (150)	8	9549.000
9523.000/.100, 9524.000/.100	13 (331)	9 (220)	4	9550.000



Support rail

The support rail section provides good flexibility for accommodating terminal blocks and installed components.

Configuration:

- Support rails
- Self-tapping assembly screws

Rail	Rail length inches (mm)	Packs of	Part No.
TS 35/7.5	3 (81)	12	9564.000
	4 (106)	12	9565.000
	6 (144)	12	9566.000
	9 (216)	12	9567.000
	13 (336)	12	9568.000



Turn-lock fastener

A quick, convenient screw fastening aid is obtained by clipping into the head of the lid screw.

Material:

Polyamide

Color:

Similar to RAL 7035

Configuration:

1 pack = 100 pieces

	Packs of	Part No.
For all enclosures	100	9582.000



Hinges

For hinged attachment of covers. The supplied drilling template ensures problem-free assembly.

Color:

Similar to RAL 7035

Configuration:

- 1 set =
- 2 hinges
- 4 assembly screws
- 4 polyethylene sealing bungs
- 1 drilling template

For enclosure	Material	Packs of	Part No.
9500.000/.100 – 9513.000/.100	Polycarbonate	10 sets	9580.000
9514.000/.100 – 9524.000/.100	Polystyrene	10 sets	9581.000

Wall mounting brackets

The enclosure can be screwed to the wall using four wall mounting brackets. The bracket is securely attached to the enclosure by means of pins.

Material:

Polyamide, grey

Color:

Similar to RAL 7035

Configuration:

1 pack = 40 pieces

	Packs of	Part No.
For all enclosures	40	9583.000



GA aluminum screw cover junction box



GA accessories Page 35 System accessories Page 531

Material:

- Enclosure: Cast aluminum
- Cover: Cast aluminum, all-round foamed-in PU seal

Surface finish:

Textured paint

Color:

RAL 7001

Protection rating:

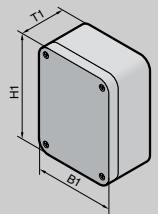
NEMA 4/4X (IP 66 to EN 60 529/09.2000)

Configuration:

- Enclosure with cover
- Cover screws, captive
- Screws for attaching support rails
- Screw for connection of the PE conductor

Detailed drawings:

Available at www.rittal-corp.com



Depth: 1.2 - 3.2" (30 - 80 mm), Height: 1.8 - 4.7" (45 - 120 mm)

Height (H1) inches (mm)	1.8 (45)	2.5 (64)	2.5 (64)	2.5 (64)	3.2 (80)	3.2 (80)	3.2 (80)	3.2 (80)	4.7 (120)
Width (B1) inches (mm)	2.0 (50)	2.3 (58)	3.9 (98)	5.9 (150)	3.0 (75)	4.9 (125)	6.9 (175)	9.8 (250)	4.8 (122)
Depth (T1) inches (mm)	1.2 (30)	1.4 (36)	1.4 (36)	1.4 (36)	2.3 (57)	2.3 (57)	2.3 (57)	2.3 (57)	3.2 (80)
Part No.	9100.210	9101.210	9102.210	9103.210	9104.210	9105.210	9106.210	9107.210	9108.210
PU	6	5	3	2	1	1	1	1	1

Accessories

Mounting panel						9105.700			9108.700
PU						10			2
Support rail ¹⁾ TS 15/5.5 (PU 10)						9105.150			
Support rail ¹⁾ TS 35/7.5 (PU 5)									9108.350
Wall mounting brackets (PU 2)									9121.122
Exterior hinge (PU 2)									9123.000

¹⁾ Installation in the width

Depth: 3.5 - 7.1" (90 - 180 mm), Height: 4.7 - 9.1" (120 - 230 mm)

Height (H1) inches (mm)	4.7 (120)	4.8 (122)	6.3 (160)	6.3 (160)	6.3 (160)	9.1 (230)	9.1 (230)	9.1 (230)	9.1 (230)
Width (B1) inches (mm)	8.7 (220)	14.2 (360)	6.3 (160)	10.2 (260)	14.2 (360)	7.9 (200)	11.0 (280)	13.0 (330)	13.0 (330)
Depth (T1) inches (mm)	3.5 (90)	3.2 (80)	3.5 (90)	3.5 (90)	3.5 (90)	4.3 (110)	4.3 (110)	4.3 (110)	7.1 (180)
Part No.	9110.210	9111.210	9112.210	9113.210	9114.210	9116.210	9117.210	9118.210	9119.210
PU	1	1	1	1	1	1	1	1	1

Accessories

Mounting panel	9110.700		9112.700	9113.700	9114.700	9116.700	9117.700	9118.700	9118.700
PU	2		2	2	1	1	1	1	1
Support rail ¹⁾ TS 35/7.5 (PU 5)	9110.350		9112.350						
Wall mounting brackets (PU 2)	9121.122		9121.160			9121.230			
Exterior hinge (PU 2)	9123.000								

¹⁾ Installation in the width

Mounting panel

For universal interior installation, with mounting holes.

Material:

Carbon steel, zinc-plated

Exterior dimensions mm		For GA enclosures	Packs of	Part No.
Width inches (mm)	Height inches (mm)			
4 (114)	4 (69)	9105.210	10	9105.700
4 (109)	4 (107)	9108.210	2	9108.700
4 (207)	4 (107)	9110.210	2	9110.700
6 (144)	6 (142)	9112.210	2	9112.700
10 (245)	6 (142)	9113.210	2	9113.700
14 (346)	6 (142)	9114.210	1	9114.700
7 (183)	8 (214)	9116.210	1	9116.700
10 (264)	8 (214)	9117.210	1	9117.700
12 (314)	8 (214)	9118.210/9119.210	1	9118.700



Wall mounting bracket

For external mounting on surfaces – no need to dismantle the cover if pre-assembled.

Material:

Carbon steel, zinc-plated

For GA enclosures	Packs of	Part No.
9108.210/ 9110.210/ 9111.210	2	9121.122
9112.210/ 9113.210/ 9114.210	2	9121.160
9116.210/ 9117.210/ 9118.210/ 9119.210	2	9121.230



Hinge, exterior

For fastening the cover to the enclosure base.

Material:

Die-cast aluminum

Color:

RAL 7001

For GA enclosures	Packs of	Part No.
9108.210/ 9110.210/ 9111.210/ 9112.210/ 9113.210/ 9114.210/ 9116.210/ 9117.210/ 9118.210/ 9119.210	2 + 8 screws	9123.000



LF fiberglass screw cover junction box



System accessories Page 531

Protection rating:

UL Type 1, 12, 4X, 6P
UL/cUL, CSA
UL File #: E170282

Configuration:

- Lift-off cover
- Continuous polyurethane cover gasket
- Small raised beveled cover flush with enclosure sides
- Recessed captive stainless steel screws
- External mounting brackets available
- Foamed-in-place polyurethane gasketing

Depth: 3 - 4" (75 - 99 mm), Height: 4 - 11" (94 - 283 mm)

Height inches (mm)	PU	4 (94)	6 (152)	7 (168)	9 (226)	11 (283)
Width inches (mm)		4 (92)	4 (92)	4 (97)	4 (97)	4 (97)
Depth inches (mm)		3 (75)	3 (80)	4 (99)	4 (99)	4 (99)
Part No.	1	L-FJ332HB	L-FJ532HB	L-FJ644HB	L-FJ844HB	L-FJ1144HB

Accessories

External mounting brackets	1	L-FIMTGFTKIT
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LF fiberglass screw cover junction box



System accessories Page 531

Protection rating:

UL Type 1, 12, 4X, 6P
UL/cUL, CSA
UL File #: E170282

Configuration:

- Lift-off cover
- Stainless steel screw/retention chain
- Molded-in mounting provisions
- Rounded corners
- Overhang cover

- Foamed-in-place polyurethane gasketing

Depth: 4 - 9" (108 - 224 mm), Height: 12 - 22" (295 - 559 mm)

Height inches (mm)	12 (295)	8 (191)	8 (191)	10 (244)	14 (344)	16 (394)	18 (445)	20 (498)	22 (559)
Width inches (mm)	9 (239)	5 (138)	8 (191)	8 (191)	11 (290)	14 (343)	16 (393)	18 (447)	18 (449)
Depth inches (mm)	4 (108)	5 (121)	5 (121)	5 (121)	5 (132)	6 (159)	6 (158)	9 (224)	9 (224)
Mounting center height inches (mm)*	11 (273)	7 (171)	7 (171)	9 (226)	13 (324)	15 (371)	17 (425)	19 (480)	21 (540)
Mounting center width inches (mm)*	6 (152)	2 (51)	4 (102)	4 (102)	8 (203)	10 (254)	12 (305)	12 (305)	10 (254)
Part No.	L-FJ1008NFSC	L-FJ604NFSC	L-FJ606NFSC	L-FJ806NFSC	L-FJ1210NFSC	L-FJ1412NFSC	L-FJ1614NFSC	L-FJ1816NFSC	L-FJ2016NFSC

Accessories

Mounting panel	L-MPL108CS	L-MPL64CS	L-MPL66CS	L-MPL86CS	L-MPL1210CS	L-MPL1412CS	L-MPL1614CS	L-MPL1816CS	L-MPLJ2016CS
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* Center to center distance between wallmount holes.

LF fiberglass quick release junction box



System accessories Page 531

Protection rating:

UL Type 1, 12, 4X, 6P
(except for L-FJ1816CHNFQW,
L-FJ2016CHNFQW not
UL Type 6P)
UL/cUL, CSA
UL File #: E170282

Configuration:

- Scratch and abrasion resistant
UVA acrylic flush viewing window
- Quick-release clamps with
secure loop for padlock
provisions (padlock not included)
- Can be lifted and released
with ease
- 180° door opening
- Foamed-in-place polyurethane
gasketing

Depth: 4 - 6" (108 - 159 mm), Height: 10 - 16" (244 - 394 mm)

Height inches (mm)	PU	12 (295)	10 (244)	14 (344)	16 (394)
Width inches (mm)		9 (239)	8 (191)	11 (290)	14 (343)
Depth inches (mm)		4 (108)	5 (120)	5 (132)	6 (159)
Mounting center height inches (mm)*		11 (273)	9 (226)	13 (324)	15 (371)
Mounting center width inches (mm)*		6 (152)	4 (102)	8 (203)	10 (254)
Part No.	1	L-FJ1008CHNFQW	L-FJ806CHNFQW	L-FJ1210CHNFQW	L-FJ1412CHNFQW
Accessories					
Mounting panel	1	L-MPL108CS	L-MPL86CS	L-MPL1210CS	L-MPL1412CS

* Center to center distance between wallmount holes.

Depth: 6 - 9" (158 - 224 mm), Height: 18 - 22" (445 - 559 mm)

Height inches (mm)	PU	18 (445)	20 (498)	22 (559)
Width inches (mm)		16 (393)	18 (447)	18 (449)
Depth inches (mm)		6 (158)	9 (224)	9 (224)
Mounting center height inches (mm)*		17 (425)	19 (480)	21 (540)
Mounting center width inches (mm)*		12 (305)	12 (305)	10 (254)
Part No.	1	L-FJ1614CHNFQW	L-FJ1816CHNFQW	L-FJ2016CHNFQW
Accessories				
Mounting panel	1	L-MPL1614CS	L-MPL1816CS	L-MPLJ2016CS

* Center to center distance between wallmount holes.

KL screw cover junction box



System accessories Page 531 KL stainless steel Page 212 KL for Ex areas Page 240

Material:

- Enclosure: Carbon steel
- Cover: Carbon steel, all-round foamed-in PU seal

Surface finish:

Enclosure and cover: Dipcoat primed, powder-coated on the outside, textured paint

Color:

RAL 7035

Protection rating:

UL Type 4 (IP 66 to EN 60 529/10.91) without Gland Plate
 UL Type 12 (IP 54 to EN 60 529/10.91) with Gland Plate
 CSA
 UL File #: E76083

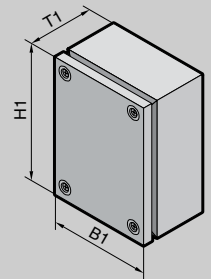
Configuration:

Enclosure, cover with foamed-on polyurethane seal around the perimeter and quick release cover

screws, including plastic bushes.

Detailed drawings:

Available at www.rittal-corp.com



Depth: 3 - 5" (80 - 120 mm), Height: 6 - 8" (150 - 200 mm) without Gland plate

Height (H1) inches (mm)	PU	6 (150)	6 (150)	6 (150)	8 (200)	8 (200)	8 (200)	8 (200)	6 (150)	Page
Width (B1) inches (mm)		6 (150)	8 (200)	12 (300)	8 (200)	12 (300)	16 (400)	24 (600)	6 (150)	
Depth (T1) inches (mm)		3 (80)	3 (80)	3 (80)	3 (80)	3 (80)	3 (80)	3 (80)	5 (120)	
Part No.	1	1514.510	1528.510	1515.510	1516.510	1517.510	1518.510	1519.510	1500.510	
Weight lb (kg)		3 (1.4)	4 (2.6)	5 (2.1)	4 (1.9)	6 (2.6)	7 (3.2)	10 (4.6)	4 (1.6)	

Accessories

Mounting panel	1	1560.700	1575.700	1561.700	1562.700	1563.700	1564.700	1566.700	1560.700	635
Support rail TS 35/7.5	10	2314.000	2315.000	2316.000	2315.000	2316.000	2317.000	–	2314.000	662
Support rail TS 35/15	10							2319.000	–	662
Cover retainer	3 pairs							1591.000		612
Cover hinge	6							1592.000		612
Wallmount bracket	4							1590.000		628

Depth: 5" (120 mm), Height: 6 - 8" (150 - 200 mm) without Gland plate

Height (H1) inches (mm)	PU	6 (150)	6 (150)	6 (150)	8 (200)	8 (200)	8 (200)	8 (200)	8 (200)	Page
Width (B1) inches (mm)		8 (200)	12 (300)	16 (400)	8 (200)	12 (300)	16 (400)	20 (500)	24 (600)	
Depth (T1) inches (mm)		5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	
Part No.	1	1529.510	1501.510	1589.510	1502.510	1503.510	1504.510	1505.510	1506.510	
Weight lb (kg)		4 (2)	6 (3)	7 (3)	5 (2)	7 (3)	8 (4)	10 (4)	13 (6)	

Accessories

Mounting panel	1	1575.700	1561.700	1576.700	1562.700	1563.700	1564.700	1565.700	1566.700	635
Support rail TS 35/7.5	10	2315.000	2316.000	2317.000	2315.000	2316.000	2317.000	2318.000	2319.000	662
Cover retainer	3 pairs							1591.000		612
Cover hinge	6							1592.000		612
Wallmount bracket	4							1590.000		628

KL Screw cover junction box

Depth: 5" (120 mm), Height: 8 - 16" (200 - 400 mm) without Gland plate

Height (H1) inches (mm)	PU	8 (200)	12 (300)	12 (300)	12 (300)	12 (300)	16 (400)	16 (400)	16 (400)	Page
Width (B1) inches (mm)		32 (800)	12 (300)	16 (400)	20 (500)	24 (600)	16 (400)	24 (600)	32 (800)	
Depth (T1) inches (mm)		5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	
Part No.	1	1527.510	1507.510	1508.510	1509.510	1510.510	1511.510	1512.510	1513.510	
Weight lb (kg)		15 (6.8)	9 (4.0)	11 (4.8)	13 (5.8)	15 (6.8)	14 (6.2)	19 (8.4)	24 (11.0)	

Accessories

Mounting panel	1	1574.700	1567.700	1568.700	1569.700	1570.700	1571.700	1572.700	1573.700	635
Support rail TS 35/7.5	10	-	2316.000	2317.000	2318.000	2319.000	2317.000	-	-	662
Cover retainer	3 pairs	1591.000								612
Cover hinge	6	1592.000								612
Wallmount bracket	4	1590.000								628

Depth: 5" (120 mm), Height: 6 - 8" (150 - 200 mm) with Gland plate

Height (H1) inches (mm)	PU	6 (150)	8 (200)	8 (200)	8 (200)	8 (200)	8 (200)	8 (200)	Page
Width (B1) inches (mm)		12 (300)	12 (300)	16 (400)	20 (500)	24 (600)	32 (800)		
Depth (T1) inches (mm)		5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)		
Part No.	1	1530.510	1531.510	1532.510	1533.510	1534.510	1542.510		
Weight lb (kg)		6 (3)	7 (3)	9 (4)	11 (5)	13 (6)	16 (7)		

Accessories

Mounting panel	1	1561.700	1563.700	1564.700	1565.700	1566.700	1574.700	635	
Gland plate (top + bottom)		1 + 1			2 + 2	2 + 2	3 + 3	710	
Support rail TS 35/7.5	10	2316.000		2317.000	2318.000	2319.000	-	662	
Cover retainer	3 pairs	-			1591.000			612	
Cover hinge	6	-			1592.000			612	
Wallmount bracket	4	1590.000							628

Depth: 5" (120 mm), Height: 12 - 16" (300 - 400 mm) with Gland plate

Height (H1) inches (mm)	PU	12 (300)	12 (300)	12 (300)	12 (300)	16 (400)	16 (400)	16 (400)	Page
Width (B1) inches (mm)		12 (300)	16 (400)	20 (500)	24 (600)	16 (400)	24 (600)	32 (800)	
Depth (T1) inches (mm)		5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	
Part No.	1	1535.510	1536.510	1537.510	1538.510	1539.510	1540.510	1541.510	
Weight lb (kg)		10 (5)	12 (5)	12 (5)	17 (8)	15 (7)	20 (9)	27 (12)	

Accessories

Mounting panel	1	1567.700	1568.700	1569.700	1570.700	1571.700	1572.700	1573.700	635
Gland plate (top + bottom)		1 + 1		2 + 2		1 + 1	2 + 2	3 + 3	710
Gland plate (left + right)		1 + 1							710
Support rail TS 35/15	10	2316.000	2317.000	2318.000	2319.000	2317.000	2319.000	-	662
Cover retainer	3 pairs	-		1591.000		-	1591.000		612
Cover hinge	6	-		1592.000		-	1592.000		612
Wallmount bracket	4	1590.000							628

JB hinge cover junction box



System accessories Page 531

Material:

Carbon steel
Enclosure: 16 ga (1.5 mm)

Configuration:

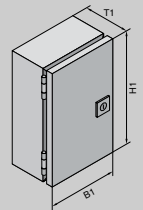
Door with 180° left-hand hinges,
includes screwdriver insert.

Surface finish:

Enclosure and door:
Powder-coated
on the outside in textured
RAL 7035 (light grey)

Protection rating:

UL Type 12
(IP 54 to EN 60 529/10.91)
UL/cUL Type 3R
UL/cUL Type 4
(IP 66 to EN 60 529/10.91)
UL File #: E170282



Note: zinc-plated enclosure mounting panel sold separately (see below)

Depth: 3 - 4" (75 - 100 mm), Height: 5 - 7" (135 - 185 mm)

Height (H1) inches (mm)	PU	4 (100)	6 (150)	6 (150)	6 (150)	8 (200)	8 (200)	Page
Width (B1) inches (mm)		4 (100)	4 (100)	4 (100)	6 (150)	6 (150)	8 (200)	
Depth (T1) inches (mm)		3 (75)	3 (75)	4 (100)	4 (100)	4 (100)	4 (100)	
Panel Height inches (mm)		-	5 (135)	5 (135)	5 (135)	7 (185)	7 (185)	
Panel Width inches (mm)		-	3 (75)	3 (75)	5 (125)	5 (125)	7 (175)	
Part No.	1	JB040403HC	JB060403HC	JB060404HC	JB060604HC	JB080604HC	JB080804HC	
Weight lb (kg)		2 (0.9)	3 (1.4)	3 (1.4)	4 (1.6)	5 (2.0)	6 (2.5)	

Accessories

Mounting panel	1	-	JBMP0604	JBMP0606	JBMP0806	JBMP0808	633
Wallmount bracket	4	1590.000					628

Depth: 4 - 6" (100 - 150 mm), Height: 10 - 12" (250 - 300 mm)

Height (H1) inches (mm)	PU	10 (250)	12 (300)	12 (300)	8 (200)	10 (250)	10 (250)	Page
Width (B1) inches (mm)		8 (200)	6 (150)	10 (250)	6 (150)	8 (200)	10 (250)	
Depth (T1) inches (mm)		4 (100)	4 (100)	5 (125)	6 (150)	6 (150)	6 (150)	
Panel Height inches (mm)		9 (235)	11 (285)	11 (285)	7 (185)	9 (235)	9 (235)	
Panel Width inches (mm)		7 (175)	5 (125)	9 (225)	5 (125)	7 (175)	9 (225)	
Part No.	1	JB100804HC	JB120604HC	JB121005HC	JB080606HC	JB100806HC	JB101006HC	
Weight lb (kg)		8 (3.4)	6 (2.7)	9 (4.1)	6 (2.5)	8 (3.4)	9 (3.9)	

Accessories

Mounting panel	1	JBMP1008	JBMP1206	JBMP1210	JBMP0806	JBMP1008	JBMP1010	633
Wallmount bracket	4	1590.000					628	

JB hinge cover junction box

Depth: 3 - 4" (75 - 100 mm), Height: 5 - 7" (135 - 185 mm)

Height (H1) inches (mm)	PU	12 (300)	12 (300)	14 (350)	16 (400)	12 (300)	16 (400)	16 (400)	Page
Width (B1) inches (mm)		10 (250)	12 (300)	12 (300)	14 (350)	10 (250)	14 (350)	14 (350)	
Depth (T1) inches (mm)		6 (150)	6 (150)	6 (150)	6 (150)	8 (200)	8 (200)	10 (250)	
Panel Height inches (mm)		11 (285)	11 (285)	13 (335)	15 (385)	11 (285)	15 (385)	15 (385)	
Panel Width inches (mm)		9 (225)	11 (275)	11 (275)	13 (325)	9 (225)	13 (325)	14 (350)	
Part No.	1	JB121006HC	JB121206HC	JB141206HC	JB161406HC	JB121008HC	JB161408HC	JB161410HC	
Weight lb (kg)		10 (4.5)	11 (5.0)	12 (5.5)	15 (6.8)	11 (5.0)	17 (7.7)	19 (8.6)	
Accessories									
Mounting panel	1	JBMP1210	JBMP1212	JBMP1412	JBMP1614	JBMP1210	JBMP1614	JBMP1614	633
Wallmount bracket	4	1590.000							628



Rittal Australia

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System accessories Page 531 E box EMC-shielded 243

Material:

- Enclosure: Carbon steel
- Door: Sheet steel, all-round foamed-in PU seal

Surface finish:

- Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
- Mounting panel: Zinc-plated

Color:

RAL 7035

Configuration:

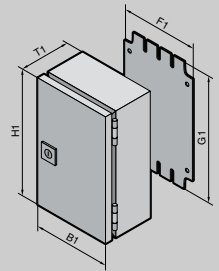
- Enclosure with hinged door
- 180° hinge
- Cam lock with double-bit insert
- Mounting panel

Protection rating:

UL Type 12
(IP 54 to EN 60 529/10.91)
UL/cUL Type 3R
UL/cUL Type 4
(IP 66 to EN 60 529/10.91)
UL file #: E76083

Detailed drawings:

Available at www.rittal-corp.com



Depth: 3" (80 mm), Height: 6 - 16" (150 - 400 mm)

Height (H1) inches (mm)	PU	6 (150)	12 (300)	8 (200)	12 (300)	16 (400)	Page
Width (B1) inches (mm)		6 (150)	6 (150)	8 (200)	8 (200)	8 (200)	
Depth (T1) inches (mm)		3 (80)	3 (80)	3 (80)	3 (80)	3 (80)	
Panel height (G1) inches (mm)		5 (135)	11 (285)	7 (185)	11 (285)	15 (385)	
Panel width (F1) inches (mm)		5 (125)	5 (125)	7 (175)	7 (175)	7 (175)	
Part No.	1	1551.500	1545.500	1546.500	1552.500	1547.500	
Weight lb (kg)		4 (1.7)	6 (2.6)	6 (2.4)	7 (3.2)	10 (4.4)	

Accessories

Wallmount bracket	4			1590.000			628
Handle	1			2533.000			606

Depth: 5" (120 mm), Height: 6 - 12" (150 - 300 mm)

Height (H1) inches (mm)	PU	6 (150)	8 (200)	8 (200)	12 (300)	12 (300)	Page
Width (B1) inches (mm)		6 (150)	6 (150)	8 (200)	6 (150)	8 (200)	
Depth (T1) inches (mm)		5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	
Panel height (G1) inches (mm)		5 (135)	7 (185)	7 (185)	11 (285)	11 (285)	
Panel width (F1) inches (mm)		5 (125)	5 (125)	7 (175)	5 (125)	7 (175)	
Part No.	1	1553.500	1751.500	1549.500	1548.500	1554.500	
Weight lb (kg)		4 (2.0)	5 (2.4)	6 (2.8)	7 (3.0)	8 (3.6)	

Accessories

Wallmount bracket	4			1590.000			628
Handle	1			2533.000			606

EB hinge cover junction box

Depth: 5 - 6" (120 - 155 mm), Height: 10 - 16" (250 - 400 mm)

Height (H1) inches (mm)	PU	12 (300)	16 (400)	16 (400)	10 (250)	12 (300)	Page
Width (B1) inches (mm)		12 (300)	8 (200)	12 (300)	8 (200)	10 (250)	
Depth (T1) inches (mm)		5 (120)	5 (120)	5 (120)	6 (155)	6 (155)	
Panel height (G1) inches (mm)		11 (285)	15 (385)	15 (385)	9 (235)	11 (285)	
Panel width (F1) inches (mm)		11 (275)	7 (175)	11 (275)	7 (175)	9 (225)	
Part No.	1	1555.500	1550.500	1556.500	1752.500	1753.500	
Weight lb (kg)		11 (5.0)	11 (5.0)	14 (6.4)	8 (3.6)	11 (5.0)	

Accessories

Wallmount bracket	4			1590.000			628
Handle	1			2533.000			606

Depth: 6" (155 mm), Height: 14 - 32" (350 - 800 mm)

Height (H1) inches (mm)	PU	14 (350)	16 (400)	16 (400)	24 (600)	32 (800)	Page
Width (B1) inches (mm)		12 (300)	12 (300)	14 (350)	12 (300)	12 (300)	
Depth (T1) inches (mm)		6 (155)	6 (155)	6 (155)	6 (155)	6 (155)	
Panel height (G1) inches (mm)		13 (335)	15 (385)	15 (385)	23 (585)	31 (785)	
Panel width (F1) inches (mm)		11 (275)	11 (275)	13 (325)	11 (275)	11 (275)	
Part No.	1	1754.500	1577.500	1755.500	1578.500	1579.500	
Weight lb (kg)		13 (5.8)	16 (7.1)	14 (6.3)	23 (10.4)	29 (13.2)	

Accessories

Wallmount bracket	4			1590.000			628
Handle	1			2533.000			606



System accessories Page 531

Material:

- Enclosure: Carbon steel
- Door: Carbon steel with polycarbonate viewing window, 4 mm

Surface finish:

Enclosure and door:
Dipcoat primed, powder-coated, textured paint

Color:

RAL 7035

Protection rating:

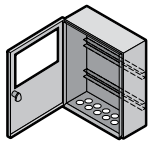
UL/cUL Type 12
(IP 65 to IEC 60 529)
UL file #: E76083

Configuration:

- Enclosure with door
- Viewing window in the door

Detailed drawings:

Available at www.rittal-corp.com



		Packs of	12 (300)	12 (300)	12 (300)	12 (300)	Page
Height	inches (mm)		12 (300)	12 (300)	12 (300)	12 (300)	
Width	inches (mm)		8 (200)	12 (300)	16 (400)	20 (500)	
Depth	inches (mm)		3 (80)	3 (80)	3 (80)	3 (80)	
Part No.		1	1583.520	1584.520	1585.520	1586.520	
Material thickness inches (mm)	Enclosure		0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	
	Door		0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	

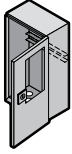
Product-specific supply scope

Door hinge		Left	Left	Left	Left	
Cam lock with double-bit insert		1	1	1	1	
Support rail TS 35/7.5		2	2	2	2	
Number of metric holes	M12	2	2	2	3	
	M20	5	9	12	24	
	M25	2	2	3	-	

Accessories

Lock cover	1	2476.000	2476.000	2476.000	2476.000	609
Cable glands		see page 715				
Wall mounting bracket		see page 629				
Pole clamp		see page 631				
Grounding straps		see page 699				
Alternative lock systems		see page 601				

BG bus enclosure



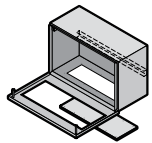
Height inches (mm)	Packs of	12 (300)	12 (300)	Page
Width inches (mm)		8 (200)	16 (400)	
Depth inches (mm)		5 (120)	5 (120)	
Part No.	1	1605.520	1606.520	
Material thickness inches (mm)	Enclosure	0.04 (1.25)	0.05 (1.38)	
	Door	0.04 (1.25)	0.04 (1.25)	

Product-specific supply scope

Door hinge		Right	Right	
Cam lock with double-bit insert		1	1	
Support rail TS 35/7.5		1	1	
Number of metric holes	M12	2	-	
	M20	-	2	
	M32	5	9	
	M50	-	1	

Accessories

Lock cover	1	2476.000	2476.000	609
Cable glands		see page 715		
Wall mounting bracket		see page 629		
Pole clamp		see page 631		
Grounding straps		see page 699		
Alternative lock systems		see page 601		



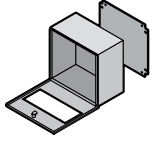
Height inches (mm)	Packs of	8 (200)	8 (200)	Page
Width inches (mm)		16 (400)	24 (600)	
Depth inches (mm)		5 (125)	5 (125)	
Part No.	1	1558.510	1559.510	
Material thickness inches (mm)	Enclosure	0.04 (1.25)	0.04 (1.25)	
	Door	0.04 (1.25)	0.04 (1.25)	

Product-specific supply scope

Door hinge		Bottom	Bottom	
Quick-release fastener		2	3	
Support rail TS 35/7.5		1	1	
Gland plate in base		1	1	

Accessories

Cable glands		see page 715		
Wall mounting bracket		see page 629		
Pole clamp		see page 631		
Grounding straps		see page 699		
Alternative lock systems		see page 601		



Height inches (mm)	Packs of	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	Page
Width inches (mm)		16 (400)	16 (400)	16 (400)	16 (400)	16 (400)	16 (400)	
Depth inches (mm)		6 (155)	6 (155)	6 (155)	6 (155)	6 (155)	6 (155)	
Mounting panel width inches (mm)		15 (385)	15 (385)	15 (385)	15 (385)	15 (385)	15 (385)	
Mounting panel height inches (mm)		11 (275)	11 (275)	11 (275)	11 (275)	11 (275)	11 (275)	
Part No.	1	1577.500	1577.520¹⁾	1577.530¹⁾	1577.550¹⁾	1577.560¹⁾	1577.450¹⁾	
Material thickness inches (mm)	Enclosure	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	
	Door	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	

Product-specific supply scope

Door hinge		Bottom	Bottom	Bottom	Bottom	Bottom	Bottom	
Cam lock with double-bit insert		1	1	1	1	1	1	
Viewing window	Size inches (mm)	-	13 x 5 (340 x 115)	13 x 7 (340 x 190)	13 x 5 (340 x 115)	13 x 7 (340 x 190)	13 x 5 (340 x 115)	
	Position ²⁾ inches (mm)	-	4 (92)	2 (42)	4 (92)	2 (42)	4 (92)	
Mounting panel		1	1	1	1	1	1	
Gland plate in base		-	-	-	1	1	-	

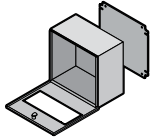
Accessories

Lock cover	1	2476.000	2476.000	2476.000	2476.000	2476.000	2476.000	609
Cable glands		see page 715						
Wall mounting bracket		see page 629						
Pole clamp		see page 631						
Grounding straps		see page 699						
Alternative lock systems		see page 601						

¹⁾ Extended delivery times.

²⁾ Bottom edge of window to bottom edge of door

BG bus enclosure



Height inches (mm)	Packs of	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	Page
Width inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
Depth inches (mm)		6 (155)	6 (155)	6 (155)	6 (155)	6 (155)	6 (155)	
Mounting panel width inches (mm)		23 (585)	23 (585)	23 (585)	23 (585)	23 (585)	23 (585)	
Mounting panel height inches (mm)		11 (275)	11 (275)	11 (275)	11 (275)	11 (275)	11 (275)	
Part No.	1	1578.500	1578.520¹⁾	1578.530¹⁾	1578.550¹⁾	1578.560¹⁾	1578.450¹⁾	
Material thickness inches (mm)	Enclosure	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	
	Door	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	

Product-specific supply scope

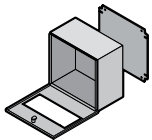
Door hinge		Bottom	Bottom	Bottom	Bottom	Bottom	Bottom	
Cam lock with double-bit insert		2	2	2	2	2	2	
Viewing window	Size inches (mm)	-	21 x 5 (540 x 115)	21 x 7 (540 x 190)	21 x 5 (540 x 115)	21 x 7 (540 x 190)	21 x 6 (540 x 155)	
	Position ²⁾ inches (mm)	-	4 (92)	2 (42)	4 (92)	2 (42)	4 (92)	
Mounting panel		1	1	1	1	1	1	
Gland plate in base		-	-	-	1	1	-	

Accessories

Lock cover	1	2476.000	2476.000	2476.000	2476.000	2476.000	2476.000	609
Cable glands		see page 715						
Wall mounting bracket		see page 629						
Pole clamp		see page 631						
Grounding straps		see page 699						
Alternative lock systems		see page 601						

¹⁾ Extended delivery times.

²⁾ Bottom edge of window to bottom edge of door



Height inches (mm)	Packs of	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	Page
Width inches (mm)		32 (800)	32 (800)	32 (800)	32 (800)	32 (800)	32 (800)	
Depth inches (mm)		6 (155)	6 (155)	6 (155)	6 (155)	6 (155)	6 (155)	
Mounting panel width inches (mm)		31 (785)	31 (785)	31 (785)	31 (785)	31 (785)	31 (785)	
Mounting panel height inches (mm)		11 (275)	11 (275)	11 (275)	11 (275)	11 (275)	11 (275)	
Part No.	1	1579.500	1579.520¹⁾	1579.530¹⁾	1579.550¹⁾	1579.560¹⁾	1579.450¹⁾	
Material thickness inches (mm)	Enclosure	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	0.05 (1.38)	
	Door	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	0.04 (1.25)	

Product-specific supply scope

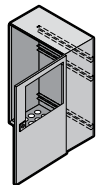
Door hinge		Bottom	Bottom	Bottom	Bottom	Bottom	Bottom	
Cam lock with double-bit insert		2	2	2	2	2	2	
Viewing window	Size inches (mm)	-	29 x 5 (740 x 115)	29 x 7 (740 x 190)	29 x 5 (740 x 115)	29 x 7 (740 x 190)	29 x 5 (740 x 115)	
	Position ²⁾ inches (mm)	-	4 (92)	2 (42)	4 (92)	2 (42)	4 (92)	
Mounting panel		1	1	1	1	1	1	
Gland plate in base		-	-	-	1	1	-	

Accessories

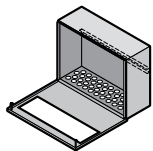
Lock cover	1	2476.000	2476.000	2476.000	2476.000	2476.000	2476.000	609
Cable glands		see page 715						
Wall mounting bracket		see page 629						
Pole clamp		see page 631						
Grounding straps		see page 699						
Alternative lock systems		see page 601						

¹⁾ Extended delivery times.

²⁾ Bottom edge of window to bottom edge of door



Height inches (mm)	Packs of	20 (500)	12 (300)	Page
Width inches (mm)		16 (400)	20 (500)	
Depth inches (mm)		2 (160)	5 (120)	
Part No.	1	1611.510	1609.510	
Material thickness inches (mm)	Enclosure	0.05 (1.38)	0.05 (1.38)	
	Door	0.06 (1.5)	0.04 (1.25)	



Product-specific supply scope

Door hinge		Right	Bottom	
Cam lock with double-bit insert		1	-	
Quick-release fastener		-	2	
Support rail TS 35/7.5		3	1	
Number of drilled holes for PG 13.5 or M20		33	48	

Accessories

Lock cover		2476.000	-	609
Cable glands			see page 715	
Wall mounting bracket			see page 629	
Pole clamp			see page 631	
Grounding straps			see page 699	
Alternative lock systems			see page 601	



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WM wallmount enclosure



System accessories Page 531 WM stainless steel Page 215 WM disconnect Page 56

Material:

Carbon steel
Enclosure:
– 12" H x 12" W – 24" H x 20" W:
16 ga body/16 ga door
– 24" H x 24" W – 36" H x 24" W:
16 ga body/14 ga door
– 36" H x 30" W – 42" H x 32" W:
14 ga body/14 ga door

Surface finish:

Housing and door:
Powder-coated, RAL 7035
(light grey)
Mounting panel:
Zinc-plated carbon steel

Protection rating:

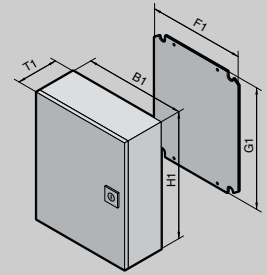
Single door enclosures:
UL/cUL Type 12
(IP 55 to EN 60 529/10.91)
UL/cUL Type 3R
UL/cUL Type 4
(IP 66 to EN 60 529/10.91)
Double door enclosures:
UL/cUL Type 1
UL/cUL Type 12
(IP 55 to EN 60 529/10.91)
UL File #: E170282

Part number overview:

See page 838

Configuration:

- Left-hand hinge, slotted head insert
- One-piece enclosure body.
- Single door enclosures less than 20" high have one ¼ turn latch. Single door enclosures 20 - 40" high have two ¼ turn latches.
- Single door enclosures greater than or equal to 42" high and all double door enclosures have a 3-point locking L-Handle.
- Mounting panel
- Wall-mounting holes
- Foamed-in-place gasket



Detailed drawings:

Available at www.rittal-corp.com

Depth: 6" (150 mm), Height: 12 - 20" (300 - 500 mm)

Height (H1) inches (mm)	PU	12 (300)	16 (400)	16 (400)	16 (400)	20 (500)	20 (500)	Page
Width (B1) inches (mm)		12 (300)	12 (300)	16 (400)	20 (500)	16 (400)	20 (500)	
Depth (T1) inches (mm)		6 (150)	6 (150)	6 (150)	6 (150)	6 (150)	6 (150)	
Panel Height (G1) inches (mm)		11 (275)	15 (375)	15 (375)	15 (375)	19 (475)	19 (475)	
Panel Width (F1) inches (mm)		10 (254)	10 (254)	14 (354)	18 (449)	14 (354)	18 (449)	
Part No.	1	WM121206NC	WM161206NC	WM161606NC	WM162006NC	WM201606NC	WM202006NC	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		16 (7)	20 (9)	23 (10)	28 (12)	31 (14)	37 (17)	

Accessories

Wallmount bracket	4	2508.200						628
Handle	1	2533.000						606
Dead front kit	1	DFK1212C	DFK1612C	DFK1616C	DFK1620C	DFK2016C	DFK2020C	585

WM wallmount enclosure

Depth: 6 - 8" (155 - 210 mm), Height: 16 - 30" (400 - 760 mm)

Height (H1) inches (mm)	PU	24 (600)	24 (600)	24 (600)	30 (760)	16 (400)	16 (400)	Page
Width (B1) inches (mm)		16 (400)	20 (500)	24 (600)	24 (600)	12 (300)	16 (400)	
Depth (T1) inches (mm)		6 (150)	6 (150)	6 (150)	6 (150)	8 (210)	8 (210)	
Panel Height (G1) inches (mm)		22 (570)	22 (570)	22 (570)	29 (730)	15 (375)	15 (375)	
Panel Width (F1) inches (mm)		14 (354)	18 (449)	22 (549)	22 (549)	10 (254)	14 (354)	
Part No.	1	WM241606NC	WM242006NC	WM242406NC	WM302406NC	WM161208NC	WM161608NC	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		36 (16)	43 (19)	53 (24)	66 (30)	23 (10)	26 (12)	

Accessories

Wallmount bracket	4	2508.200						628
Handle	1	2533.000						606
Dead front kit	1	DFK2416C	DFK2420C	DFK2424C	DFK3024C	DFK1612C	DFK1616C	585

Depth: 8" (210 mm), Height: 16 - 24" (400 - 600 mm)

Height (H1) inches (mm)	PU	16 (400)	20 (500)	20 (500)	20 (500)	24 (600)	24 (600)	Page
Width (B1) inches (mm)		20 (500)	16 (400)	20 (500)	24 (600)	16 (400)	20 (500)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	
Panel Height (G1) inches (mm)		15 (375)	19 (475)	19 (475)	19 (475)	22 (570)	22 (570)	
Panel Width (F1) inches (mm)		18 (449)	14 (354)	18 (449)	22 (549)	14 (354)	18 (449)	
Part No.	1	WM162008NC	WM201608NC	WM202008NC	WM202408NC	WM241608NC	WM242008NC	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		30 (14)	34 (15)	40 (17)	47 (21)	39 (18)	46 (21)	

Accessories

Wallmount bracket	4	2508.200						628
Handle	1	2533.000						606
Dead front kit	1	DFK1620C	DFK2016C	DFK2020C	DFK2024C	DFK2416C	DFK2420C	585

Depth: 8" (210 mm), Height: 24 - 30" (600 - 760 mm)

Height (H1) inches (mm)	PU	24 (600)	24 (600)	24 (600)	30 (760)	30 (760)	30 (760)	Page
Width (B1) inches (mm)		24 (600)	30 (760)	42 (1050)	20 (500)	24 (600)	30 (760)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	
Panel Height (G1) inches (mm)		22 (570)	22 (570)	22 (550)	29 (730)	29 (730)	29 (730)	
Panel Width (F1) inches (mm)		22 (549)	28 (704)	39 (1000)	18 (449)	22 (549)	28 (704)	
Part No.	1	WM242408NC	WM243008NC	WM244208NC	WM302008NC	WM302408NC	WM303008NC	
Door(s)		1	1	2	1	1	1	
Weight lb (kg)		57 (26)	70 (32)	110 (50)	60 (27)	70 (32)	86 (39)	

Accessories

Wallmount bracket	4	2508.200						628
Handle	1	2533.000		WMLHKL	2533.000			606
Dead front kit	1	DFK2424C	DFK2430C	-	DFK3020C	DFK3024C	DFK3030C	585

WM wallmount enclosure

Depth: 8" (210 mm), Height: 36 - 47" (900 - 1200 mm)

Height (H1) inches (mm)	PU	36 (900)	36 (900)	36 (900)	42 (1050)	42 (1050)	47 (1200)	Page
Width (B1) inches (mm)		24 (600)	30 (760)	36 (900)	30 (760)	36 (900)	36 (900)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	
Panel Height (G1) inches (mm)		34 (870)	34 (870)	34 (870)	40 (1020)	40 (1020)	45 (1155)	
Panel Width (F1) inches (mm)		22 (549)	28 (704)	33 (840)	28 (704)	33 (840)	33 (840)	
Part No.	1	WM362408NC	WM363008NC	WM363608NC	WM423008NC	WM423608NC	WM483608NC	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		91 (41)	111 (50)	134 (61)	137 (63)	157 (71)	176 (80)	

Accessories

Wallmount bracket	4	2508.200						628
Handle	1	2533.000			WMLHKL			606
Dead front kit	1	DFK3624C	DFK3630C	DFK3636C	DFK4230C	DFK4236C	DFK4836C	585

Depth: 10" (250 mm), Height: 20 - 30" (500 - 1200 mm)

Height (H1) inches (mm)	PU	20 (500)	24 (600)	24 (600)	30 (760)	30 (760)	30 (760)	Page
Width (B1) inches (mm)		20 (500)	20 (500)	24 (600)	24 (600)	30 (760)	42 (1050)	
Depth (T1) inches (mm)		10 (250)	10 (250)	10 (250)	10 (250)	10 (250)	10 (250)	
Panel Height (G1) inches (mm)		19 (475)	22 (570)	22 (570)	29 (730)	29 (730)	28 (710)	
Panel Width (F1) inches (mm)		18 (449)	18 (449)	22 (549)	22 (549)	28 (704)	39 (1000)	
Part No.	1	WM202010NC	WM242010NC	WM242410NC	WM302410NC	WM303010NC	WM304210NC	
Door(s)		1	1	1	1	1	2	
Weight lb (kg)		45 (20)	48 (22)	50 (23)	75 (34)	89 (40)	154 (70)	

Accessories

Wallmount bracket	4	2508.200						628
Handle	1	2533.000					WMLHKL	606
Dead front kit	1	DFK2020C	DFK2420C	DFK2424C	DFK3024C	DFK3030C	-	585

Depth: 10" (250 mm), Height: 30 - 60" (760 - 1500 mm)

Height (H1) inches (mm)	PU	30 (760)	36 (900)	36 (900)	42 (1050)	47 (1200)	60 (1500)	Page
Width (B1) inches (mm)		47 (1200)	24 (600)	30 (760)	36 (900)	36 (900)	36 (900)	
Depth (T1) inches (mm)		10 (250)	10 (250)	10 (250)	10 (250)	10 (250)	10 (250)	
Panel Height (G1) inches (mm)		28 (710)	34 (870)	34 (870)	40 (1020)	45 (1155)	57 (1455)	
Panel Width (F1) inches (mm)		45 (1150)	22 (549)	28 (704)	33 (840)	33 (840)	33 (840)	
Part No.	1	WM304810NC	WM362410NC	WM363010NC	WM423610NC	WM483610NC	WM603610NC	
Door(s)		2	1	1	1	1	1	
Weight lb (kg)		138 (63)	85 (38)	116 (53)	162 (74)	178 (81)	189 (86)	

Accessories

Wallmount bracket	4	2508.200						628
Handle	1	WMLHKL	2533.000			WMLHKL		606
Dead front kit	1	-	DFK3624C	DFK3630C	DFK4236C	DFK4836C	DFK6036C	585

Depth: 12" (300 mm), Height: 20 - 36" (500 - 900 mm)

Height (H1) inches (mm)	PU	20 (500)	24 (600)	24 (600)	30 (760)	30 (760)	36 (900)	Page
Width (B1) inches (mm)		20 (500)	20 (500)	24 (600)	24 (600)	30 (760)	24 (600)	
Depth (T1) inches (mm)		12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	
Panel Height (G1) inches (mm)		19 (470)	22 (570)	22 (570)	29 (730)	29 (730)	34 (870)	
Panel Width (F1) inches (mm)		18 (449)	18 (449)	22 (549)	22 (549)	28 (704)	22 (549)	
Part No.	1	WM202012NC	WM242012NC	WM242412NC	WM302412NC	WM303012NC	WM362412NC	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		48 (22)	52 (23)	63 (28)	77 (35)	93 (42)	89 (40)	

Accessories

Wallmount bracket	4	2508.200						628
Handle	1	2533.000						606
Dead front kit	1	DFK2020C	DFK2420C	DFK2424C	DFK3024C	DFK3030C	DFK3624C	585

WM wallmount enclosure

Depth: 12" (300 mm), Height: 36" (900 mm)

Height (H1) inches (mm)	PU	36 (900)	36 (900)	36 (900)	36 (900)	36 (900)	Page
Width (B1) inches (mm)		30 (760)	36 (900)	42 (1050)	47 (1200)	60 (1500)	
Depth (T1) inches (mm)		12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	
Panel Height (G1) inches (mm)		34 (870)	34 (870)	33 (850)	33 (850)	33 (850)	
Panel Width (F1) inches (mm)		28 (704)	33 (840)	39 (1000)	45 (1150)	57 (1450)	
Part No.	1	WM363012NC	WM363612NC	WM364212NC	WM364812NC	WM366012NC	
Door(s)		1	1	2	2	2	
Weight lb (kg)		120 (55)	140 (64)	167 (76)	186 (85)	226 (103)	

Accessories

Wallmount bracket	4	2508.200				628
Handle	1	2533.000	WMLHKL			606
Dead front kit	1	DFK3630	DFK3636C	-	-	585

Depth: 12" (300 mm), Height: 42 - 60" (1050 - 1500 mm)

Height (H1) inches (mm)	PU	42 (1050)	42 (1050)	47 (1200)	47 (1200)	60 (1500)	Page
Width (B1) inches (mm)		36 (900)	60 (1500)	36 (900)	47 (1200)	36 (900)	
Depth (T1) inches (mm)		12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	
Panel Height (G1) inches (mm)		40 (1020)	39 (1000)	45 (1155)	45 (1150)	57 (1455)	
Panel Width (F1) inches (mm)		33 (840)	57 (1450)	33 (840)	45 (1150)	33 (840)	
Part No.	1	WM423612NC	WM426012NC	WM483612NC	WM484812NC	WM603612NC	
Door(s)		1	2	1	2	1	
Weight lb (kg)		169 (77)	259 (118)	180 (82)	204 (93)	200 (91)	

Accessories

Wallmount bracket	4	2508.200				628	
Handle	1	WMLHKL				606	
Dead front kit	1	DFK4236C	-	DFK4836C	-	DFK6036C	585

Depth: 12 - 20" (400 - 500 mm), Height: 36 - 47" (900 - 1200 mm)

Height (H1) inches (mm)	PU	36 (900)	47 (1200)	60 (1500)	30 (760)	47 (1200)	Page
Width (B1) inches (mm)		30 (760)	36 (900)	36 (900)	24 (600)	36 (900)	
Depth (T1) inches (mm)		16 (400)	16 (400)	16 (400)	20 (500)	20 (500)	
Panel Height (G1) inches (mm)		34 (870)	45 (1155)	57 (1450)	29 (730)	45 (1155)	
Panel Width (F1) inches (mm)		28 (704)	33 (840)	33 (840)	22 (549)	33 (840)	
Part No.	1	WM363016NC	WM483616NC	WM603616NC	WM302420NC	WM483620NC	
Door(s)		1	1	1	1	1	
Weight lb (kg)		134 (61)	204 (93)	210 (95)	85 (39)	212 (96)	

Accessories

Wallmount bracket	4	2508.200				628	
Handle	1	2533.000	WMLHKL		2533.000	WMLHKL	606
Dead front kit	1	DFK3630C	DFK4836C	DFK6036C	DFK3024C	DFK4836C	585

WM wallmount disconnect enclosure



System accessories Page 531 WM stainless steel disconnect Page 218

Material:

- Carbon steel
- Body H ≤ 24": 16 ga (1.5 mm)
- Body H > 24": 14 ga (2.0 mm)
- Door: 14 ga (2.0 mm)

Surface finish:

- Enclosure and door: Powder-coated, RAL 7035 (light grey)
- Mounting panel: Zinc-plated carbon steel

Protection rating:

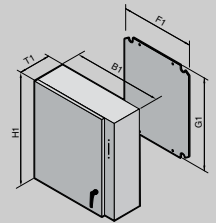
- UL/cUL Type 12 (IP 55 to EN 60 529/10.91)
- UL/cUL Type 3R (IP 66 to EN 60 529/10.91)
- UL/cUL Type 4 (UL file #: E170282)

Part number overview:

See page 838

Configuration:

- Left-hand hinge
- Universal disconnect cut-out
- One-piece enclosure body
- 2 or 3-point latching L-handle
- Mounting panel
- Wall-mounting holes
- Foamed-in-place gasket



Detailed drawings:

Available at www.rittal-corp.com

Depth: 8" (210 mm), Height: 20 - 36 (500 - 900 mm)

Height (H1) inches (mm)	PU	20 (500)	24 (600)	24 (600)	30 (760)	36 (900)	Page
Width (B1) inches (mm)		22 (550)	22 (550)	26 (650)	26 (650)	32 (825)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	
Panel Height (G1) inches (mm)		19 (475)	22 (570)	22 (570)	29 (730)	34 (870)	
Panel Width (F1) inches (mm)		18 (449)	18 (449)	22 (549)	22 (549)	28 (704)	
Panel Thickness ga (mm)		12 (2.5)	12 (2.5)	12 (2.5)	11 (3)	11 (3)	
Part No.	1	WM202208XC	WM242208XC	WM242608XC	WM302608XC	WM363208XC	
Latching points		2	2	2	2	2	
Weight lb (kg)		48 (22)	55 (25)	59 (27)	81 (37)	112 (51)	

Accessories

Keylocking handle	1		WMLHKL	606
Padlocking handle	1		WMLHPL	606
Wallmount bracket	4		2508.200	628

WM wallmount disconnect enclosure

Depth: 10 - 12" (250 - 300 mm), Height: 36 - 60" (900 - 1500 mm)

Height (H1) inches (mm)	PU	36 (900)	60 (1500)	30 (760)	36 (900)	42 (1050)	Page
Width (B1) inches (mm)		32 (825)	38 (975)	26 (650)	32 (825)	32 (825)	
Depth (T1) inches (mm)		10 (250)	10 (250)	12 (300)	12 (300)	12 (300)	
Panel Height (G1) inches (mm)		34 (870)	57 (1455)	29 (730)	34 (870)	40 (1020)	
Panel Width (F1) inches (mm)		28 (704)	33 (840)	22 (549)	28 (704)	29 (730)	
Panel Thickness ga (mm)		11 (3)	11 (3)	11 (3)	11 (3)	11 (3)	
Part No.	1	WM363210XC	WM603810XC	WM302612XC	WM363212XC	WM423212XC	
Latching points		2	3	2	2	3	
Weight lb (kg)		132 (60)	229 (104)	95 (43)	139 (63)	163 (74)	

Accessories

Keylocking handle	1			WMLHKL			606
Padlocking handle	1			WMLHPL			606
Wallmount bracket	4			2508.200			628

Depth: 12 - 16" (300 - 400 mm), Height: 42 - 60" (1050 - 1500 mm)

Height (H1) inches (mm)	PU	42 (1050)	47 (1200)	60 (1500)	47 (1200)	60 (1500)	Page
Width (B1) inches (mm)		38 (975)	38 (975)	38 (975)	38 (975)	38 (975)	
Depth (T1) inches (mm)		12 (300)	12 (300)	12 (300)	16 (400)	16 (400)	
Panel Height (G1) inches (mm)		40 (1020)	45 (1155)	57 (1455)	45 (1155)	57 (1455)	
Panel Width (F1) inches (mm)		33 (840)	33 (840)	33 (840)	33 (840)	33 (840)	
Panel Thickness ga (mm)		11 (3)	11 (3)	11 (3)	11 (3)	11 (3)	
Part No.	1	WM423812XC	WM483812XC	WM603812XC	WM483816XC	WM603816XC	
Latching points		3	3	3	3	3	
Weight lb (kg)		176 (80)	196 (89)	235 (107)	211 (96)	266 (121)	

Accessories

Keylocking handle	1			WMLHKL			606
Padlocking handle	1			WMLHPL			606
Wallmount bracket	4			2508.200			628

AE wallmount enclosure



System accessories Page 531 AE stainless steel Page 221 AE IP 69K Page 223 AE EMC-shielded Page 243 Hygienic Design Page 207

Material:

- Carbon steel
Enclosure:
– 12" H x 12" W – 24" H x 20" W:
16 ga body/ 16 ga door
– 24" H x 24" W – 36" H x 24" W:
16 ga body/ 14 ga door
– 36" H x 30" W – 42" H x 32" W:
14 ga body/ 14 ga door

Surface finish:

- Housing and door:
Powder-coated, RAL 7035
(light grey)
– Mounting panel:
Zinc-plated carbon steel

Protection rating:

- Single door enclosures:
UL/cUL Type 12
(IP 55 to EN 60 529/10.91)
UL/cUL Type 3R
UL/cUL Type 4
(IP 66 to EN 60 529/10.91)
Double door enclosures:
UL/cUL Type 1
UL/cUL Type 12
(IP 55 to EN 60 529/10.91)
UL File #: E170282

Configuration:

- Right-hand hinge
– Double-bit insert
– Gland plate
– One-piece enclosure body
– Mounting panel
– Enclosures less than 20" high
have one ¼ turn latch

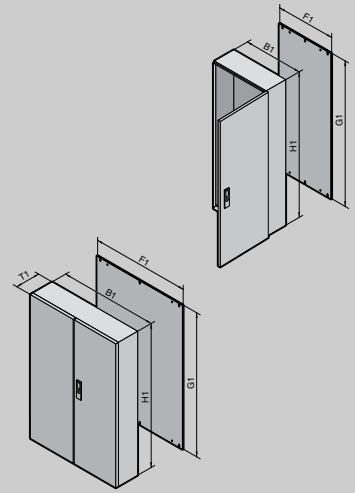
- Enclosures 20 - 39" high have
two ¼ turn latches
– Enclosures more than 39" high
have 3 point latching
– Wall-mounting holes
– Foamed-in-place gasket

Approvals:

- UL
– CSA
– TÜV
– Russian Maritime Register
of Shipping
– Lloyds Register of Shipping
– Bureau Veritas
– VDE
– Germanischer Lloyd

Detailed drawings:

Available at www.rittal-corp.com



Depth: 5 - 8" (120 - 210 mm), Height: 12 - 15" (300 - 380 mm)

Height (H1) inches (mm)	PU	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	15 (380)	15 (380)	Page
Width (B1) inches (mm)		8 (200)	8 (200)	12 (300)	15 (380)	12 (300)	15 (380)	15 (380)	24 (600)	
Depth (T1) inches (mm)		5 (120)	6 (155)	6 (155)	6 (155)	8 (210)	8 (210)	8 (210)	8 (210)	
Panel Height (G1) inches (mm)		11 (275)	11 (275)	11 (275)	11 (275)	11 (275)	11 (275)	14 (355)	14 (355)	
Panel Width (F1) inches (mm)		6 (162)	6 (162)	10 (254)	13 (334)	10 (254)	13 (334)	13 (334)	22 (549)	
Panel Thickness ga (mm)		14 (2)	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)	12 (2.5)	
Part No.	1	1032.500	1035.500	1036.500	1030.500	1033.500	1031.500	1380.500	1039.500	
Door(s)		1	1	1	1	1	1	1	1	
Weight lb (kg)		9 (4)	10 (5)	13 (6.1)	16 (7)	15 (7)	17 (8)	22 (10)	34 (15)	

Accessories

Handle	1	2576.000	606
Wallmount bracket	4	2508.200	628

Lock systems

Standard double-bit lock insert may be exchanged for 1" (27 mm) version A lock insert, a lock cylinder, plastic handles, and version B T handles; see page 606.

AE wallmount enclosure

Depth: 8 - 10" (210 - 250 mm), Height: 16 - 30" (400 - 760 mm)

Height (H1) inches (mm)		16 (400)	20 (500)	20 (500)	24 (600)	24 (600)	30 (760)	30 (760)	30 (760)	24 (600)	Page
Width (B1) inches (mm)		12 (300)	16 (400)	20 (500)	15 (380)	24 (600)	24 (600)	30 (760)	39 (1000)	24 (600)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	10 (250)	
Panel Height (G1) inches (mm)		15 (375)	19 (475)	19 (470)	22 (570)	22 (570)	29 (730)	29 (730)	29 (730)	22 (570)	
Panel Width (F1) inches (mm)		10 (254)	14 (354)	18 (449)	13 (334)	22 (549)	22 (549)	28 (704)	37 (940)	22 (549)	
Panel Thickness ga (mm)		14 (2)	14 (2)	12 (2.5)	12 (2.5)	12 (2.5)	11 (3)	11 (3)	11 (3)	12 (2.5)	
Part No.	1	1034.500	1045.500	1050.500	1038.500	1060.500	1076.500	1077.500	1100.500	1054.500	
Door(s)		1	1	1	1	1	1	1	2	2	
Weight lb (kg)		19 (9)	29 (13)	37 (17)	34 (16)	50 (23)	71 (32)	88 (40)	115 (52)	55 (25)	

Accessories

Handle	1	2576.000									606
Wallmount bracket	4	2508.200									628

Lock systems

Standard double-bit lock insert may be exchanged for 1" (27 mm) version A lock insert, a lock cylinder, plastic handles, and version B T handles; see page 606.

Depth: 10 - 12" (250 - 300 mm), Height: 20 - 39" (500 - 1000 mm)

Height (H1) inches (mm)	PU	28 (700)	32 (800)	39 (1000)	20 (500)	30 (760)	30 (760)	32 (800)	24 (600)	39 (1000)	Page
Width (B1) inches (mm)		20 (500)	24 (600)	24 (600)	20 (500)	30 (760)	39 (1000)	16 (400)	32 (800)	32 (800)	
Depth (T1) inches (mm)		10 (250)	10 (250)	10 (250)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	
Panel Height (G1) inches (mm)		26 (670)	30 (770)	38 (955)	19 (475)	29 (730)	29 (730)	30 (770)	22 (570)	38 (955)	
Panel Width (F1) inches (mm)		18 (449)	22 (549)	21 (539)	18 (449)	28 (704)	37 (944)	14 (345)	29 (749)	29 (739)	
Panel Thickness ga (mm)		11 (3)	11 (3)	11 (3)	12 (2.5)	11 (3)	11 (3)	11 (3)	12 (2.5)	11 (3)	
Part No.	1	1057.500	1058.500	1090.500	1350.500	1073.500	1130.500	1037.500	1055.500	1180.500	
Door(s)		1	1	1	1	1	2	2	2	1	
Weight lb (kg)		69 (31)	75 (34)	111 (51)	43 (20)	93 (42)	124 (56)	58 (26)	33.9	126 (57)	

Accessories

Handle	1	2576.000									606
Wallmount bracket	4	2508.200									628

Lock systems

Standard double-bit lock insert may be exchanged for 1" (27 mm) version A lock insert, a lock cylinder, plastic handles, and version B T handles; see page 606.

Depth: 12 - 14" (300 mm), Height: 15 - 55" (380 - 1400 mm)

Height (H1) inches (mm)	PU	39 (1000)	47 (1200)	47 (1200)	47 (1200)	55 (1400)	15 (380)	24 (600)	24 (600)	30 (760)	Page
Width (B1) inches (mm)		39 (1000)	24 (600)	32 (800)	39 (1000)	39 (1000)	24 (600)	15 (380)	24 (600)	24 (600)	
Depth (T1) inches (mm)		12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	14 (350)	14 (350)	14 (350)	14 (350)	
Panel Height (G1) inches (mm)		38 (955)	46 (1155)	46 (1155)	46 (1155)	53 (1355)	14 (355)	22 (570)	22 (570)	29 (730)	
Panel Width (F1) inches (mm)		37 (939)	21 (540)	29 (740)	37 (940)	37 (940)	22 (549)	13 (334)	22 (549)	22 (549)	
Panel Thickness ga (mm)		11 (3)	11 (3)	11 (3)	11 (3)	11 (3)	12 (2.5)	12 (2.5)	12 (2.5)	11 (3)	
Part No.	1	1110.500	1260.500	1280.500	1213.500	1114.500	1339.500	1338.500	1360.500	1376.500	
Door(s)		2	1	1	2	2	1	1	1	1	
Weight lb (kg)		157 (71)	121 (55)	154 (70)	187 (85)	214 (97)	44 (20)	43 (19)	63 (28)	80 (36)	

Accessories

Handle	1	2576.000									606
Wallmount bracket	4	2508.200									628

Lock systems

Standard double-bit lock insert may be exchanged for 1" (27 mm) version A lock insert, a lock cylinder, plastic handles, and version B T handles; see page 606.

AE IP 69K wallmount enclosure



System accessories Page 531 AE stainless steel Page 221 AE EMC-shielded Page 223 AE for potentially explosive areas Page 243 Hygienic Design Page 207

Perfect protection in a tough environment

The compact enclosure AE in IP 69K is the ideal solution when a high protection category and corrosion resistance are needed.

- Resistant to high-pressure cleaning (protection category IP 69K). The interior seal is protected against direct hosed water.
- Ideal for mounting on vehicles: Lock, hinges and mounting panel are all vibration resistant.
- The enclosure and door have an aluminum zinc coating for a high level of corrosion protection.

- Foamed-in silicone seal, water-impermeable, with high resistance to temperature and chemicals.
- Prepared to accommodate the door stay 1101.800 and the interior door.
- Prepared for wall-mounting via M8 nuts directly from the rear.

Material:

- Enclosure: Carbon steel
- Door: Carbon steel, all-round foamed-in silicone seal

Surface finish:

- Enclosure and door: Aluminum zinc coating, powder-coated, textured paint
- Mounting panel: Zinc-plated

Color:

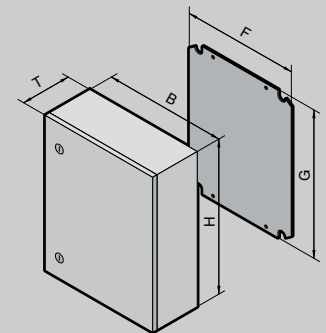
RAL 7035

Protection rating:

NEMA 4, IP 69K to DIN 40 050-9

Configuration:

- Enclosure with hinged door, of all-round solid construction
- Door hinge may be swapped to opposite side by rotating the enclosure
- Cam lock with double-bit insert



Detailed drawings:

Available at www.rittal-corp.com

Height (H) inches (mm)	Packs of	13 (330)	16 (400)	26 (650)	26 (650)	Page
Width (B) inches (mm)		9 (230)	16 (400)	16 (400)	25 (650)	
Depth (T) inches (mm)		6 (155)	10 (250)	10 (250)	10 (250)	
Mounting panel width (F) inches (mm)		6 (162)	13 (334)	13 (334)	21 (549)	
Mounting panel height (G) inches (mm)		11 (275)	14 (355)	22 (570)	22 (570)	
Mounting panel thickness inches (mm)		0.08 (2)	0.08 (2)	0.1 (2.5)	0.1 (2.5)	
Part No.		1101.010	1101.020	1101.030	1101.040	
Weight lb (kg)		15 (6.6)	30 (13.8)	44 (20)	65 (29.6)	
Locks		1	1	2	2	

Accessories

Interior door		1101.910	1101.920	1101.930	1101.940	585
Door stay				1101.800		617
Wall mounting bracket				see page 629		
Cable gland				see page 715		
Grounding straps				see page 699		
Support rail TS 35, length 79" (2 m)				see page 644		



System accessories Page 531 System lights Page 689 Cable duct Page 722 Climate control Page 375

Material:

- Carbon steel
- Enclosure: 16 ga (1.5 mm)
- Door: 14 ga (2.0 mm)
- Mounting panel: 11 ga (3.0 mm)

Surface finish:

- Enclosure and door: Dipcoat primed, powder painted on the outside in

- textured RAL 7035 (light grey)
- Mounting panel: Zinc-plated

Protection rating:

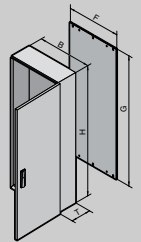
UL Type 12 (IP 55 to EN 60 529/10.91), with selection of the appropriate gland plates, see page 707.
CSA, cUL
UL file #: E76083

Configuration:

- Enclosure with one door, right hand door hinge, may be changed to the opposite side,
- Mounting panel
- Open base for individual cable entry.

Detailed drawings:

Available at www.rittal-corp.com



Depth: 12 - 16" (300 - 400 mm), Height: 32 - 55" (800 - 1400 mm)

Height (T) inches (mm)	PU	39 (1000)	39 (1000)	47 (1200)	47 (1200)	47 (1200)	55 (1400)	32 (800)	Page
Width (B) inches (mm)		32 (800)	39 (1000)	24 (600)	32 (800)	39 (1000)	39 (1000)	24 (600)	
Depth (T) inches (mm)		12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	16 (400)	
Panel Height (G) inches (mm)		38 (955)	38 (955)	46 (1155)	46 (1155)	46 (1155)	53 (1355)	30 (755)	
Panel Width (F) inches (mm)		29 (740)	37 (940)	21 (540)	29 (740)	37 (940)	37 (940)	21 (540)	
Part No.	1	5114.500	5118.500	5112.500	5116.500	5119.500	5121.500	5110.500	
Door(s)		1	2	1	1	2	2	1	

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8601.800	8601.000	8601.600	8601.800	8601.000	8601.600	533	
	Height 8 (200)	1 set	8602.800	8602.000	8602.600	8602.800	8602.000	8602.600	533	
Side panels inches (mm)	Height 4 (100)	1 set	8601.030						8601.040	534
	Height 8 (200)	1 set	8602.030						8602.040	534

Accessories

Rail for interior installation	For height	4	5001.052	5001.052	5001.053	5001.053	5001.053	5001.054	5001.051	651
	For width	4	5001.051	5001.052	5001.050	5001.051	5001.052		5001.050	651
Matching system chassis with mounting flange	In width	4	8612.080	8612.000	8612.060	8612.080	8612.000		8612.060	652
	In depth	4	8612.130						8612.140	652
Bottom cover plate		1							5001.130	557

Note: CM gland plates (see page 707) or cover plate (see page 557) required for UL Type 12 rating.

CM compact enclosure

Depth: 16" (400 mm), Height: 39 - 55" (1000 - 1400 mm)

Height (T) inches (mm)	PU	39 (1000)	39 (1000)	47 (1200)	47 (1200)	47 (1200)	47 (1200)	55 (1400)	Page
Width (B) inches (mm)		24 (600)	32 (800)	24 (600)	32 (800)	39 (1000)	47 (1200)	39 (1000)	
Depth (T) inches (mm)		16 (400)	16 (400)	16 (400)	16 (400)	16 (400)	16 (400)	16 (400)	
Panel Height (G) inches (mm)		38 (955)	38 (955)	46 (1155)	46 (1155)	46 (1155)	46 (1155)	53 (1355)	
Panel Width (F) inches (mm)		21 (540)	29 (740)	21 (540)	29 (740)	37 (940)	45 (1140)	37 (940)	
Part No.	1	5111.500	5115.500	5113.500	5117.500	5120.500	5123.500	5122.500	
Door(s)		1	1	1	1	2	2	2	

Base/Plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8601.600	8601.800	8601.600	8601.800	8601.000	8601.200	8601.000	533
	Height 8 (200)	1 set	8602.600	8602.800	8602.600	8602.800	8602.000	8602.200	8602.000	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.040							534
	Height 8 (200)	1 set	8602.040							534

Accessories

Rail for interior installation	For height	4	5001.052		5001.053				5001.054	651
	For width	4	5001.050	5001.051	5001.050	5001.051	5001.052	5001.053	5001.052	651
Matching system chassis with mounting flange	In width	4	8612.060	8612.080	8612.060	8612.080	8612.000	8612.020	8612.000	652
	In depth	4	8612.140							652
Bottom cover plate		1	5001.130	5001.140	5001.130	5001.140	5001.150	5001.160	5001.150	557

Note: CM gland plates (see page 707) or cover plate (see page 557) required for UL Type 12 rating.

KS fiberglass wallmount enclosure



System accessories Page 531 KS for potentially explosive areas Page 242

Material:

- Enclosure and door: Fiberglass-reinforced unsaturated polyester
- Mounting panel: Carbon steel
- Foamed-in PU seal
- For KS with viewing window: Glazed acrylic, 3.0 mm with all-round rubber cable clamp strip

Surface finish:

- Enclosure and door: Dyed plastic with no after-treatment
- Mounting panel: Zinc-plated

Protection rating:

- KS without viewing window: Complies with NEMA 4 (IP 66 to EN 60 529/10.91)
- KS with viewing window: Complies with NEMA 4 (IP 56 to EN 60 529/10.91)

Color:

Similar to RAL 7035

Configuration:

- Enclosure with hinged door, of all-round solid construction, 3 mm double-bit lock
- For single-door enclosures: R/h door hinge, may be swapped to opposite side by rotating the enclosure

- For two-door enclosures: Lockable door on right

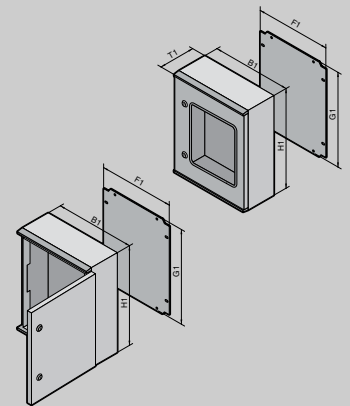
- Mounting panel
- Twin seal on the top and bottom edges of the door as integral rain protection strip
- Press-fitted C sections at the sides for infinitely variable mounting panel depth adjustment
- 1400.500 additionally with removable center bar in the enclosure

Maximum ambient temperature:

-22 - 167° F (-30 - 75° C)

Detailed drawings:

Available at www.rittal-corp.com



Depth: 6 - 8" (150 - 200 mm), Height: 12 - 24" (300 - 600 mm)

	PU	12 (300)	14 (350)	16 (400)	16 (400)	24 (600)	Page
Height (H1) inches (mm)							
Width (B1) inches (mm)		8 (200)	10 (250)	12 (300)	16 (400)	16 (400)	
Depth (T1) inches (mm)		6 (150)	6 (150)	8 (200)	8 (200)	8 (200)	
Panel height (G1) inches (mm)		10 (250)	12 (300)	14 (350)	14 (350)	22 (550)	
Panel width (F1) inches (mm)		6 (145)	8 (195)	10 (245)	14 (345)	14 (345)	
Panel thickness ga (mm)		14 (2.0)	14 (2.0)	14 (2.0)	12 (2.5)	12 (2.5)	
Part No.	Without viewing window	1	1423.500	1432.500	1434.500	1444.500	1446.500
	With viewing window	1	-	-	-	1448.500	1449.500
Door(s)	1	1	1	1	1	1	
Weight lb (kg)		7 (3)	9 (4)	13 (6)	17 (8)	25 (12)	

Accessories

Mounting panel adjustment bracket	4			1481.000			638
Wallmount bracket	4			1483.010			630

Lock systems

Standard double-bit lock insert may be exchanged for version E lock inserts (see page 597) and 1490.010 ergoform lock system (see page 605)

KS fiberglass wallmount enclosure

Depth: 8 - 12" (200 - 300 mm), Height: 20 - 39" (500 - 1000 mm)

Height (H1) inches (mm)	PU	24 (600)	20 (500)	32 (800)	39 (1000)	39 (1000)	Page
Width (B1) inches (mm)		24 (600)	20 (500)	24 (600)	32 (800)	39 (1000)	
Depth (T1) inches (mm)		8 (200)	12 (300)	12 (300)	12 (300)	12 (300)	
Panel height (G1) inches (mm)		22 (550)	18 (450)	30 (750)	37 (950)	37 (950)	
Panel width (F1) inches (mm)		22 (545)	16 (417)	20 (517)	28 (717)	36 (917)	
Panel thickness ga (mm)		12 (2.5)	12 (2.5)	11 (3)	11 (3)	11 (3)	
Part No.	Without viewing window	1	1466.500	1453.500	1468.500	1480.500	1400.500
	With viewing window	1	1467.500	1454.500	1469.500	1479.500	–
Door(s)	1	1	1	1	1	2	
Weight lb (kg)		35 (16)	28 (13)	57 (26)	86 (39)	110 (50)	

Accessories

Mounting panel adjustment bracket	4				1481.000		638
Wallmount bracket	4				1483.010		630

Lock systems

Standard double-bit lock insert may be exchanged for version E lock inserts (see page 597) and 1490.010 ergoform lock system (see page 605)

Note:

Long-term exposure to UV radiation (sunlight) in conjunction with wind and rain may change the finish visually. The fiberglass strands may become visible on unprotected surfaces. This does not impair the protection of the installed electrical components in any way. All other finishes may also be altered by ultraviolet radiation.

If the enclosure cannot be protected from UV radiation with a sun canopy we recommend that the surface be painted with a PUR paint. Older enclosures where the finish already reveals visible fiberglass portions can also be painted after thorough cleaning. All enclosures can be supplied painted in RAL colors. For outdoor applications, we recommend pale color shades.

LF fiberglass hinged screw cover wallmount enclosure



System accessories Page 531

Protection rating:

UL Type 1, 12, 4X, 6P
UL/cUL, CSA
UL File #: E170282

Configuration:

- Full length stainless steel
- Hinged cover
- Stainless steel screws
- 180° door opening
- Part numbers ending in "X" come with extended depth cover
- Foamed-in-place polyurethane gasketing

Detailed drawings:

Available at www.rittal-corp.com

Depth: 3 - 4" (75 - 99 mm), Height: 4 - 11" (94 - 283 mm)

Height inches (mm)	PU	12 (295)	8 (191)	8 (191)	10 (244)	14 (344)	8 (191)
Width inches (mm)		9 (239)	6 (138)	8 (191)	8 (191)	11 (289)	6 (139)
Depth inches (mm)		4 (108)	5 (121)	5 (121)	5 (121)	5 (132)	6 (158)
Mounting center height inches (mm) ¹⁾		11 (273)	7 (171)	7 (171)	9 (226)	13 (324)	7 (171)
Mounting center width inches (mm) ¹⁾		6 (152)	2 (51)	4 (102)	4 (102)	8 (203)	2 (51)
Part No.	1	L-FJ1008CHNFSC	L-FJ604CHNFSC	L-FJ606CHNFSC	L-FJ806CHNFSC	L-FJ1210CHNFSC	L-FJ604CHNFSCX

Accessories

Mounting panel	1	L-MPL108CS	L-MPL64CS	L-MPL66CS	L-MPL86CS	L-MPL1210CS	L-MPL64CS
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¹⁾Center to center distance between wallmount holes.

Depth: 6 - 7" (158 - 168 mm), Height: 8 - 18" (191 - 445 mm)

Height inches (mm)	PU	8 (191)	10 (244)	18 (445)	16 (394)	12 (295)	14 (344)
Width inches (mm)		8 (191)	8 (189)	16 (393)	14 (343)	9 (238)	11 (289)
Depth inches (mm)		6 (158)	6 (158)	6 (158)	6 (159)	7 (168)	7 (168)
Mounting center height inches (mm) ¹⁾		7 (171)	9 (226)	17 (425)	15 (371)	11 (273)	13 (324)
Mounting center width inches (mm) ¹⁾		4 (102)	4 (102)	12 (305)	10 (254)	6 (152)	8 (203)
Part No.	1	L-FJ606CHNFSCX	L-FJ806CHNFSCX	L-FJ1614CHNFSC	L-FJ1412CHNFSC	L-FJ1008CHNFSCX	L-FJ1210CHNFSCX

Accessories

Mounting panel	1	L-MPL66CS	L-MPL86CS	L-MPL1614CS	L-MPL1412CS	L-MPL108CS	L-MPL1210CS
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¹⁾Center to center distance between wallmount holes.

LF fiberglass hinged screw cover wallmount enclosure

Depth: 6 - 7" (158 - 168 mm), Height: 8 - 18" (191 - 445 mm)

Height inches (mm)	PU	16 (394)	18 (445)	20 (498)	22 (559)	20 (498)	22 (559)
Width inches (mm)		13 (340)	15 (392)	18 (447)	18 (449)	18 (444)	18 (446)
Depth inches (mm)		8 (195)	8 (196)	9 (224)	9 (224)	11 (270)	11 (270)
Mounting center height inches (mm) ¹⁾		15 (371)	17 (425)	19 (480)	21 (540)	19 (480)	21 (540)
Mounting center width inches (mm) ¹⁾		10 (254)	12 (305)	12 (305)	10 (254)	12 (305)	10 (254)
Part No.	1	L-FJ1412CHNFSCX	L-FJ1614CHNFSCX	L-FJ1816CHNFSC	L-FJ2016CHNFSC	L-FJ1816CHNFSCX	L-FJ2016CHNFSCX

Accessories

Mounting panel	1	L-MPL1412CS	L-MPL1614CS	L-MPL1816CS	L-MPLJ2016CS	L-MPL1816CS	L-MPLJ2016CS
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¹⁾Center to center distance between wallmount holes.



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LF fiberglass quick release wallmount enclosure



System accessories Page 531

Protection rating:
UL Type 1, 12, 4X, 6P
UL/cUL, CSA
UL File #: E170282

Configuration:
– Quick-release clamps with secure loop for padlock provisions (padlock not included). Can be lifted and released with easily

– 180° door opening
– Part numbers ending in “X” come with extended depth cover
– Foamed-in-place polyurethane gasketing

Detailed drawings:
Available at www.rittal-corp.com

Depth: 4 - 6” (108 - 158 mm), Height: 8 - 14” (191 - 344 mm)

Height inches (mm)	PU	12 (295)	8 (191)	8 (191)	10 (244)	14 (344)	8 (191)
Width inches (mm)		9 (239)	5 (138)	8 (191)	8 (191)	11 (290)	8 (191)
Depth inches (mm)		4 (108)	5 (121)	5 (121)	5 (121)	5 (132)	6 (158)
Mounting center height inches (mm) ¹⁾		11 (273)	7 (171)	7 (171)	9 (226)	13 (324)	7 (171)
Mounting center width inches (mm) ¹⁾		6 (152)	2 (51)	4 (102)	4 (102)	8 (203)	4 (102)
Part No.	1	L-FJ1008CHNFQ	L-FJ604CHNFQ	L-FJ606CHNFQ	L-FJ806CHNFQ	L-FJ1210CHNFQ	L-FJ606CHNFQX

Accessories

Mounting panel	1	L-MPL108CS	L-MPL64CS	L-MPL66CS	L-MPL86CS	L-MPL1210CS	L-MPL66CS
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¹⁾Center to center distance between wallmount holes.

Depth: 6 - 7” (158 - 168 mm), Height: 8 - 18” (191 - 445 mm)

Height inches (mm)	PU	8 (191)	10 (244)	18 (445)	15 (394)	12 (295)	14 (344)
Width inches (mm)		6 (139)	8 (189)	16 (393)	14 (343)	9 (238)	11 (289)
Depth inches (mm)		6 (158)	6 (158)	6 (158)	6 (159)	7 (168)	7 (168)
Mounting center height inches (mm) ¹⁾		7 (171)	9 (226)	17 (425)	15 (371)	11 (273)	13 (324)
Mounting center width inches (mm) ¹⁾		2 (51)	4 (102)	12 (305)	10 (254)	6 (152)	8 (203)
Part No.	1	L-FJ604CHNFQX	L-FJ806CHNFQX	L-FJ1614CHNFQ	L-FJ1412CHNFQ	L-FJ1008CHNFQX	L-FJ1210CHNFQX

Accessories

Mounting panel	1	L-MPL64CS	L-MPL86CS	L-MPL1614CS	L-MPL1412CS	L-MPL108CS	L-MPL1210CS
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¹⁾Center to center distance between wallmount holes.

Depth: 8 - 11” (195 - 270 mm), Height: 16 - 22” (394 - 559 mm)

Height inches (mm)	PU	16 (394)	18 (445)	22 (559)	20 (498)	20 (498)	22 (559)
Width inches (mm)		13 (340)	15 (392)	18 (449)	18 (444)	18 (444)	18 (446)
Depth inches (mm)		8 (195)	8 (196)	9 (224)	9 (224)	11 (270)	11 (270)
Mounting center height inches (mm) ¹⁾		15 (371)	17 (425)	21 (540)	19 (480)	19 (480)	21 (540)
Mounting center width inches (mm) ¹⁾		10 (254)	12 (305)	10 (254)	12 (305)	12 (305)	10 (254)
Part No.	1	L-FJ1412CHNFQX	L-FJ1614CHNFQX	L-FJ2016CHNFQ	L-FJ1816CHNFQ	L-FJ1816CHNFQX	L-FJ2016CHNFQX

Accessories

Mounting panel	1	L-MPL1412CS	L-MPL1614CS	L-MPLJ2016CS	L-MPL1816CS	L-MPL1816CS	L-MPLJ2016CS
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¹⁾Center to center distance between wallmount holes.

LF fiberglass hinged latch cover wallmount enclosure



System accessories Page 531

Configuration:

- Rigid body construction and watertight seal
- Foamed-in-place polyurethane gasketing
- Integral mounting brackets

- Molded in panel mounting inserts
- Built-in padlock hasp
- Version with rain shield for water protection

Protection rating:

- UL/cUL, CSA Type 1, 12, 3R, 4X
- UL file #: E170282

Detailed drawings:

Available at www.rittal-corp.com

Depth: 9 - 12" (224 - 306 mm), Height: 27 - 39" (686 - 998 mm)

Height inches (mm)	PU	33 (849)	27 (686)	33 (835)	27 (686)	33 (849)	39 (998)
Width inches (mm)		26 (669)	21 (539)	21 (533)	25 (641)	26 (669)	33 (826)
Depth inches (mm)		9 (224)	10 (251)	10 (251)	12 (302)	12 (304)	12 (306)
Mounting center height inches (mm) ¹⁾		32 (819)	26 (654)	32 (806)	26 (654)	32 (819)	38 (969)
Mounting center width inches (mm) ¹⁾		19 (470)	14 (356)	14 (362)	18 (454)	19 (470)	24 (607)
Part No.	1	L-FW30H2407	L-FW24H2008	L-FW30H2008	L-FW24H2410	L-FW30H2410	L-FW36H3010

Accessories

Mounting panel	1	L-MPL3024CS	L-MPL2420CS	L-MPL3020CS	L-MPL2424CS	L-MPL3024CS	L-MPL3630CS
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¹⁾Center to center distance between wallmount holes.

Depth: 14 - 18" (350 - 455 mm), Height: 23 - 51" (578 - 1303 mm)

Height inches (mm)	PU	27 (686)	23 (578)	39 (998)	51 (1303)	51 (1303)
Width inches (mm)		25 (641)	17 (428)	33 (826)	37 (930)	37 (930)
Depth inches (mm)		14 (353)	14 (350)	14 (357)	14 (354)	18 (455)
Mounting center height inches (mm) ¹⁾		26 (654)	22 (546)	38 (969)	50 (1273)	50 (1273)
Mounting center width inches (mm) ¹⁾		18 (454)	10 (257)	24 (607)	29 (743)	29 (743)
Part No.	1	L-FW24H2412	L-FW20H1612	L-FW36H3012	L-FW48H3612	L-FW48H3616

Accessories

Mounting panel	1	L-MPL2424CS	L-MPL2016CS	L-MPL3630CS	L-MPL4836CS	L-MPL4836CS
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¹⁾Center to center distance between wallmount holes.

LF fiberglass hinged latch cover wallmount enclosure

Depth: 10 - 12" (251 - 306 mm), Height: 27 - 39" (686 - 998 mm)

Height inches (mm)	PU	27 (686)	27 (686)	33 (849)	39 (998)
Width inches (mm)		21 (539)	25 (641)	26 (669)	33 (826)
Depth inches (mm)		10 (251)	12 (302)	12 (304)	12 (306)
Mounting center height inches (mm) ¹⁾		26 (654)	26 (654)	32 (819)	38 (969)
Mounting center width inches (mm) ¹⁾		14 (356)	18 (454)	19 (470)	24 (607)
Part No.	1	L-FW24R2008HCR²⁾	L-FW24R2410HCR²⁾	L-FW30R2410HCR²⁾	L-FW36R3010HCR²⁾

Accessories

Mounting panel	1	L-MPL2420CS	L-MPL2424CS	L-MPL3024CS	L-MPL3630CS
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¹⁾Center to center distance between wallmount holes.

²⁾Includes rainshield for water protection

Depth: 14 - 18" (350 - 468 mm), Height: 23 - 51" (578 - 1303 mm)

Height inches (mm)	PU	23 (578)	33 (849)	39 (998)	51 (1303)	51 (1303)
Width inches (mm)		17 (428)	26 (669)	33 (826)	37 (930)	37 (930)
Depth inches (mm)		14 (362)	14 (350)	14 (357)	14 (367)	18 (468)
Mounting center height inches (mm) ¹⁾		22 (546)	32 (819)	38 (969)	50 (1273)	50 (1273)
Mounting center width inches (mm) ¹⁾		10 (257)	19 (470)	24 (607)	24 (607)	24 (607)
Part No.	1	L-FW20R1612HCR²⁾	L-FW30R2412HCR²⁾	L-FW36R3012HCR²⁾	L-FW48R3612HCR²⁾	L-FW48R3616HCR²⁾

Accessories

Mounting panel	1	L-MPL2016CS	L-MPL3024CS	L-MPL3630CS	L-MPL4836CS	L-MPL4836CS
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¹⁾Center to center distance between wallmount holes.

²⁾Includes rainshield for water protection

LF fiberglass hinged latch cover wallmount/freestanding enclosure



System accessories Page 531

Material:

Fiberglass reinforced polyester

Protection rating:

UL Type 1, 12, 3R, 4X
UL/cUL, CSA
UL file #: E170282

Configuration:

- Rigid body construction and water resistant seal
- Foamed-in-place polyurethane gasketing
- Wallmount or freestanding models available

- Molded in panel mounting inserts or studs
- Eyebolts and crossbar construction
- Built-in padlock hasp
- Stainless steel hardware

Detailed drawings:

Available at www.rittal-corp.com

Depth: 14 - 18" (359 - 460 mm), Height: 64" (1613 mm)

Height inches (mm)	PU	64 (1613)	64 (1613)
Width inches (mm)		37 (927)	37 (927)
Depth inches (mm)		14 (359)	18 (460)
Mounting center height inches (mm) ¹⁾		62 (1581)	62 (1581)
Mounting center width inches (mm) ¹⁾		29 (724)	29 (724)
Part No.	1	L-F60H3612	L-F60H3616
Accessories			
Mounting panel	1	L-MPL6036CS	L-MPL6036CS

¹⁾Center to center distance between wallmounting holes.

LF fiberglass disconnect enclosure



System accessories Page 531

Protection rating:

UL Type 1, 12, 3R, 4X
UL/cUL, CSA
UL file #: E170282

Configuration:

- Environmentally sealed disconnect
- Foamed-in-place polyurethane gasketing
- Rigid body construction and watertight seal

- Molded in panel mounting inserts
- Integral mounting brackets for ease of installation
- Disconnect handle included

Detailed drawings:

Available at www.rittal-corp.com

Depth: 10 - 13" (260 - 338 mm), Height: 19 - 39" (476 - 998 mm)

Height inches (mm)	PU	19 (476)	23 (578)	27 (686)	33 (849)	39 (998)
Width inches (mm)		11 (278)	17 (428)	25 (641)	26 (669)	33 (826)
Depth inches (mm)		10 (260)	11 (279)	13 (335)	13 (335)	13 (338)
Mounting center height inches (mm)*		17 (445)	21 (546)	25 (654)	32 (819)	38 (969)
Mounting center width inches (mm)*		7 (178)	10 (257)	18 (454)	19 (470)	24 (607)
Part No.	1	L-F16HS10	L-F20HS16	L-F24HS24	L-F30HS24	L-F36HS30

Accessories

Mounting panel	1	L-MPL1610CD	L-MPL2016CD	L-MPL2424CD	L-MPL3024CD	L-MPL3630CD
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*Center to center distance between wallmounting holes.

Disconnect, fuse block, breaker, yoke, switches, or other components are not furnished with enclosure.



Wall-mounted network enclosures

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VerticalBox wallmount enclosure



System accessories Page 531

Compact 19" (482.6 mm) enclosure for small networks

- May be used as wall-mounted, under-desk or desktop enclosure
- 19" (482.6 mm) level, front and rear
- Free access from three sides for interior installation
- Freely selectable door hinging
- Passive ventilation with vent slots
- Rear panel prepared to accommodate a fan
- Horizontal 10 U may be used by installing 19" (482.6 mm) mounting angles

Material:

- Carbon steel
- Viewing window: Single-pane safety glass, 3 mm

Surface finish:

Powder-coated

Color:

RAL 7035

Configuration:

- Enclosure with glazed door
- Side panels (1 x fixed, 1 x slot-in) with vent slots
- Knockouts for cable entry via roof or base
- Slot-in rear panel with knockouts for cable entry and fan accommodation
- 19" (482.6 mm) mounting level, 5 U, front and rear, depth-variable, distance between levels 17 – 19" (434 – 489 mm)
- Security lock 12321 on the door, side and rear panel
- 4 plastic feet, self-adhesive

U	Packs of	5	Page
Height inches (mm)		21 (540)	
Width inches (mm)		12 (300)	
Depth inches (mm)		24 (600)	
Part No.	1	7501.000	
Accessories			
Mounting kit for VerticalBox, hinged mounting panel 14 x 19" (350 x 484 mm)	1	7501.100	771
19" (482.6 mm) mounting angles, 12 U (10 U usable) ¹⁾	2	7502.203	756
Brush strip for cut-out openings	2 x 39" (1 m)	7072.200	714
Wall mounting bracket, 0.4" (10 mm)	4	2508.200	629
Wall mounting bracket, 1.6" (40 mm)	4	2503.200	629
Fan expansion kit, 230 V AC, 50/60 Hz, 64/74 CFM (108/125 m ³ /h), air throughput, unimpeded airflow	1 set	7980.100	389
Blanking panel, 19" (482.6 mm), 1 U, RAL 7035	2	7151.035	776
Cable management panel, 19" (482.6 mm), 1 U, RAL 7035, with 5 cable shunting rings 1.6 x 2.0" (40 x 50 mm)	1	7257.200	738
Cable entry panel, 19" (482.6 mm), 1 U	1	7140.535	743

¹⁾For mounting at the side of the VerticalBox. With these mounting angles, instead of 5 U vertically at the side, up to 10 U may be used horizontally if only a minimal installation depth is required. Infinitely depth-variable positioning.



System accessories Page 531

For use as a wall-mounted and floor-standing enclosure. Small package – big performance.

- For flexible use as a wall-mounted or floor-standing enclosure
- Maximum width and depth of 28" (700 mm) creates plenty of space for use as a patch distributor
- Tool-less quick assembly
- System assembly on the open 19" (482.6 mm) frame

Material:

- Carbon steel
- Viewing window: Single-pane safety glass, 3 mm

Surface finish:

Powder-coated

Color:

RAL 7035

Note:

- Max. installation depth: D – 4.4" (112 mm)

- Max. distance between two 19" (482.6 mm) levels: D – 5.0" (126 mm)

Configuration:

- Flat-packed enclosure
- 1 wall section
- 2 basic supports
- 2 roof/base plates, with cut-outs for cable entry, with brush strips
- 2 mounting angles, 19" (482.6 mm) (for 6 U and 9 U)
- 1 mounting frame 19" (from 12 U)
- 4 levelling feet (from 12 U)

- 2 side panels, lockable
- 1 glazed door, lockable security lock 3524 E, door hinge point selectable
- Connection components for tool-less, fast assembly
- Grounding kit for system compatible grounding of all enclosure parts

Photo shows a configuration with equipment not included in the base part number

With 19" (482.6 mm) mounting angles

U	Packs of	6	6	9	9	Page
Height inches (mm)		14 (358)	14 (358)	19 (492)	19 (492)	
Width inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	
Depth inches (mm)		16 (400)	24 (600)	16 (400)	24 (600)	
Part No.	1	7507.000	7507.100	7507.010	7507.110	
Accessories						
19" (482.6 mm) mounting angles as second mounting level	2	7507.706		7507.709		756
Levelling feet	4	7507.740				548
Cover plates for fan panels	6	7507.760				389
Ground rail	1	7113.000				703
C rail for cable clamping	1	7016.140				729
T-head rail for cable clamping	1	7016.150				729
Fan motor, 230 V AC, 50/60 Hz, 69/79 CFM (117/135 m³/h), air throughput, unimpeded airflow	1	7980.100				389
Fan motor, 48 V DC, 108 CFM (184 m³/h), air throughput, unimpeded airflow	1	7980.148				389
Enclosure internal thermostat	1	3110.000				476
Cable management panel, 1 U, 5 cable shunting rings 1.6 x 2.0" (40 x 50 mm)	1	7257.200				738
Component shelf 2 U, static installation, depth 10" (250 mm)	1	7119.250				684
Component shelf 2 U, static installation, depth 16" (400 mm)	1	–	7119.400	–	7119.400	684
Component shelf 1 U, complete set, pull-out, depth 20" (500 mm)	1 set	–	7000.625	–	7000.625	682
Base/plinth	1	–	7507.750	–	7507.750	545

FlatBox wallmount enclosure

With 19" (482.6 mm) mounting frame

U	Packs of	12	12	15	15	18	21	Page
Height inches (mm)		25 (625)	25 (625)	30 (758)	30 (758)	35 (892)	40 (1025)	
Width inches (mm)		24 (600)	24 (600)	24 (600)	28 (700)	28 (700)	28 (700)	
Depth inches (mm)		16 (400)	24 (600)	16 (400)	28 (700)	28 (700)	28 (700)	
Part No.	1	7507.020	7507.120	7507.030	7507.200	7507.210	7507.220	
Accessories								
19" (482.6 mm) mounting angles as second mounting level	2	7507.712		7507.715		7507.718	7507.721	765
Cover plates for fan panels	6	7507.760						389
Ground rail	1	7113.000						703
C rail for cable clamping	1	7016.140						729
T-head rail for cable clamping	1	7016.150						729
Fan motor, 230 V AC, 50/60 Hz, 69/79 CFM (117/135 m ³ /h), air throughput, unimpeded airflow	1	7980.100						389
Fan motor, 48 V DC, 108 CFM (184 m ³ /h), air throughput, unimpeded airflow	1	7980.148						389
Enclosure internal thermostat	1	3110.000						476
Cable management panel, 1 U, 5 cable shunting rings 1.6 x 2.0" (40 x 50 mm)	1	7257.200						738
Component shelf 2 U, static installation, depth 10" (250 mm)	1	7119.250						684
Component shelf 2 U, static installation, depth 16" (400 mm)	1	-	7119.400	-	7119.400		684	
Component shelf 1 U, complete set, pull-out, depth 20" (500 mm)	1 set	-	7000.625	-	7000.625		682	
Base/plinth	1	-	7507.750	-	7507.755		545	



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System assembly Page 531

Wall-mounted enclosure with removable cover for perfect handling during installation and maintenance.

Material:

- Wall mounting panel with mounting brackets: Carbon steel, .08 inches (2.0 mm)
- Enclosure cover: Carbon steel, .04 inches (1.0 mm)
- Door: Carbon steel door or glazed door with carbon steel frame and single-pane safety glass, 3.0 mm

Surface finish:

Enclosure: Powder-coated

Color:

RAL 7035

Configuration:

- Wall section:
- Pre-configured mounting bracket
 - Brush strip for cable entry at the bottom/top
 - Cable clamp rail
 - 19" (482.6 mm) mounting angles, fully depth adjustable

Enclosure cover:

- Base and cover tray with vent slots
- Top/bottom brush strip for cable entry
- 2 side security locks
- Carbon steel door or glazed door with security lock 12321
- Version with Ergoform-S lock system, may optionally be retrofitted with semi-cylinder

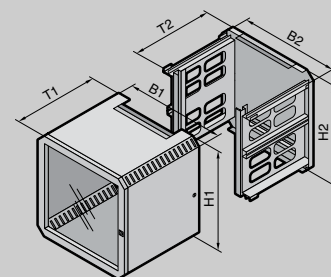


Photo shows a configuration with equipment not included in the base part number

With glazed door

U	PU	6	6	6	9	9	12	12	12	12	Page
Enclosure cover	Height (H1) inches (mm)	14 (362)	14 (362)	14 (360)	19 (495)	19 (495)	25 (628)	25 (628)	25 (628)	25 (628)	
	Width (H1) inches (mm)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
	Depth (T1) inches (mm)	12 (300)	16 (400)	24 (600)	16 (400)	24 (600)	16 (400)	20 (500)	24 (600)	24 (600)	
Wall section	Height (H2) inches (mm)	14 (355)	14 (355)	14 (355)	19 (488)	19 (488)	24 (621)	24 (621)	24 (621)	24 (621)	
	Width (B2) inches (mm)	24 (595)	24 (595)	24 (595)	24 (595)	24 (595)	24 (595)	24 (595)	24 (595)	24 (595)	
	Max. install. depth (T2) inches (mm)	10 (247)	14 (347)	22 (547)	14 (347)	22 (547)	14 (347)	18 (447)	22 (547)	22 (547)	
Part No.	1	7502.013	7502.014	7502.016	7502.024	7502.026	7502.034	7502.035	7502.036	7502.436¹⁾	

Accessories

19" (482.6 mm) mounting angles	2	-					7502.203				756			
Solid gland plate	2						7502.310				713			
Wall mounting bracket, 0.4" (10 mm)	4						2508.200				629			
Wall mntg. bracket, 1.6" (40 mm)	4						2503.200				629			
Combination rails for encl. width	6						7502.304				724			
Comb. rails for encl. depth	6	12/16" (300/400 mm)				7502.302				724				
		20/24" (500/600 mm)				7502.304				724				
Slide rails for the encl. depth	10						4530.000				765			
	2	12" (300 mm)												
		16" (400 mm)				4531.000				7492.300 ²⁾	7492.300 ²⁾	7492.300 ²⁾	7492.300 ²⁾	764/765
		20/24" (500/600 mm)				4531.000				7492.400 ²⁾	7492.400 ²⁾	7492.400 ²⁾	7492.400 ²⁾	764/765
Grounding set	1	7502.240	7502.240	7502.260	7502.240	7502.260	7502.240	7502.260	7502.260	7502.260	702			
Quick-release fastener	2						7502.220				610			

¹⁾ With Ergoform-S lock system for semi-cylinder, for combining with quick-release fastener 7502.220.

²⁾ Additional mounting angles required at the rear.

QuickBox wallmount enclosure

With glazed door

U	PU	15	15	15	15	18	18	21	21	Page
Enclosure cover	Height (H1) inches (mm)	30 (762)	30 (762)	30 (762)	30 (762)	35 (895)	35 (895)	40 (1028)	40 (1028)	
	Width (H1) inches (mm)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
	Depth (T1) inches (mm)	16 (400)	20 (500)	24 (600)	24 (600)	16 (400)	24 (600)	16 (400)	24 (600)	
Wall section	Height (H2) inches (mm)	30 (755)	30 (755)	30 (755)	30 (755)	35 (888)	35 (888)	40 (1021)	40 (1021)	
	Width (B2) inches (mm)	24 (595)	24 (595)	24 (595)	24 (595)	24 (595)	24 (595)	24 (595)	24 (595)	
	Max. install. depth (T2) inches (mm)	14 (347)	18 (447)	22 (547)	22 (547)	14 (347)	22 (547)	14 (347)	22 (547)	
Part No.	1	7502.044	7502.045	7502.046	7502.446¹⁾	7502.054³⁾	7502.056	7502.064³⁾	7502.066	

Accessories

19" (482.6 mm) mounting angles	2	7502.204			7502.205		7502.206		756			
Solid gland plate	2	7502.310									713	
Wall mounting bracket, 0.4" (10 mm)	4	2508.200									629	
Wall mntg. bracket, 1.6" (40 mm)	4	2503.200									629	
Combination rails for encl. width	6	7502.304									724	
Comb. rails for encl. depth	6	12/16" (300/400 mm)									7502.302	724
		20/24" (500/600 mm)									7502.304	724
Slide rails for the encl. depth	2	16" (400 mm)									7492.300 ²⁾	764
		20/24" (500/600 mm)									7492.400 ²⁾	764
Grounding set	1	7502.240	7502.260	7502.260	7502.260	7502.240	7502.260	7502.240	7502.260	702		
Quick-release fastener	2	7502.220									610	

¹⁾ With Ergoform-S lock system for semi-cylinder F, for combining with quick-release fastener 7502.220.

²⁾ Additional mounting angles required at the rear.

³⁾ Extended delivery times.

With carbon steel door

U	PU	6	9	9	12	15	15	21	Page
Enclosure cover	Height (H1) inches (mm)	14 (362)	19 (495)	19 (495)	25 (628)	30 (762)	30 (762)	40 (1028)	
	Width (H1) inches (mm)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
	Depth (T1) inches (mm)	16 (400)	16 (400)	24 (600)	24 (600)	16 (400)	24 (600)	24 (600)	
Wall section	Height (H2) inches (mm)	14 (355)	19 (488)	19 (488)	24 (621)	30 (755)	30 (755)	40 (1021)	
	Width (B2) inches (mm)	23 (595)	23 (595)	23 (595)	23 (595)	23 (595)	23 (595)	23 (595)	
	Max. install. depth (T2) inches (mm)	14 (347)	14 (347)	22 (547)	22 (547)	14 (347)	22 (547)	22 (547)	
Part No.	1	7502.114	7502.124	7502.126	7502.136	7502.144³⁾	7502.146	7502.166³⁾	

Accessories

19" (482.6 mm) mounting angles	2	-	-	-	7502.203	7502.204		7502.206	756			
Solid gland plate	2	7502.310									713	
Wall mounting bracket, 0.4" (10 mm)	4	2508.200									629	
Wall mntg. bracket, 1.6" (40 mm)	4	2503.200									629	
Combination rails for encl. width	6	7502.304									724	
Comb. rails for encl. depth	6	12/16" (300/400 mm)									7502.302	724
		20/24" (500/600 mm)									7502.304	724
Slide rails for the encl. depth	10	12" (300 mm)									4530.000	765
		16" (400 mm)				7492.300 ²⁾					764/765	
		20/24" (500/600 mm)				7492.400 ²⁾					764/765	
Grounding set	1	7502.240		7502.260		7502.240	7502.260			702		
Quick-release fastener	2	7502.220									610	

²⁾ Additional mounting angles required at the rear.

³⁾ Extended delivery times.

QuickBox wallmount enclosure, vertical 19" (482.6 mm) level



System accessories Page 531

Wall-mounted enclosure with optimum use of the interior space thanks to side installation of the 19" (482.6 mm) components. Status monitoring via side viewing window.

Material:

- Wall mounting panel with mounting brackets:
Carbon steel, 14 ga (2.0 mm)
- Enclosure cover:
Carbon steel, 18 ga (1.0 mm), with single-pane safety glass at the side, 3.0 mm

Surface finish:
Powder-coated

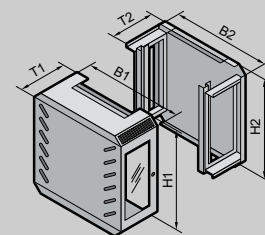
Color:
RAL 7035

Configuration:

- Wall section:
With pre-configured 19" (482.6 mm) mounting brackets for accommodating equipment at the side. Brush strip for cable entry at the bottom and top.

- Enclosure cover:
Side vent slots to support passive climate control.
The enclosure is secured via two security locks positioned at the sides.

Photo shows a configuration with equipment not included in the base part number



Depth: 8 - 14" (210 - 360 mm), Height: 25" (628 mm) with vertical 19" (482 mm) level

U	Packs of	3	6	Page
Enclosure cover	Height (H1) inches (mm)	25 (631)	25 (631)	
	Width (B1) inches (mm)	24 (600)	24 (600)	
	Depth (T1) inches (mm)	8 (210)	14 (360)	
Wall section	Height (H1) inches (mm)	24 (621)	24 (621)	
	Width (B1) inches (mm)	23 (595)	23 (595)	
	Depth (T1) inches (mm)	8 (198)	14 (348)	
Part No.	1	7502.630¹⁾	7502.660¹⁾	

Accessories

Gland plates, solid	2	7502.310	713
Wall mounting bracket, 0.4" (10 mm)	4	2508.200	629
Wall mounting bracket, 1.6" (40 mm)	4	2503.200	629
Combination rails for vertical mounting on the QuickBox wall section	6	7502.304	724
Combination rails for horizontal mounting on the QuickBox wall section	6	7502.304	724
Mounting angles, 19" (482.6 mm) for front mounting, 12 U	2	7502.203	756

¹⁾ Extended delivery times.

EL 3-part enclosure



System accessories Page 531 Wall mounting bracket Page 629 Cable clamps Page 729

Material:

- Wall and hinged part:
Carbon steel, 16 ga (1.5 mm)
- Viewing window: Single-pane safety glass, 3.0 mm

Surface finish:

Powder-coated

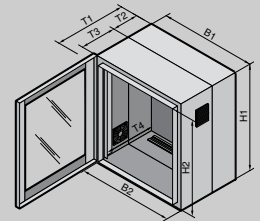
Color:

- Wall, hinged part: RAL 7035
- Glazed door: RAL 7035/7015

Configuration:

- Wall section
- Hinged part with 25 mm pitch pattern of holes in the front and rear frame
- Designer glazed door

- Mini comfort handle for 3 – 15 U
- Comfort handle and 2-point lock for 18 – 21 U
- Includes security lock 3524 E
- Specific configurations, see table



Detailed drawings:

Available at www.rittal-corp.com

Depth: 23 - 27" (573 - 673 mm), pre-configured

U	Packs of	9	9	15	15	21	21	Page
Height (H1) inches (mm)		19 (478)	19 (478)	29 (746)	29 (746)	40 (1012)	40 (1012)	
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
Depth (T1) inches (mm)		23 (573)	27 (673)	23 (573)	27 (673)	23 (573)	27 (673)	
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	
Clearance height (H2) inches (mm)		16 (415)	16 (415)	27 (683)	27 (683)	37 (949)	37 (949)	
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	
Depth of hinged part (T3) inches (mm)		16 (416)	20 (516)	16 (416)	20 (516)	16 (416)	20 (516)	
Max. installation depth (T4) inches (mm)		20 (520)	24 (620)	20 (520)	24 (620)	20 (520)	24 (620)	
Load capacity of hinged part lb (kg, static)		99 (45)	99 (45)	165 (75)	165 (75)	165 (75)	165 (75)	
Part No.	1	7709.735	7709.535	7715.735	7715.535	7721.735	7721.535	

Product-specific supply scope

		1	■	■	■	■	■	■
Wall section:	Gland plate, solid, top	1	■	■	■	■	■	■
	Gland plate with brush insert, bottom	1	■	■	■	■	■	■
	Vertical punched rails	2	■	■	■	■	■	■
	Horizontal C rail	1	■	■	■	■	■	■
Hinged part:	19" (482.6 mm) mounting angles, fully depth adjustable	2	■	■	■	■	■	■
	Side outlet filters left and right	2	■	■	■	■	■	■
Ground rail with star grounding	1 set	■	■	■	■	■	■	
Wall mounting bracket, 0.39" (10 mm)	4	■	■	■	■	■	■	

Accessories

		1	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	713
Gland plate for metric cable glands	1	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	713
Fan expansion kit, 230 V	1	7980.100	7980.100	7980.100	7980.100	7980.100	7980.100	7980.100	389
Spare filter mats	5	3322.700	3322.700	3322.700	3322.700	3322.700	3322.700	3322.700	389
Wall mounting bracket, 1.57" (40 mm)	4	–	–	2503.200	–	2503.200	–	–	629
Component shelf 2 U, static installation or fully extendible	1	7148.035	7148.035	7148.035	7148.035	7148.035	7148.035	7148.035	682
Component shelf 2 U, static installation, 9.8" (250 mm) deep	1	7119.250	7119.250	7119.250	7119.250	7119.250	7119.250	7119.250	684
Cable mgt. panel, 1 U, 5 cable shunting rings 1.57 x 1.97" (40 x 50 mm)	1	7257.200	7257.200	7257.200	7257.200	7257.200	7257.200	7257.200	738

EL 3-part NEMA 12 enclosure



System accessories Page 531 Wall mounting bracket Page 629 Grounding Page 699 Cable clamps Page 729

Material:

- Wall, hinged part: Carbon steel, 16 ga (1.5 mm)
- Viewing window: Single-pane safety glass, 3.0 mm

Surface finish:

Powder-coated

Color:

- Wall, hinged part: RAL 7035
- Glazed door: RAL 7035/7015

Protection rating:

NEMA 12 (IP 55 to IEC 60 529)

Configuration:

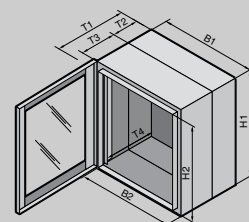
- Wall section
- Hinged part with 25 mm hole pattern in front

and rear frame

- Designer glazed door
- Mini comfort handle for 3 – 15 U
- Comfort handle and 2-point lock for 18 – 21 U
- Includes security lock 3524 E
- Specific configurations, see table

Detailed drawings:

Available at www.rittal-corp.com



Depth: 19" (473 mm), with punched rails

U	Packs of	6	9	12	15	18	21	Page
Height (H1) inches (mm)		14 (345)	19 (478)	24 (612)	29 (746)	35 (878)	40 (1012)	
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
Depth (T1) inches (mm)		19 (473)	19 (473)	19 (473)	19 (473)	19 (473)	19 (473)	
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	
Clearance height (H2) inches (mm)		11 (282)	16 (415)	22 (549)	27 (683)	32 (815)	37 (949)	
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	
Depth of hinged part (T3) inches (mm)		12 (316)	12 (316)	12 (316)	12 (316)	12 (316)	12 (316)	
Max. installation depth (T4) inches (mm)		17 (420)	17 (420)	17 (420)	17 (420)	17 (420)	17 (420)	
Load capacity of hinged part lb (kg, static)		66 (30)	99 (45)	132 (60)	165 (75)	165 (75)	165 (75)	
Part No.	1	7706.135	7709.135	7712.135	7715.135	7718.135	7721.135	

Product-specific supply scope

Wall section:	Gland plate, solid, top and bottom	2	■	■	■	■	■	■	
	Vertical punched rails	2	■	■	■	■	■	■	
	Horizontal C rail for cable clamping	1	■	■	■	■	■	■	
	Hinged part: 19" (482.6 mm) mounting angles, fully depth adjustable	2	■	■	■	■	■	■	
	Wall mounting bracket, 0.39" (10 mm)	4	■	■	■	■	■	■	

Accessories

Gland plate with brush insert	1	7705.035	7705.035	7705.035	7705.035	7705.035	7705.035	714
Gland plate for metric cable glands	1	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	713
Wall mounting bracket, 1.57" (40 mm)	4	2503.200	2503.200	2503.200	2503.200	2503.200	2503.200	629
Ground rail, horizontal	1	7113.000	7113.000	7113.000	7113.000	7113.000	7113.000	703
Component shelf 2 U, static installation and fully extendible	1	7148.035	7148.035	7148.035	7148.035	7148.035	7148.035	682
Component shelf 2 U, static installation, 9.8" (250 mm) deep	1	7119.250	7119.250	7119.250	7119.250	7119.250	7119.250	684
Component shelf 1 U, static installation, 5.5" (140 mm) deep	1	7119.140	7119.140	7119.140	7119.140	7119.140	7119.140	684
Cable management panel, 1 U, 5 cable shunting rings 1.57 x 1.97" (40 x 50 mm)	1	7257.200	7257.200	7257.200	7257.200	7257.200	7257.200	738

EL 3-part NEMA 12 enclosure

Depth: 24" (600 mm), with punched rails

U	Packs of	12	15	21	Page
Height (H1) inches (mm)		24 (612)	29 (746)	40 (1012)	
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	
Depth (T1) inches (mm)		24 (600)	24 (600)	24 (600)	
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)	
Clearance height (H2) inches (mm)		22 (549)	27 (683)	37 (949)	
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)	
Depth of hinged part (T3) inches (mm)		18 (445)	18 (445)	18 (445)	
Max. installation depth (T4) inches (mm)		21 (530)	21 (530)	21 (530)	
Load capacity of hinged part lbs (kg, static)		132 (60)	165 (75)	165 (75)	
Part No.	1	9969.580	9969.581	9969.582	

Product-specific supply scope

Walling section:	Gland plate, solid, top and bottom	2	■	■	■	
	Vertical punched rails	2	■	■	■	
	Horizontal C rail for cable clamping	1	■	■	■	
	Hinged part: 19" (482.6 mm) mounting angles, fully depth adjustable	2	■	■	■	
	Wall mounting bracket, 0.39" (10 mm)	4	■	■	■	

Accessories

	Gland plate with brush insert	1	7705.035	7705.035	7705.035	714
	Gland plate for metric cable glands	1	7705.235	7705.235	7705.235	713
	Wall mounting bracket, 1.57" (40 mm)	4	2503.200	2503.200	2503.200	629
	Ground rail, horizontal	1	7113.000	7113.000	7113.000	703
	Component shelf 2 U, static installation and fully extendible	1	7148.035	7148.035	7148.035	682
	Component shelf 2 U, static installation, 9.8" (250 mm) deep	1	7119.250	7119.250	7119.250	684
	Component shelf 1 U, static installation, 5.5" (140 mm) deep	1	7119.140	7119.140	7119.140	684
	Cable management panel, 1 U, 5 cable shunting rings 1.57 x 1.97" (40 x 50 mm)	1	7257.200	7257.200	7257.200	738

EL 3-part NEMA 12 enclosure

Depth: 15" (373 mm), with mounting panel

U	Packs of	3	6	9	12	15	18	21	Page
Height (H1) inches (mm)		8 (212)	14 (345)	19 (478)	24 (612)	29 (746)	35 (878)	40 (1012)	
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
Depth (T1) inches (mm)		15 (373)	15 (373)	15 (373)	15 (373)	15 (373)	15 (373)	15 (373)	
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	
Clearance height (H2) inches (mm)		6 (149)	11 (282)	16 (415)	22 (549)	27 (683)	32 (815)	37 (949)	
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	
Depth of hinged part (T3) inches (mm)		9 (216)	9 (216)	9 (216)	9 (216)	9 (216)	9 (216)	9 (216)	
Max. installation depth (T4) inches (mm)		13 (320)	13 (320)	13 (320)	13 (320)	13 (320)	13 (320)	13 (320)	
Width of mounting panel (B3) inches (mm)		19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	
Height of mounting panel (H3) inches (mm)		7 (165)	12 (299)	17 (432)	22 (565)	28 (699)	33 (832)	38 (965)	
Load capacity of hinged part lb (kg, static)		33 (15)	66 (30)	99 (45)	132 (60)	165 (75)	165 (75)	165 (75)	
Part No.	1	2243.605	2246.605	2249.605	2252.605	2255.605	2258.605	2261.605	

Product-specific supply scope

Wall Gland plate, solid, top and bottom	2	■	■	■	■	■	■	■	
section: Mounting panel supplied loose	1	■	■	■	■	■	■	■	
Hinged part: 19" (482.6 mm) mounting angles	2	■	■	■	■	■	■	■	

Accessories

Wall mounting bracket, 0.39" (10 mm)	4					2508.200			629
Wall mounting bracket, 1.57" (40 mm)	4					2503.200			629
Gland plate with brush insert	1					7705.035			714
Gland plate for metric cable glands	1					7705.235			713
Cable glands						see page 715			
Lock inserts, type F						see page 607			
C rails	4					2238.000			662
Blanking plates, 19" (482.6 mm)	3					see page 776			

EL 3-part NEMA 12 enclosure

Depth: 19" (473 mm), with mounting panel

U	Packs of	3	6	9	12	15	18	21	Page
Height (H1) inches (mm)		8 (212)	14 (345)	19 (478)	24 (612)	29 (746)	35 (878)	40 (1012)	
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
Depth (T1) inches (mm)		19 (473)	19 (473)	19 (473)	19 (473)	19 (473)	19 (473)	19 (473)	
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	
Clearance height (H2) inches (mm)		6 (149)	11 (282)	16 (415)	22 (549)	27 (683)	32 (815)	37 (949)	
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	
Depth of hinged part (T3) inches (mm)		13 (316)	13 (316)	13 (316)	13 (316)	13 (316)	13 (316)	13 (316)	
Max. installation depth (T4) inches (mm)		17 (420)	17 (420)	17 (420)	17 (420)	17 (420)	17 (420)	17 (420)	
Width of mounting panel (B3) inches (mm)		19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	
Height of mounting panel (H3) inches (mm)		7 (165)	12 (299)	17 (432)	22 (565)	28 (699)	33 (832)	38 (965)	
Load capacity of hinged part lb (kg, static)		33 (15)	66 (30)	99 (45)	132 (60)	165 (75)	165 (75)	165 (75)	
Part No.	1	2253.605	2256.605	2259.605	2262.605	2265.605	2268.605	2271.605	

Product-specific supply scope

Wall section: Gland plate, solid, top and bottom	2	■	■	■	■	■	■	■	
Mounting panel supplied loose	1	■	■	■	■	■	■	■	
Hinged part: 19" (482.6 mm) mounting angles	2	■	■	■	■	■	■	■	

Accessories

Wall mounting bracket, 0.39" (10 mm)	4					2508.200			629
Wall mounting bracket, 1.57" (40 mm)	4					2503.200			629
Gland plate with brush insert	1					7705.035			714
Gland plate for metric cable glands	1					7705.235			713
Cable glands						see page 715			
Lock inserts, type F						see page 607			
Slide Rails	10					2250.000			765
C rails	4					2238.000			662
Blanking plates, 19" (482.6 mm)	3					see page 776			



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System accessories Page 531 Cage nuts Page 773 Patch panel for copper technology Page 774

Material:

- Enclosure: Carbon steel, 16 ga (1.5 mm)
- Swing frame: carbon steel
- Front door: Extruded aluminum section, acrylic glazing, 3.0 mm

Surface finish:

- Enclosure and swing frame: Primed and powder-coated
- Front door: Anodized

Color:

- Enclosure and swing frame: RAL 7035
- Front door: Silver

Protection rating:

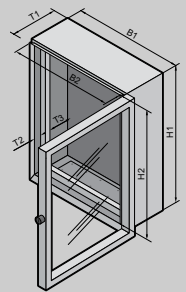
IP 55 to IEC 60 529

Configuration:

- Enclosure
- Front door
- Swing frame, 19" (482.6 mm) fitted
- Assembly parts

Detailed drawings:

Available at www.rittal-corp.com



Depth: 15" (369 mm), with swing frame

U	Packs of	6	11	14	Page
Height (H1) inches (mm)		15 (380)	24 (600)	30 (760)	
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	
Depth (T1) inches (mm)		15 (369)	15 (369)	15 (369)	
Clearance width (B2) inches (mm)		21 (537)	21 (537)	21 (537)	
Clearance height (H2) inches (mm)		12 (317)	21 (537)	27 (697)	
Distance from glazed door to swing frame (T2) inches (mm)		3 – 4 (67 – 97)	3 – 4 (67 – 97)	3 – 4 (67 – 97)	
Maximum installation depth (T3) inches (mm)		11 (270)	11 (270)	11 (270)	
Part No.	1	1919.500	1920.500	1926.500	

Accessories

Wall mounting bracket, 0.39" (10 mm)			2508.200	629
Wall mounting bracket, 1.57" (40 mm)			2503.200	629
Gland plates for metric cable glands			2563.010	710
Blanking plates, 19" (482.6 mm)			see page 776	
Cable management panel, 19" (482.6 mm), 1 U, 5 cable shunting rings 1.57 x 1.97" (40 x 50 mm)			7257.200	738
Cable entry panel, 19" (482.6 mm), 1 U			7140.535	743

Standard swing frame with double-bit lock insert may be exchanged for 27 mm lock inserts, type A, see page 607.

AE enclosure with 19" (482.6 mm) mounting angles



System accessories Page 531 Cage nuts Page 773 Glazed doors Page 592

Material:
Enclosure: Carbon steel

Surface finish:
– Enclosure: Powder-coated
– Mounting angles: Zinc-plated

Color:
RAL 7035

Configuration:
– Enclosure with hinged door
– Interchangeable door hinge
– Cam lock and double-bit insert
– Gland plate with brush strip for cable entry in the enclosure base

– Part number specific configuration, see table

Protection rating:
IP 55 to IEC 60 529
UL
CSA

With 19" (482.6 mm) mounting angles

U	Packs of	8	13	16	Page
Height inches (mm)		15 (380)	24 (600)	30 (760)	
Width inches (mm)		24 (600)	24 (600)	24 (600)	
Depth inches (mm)		14 (350)	14 (350)	14 (350)	
Max. installation depth inches (mm)		12 (310)	12 (310)	12 (310)	
Protection rating with gland plate for cable gland		IP 55 to IEC 60 529			
Mounting angles, 19" (482.6 mm), fully depth adjustable	2	■	■	■	
C rail, for cable clamping on the rear panel	1	■	■	■	
Metal bracket for optional accommodation of a ground rail or 19" (482.6 mm) socket strip	1	■	■	■	
Cam locks	4	■ 1 x	■ 2 x	■ 2 x	
Part No.	1	7641.000	7643.000	7645.000	

Accessories

	Size	5	5	5	710
	Qty.	1	1	1	710
Gland plates in various versions					
Wall mounting bracket, 0.39" (10 mm)	4	2508.200			629
Wall mounting bracket, 1.57" (40 mm)	4	2503.200			629
Wall mounting bracket for external mounting	4	2508.100			629
Glazed door, 1.3" (34 mm) profile depth	1	2730.000	2731.000	2732.000	593
Glazed door, 2.4" (60 mm) profile depth	1	2761.000			593
Component shelf 2 U, static installation, 10" (250 mm) deep	1	7119.250			684
Ground rail	1	7113.000			703
Alternative lock systems		see page 601			

AE enclosure with 19" (482.6 mm) pull-out frame



System accessories Page 531 Cage nuts Page 773 Glazed doors Page 592

Material:

- Enclosure: Carbon steel
- Viewing window: Single-pane safety glass, 0.12" (3.0 mm)

Surface finish:

- Enclosure: Powder-coated
- Pull-out frame: Stainless steel

Color:

RAL 7035

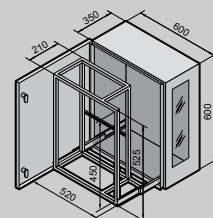
Protection rating:

IP 54 to IEC 60 529

Configuration:

- Enclosure with hinged door
- Cam lock and double-bit insert

- Gland plate with brush strip for cable entry in the enclosure base
- Part number specific configuration, see table



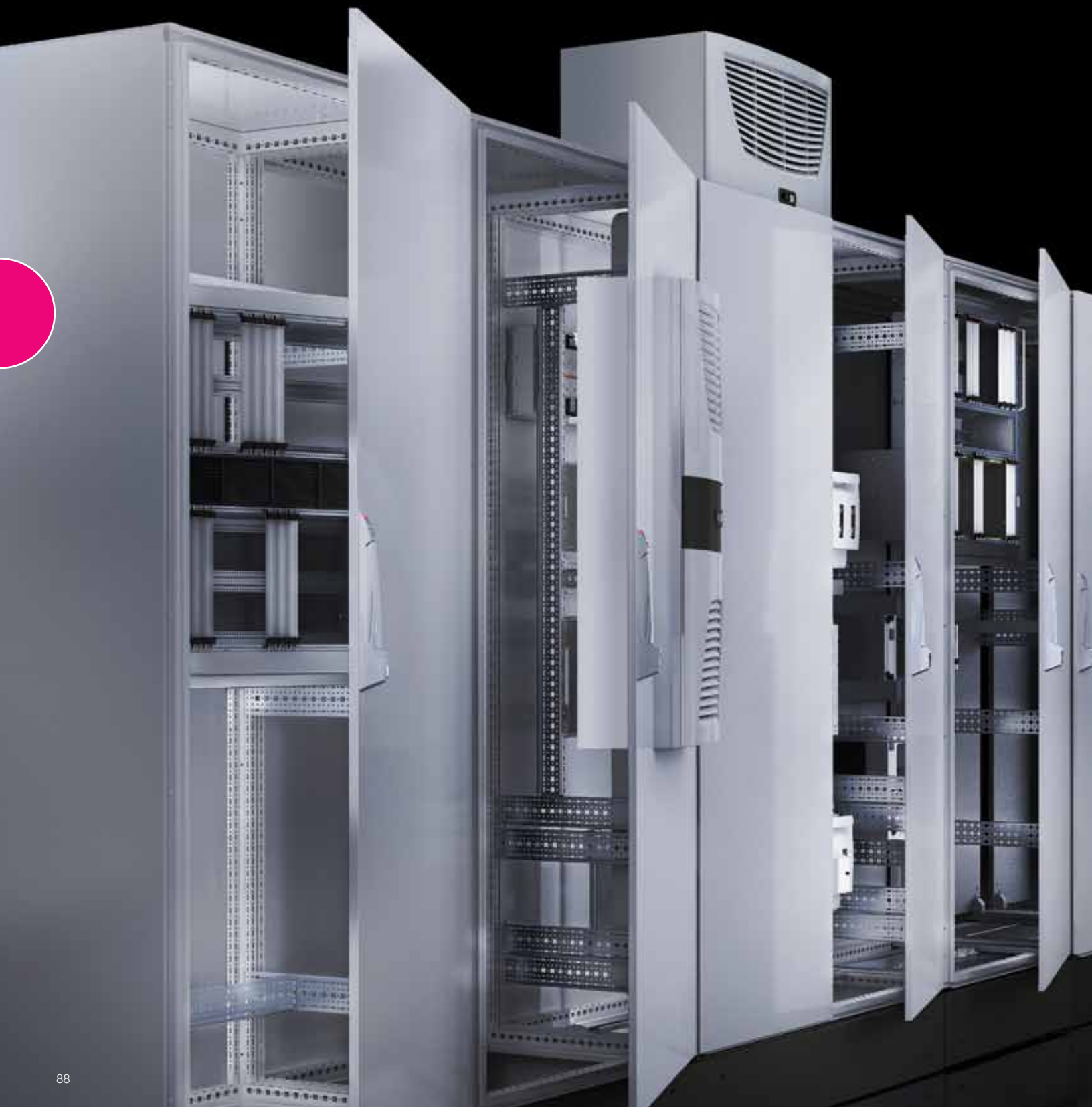
With 19" (482.6 mm) pull-out frame

Height inches (mm)	Packs of		Page
24 (600)			
24 (600)			
14 (350)			
L/h door hinge		■	
Cam locks		2	
Side installation, vertical		4 U	
Front installation, vertical and horizontal		10 U	
Protection rating with gland plate for cable gland		IP 54 to IEC 60 529	
Pull-out frame attached to telescopic slides	1	■	
Outlet filter in enclosure base and on left-hand side	2	■	
Viewing window on right-hand side	1	■	
Cable clamp rail on rear wall	1	■	
Additional cable clamp rail for mounting on the pull-out frame		■	
Part No.	1	7644.000	

Accessories

	Size			
Choice of gland plates			5	710
	Qty.		1	710
Wall mounting bracket, 0.39" (10 mm)	4		2508.200	629
Wall mounting bracket for external mounting	4		2508.100	629
Wall mounting bracket, 1.57" (40 mm)	4		2503.200	629
Shelf	1		7644.400 ¹⁾	685
Component shelf, 1 U, 6" (140 mm) deep	1		7119.140	684
Ground rail, horizontal	1		7113.000	703
Fan expansion kit 230 V AC (only for use at the bottom)	1 set		7980.100	389
Fan expansion kit 48 V DC (only for use at the bottom)	1 set		7980.148	389
Spare filter mats	5		3322.700	483
Alternative lock systems			see page 601	

¹⁾ Extended delivery times.



Enclosure systems

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TS 8 freestanding enclosure



System accessories Page 531 TS 8 disconnect Page 96 TS 8 corner enclosure Page 580 TS 8 stainless steel Page 224 TS 8 EMC-shielded Page 243

Material:

- Enclosure frame, roof, rear panel and gland plates: Carbon steel, 16 ga (1.5 mm)
- Door: Carbon steel, 14 ga (2.0 mm)
- Mounting panel: Carbon steel, 11 ga (3.0 mm)

Surface finish:

- Enclosure frame: Dipcoat primed
- Door, roof and rear panel: Dipcoat primed, powder-coated on the outside, textured paint
- Mounting panel and gland plates: Zinc-plated

Color:

RAL 7035

Protection rating:

UL/cUL Type 12
(IP 55 to EN 60 529)
UL file #: E76083

Configuration:

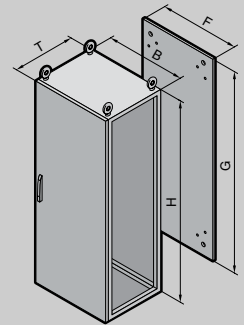
- Enclosure frame with door(s), 3.0 mm double-bit lock insert
- Mounting panel
- Gland plates
- Rear panel
- Roof plate
- 4 eyebolts

Approvals:

- UL
- CSA
- TÜV
- Russian Maritime Register of Shipping
- TÜV Mark
- Lloyds Register of Shipping
- Bureau Veritas
- VDE
- Germanischer Lloyd

Detailed drawings:

Available at www.rittal-corp.com



Height: 47 - 55" (1200 - 1400 mm), Depth: 20" (500 mm)

Height (H) inches (mm)	PU	47 (1200)	47 (1200)	47 (1200)	55 (1400)	55 (1400)	55 (1400)	Page
Width (B) inches (mm)		24 (600)	32 (800)	47 (1200)	24 (600)	32 (800)	47 (1200)	
Depth (T) inches (mm)		20 (500)	20 (500)	20 (500)	20 (500)	20 (500)	20 (500)	
Panel Height (G1) inches (mm)		43 (1096)	43 (1096)	43 (1096)	51 (1296)	51 (1296)	51 (1296)	
Panel Width (F1) inches (mm)		20 (499)	28 (699)	43 (1099)	20 (499)	28 (699)	43 (1099)	
Part No.	1	8615.500	8815.500	8215.500	8645.500	8845.500	8245.500	
Door(s)		1	1	2	1	1	2	
Weight lb (kg)		164 (745)	203 (92)	308 (140)	190 (86)	237 (108)	361 (164)	

Walls

Sidewalls	2	8115.235	8115.235	8115.235	8145.235	8145.235	8145.235	561
Divider panel	1	–	–	–	–	–	–	
Divider panel for module plates	1	–	–	–	–	–	–	

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8601.600	8601.800	8601.200	8601.600	8601.800	8601.200	533
	Height 8 (200)	1 set	8602.600	8602.800	8602.200	8602.600	8602.800	8602.200	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.050	8601.050	8601.050	8601.050	8601.050	8601.050	534
	Height 8 (200)	1 set	8602.050	8602.050	8602.050	8602.050	8602.050	8602.050	534

Accessories

Cable clamp rails for cable clamps	2	4191.000	4192.000	4196.000	4191.000	4192.000	4196.000	723
Cable clamp rails (C section) for cable clamps	6	4944.000	4945.000	4947.000	4944.000	4945.000	4947.000	659
Support rails for door	20	4596.000	4598.000	4596.000	4596.000	4598.000	4596.000	656
Print pocket, carbon steel	1	4116.000	4118.000	4116.000	4116.000	4118.000	4116.000	617

Lock Systems

Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597 - 610.

TS 8 freestanding enclosure

Height: 63 - 71" (1600 - 1800 mm), Depth: 16 - 20" (400 - 500 mm)

Height (H) inches (mm)	PU	63 (1600)	63 (1600)	63 (1600)	71 (1800)	71 (1800)	71 (1800)	Page
Width (B) inches (mm)		24 (600)	32 (800)	47 (1200)	24 (600)	32 (800)	39 (1000)	
Depth (T) inches (mm)		20 (500)	20 (500)	20 (500)	16 (400)	16 (400)	16 (400)	
Panel Height (G1) inches (mm)		59 (1496)	59 (1496)	59 (1496)	67 (1696)	67 (1696)	67 (1696)	
Panel Width (F1) inches (mm)		20 (499)	28 (699)	43 (1099)	20 (499)	28 (699)	35 (899)	
Part No.	1	8665.500	8865.500	8265.500	8684.500	8884.500	8084.500	
Door(s)		1	1	2	1	1	1	
Weight lb (kg)		221 (100)	227 (103)	351 (159)	201 (91)	250 (114)	301 (136)	

Walls								
Sidewalls	2	8165.235	8165.235	8165.235	8184.235	8184.235	8184.235	561
Divider panel	1	-	-	-	8609.840	8609.840	8609.840	567
Divider panel for module plates	1	-	-	-	-	-	-	-

Base/plinth									
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.600	8601.800	8601.200	8601.600	8601.800	8601.000	533
	Height 8 (200)	1 set	8602.600	8602.800	8602.200	8602.600	8602.800	8602.000	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.050	8601.050	8601.050	8601.040	8601.040	8601.040	534
	Height 8 (200)	1 set	8602.050	8602.050	8602.050	8602.040	8602.040	8602.040	534

Accessories								
Cable clamp rails for cable clamps	2	4191.000	4192.000	4196.000	4191.000	4192.000	4336.000	723
Cable clamp rails (C section) for cable clamps	6	4944.000	4945.000	4947.000	4944.000	4945.000	4946.000	659
Support rails for door	20	4596.000	4598.000	4596.000	4596.000	4598.000	4599.000	656
Print pocket, carbon steel	1	4116.000	4118.000	4116.000	4116.000	4118.000	4124.000	617

Lock Systems
Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597 - 610.

Height: 71" (1800 mm), Depth: 16 - 20" (400 - 500 mm)

Height (H) inches (mm)	PU	71 (1800)	71 (1800)	71 (1800)	71 (1800)	71 (1800)	71 (1800)	Page
Width (B) inches (mm)		39 (1000)	47 (1200)	63 (1600)	16 (400)	24 (600)	32 (800)	
Depth (T) inches (mm)		16 (400)	16 (400)	16 (400)	20 (500)	20 (500)	20 (500)	
Panel Height (G1) inches (mm)		67 (1696)	67 (1696)	67 (1696)	-	67 (1696)	67 (1696)	
Panel Width (F1) inches (mm)		35 (899)	43 (1099)	59 (1499)	-	20 (499)	28 (699)	
Part No.	1	8080.500	8284.500	8901.210	8485.510*	8685.500	8885.500	
Door(s)		2	2	2	1	1	1	
Weight lb (kg)		309 (140)	376 (171)	478 (217)	109 (49)	207 (94)	255 (116)	

Walls								
Sidewalls	2	8184.235	8184.235	8184.235	8185.235	8185.235	8185.235	561
Divider panel	1	8609.840	8609.840	8609.840	8609.850	8609.850	8609.850	567
Divider panel for module plates	1	-	-	-	8609.100	8609.100	8609.100	568

Base/plinth									
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.000	8601.200	8601.920	8601.400	8601.600	8601.800	533
	Height 8 (200)	1 set	8602.000	8602.200	8602.920	8602.400	8602.600	8602.800	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.040	8601.040	8601.040	8601.050	8601.050	8601.050	534
	Height 8 (200)	1 set	8602.040	8602.040	8602.040	8602.050	8602.050	8602.050	534

Accessories								
Cable clamp rails for cable clamps	2	4336.000	4196.000	4338.000	4193.000	4191.000	4192.000	723
Cable clamp rails (C section) for cable clamps	6	4946.000	4947.000	-	-	4944.000	4945.000	659
Support rails for door	20	4309.000	4596.000	4598.000	-	4596.000	4598.000	656
Print pocket, carbon steel	1	4115.000	4116.000	4118.000	-	4116.500	4118.500	617

Lock Systems
Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597 - 610..

*Without tubular door frame, mounting panel and gland plates

TS 8 freestanding enclosure

Height: 71" (800 mm), Depth: 20 - 24" (500 - 600 mm)

Height (H) inches (mm)	PU	71 (1800)	71 (1800)	71 (1800)	71 (1800)	71 (1800)	71 (1800)	Page
Width (B) inches (mm)		32 (800)	39 (1000)	47 (1200)	63 (1600)	71 (1800)	16 (400)	
Depth (T) inches (mm)		20 (500)	20 (500)	20 (500)	20 (500)	20 (500)	24 (600)	
Panel Height (G1) inches (mm)		67 (1696)	67 (1696)	67 (1696)	67 (1696)	67 (1696)	-	
Panel Width (F1) inches (mm)		28 (699)	35 (899)	43 (1099)	59 (1499)	67 (1699)	-	
Part No.	1	8880.500	8085.500	8285.500	8901.220	8901.260	8486.510*	
Door(s)		2	1	2	2	2	1	
Weight lb (kg)		271 (123)	328 (149)	382 (173)	485 (220)	546 (248)	114 (52)	

Walls								
Sidewalls	2	8185.235	8185.235	8185.235	8185.235	8185.235	8186.235	561
Divider panel	1	8609.850	8609.850	8609.850	8609.850	8609.850	8609.860	567
Divider panel for module plates	1	8609.100	8609.100	8609.100	8609.100	8609.100	8609.110	568

Base/plinth									
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.800	8601.000	8601.200	8601.920	8901.920	8601.400	533
	Height 8 (200)	1 set	8602.800	8602.000	8602.200	8602.920	8901.930	8602.400	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.050	8601.050	8601.050	8601.050	8601.050	8601.060	534
	Height 8 (200)	1 set	8602.050	8602.050	8602.050	8602.050	8602.050	8602.060	534

Accessories								
Cable clamp rails for cable clamps	2	4192.000	4336.000	4196.000	4338.000	4339.000	4193.000	723
Cable clamp rails (C section) for cable clamps	6	4945.000	4946.000	4947.000	-	-	-	659
Support rails for door	20	4598.000	4599.000	4596.000	4598.000	4579.000	-	656
Print pocket, carbon steel	1	4114.000	4124.000	4116.000	4118.000	4123.000	-	617

Lock Systems
Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.

*Without tubular door frame, mounting panel and gland plates

Height: 71" (1800 mm), Depth: 16 - 24" (400 - 600 mm)

Height (H) inches (mm)	PU	71 (1800)	71 (1800)	71 (1800)	71 (1800)	71 (1800)	79 (2000)	Page
Width (B) inches (mm)		24 (600)	32 (800)	32 (800)	47 (1200)	63 (1600)	24 (600)	
Depth (T) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	16 (400)	
Panel Height (G1) inches (mm)		67 (1696)	67 (1696)	67 (1696)	67 (1696)	67 (1696)	75 (1896)	
Panel Width (F1) inches (mm)		20 (499)	28 (699)	28 (699)	43 (1099)	59 (1499)	20 (499)	
Part No.	1	8686.500	8886.500	8881.500	8286.500	8901.230	8604.500	
Door(s)		1	1	2	2	2	1	
Weight lb (kg)		213 (97)	265 (120)	277 (126)	397 (180)	502 (228)	218 (99)	

Walls								
Sidewalls	2	8186.235	8186.235	8186.235	8186.235	8186.235	8104.235	561
Divider panel	1	8609.860	8609.860	8609.860	8609.860	8609.860	8609.040	567
Divider panel for module plates	1	8609.110	8609.110	8609.110	8609.110	8609.110	-	568

Base/plinth									
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.600	8601.800	8601.800	8601.200	8601.920	8601.600	533
	Height 8 (200)	1 set	8602.600	8602.800	8602.800	8602.200	8602.920	8602.600	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.060	8601.060	8601.060	8601.060	8601.060	8601.040	534
	Height 8 (200)	1 set	8602.060	8602.060	8602.060	8602.060	8602.060	8602.040	534

Accessories								
Cable clamp rails for cable clamps	2	4191.000	4192.000	4192.000	4196.000	4338.000	4191.000	723
Cable clamp rails (C section) for cable clamps	6	4944.000	4945.000	4945.000	4947.000	-	4944.000	659
Support rails for door	20	4596.000	4598.000	4594.000	4596.000	4598.000	4596.000	656
Print pocket, carbon steel	1	4116.000	4118.000	4114.000	4116.000	4118.000	4116.000	617

Lock Systems
Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.

TS 8 freestanding enclosure

Height: 79" (2000 mm), Depth: 16 - 20" (400 - 500 mm)

Height (H) inches (mm)	PU	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B) inches (mm)		32 (800)	47 (1200)	16 (400)	16 (400)	24 (600)	32 (800)	
Depth (T) inches (mm)		16 (400)	16 (400)	20 (500)	20 (500)	20 (500)	20 (500)	
Panel Height (G1) inches (mm)		75 (1896)	75 (1896)	-	75 (1896)	75 (1896)	75 (1896)	
Panel Width (F1) inches (mm)		28 (699)	43 (1099)	-	12 (299)	20 (499)	28 (699)	
Part No.	1	8804.500	8204.500	8405.510*	8405.500	8605.500	8805.500	
Door(s)		1	2	1	1	1	1	
Weight lb (kg)		273 (124)	407 (185)	134 (61)	116 (53)	223 (101)	278 (126)	

Walls								
Sidewalls	2	8104.235	8104.235	8105.235	8105.235	8105.235	8105.235	561
Divider panel	1	8609.040	8609.040	8609.050	8609.050	8609.050	8609.050	567
Divider panel for module plates	1	-	-	8609.120	8609.120	8609.120	8609.120	568

Base/plinth									
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.800	8601.200	8601.400	8601.400	8601.600	8601.800	533
	Height 8 (200)	1 set	8602.800	8602.200	8602.400	8602.400	8602.600	8602.800	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.040	8601.040	8601.050	8601.050	8601.050	8601.050	534
	Height 8 (200)	1 set	8602.040	8602.040	8602.050	8602.050	8602.050	8602.050	534

Accessories								
Cable clamp rails for cable clamps	2	4192.000	4196.000	4193.000	4193.000	4191.000	4192.000	723
Cable clamp rails (C section) for cable clamps	6	4945.000	4947.000	-	-	4944.000	4945.000	659
Support rails for door	20	4598.000	4596.000	-	4594.000	4596.000	4598.000	656
Print pocket, carbon steel	1	4118.000	4116.000	-	4114.000	4116.000	4118.000	617

Lock Systems
Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.

*Without tubular door frame, mounting panel and gland plates

Height: 79" (2000 mm), Depth: 20 - 24" (500 - 600 mm)

Height (H) inches (mm)	PU	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B) inches (mm)		39 (1000)	39 (1000)	47 (1200)	63 (1600)	71 (1800)	16 (400)	
Depth (T) inches (mm)		20 (500)	20 (500)	20 (500)	20 (500)	20 (500)	24 (600)	
Panel Height (G1) inches (mm)		75 (1896)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	-	
Panel Width (F1) inches (mm)		35 (899)	35 (899)	43 (1099)	59 (1499)	67 (1699)	-	
Part No.	1	8005.435	8005.500	8205.500	8901.290	8901.420	8406.510	
Door(s)		1	2	2	2	2	1	
Weight lb (kg)		346 (157)	346 (157)	420 (191)	583 (264)	656 (298)	123 (556)	

Walls								
Sidewalls	2	8105.235	8105.235	8105.235	8105.235	8105.235	8106.235	561
Divider panel	1	8609.050	8609.050	8609.050	8609.050	8609.050	8609.060	567
Divider panel for module plates	1	8609.120	8609.120	8609.120	8609.120	8609.120	8609.130	568

Base/plinth									
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.000	8601.000	8601.200	8601.920	8901.920	8601.400	533
	Height 8 (200)	1 set	8602.000	8602.000	8602.200	8602.920	8901.930	8602.400	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.050	8601.050	8601.050	8601.050	8601.050	8601.060	534
	Height 8 (200)	1 set	8602.050	8602.050	8602.050	8602.050	8602.050	8602.060	534

Accessories								
Cable clamp rails for cable clamps	2	4336.000	4336.000	4196.000	4338.000	4339.000	4193.000	723
Cable clamp rails (C section) for cable clamps	6	4946.000	4946.000	4947.000	-	-	-	659
Support rails for door	20	4599.000	4309.000	4596.000	4598.000	4579.000	-	656
Print pocket, carbon steel	1	4124.000	4115.000	4116.000	4118.000	4123.000	-	617

Lock Systems
Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.

TS 8 freestanding enclosure

Height: 79" (2000 mm), Depth: 24" (600 mm)

Height (H) inches (mm)	PU	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B) inches (mm)		24 (600)	32 (800)	39 (1000)	39 (1000)	47 (1200)	63 (1600)	
Depth (T) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
Panel Height (G1) inches (mm)		75 (1896)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	
Panel Width (F1) inches (mm)		20 (499)	28 (699)	35 (899)	35 (899)	43 (1099)	59 (1499)	
Part No.	1	8606.500	8806.500	8006.500	8006.530	8206.500	8901.400	
Door(s)		1	1	2	1	2	2	
Weight lb (kg)		229 (104)	288 (131)	355 (161)	437 (198)	429 (195)	699 (317)	

Walls

Sidewalls	2	8106.235	8106.235	8106.235	8106.235	8106.235	8106.235	561
Divider panel	1	8609.060	8609.060	8609.060	8609.060	8609.060	8609.060	567
Divider panel for module plates	1	8609.130	8609.130	8609.130	8609.130	8609.130	8609.130	568

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8601.600	8601.800	8601.000	8601.000	8601.200	8601.920	533
	Height 8 (200)	1 set	8602.600	8602.800	8602.000	8602.000	8602.200	8602.920	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.060	8601.060	8601.060	8601.060	8601.060	8601.060	534
	Height 8 (200)	1 set	8602.060	8602.060	8602.060	8602.060	8602.060	8602.060	534

Accessories

Cable clamp rails for cable clamps	2	4191.000	4192.000	4336.000	4336.000	4196.000	4338.000	723
Cable clamp rails (C section) for cable clamps	6	4944.000	4945.000	4946.000	4946.000	4947.000	-	659
Support rails for door	20	4596.000	4598.000	4309.000	4599.000	4596.000	4598.000	656
Print pocket, carbon steel	1	4116.000	4118.000	4115.000	4124.000	4116.000	4118.000	617

Lock Systems

Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.

Height: 79" (2000 mm), Depth: 24 - 32" (600 - 800 mm)

Height (H) inches (mm)	PU	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B) inches (mm)		71 (1800)	24 (600)	32 (800)	39 (1000)	47 (1200)	63 (1600)	
Depth (T) inches (mm)		24 (600)	32 (800)	32 (800)	32 (800)	32 (800)	32 (800)	
Panel Height (G1) inches (mm)		75 (1896)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	
Panel Width (F1) inches (mm)		67 (1699)	20 (499)	28 (699)	35 (899)	43 (1099)	59 (1499)	
Part No.	1	8901.430	8608.500	8808.500	8008.530	8208.500	8901.410	
Door(s)		2	1	1	1	2	2	
Weight lb (kg)		787 (357)	245 (111)	302 (137)	583 (264)	448 (203)	932 (423)	

Walls

Sidewalls	2	8106.235	8108.235	8108.235	8108.235	8108.235	8108.235	561
Divider panel	1	8609.060	8609.080	8609.080	8609.080	8609.080	8609.080	567
Divider panel for module plates	1	8609.130	3348.200	-	-	-	-	568

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8901.920	8601.600	8601.800	8601.000	8601.200	8601.920	533
	Height 8 (200)	1 set	8901.930	8602.600	8602.800	8602.000	8602.200	8602.920	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.060	8601.080	8601.080	8601.080	8601.080	8601.080	534
	Height 8 (200)	1 set	8602.060	8602.080	8602.080	8602.080	8602.080	8602.080	534

Accessories

Cable clamp rails for cable clamps	2	4339.000	4191.000	4192.000	4336.000	4196.000	4338.000	723
Cable clamp rails (C section) for cable clamps	6	-	4944.000	4945.000	4946.000	4947.000	-	659
Support rails for door	20	4579.000	4596.000	4598.000	4599.000	4596.000	4598.000	656
Print pocket, carbon steel	1	4123.000	4116.000	4118.000	4124.000	4116.000	4118.000	617

Lock Systems

Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.

TS 8 freestanding enclosure

Height: 79 - 87" (2000 - 2200 mm), Depth: 20 - 32" (500 - 800 mm)

Height (H) inches (mm)	PU	79 (2000)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	Page
Width (B) inches (mm)		71 (1800)	32 (800)	39 (1000)	47 (1200)	24 (600)	32 (800)	
Depth (T) inches (mm)		32 (800)	20 (500)	20 (500)	20 (500)	24 (600)	24 (600)	
Panel Height (G1) inches (mm)		75 (1896)	83 (2096)	83 (2096)	83 (2096)	83 (2096)	83 (2096)	
Panel Width (F1) inches (mm)		67 (1699)	28 (699)	35 (899)	43 (1099)	20 (499)	28 (699)	
Part No.	1	8901.440	8825.500	8025.500	8225.500	8626.500	8826.500	
Door(s)		2	1	1	2	1	1	
Weight lb (kg)		1049 (476)	321 (145)	401 (182)	481 (218)	249 (113)	250 (139)	

Walls

Sidewalls	2	8108.235	8125.235	8125.235	8125.235	8126.235	8126.235	561
Divider panel	1	8609.080	-	-	-	8609.260	8609.260	567
Divider panel for module plates	1	-	-	-	-	-	-	568

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8901.920	8601.800	8601.000	8601.200	8601.600	8601.800	533
	Height 8 (200)	1 set	8901.930	8602.800	8602.000	8602.200	8602.600	8602.800	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.080	8601.050	8601.050	8601.050	8601.060	8601.060	534
	Height 8 (200)	1 set	8602.080	8602.050	8602.050	8602.050	8602.060	8602.060	534

Accessories

Cable clamp rails for cable clamps	2	4339.000	4192.000	4336.000	4196.000	4191.000	4192.000	723
Cable clamp rails (C section) for cable clamps	6	-	4945.000	4946.000	4947.000	4944.000	4945.000	659
Support rails for door	20	4579.000	4598.000	4599.000	4596.000	4596.000	4598.000	656
Print pocket, carbon steel	1	4123.000	4118.000	4124.000	4116.000	4116.000	4118.000	617

Lock Systems

Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.

Height: 87" (2200 mm), Depth: 24 - 32" (600 - 800 mm)

Height (H) inches (mm)	PU	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	Page
Width (B) inches (mm)		39 (1000)	47 (1200)	24 (600)	32 (800)	39 (1000)	47 (1200)	
Depth (T) inches (mm)		24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	32 (800)	
Panel Height (G1) inches (mm)		83 (2096)	83 (2096)	83 (2096)	83 (2096)	83 (2096)	83 (2096)	
Panel Width (F1) inches (mm)		35 (899)	43 (1099)	20 (499)	28 (699)	35 (899)	43 (1099)	
Part No.	1	8026.500	8226.500	8628.500	8828.500	8028.500	8228.500	
Door(s)		1	2	1	1	1	2	
Weight lb (kg)		345 (157)	459 (208)	260 (118)	320 (145)	358 (163)	470 (214)	

Walls

Sidewalls	2	8126.235	8126.235	8128.235	8128.235	8128.235	8128.235	561
Divider panel	1	8609.260	8609.260	-	-	-	-	567
Divider panel for module plates	1	-	-	-	-	-	-	568

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8601.000	8601.200	8601.600	8601.800	8601.000	8601.200	533
	Height 8 (200)	1 set	8602.000	8602.200	8602.600	8602.800	8602.000	8602.200	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.060	8601.060	8601.080	8601.080	8601.080	8601.080	534
	Height 8 (200)	1 set	8602.060	8602.060	8602.080	8602.080	8602.080	8602.080	534

Accessories

Cable clamp rails for cable clamps	2	4336.000	4196.000	4191.000	4192.000	4336.000	4196.000	723
Cable clamp rails (C section) for cable clamps	6	4946.000	4947.000	4944.000	4945.000	4946.000	4947.000	659
Support rails for door	20	4599.000	4596.000	4596.000	4598.000	4599.000	4596.000	656
Print pocket, carbon steel	1	4124.000	4116.000	4116.000	4118.000	4124.000	4116.000	617

Lock Systems

Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.

TS 8 disconnect freestanding enclosure



System accessories Page 531 TS 8 freestanding enclosure Page 90 TS 8 corner enclosure Page 580

Material:

- Carbon steel
- Enclosure frame, roof, rear wall, and gland plates: 16 ga (1.5 mm)
- Door, trim panel: 14 ga (2.0 mm)
- Mounting panel: 11 ga (3.0 mm)

Surface finish:

- Enclosure frame: Dipcoat primed
- Door, trim panel, roof, and rear wall: Dipcoat primed, powder coated on the outside in textured RAL 7035 (light grey)
- Mounting panel and gland plates: Zinc-plated

Protection rating:

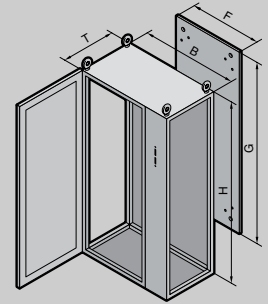
- UL Type 12
- (IP 55 to EN 60 529/10.91)
- (with disconnect handle installed)
- UL file #: E76083

Configuration:

- Enclosure frame
- Door (left hinged)
- Trim panel (right hinged, with a swing lever at the top and bottom, with cut-out for disconnect handle)
- Roof
- Rear wall

- Mounting panel
- Three-piece gland plates.
- Includes handle interlocking kit 8611.310

Note: See page 571 for FMD Operator Information



Height: 55 - 71" (1400 - 1800 mm), Depth: 16 - 20" (400 - 500 mm)

Height (H) inches (mm)	PU	55 (1400)	55 (1400)	63 (1600)	63 (1600)	71 (1800)	71 (1800)	71 (1800)	71 (1800)	Page
Width (B) inches (mm)		32 (800)	39 (1000)	32 (800)	32 (800)	32 (800)	63 (1600)	71 (1800)	32 (800)	
Depth (T) inches (mm)		20 (500)	20 (500)	20 (500)	24 (600)	16 (400)	16 (400)	16 (400)	20 (500)	
Panel Height (G1) inches (mm)		51 (1296)	51 (1296)	59 (1496)	59 (1496)	67 (1696)	67 (1696)	67 (1696)	67 (1696)	
Panel Width (F1) inches (mm)		28 (699)	35 (899)	28 (699)	28 (699)	28 (699)	59 (1499)	67 (1699)	28 (699)	
Part No.	1	8945.580	8945.500	8965.500	8966.500	8984.500	8901.600	8901.620	8985.500	
Door(s)		1	1	1	1	1	2	2	1	
Weight lb (kg)		163 (74)	203 (92)	186 (84)	223 (101)	250 (114)	335 (152)	377 (171)	255 (116)	

Walls										
Sidewalls	2	8145.235	8165.235	8166.235	8184.235	8185.235	561			

Base/plinth										
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.800	8601.000	8601.800	8601.920	8901.920	8601.800	533	
	Height 8 (200)	1 set	8602.800	8602.000	8602.800	8602.920	8902.930	8602.800	533	
Side panels inches (mm)	Height 4 (100)	1 set	8601.050	8601.060	8601.040	8601.040	8601.050	534		
	Height 8 (200)	1 set	8602.050	8602.060	8602.040	8602.040	8602.050	534		

Accessories										
Handle interlocking kit (included with enclosure)	1 kit	8611.310	571							
Slave door interlocking kit	1	4911.000	571							
Interlocking rods 24" (600 mm)	10	4916.000	571							
Interlocking rods 32" (800 mm)	10	4918.000	571							
Interlocking rods 47" (1200 mm)	10	4920.000	571							

Lock Systems
Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.

TS 8 disconnect freestanding enclosure

Height: 71 - 79" (1800 - 2000 mm), Depth: 20 - 24" (500 - 600 mm)

Height (H) inches (mm)	PU	71 (1800)	71 (1800)	71 (1800)	71 (1800)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B) inches (mm)		39 (1000)	63 (1600)	71 (1800)	71 (1800)	32 (800)	39 (1000)	63 (1600)	71 (1800)	
Depth (T) inches (mm)		20 (500)	20 (500)	20 (500)	24 (600)	20 (500)	20 (500)	20 (500)	20 (500)	
Panel Height (G1) inches (mm)		67 (1696)	67 (1696)	67 (1696)	67 (1696)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	
Panel Width (F1) inches (mm)		35 (899)	59 (1499)	67 (1699)	67 (1699)	28 (699)	35 (899)	59 (1499)	67 (1699)	
Part No.	1	8980.500	8901.610	8901.630	8901.640	8905.500	8995.500	8901.650	8901.680	
Door(s)		1	2	2	2	1	1	2	2	
Weight lb (kg)		262 (119)	418 (190)	471 (214)	565 (256)	278 (126)	291 (132)	488 (221)	523 (237)	

Walls										
Sidewalls	2	8185.235			8186.235		8105.235			561

Base/plinth											
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.000	8601.920	8901.920		8601.800	8601.000	8601.920	8901.920	533
	Height 8 (200)	1 set	8602.000	8602.920	8902.930		8602.800	8602.000	8602.920	8902.930	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.050		8601.060		8601.050			534	
	Height 8 (200)	1 set	8602.050		8602.060		8602.050			534	

Accessories										
Handle interlocking kit (included with enclosure)	1 kit	8611.310								571
Slave door interlocking kit	1	4911.000								571
Interlocking rods 24" (600 mm)	10	4916.000								571
Interlocking rods 32" (800 mm)	10	4918.000								571
Interlocking rods 47" (1200 mm)	10	4920.000								571

Lock Systems										
Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.										

Height: 79 - 87" (2000 - 2200 mm), Depth: 20 - 32" (500 - 800 mm)

Height (H) inches (mm)	PU	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	87 (2200)	87 (2200)	Page
Width (B) inches (mm)		32 (800)	39 (1000)	63 (1600)	71 (1800)	32 (800)	63 (1600)	32 (800)	39 (1000)	
Depth (T) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	24 (600)	20 (500)	
Panel Height (G1) inches (mm)		75 (1896)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	83 (2096)	83 (2096)	
Panel Width (F1) inches (mm)		28 (699)	35 (899)	59 (1489)	67 (1699)	28 (699)	59 (1499)	28 (699)	35 (899)	
Part No.	1	8906.500	8996.500	8901.660	8901.690	8908.500	8901.670	8926.500	8958.500	
Door(s)		1	1	2	2	1	2	1	1	
Weight lb (kg)		288 (131)	366 (166)	586 (266)	628 (285)	372 (169)	744 (337)	307 (139)	320 (145)	

Walls										
Sidewalls	2	8106.235			8108.235		8126.235		8125.235	564

Base/plinth											
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.800	8601.000	8601.920	8901.920	8601.800	8601.920	8601.800	8601.000	533
	Height 8 (200)	1 set	8602.800	8602.000	8602.920	8901.930	8602.800	8602.920	8602.800	8602.000	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.060			8601.080		8601.060	8601.050	534	
	Height 8 (200)	1 set	8602.060			8602.080		8602.060	8602.050	534	

Accessories										
Handle interlocking kit (included with enclosure)	1 kit	8611.310								571
Slave door interlocking kit	1	4911.000								571
Interlocking rods 24" (600 mm)	10	4916.000								571
Interlocking rods 32" (800 mm)	10	4918.000								571
Interlocking rods 47" (1200 mm)	10	4920.000								571

Lock Systems										
Standard double-bit lock insert may be exchanged for a comfort handle and other lock inserts, see pages 597-610.										

TS 8 electronic freestanding enclosure



System accessories Page 531 19" (482.6 mm) installation accessories from page 745 19" (482.6 mm) climate control Page 385

Material:

- Carbon steel
- Enclosure frame, roof and gland plates: 16 ga (1.5 mm)
- Rear door: 14 ga (2.0 mm)
- 19" rail sections: Aluminum
- Front frame: Extruded aluminum sections with die-cast corner pieces

Surface finish:

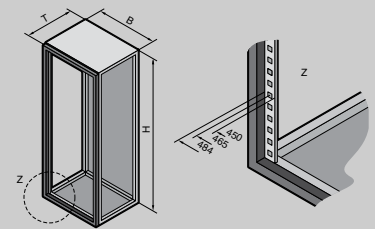
- Enclosure frame: Dipcoat primed
- Front frame, rear door and roof: Powder-coated in RAL 7035 (light grey).
- 19" rail sections: Conductive, corrosion-resistant coating
- Gland plates: Zinc-plated

Protection rating:

- UL Type 1
- UL, CSA
- UL file #: E76083

Configuration:

- Enclosure frame with doors (solid or vented)
- Mounting panel
- Gland plates
- Rear wall
- Roof plate



Height: 63 - 79" (1600 - 2000 mm), Depth: 24 - 32" (600 - 800 mm)

Height rack units (U)	PU	33	33	42	42	Page
Height (H) inches (mm)		63 (1600)	63 (1600)	79 (2000)	79 (2000)	
Width (B) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	
Depth (T) inches (mm)		24 (600)	32 (800)	24 (600)	32 (800)	
Part No.	1	8410.510	8418.510	8430.510	8438.510	
Door(s)		1	1	1	1	

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8601.600	8601.600	8601.600	8601.600	533
	Height 8 (200)	1 set	8602.600	8602.600	8602.600	8602.600	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.060	8601.080	8601.060	8601.080	534
	Height 8 (200)	1 set	8602.060	8602.080	8602.060	8602.080	534

Accessories

Sidewalls	2	8166.235	8168.235	8106.235	8108.235	561
Cable clamp rails for cable clamps	2	4191.000	4191.000	4191.000	4191.000	723
Cable clamp rails (C section) for cable clamps	6	4944.000	4944.000	4944.000	4944.000	659
Rear mounting angles	2	8613.360	8613.360	8613.300	8613.300	754

Lock systems

Standard double-bit lock insert (in rear door) may be exchanged for a comfort handle and other lock inserts, see page 597-610.

TS 8 MC freestanding enclosure



System accessories Page 531

- Suitable for the installation of:
- Partial mounting panels
 - Component shelves and drawers
 - Punched sections and rails
 - Partial doors with and without viewing panels
 - Fully glazed doors
 - Drawers
 - Vertically divided doors
 - Trim panels hinged at the top
 - Protective bars

Material:
Enclosure frame, roof, rear panel and gland plates:
Carbon steel 16 ga (1.5 mm)

Surface finish:
– Enclosure frame: Dipcoat primed
– Roof and rear panel: Dipcoat primed, powder-coated on the outside, textured paint
– Gland plates: Zinc-plated

Color:
RAL 7035

Configuration:
– Enclosure frame
– Roof
– Rear panel
– Three-piece gland plates
– 4 eyebolts

Detailed drawings:
Available at www.rittal-corp.com

For modular front design

Height (H) inches (mm)	PU	79 (2000)	79 (2000)	Page
Width (B) inches (mm)		24 (600)	32 (800)	
Depth (T) inches (mm)		24 (600)	24 (600)	
Part No.	1	8606.512	8806.512	
Weight		115 (52.5)	139 (63)	

Walls

Side panels	2	8106.512	588
Divider panel	1	8609.060	567
Divider panel for module plates	1	8609.130	568

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8601.600	8601.800	533
	Height 8 (200)	1 set	8602.600	8602.800	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.060		534
	Height 8 (200)	1 set	8602.060		534
Trim panel, hinged at the top, height 12" (300 mm)	1	8801.230	8801.240	586	
Holder for protective bar	2	8801.000		584	
Protective bar	1	8801.010		584	
Partial doors			see page 589		
Partial mounting panel			see page 640		
System lights			see page 689		

TS 8 UL Type 3R freestanding enclosure



System accessories Page 531 TS 8 stainless steel Page 224

Material:

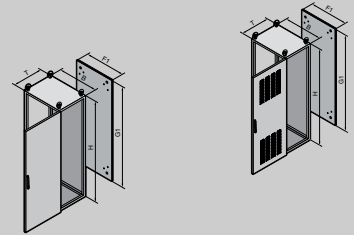
- Carbon steel
- Enclosure frame and doors: 14 ga (2.0 mm)
- Rear walls: 16 ga (1.5 mm)
- Mounting Panel: 11 ga (3.0 mm)

Surface finish:

- Enclosure frame: Dipcoat primed and powder-coated RAL 7035 (light grey)
- Door, trim panel, roof and rear wall: Dipcoat primed powder coated on the outside in textured RAL 7035 (light grey)
- Mounting panel and gland plates: zinc-plated

Protection Rating:

- UL/cUL Type 1, 3R, 12
- Vented versions: UL/cUL Type 1, 3R
- UL File #: E170282



Height: 79" (2000 mm), Depth: 24 - 32" (600 - 800 mm)

Height (H) inches (mm)	PU	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B) inches (mm)		24 (600)	32 (800)	39 (1000)	24 (600)	32 (800)	39 (1000)	
Depth (T) inches (mm)		24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	
Panel Height (G1) inches (mm)		75 (1896)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	75 (1896)	
Panel Width (F1) inches (mm)		20 (499)	28 (699)	35 (899)	20 (499)	28 (699)	35 (899)	
Part No. with vented door	1	8606.547	8806.547	8006.547	8608.547	8808.547	8008.547	
Part No. with solid door	1	8606.548	8806.548	8006.548	8608.548	8808.548	8008.548	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		229 (104)	288 (131)	355 (161)	245 (111)	302 (137)	335 (151)	

Walls

Sidewalls	2		8106.235			8108.235		561
Divider panel	1		8609.060			8609.080		567
Divider panel for module plates	1		8609.130			-		568

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8601.600	8601.800	8601.000	8601.600	8601.800	8601.000	533
	Height 8 (200)	1 set	8602.600	8602.800	8602.000	8602.600	8602.800	8602.000	533
Side panels inches (mm)	Height 4 (100)	1 set		8601.060			8601.080		534
	Height 8 (200)	1 set		8602.060			8602.080		534

Accessories

Cable clamp rails for cable clamps	2	4191.000	4192.000	4336.000	4191.000	4192.000	4336.000	723
Cable clamp rails (C section) for cable clamps	6	4944.000	4945.000	4946.000	4944.000	4945.000	4946.000	659
Support rails for door	20	4596.000	4598.000	4309.000	4596.000	4598.000	4599.000	656
Print pocket, carbon steel	1	4116.000	4118.000	4115.000	4116.000	4118.000	4124.000	617
Rain canopy	1	9969.921	9969.923	9969.925	9969.922	9969.924	9969.926	-

Lock systems

Standard double-bit lock insert (in rear door) may be exchanged for a comfort handle and other lock inserts, see page 597-610.

TS 8 UL Type 3R freestanding enclosure

Height: 87" (2200 mm), Depth: 24 - 32" (600 - 800 mm)


Height (H) inches (mm)	PU	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	Page
Width (B) inches (mm)		24 (600)	32 (800)	39 (1000)	24 (600)	32 (800)	39 (1000)	
Depth (T) inches (mm)		24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	
Panel Height (G1) inches (mm)		83 (2096)	83 (2096)	83 (2096)	83 (2096)	83 (2096)	83 (2096)	
Panel Width (F1) inches (mm)		20 (499)	28 (699)	35 (899)	20 (499)	28 (699)	35 (899)	
Part No. with vented door	1	8626.547	8826.547	8026.547	8628.547	8828.547	8028.547	
Part No. with solid door	1	8626.548	8826.548	8026.548	8628.548	8828.548	8028.548	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		249 (113)	250 (139)	345 (155)	260 (117)	320 (144)	365 (164)	

Walls								
Sidewalls	2	8126.235			8128.235			561
Divider panel	1	8609.260			-			567

Base/plinth									
Components front and rear inches (mm)	Height 4 (100)	1 set	8601.600	8601.800	8601.000	8601.600	8601.800	8601.000	533
	Height 8 (200)	1 set	8602.600	8602.800	8602.000	8602.600	8602.800	8602.000	533
Side panels inches (mm)	Height 4 (100)	1 set	8601.060			8601.080			534
	Height 8 (200)	1 set	8602.060			8602.080			534

Accessories								
Cable clamp rails for cable clamps	2	4191.000	4192.000	4336.000	4191.000	4192.000	4336.000	645
Cable clamp rails (C section) for cable clamps	6	4944.000	4945.000	4946.000	4944.000	4945.000	4946.000	645
Support rails for door	20	4596.000	4598.000	4599.000	4596.000	4598.000	4599.000	649
Print pocket, carbon steel	1	4116.000	4118.000	4124.000	4116.000	4118.000	4124.000	617
Rain canopy	1	9969.921	9969.923	9969.925	9969.922	9969.924	9969.926	-

Lock systems
Standard double-bit lock insert (in rear door) may be exchanged for a comfort handle and other lock inserts, see page 597-610.



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TS 8 UL Type 4 freestanding enclosure



System accessories Page 531

Configuration:

Enclosure frame with single door, 3.0 mm double-bit lock insert, roof plate, gland plate, rear panel, mounting panel, 4 eyebolts

Protection rating:

UL/cUL Type 4 (IP 66 to IEC 60 529)

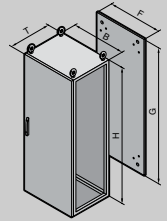
Material:

- Enclosure frame, roof, base, rear panel: Carbon steel, spray-finished, 16 ga (1.5 mm)
- Door: Carbon steel, spray-finished, 14 ga (2.0 mm)
- Mounting panel: Carbon steel, 11 ga (3.0 mm)

Surface finish:

- Enclosure frame, door, roof, base, rear panel: Dipcoat primed and powder-coated on the outside, textured paint
- Mounting panel: Zinc-plated

Color: RAL 7035



Height (H) inches (mm)	Packs of	2000	Page
Width (B) inches (mm)		800	
Depth (T) inches (mm)		600	
Part No.	1	8806.580	
Protection rating		IP 66 to IEC 60 529, complies with UL/cUL Type 4.	

Also required

Side panels IP 66/NEMA 4X, NEMA 4	2	8106.580	–
Baying frame IP 66/NEMA 4X, NEMA 4	1	8700.010	–
Quick-fit baying clamps, one-piece	6	8800.500	576
Baying clamp, horizontal	4	8800.400	574
Angular baying brackets	4	8800.430	576

Base/plinth

Components front and rear	Height 4" (100 mm)	1 set	8701.800	539
	Height 8" (200 mm)	1 set	8702.800	539
Trim panels, sides	Height 4" (100 mm)	1 set	8701.060	539
	Height 8" (200 mm)	1 set	8602.060	534

Accessories

Cable clamp rails	2	4192.000	723
Wiring plan pocket, carbon steel	1	4118.000	617
System light		see page 689	
Alternative lock systems		see page 601	

Note: additional sizes on request.

TS 8 freestanding enclosure

For areas at risk from earthquakes

TS 8 for earthquake zone 1, 2 and 3 to Telecordia/Bellcore

8806.500:

H x W x D

79 x 32 x 24" (2000 x 800 x 600 mm)

With base/plinth (base/plinth components front and rear, see page 532-546 and base/plinth trim, side, see page 534), 4" (100 mm) high with a weight load of 275 lb (125 kg) spread evenly over the mounting panel.

Note:

These versions have been tested and meet the requirements to Telcordia GR 63-CORE. They should be seen as a comparative variable to the customer's own plant, since the certification of empty enclosures is not possible.

TS 8 for earthquake zone 4 to Telecordia/Bellcore

H x W x D

79 x 32 x 24" (2000 x 800 x 600 mm)

Fitted with:

- Earthquake kit and
- Earthquake base/plinth, see page 103-104, with weight load of 990 lb (450 kg) distributed evenly over the mounting panel.

(Photo shows TS 8 for earthquake zone 4 to Telecordia/Bellcore)



Earthquake kit

Material:

Carbon steel

Surface finish:

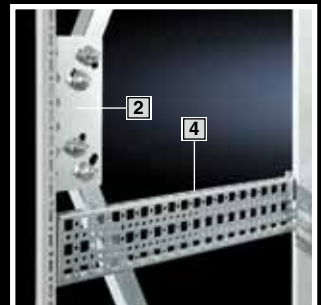
Zinc-plated

Configuration:

- 1) 2 side reinforcements, bottom
- 2) 2 bracing struts each, sides
- 3) 8 gusset plates
- 4) Mounting panel attachment and reinforcement including assembly parts

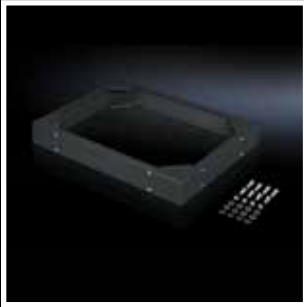
For enclosures H x W x D inches (mm)	Packs of	Part No.
70 x 32 x 24 (2000 x 800 x 600)	1	8613.860
70 x 24 x 24 (2000 x 600 x 600)	1	8613.660¹⁾
70 x 24 x 16 (2000 x 600 x 400)	1	8613.640¹⁾

¹⁾ Extended delivery times.



TS 8 freestanding enclosure

For areas at risk from earthquakes



Earthquake base/plinth Height 4" (100 mm)

Material:

- Corner pieces: Carbon steel 6 ga (5 mm)
- Trim panels Carbon steel 14 ga (2 mm)

Surface finish:

Powder-coated

Color:

RAL 7022

Configuration:

- 1 set =
- 4 corner pieces
 - 2 depth stays
 - 1 trim panel each front and rear fully assembled.

For enclosures W x D inches (mm)	Packs of	Part No.
32 x 24 (800 x 600)	1	8601.860
24 x 24 (600 x 600)	1	8601.660¹⁾
24 x 16 (600 x 400)	1	8601.640¹⁾

¹⁾ Extended delivery times.



SV-TS 8 modular enclosure



System accessories Page 531 Components From page 531

Material:
Carbon steel

Color:
RAL 7035

Testing:
– Design certificate to IEC 61 439-1/-2
– IEC 61 641

Photo shows a configuration with equipment not included in the base part number

Surface finish:
– Enclosure frame: Dipcoat primed
– Rear panel: Dipcoat primed, powder-coated on the outside, textured paint
– Gland plates: Zinc-plated

Protection rating:
Up to IP 54, depending on the panels

Configuration:
– Enclosure frame
– Rear panel
– Three-piece gland plates

1 Height: 71" (1800 mm), Depth: 24" (600 mm)

Height inches (mm)	Packs of	71 (1800)	71 (1800)	71 (1800)	Page
Width inches (mm)		16 (400)	24 (600)	32 (800)	
Depth inches (mm)		24 (600)	24 (600)	24 (600)	
Part No.	1	9670.486	9670.686	9670.886	
Weight lb (kg)		92 (42)	108 (49)	130 (59)	

Base/plinth						
Components front and rear	Height 4" (100 mm)		8601.400	8601.600	8601.800	533
	Height 8" (200 mm)		8602.400	8602.600	8602.800	583
Trim panels, sides	Height 4" (100 mm)		8601.060			534
	Height 8" (200 mm)		8602.060			534
Levelling component for base/plinth			See page 536			

SV-TS 8 modular enclosure

1 Height: 71" (1800 mm), Depth: 24" (600 mm)

Part No.	Packs of	9670.486	9670.686	9670.886	Page	
Also required						
Side panels for protection category	IP 55	2	8186.235		561	
	IP 55/sealed	1	9671.646	9671.666	9671.686	662
Roof plates for protection category/design	IP 43/vented	1	9671.746	9671.766	9671.786	662
	IP 2X/vented	1	9671.846	9660.235	9660.245	662
Roof plates for cable entry gland	IP 55	1	9671.546	9665.903	9671.586	662
Roof plates with pressure relief function		1	9671.446	9660.935	9660.945	662
Front trim panels for protection category	IP 54/sealed	1 set	9671.014	9671.016	9671.018	591
	IP 2X/vented	1 set	9671.034	9671.036	9671.038	591
Upgrade kit for front panels IP 2X	IP 43	1 set	9671.044	9671.046	9671.048	591
Partial doors for clearance height with front trim panel 4/4" (100/100 mm)		1	9671.156	9671.176	9671.196	589
Front trim panels, top 12" (300 mm) / bottom 4" (100 mm) for protection category	IP 54/sealed	1 set	9672.014	9672.016	9672.018	590
	IP 2X/vented	1 set	9672.034	9672.038	9672.036	590
Front trim panels, top 12" (300 mm) / bottom 12" (300 mm) for protection category	IP 54/sealed	1 set	9672.024	9672.026	9672.028	590
	IP 2X/vented	1 set	9672.044	9672.046	9672.048	590
Upgrade kit for front trim panels 12/4" (300/100 mm) IP 2X	IP 43	1 set	9672.054	9672.056	9672.058	590
Partial doors for modular configuration		1	see page 589			
Angular baying brackets		4	8800.430		576	
Baying connectors, external		6	8800.490		575	
Accessories						
Enclosure configuration			see page 590			
Compartment configuration			see page 342			



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SV-TS 8 modular enclosure

1 Height: 79" (2000 mm), Depth: 24 - 32" (600 - 800 mm)

Height inches (mm)	Packs of	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	Page
Width inches (mm)		16 (400)	24 (600)	32 (800)	16 (400)	24 (600)	32 (800)	
Depth inches (mm)		24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	
Part No.	1	9670.406	9670.606	9670.806	9670.408	9670.608	9670.808	
Weight lb (kg)		71 (44)	112 (51)	134 (61)	97 (44)	118 (54)	141 (64)	

Base/plinth								
Components front and rear	Height 4" (100 mm)	1 set	8601.400					533
	Height 8" (200 mm)	1 set	8602.400	8602.600	8602.800	8602.400	8602.600	8602.800
Trim panels, sides	Height 4" (100 mm)	1 set	8601.060		8601.080			534
	Height 8" (200 mm)	1 set	8602.060		8602.080			534
Levelling component for base/plinth			See page 536					

Also required									
Side panels for protection category	IP 55	2	8106.235			8108.235		561	
Roof plates for protection category/ design	IP 55/sealed	1	9671.646	9671.666	9671.686	9671.648	9671.668	9671.688	662
	IP 43/vented	1	9671.746	9671.766	9671.786	9671.748	9671.768	9671.788	662
	IP 2X/vented	1	9671.846	9660.235	9660.245	9671.848	9659.525	9659.535	662
Roof plates for cable entry gland	IP 55	1	9671.546	9665.903	9671.586	9671.548	9671.568	9671.588	662
Roof plates with pressure relief function		1	9671.446	9660.935	9660.945	9671.448	9671.468	9671.488	662
Front trim panels for protection category	IP 54/sealed	1 set	9671.014	9671.016	9671.018	9671.014	9671.016	9671.018	591
	IP 2X/vented	1 set	9671.034	9671.036	9671.038	9671.034	9671.036	9671.038	591
Upgrade kit for front panels IP 2X	IP 43	1 set	9671.044	9671.046	9671.048	9671.044	9671.046	9671.048	591
Partial doors for clearance height with front trim panel 4"/4" (100/100 mm)		1	9671.150	9671.170	9671.190	9671.150	9671.170	9671.190	589
Front trim panels, top 12" (300 mm) / bottom 4" (100 mm) for protection category	IP 54/sealed	1 set	9672.014	9672.016	9672.018	9672.014	9672.016	9672.018	590
	IP 2X/vented	1 set	9672.034	9672.036	9672.038	9672.034	9672.036	9672.038	590
Front trim panels, top 12" (300 mm) / bottom 12" (300 mm) for protection category	IP 54/sealed	1 set	9672.024	9672.026	9672.028	9672.024	9672.026	9672.028	590
	IP 2X/vented	1 set	9672.044	9672.046	9672.048	9672.044	9672.046	9672.048	590
Upgrade kit for front trim panels 12"/4" (300/100 mm) IP 2X	IP 43	1 set	9672.054	9672.056	9672.058	9672.054	9672.056	9672.058	590
Partial doors for clearance height with front trim panel 12"/4" (300/100 mm)		1	9671.158	9671.178	9671.198	9671.158	9671.178	9671.198	589
Partial doors for modular configuration		1	See page 589						
Angular baying brackets		4	8800.430					576	
Baying connectors, external		6	8800.490					575	

Accessories								
Enclosure configuration			See page 590					
Compartment configuration			See page 342					

SV-TS 8 modular enclosure

1 Height: 87" (2200 mm), Depth: 24 - 32" (600 - 800 mm)

Height inches (mm)	Packs of	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	Page
Width inches (mm)		16 (400)	24 (600)	32 (800)	16 (400)	24 (600)	32 (800)	
Depth inches (mm)		24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	
Part No.	1	9670.426	9670.626	9670.826	9670.428	9670.628	9670.828	
Weight lb (kg)		95 (43)	119 (54)	132 (60)	101 (46)	123 (56)	145 (66)	

Base/plinth								
Components front and rear	Height 4" (100 mm)	1 set	8601.400					533
	Height 8" (200 mm)	1 set	8602.400	8602.600	8602.800	8602.400	8602.600	8602.800
Trim panels, sides	Height 4" (100 mm)	1 set	8601.060			8601.080		534
	Height 8" (200 mm)	1 set	8602.060			8602.080		534
Levelling component for base/plinth			See page 536					

Also required									
Side panels for protection category	IP 55	2	8106.235			8108.235			561
	IP 55/sealed	1	9671.646	9671.666	9671.686	9671.648	9671.668	9671.688	662
Roof plates for protection category/ design	IP 43/vented	1	9671.746	9671.766	9671.786	9671.748	9671.768	9671.788	662
	IP 2X/vented	1	9671.846	9660.235	9660.245	9671.848	9659.525	9659.535	662
Roof plates for cable entry gland	IP 55	1	9671.546	9665.903	9671.586	9671.548	9671.568	9671.588	662
Roof plates with pressure relief function		1	9671.446	9660.935	9660.945	9671.448	9671.468	9671.488	662
Front trim panels for protection category	IP 54/sealed	1 set	9671.014	9671.016	9671.018	9671.014	9671.016	9671.018	591
	IP 2X/vented	1 set	9671.034	9671.036	9671.038	9671.034	9671.036	9671.038	591
Upgrade kit for front panels IP 2X	IP 43	1 set	9671.044	9671.046	9671.048	9671.044	9671.046	9671.048	591
Partial doors for clearance height with front trim panel 4"/4" (100/100 mm)		1	9671.158	9671.178	9671.198	9671.158	9671.178	9671.198	589
Front trim panels, top 12" (300 mm) / bottom 4" (100 mm) for protection category	IP 54/sealed	1 set	9672.014	9672.016	9672.018	9672.014	9672.016	9672.018	590
	IP 2X/vented	1 set	9672.034	9672.036	9672.038	9672.034	9672.036	9672.038	590
Front trim panels, top 12" (300 mm) / bottom 12" (300 mm) for protection category	IP 54/sealed	1 set	9672.024	9672.026	9672.028	9672.024	9672.026	9672.028	590
	IP 2X/vented	1 set	9672.044	9672.046	9672.048	9672.044	9672.046	9672.048	590
Upgrade kit for front trim panels 12"/4" (300/100 mm) IP 2X	IP 43	1 set	9672.054	9672.056	9672.058	9672.054	9672.056	9672.058	590
Partial doors for clearance height with front trim panel 12"/4" (300/100 mm)		1	9671.156	9671.176	9671.196	9671.156	9671.176	9671.196	-
Partial doors for modular configuration		1	See page 589						
Angular baying brackets		4	8800.430						576
Baying connectors, external		6	8800.490						575

Accessories			
Enclosure configuration		See page 590	
Compartment configuration		See page 342	

SV-TS 8 cable chamber enclosure



System accessories Page 531 Components From page 589

Material:

Carbon steel

Color:

RAL 7035

- Door, 3.0 mm double-bit lock insert
- Rear panel
- Three-piece gland plates

Photo shows a configuration with equipment not included in the base part number

Surface finish:

- Enclosure frame: Dipcoat primed
- Door(s), rear panel: Dipcoat primed, powder-coated on the outside, textured paint
- Gland plates: Zinc-plated

Protection rating:

Up to IP 54, depending on the panels

Testing:

- Design certificate to IEC 61 439-1/-2
- IEC 61 641

Configuration:

- Enclosure frame

2 Height: 71" (1800 mm), Depth: 24" (600 mm)

Height inches (mm)	Packs of	71 (1800)	71 (1800)	71 (1800)	Page
Width inches (mm)		12 (300)	16 (400)	24 (600)	
Depth inches (mm)		24 (600)	24 (600)	24 (600)	
Part No.	1	9670.396	9670.496	9670.696	
Door(s)		1	1	1	
Weight lb (kg)		104 (47)	110 (50)	132 (62)	

Base/plinth						
Components front and rear	Height 4" (100 mm)	1 set	8601.915	8601.400	8601.600	533
	Height 8" (200 mm)	1 set	8602.915	8602.400	8602.600	533
Trim panels, sides	Height 4" (100 mm)	1 set	8601.060			534
	Height 8" (200 mm)	1 set	8602.060			534
Levelling component for base/plinth			See page 536			

Also required						
Side panels for protection category	IP 55	2	8186.235			561
	IP 55/sealed	1	9671.636	9671.646	9671.666	662
Roof plates for protection category/design	IP 43/vented	1	9671.736	9671.746	9671.766	662
	IP 2X/vented	1	-	9671.846	9660.235	662
Roof plates for cable entry gland	IP 55	1	9671.536	9671.546	9665.903	662
Roof plates with pressure relief function		1	-	9671.446	9660.935	662
Front trim panels, top 12" (300 mm) / bottom 4" (100 mm) for protection category	IP 54/sealed	1 set	-	9672.014	9672.016	590
	IP 2X/vented	1 set	-	9672.034	9672.036	590
Front trim panels, top 4" (100 mm) / bottom 12" (300 mm) for protection category	IP 54/sealed	1 set	-	9672.024	9672.026	590
	IP 2X/vented	1 set	-	9672.044	9672.046	590
Upgrade kit for front trim panels 12/4" (300/100 mm) IP 2X	IP 43	1 set	-	9672.054	9672.056	590
Angular baying brackets		4	8800.430			576
Baying connectors, external		6	8800.490			575

Accessories						
Enclosure configuration			See page 590			
Compartment configuration			See page 342			

SV-TS 8 cable chamber enclosure

2 Height: 79" (2000 mm), Depth: 24 - 32" (600 - 800 mm)

Height inches (mm)	Packs of	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	Page
Width inches (mm)		12 (300)	16 (400)	24 (600)	12 (300)	16 (400)	24 (600)	
Depth inches (mm)		24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	
Part No.	1	9670.316	9670.416	9670.616	9670.318	9670.418	9670.618	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		108 (49)	119 (54)	152 (69)	110 (50)	123 (56)	162 (74)	

Base/plinth									
Components front and rear	Height 4" (100 mm)	1 set	8601.915	8601.400	8601.600	8601.915	8601.400	8601.600	533
	Height 8" (200 mm)	1 set	8602.915	8602.400	8602.600	8602.915	8602.400	8602.600	533
Trim panels, sides	Height 4" (100 mm)	1 set	8601.060			8601.080			534
	Height 8" (200 mm)	1 set	8602.060			8602.080			534
Levelling component for base/plinth			See page 536						

Also required									
Side panels for protection category	IP 55	2	8106.235			8108.235			561
Roof plates for protection category/ design	IP 55/sealed	1	9671.636	9671.646	9671.666	9671.638	9671.648	9671.668	622
	IP 43/vented	1	9671.736	9671.746	9671.766	9671.738	9671.748	9671.768	622
	IP 2X/vented	1	-	9671.846	9660.235	-	9671.848	9659.525	622
Roof plates for cable entry gland	IP 55	1	9671.536	9671.546	9665.903	9671.538	9671.548	9671.568	622
Roof plates with pressure relief function		1	-	9671.446	9660.935	-	9671.448	9671.468	622
Front trim panels, top 12" (300 mm) / bottom 4" (100 mm) for protection category	IP 54/sealed	1 set	-	9672.014	9672.016	-	9672.014	9672.016	590
	IP 2X/vented	1 set	-	9672.034	9672.036	-	9672.034	9672.036	590
Front trim panels, top 12" (300 mm) / bottom 12" (300 mm) for protection category	IP 54/sealed	1 set	-	9672.024	9672.026	-	9672.024	9672.026	590
	IP 2X/vented	1 set	-	9672.044	9672.046	-	9672.044	9672.046	590
Upgrade kit for front trim panels 12/4" (300/100 mm) IP 2X	IP 43	1 set	-	9672.054	9672.056	-	9672.054	9672.056	590
Partial doors for clearance height with front trim panel 12/4" (300/100 mm)		1	-	9671.156	9671.176	-	9671.156	9671.176	-
Angular baying brackets		4	8800.430						576
Baying connectors, external		6	8800.490						575

Accessories								
Enclosure configuration	See page 590							
Compartment configuration	See page 342							
Alternative lock systems	See page 601							

SV-TS 8 cable chamber enclosure

2 Height: 87" (2200 mm), Depth: 24 - 32" (600 - 800 mm)

Height inches (mm)	Packs of	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	Page
Width inches (mm)		12 (300)	16 (400)	24 (600)	12 (300)	16 (400)	24 (600)	
Depth inches (mm)		24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	
Part No.	1	9670.336	9670.436	9670.636	9670.338	9670.438	9670.638	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		106 (48)	125 (57)	167 (76)	112 (51)	134 (61)	178 (81)	

Base/plinth									
Components front and rear	Height 4" (100 mm)	1 set	8601.915	8601.400	8601.600	8601.915	8601.400	8601.600	533
	Height 8" (200 mm)	1 set	8602.915	8602.400	8602.600	8602.915	8602.400	8602.600	533
Trim panels, sides	Height 4" (100 mm)	1 set	8601.060			8601.080			534
	Height 8" (200 mm)	1 set	8602.060			8602.080			534
Levelling component for base/plinth			See page 536						

Also required									
Side panels for protection category	IP 55	2	8126.235			8128.235			561
Roof plates for protection category/ design	IP 55/sealed	1	9671.636	9671.646	9671.666	9671.638	9671.648	9671.668	622
	IP 43/vented	1	9671.736	9671.746	9671.766	9671.738	9671.748	9671.768	622
	IP 2X/vented	1	-	9671.846	9660.235	-	9671.848	9659.525	622
Roof plates for cable entry gland	IP 55	1	9671.536	9671.546	9665.903	9671.538	9671.548	9671.568	622
Roof plates with pressure relief function		1	-	9671.446	9660.935	-	9671.448	9671.468	622
Front trim panels, top 12" (300 mm)/ bottom 4" (100 mm) for protection category	IP 54/sealed	1 set	-	9672.014	9672.016	-	9672.014	9672.016	622
	IP 2X/vented	1 set	-	9672.034	9672.036	-	9672.034	9672.036	590
Front trim panels, top 12" (300 mm) / bottom 12" (300 mm) for protection category	IP 54/sealed	1 set	-	9672.024	9672.026	-	9672.024	9672.026	590
	IP 2X/vented	1 set	-	9672.044	9672.046	-	9672.044	9672.046	590
Upgrade kit for front trim panels 12/4" (300/100 mm) IP 2X	IP 43	1 set	-	9672.054	9672.056	-	9672.054	9672.056	590
Partial doors for clearance height with front trim panel 12/4" (300/100 mm)		1	-	9671.158	9671.178	-	9671.158	9671.178	-
Angular baying brackets		4	8800.430						576
Baying connectors, external		6	8800.490						575

Accessories								
Enclosure configuration	See page 590							
Compartment configuration	See page 342							
Alternative lock systems	See page 601							

TS 8 floormount enclosure



System accessories Page 531 TS 8 Type 3R floormount enclosure Page 114 TS 8 disconnect floormount enclosure Page 116

Material:

- Carbon steel
- Enclosure frame: 16 ga (1.5 mm)
- Roof, door, rear wall, solid floor panel: 14 ga (2.0 mm)
- Legs, mounting panel: 11 ga (3.0 mm)

Surface finish:

- Enclosure frame: Dipcoat primed

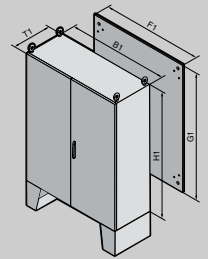
- Door, roof and rear wall: Powder-coated in RAL 7035 (light grey) on the outside
- Mounting panel: Zinc-plated

Protection rating:

UL/cUL Type 12
(IP 55 to EN 60 529)
UL file #: E76083

Configuration:

- Enclosure frame with doors
- 12 inch bolt-on leg kit
- Mounting panel
- Roof plate
- Rear wall
- Sidewalls
- Solid floor panel
- Padlocking comfort handle with key locking push button insert



Height: 63" (1600 mm), Depth: 12 - 20" (300 - 500 mm)

Height (H1) inches (mm)	PU	63 (1600)	63 (1600)	63 (1600)	63 (1600)	63 (1600)	Page
Width (B1) inches (mm)		47 (1200)	63 (1600)	47 (1200)	63 (1600)	47 (1200)	
Depth (T1) inches (mm)		12 (300)	12 (300)	16 (400)	16 (400)	20 (500)	
Panel Height (G1) inches (mm)		59 (1496)	59 (1496)	59 (1496)	59 (1496)	59 (1496)	
Panel Width (F1) inches (mm)		43 (1099)	59 (1499)	43 (1099)	59 (1499)	43 (1099)	
Part No.	1	TSFM634712NC	TSFM636312NC	TSFM634716NC	TSFM636316NC	TSFM634720NC	
Weight lb (kg)		352 (160)	452 (205)	359 (163)	459 (209)	366 (166)	

Accessories

Cable clamp rails for cable clamps	2	4196.000	4338.000	4196.000	4338.000	4196.000	723
Support rails for door	1	4596.000	4598.000	4596.000	4598.000	4596.000	656
Print pocket	1	4116.000	4118.000	4116.000	4118.000	4116.000	617

Lock Systems

Pad locking comfort handle and key locking PB insert may be exchanged for other lock inserts and comfort handles, see page 606.

TS 8 floormount enclosure

Height: 63 - 71" (1600 - 1800 mm), Depth: 12 - 24" (300 - 600 mm)

Height (H1) inches (mm)	PU	63 (1600)	63 (1600)	71 (1800)	71 (1800)	71 (1800)	Page
Width (B1) inches (mm)		47 (1200)	63 (1600)	63 (1600)	71 (1800)	63 (1600)	
Depth (T1) inches (mm)		24 (600)	24 (600)	12 (300)	12 (300)	16 (400)	
Panel Height (G1) inches (mm)		59 (1496)	59 (1496)	67 (1696)	67 (1696)	67 (1696)	
Panel Width (F1) inches (mm)		43 (1099)	59 (1499)	59 (1499)	67 (1699)	59 (1499)	
Part No.	1	TSMF634724NC	TSMF636324NC	TSMF716312NC	TSMF717112NC	TSMF716316NC	
Weight lb (kg)		415 (189)	481 (219)	486 (221)	546 (248)	493 (224)	

Accessories

Cable clamp rails for cable clamps	2	4196.000	4338.000	4338.000	4339.000	4338.000	723
Support rails for door	1	4596.000	4598.000	4598.000	4579.000	4598.000	656
Print pocket	1	4116.000	4118.000	4118.000	4123.000	4118.000	617

Lock Systems

Pad locking comfort handle and key locking PB insert may be exchanged for other lock inserts and comfort handles, see page 606.

Height: 71" (1800 mm), Depth: 16 - 24" (400 - 600 mm)

Height (H1) inches (mm)	PU	71 (1800)	71 (1800)	71 (1800)	71 (1800)	71 (1800)	Page
Width (B1) inches (mm)		71 (1800)	63 (1600)	71 (1800)	63 (1600)	71 (1800)	
Depth (T1) inches (mm)		16 (400)	20 (500)	20 (500)	24 (600)	24 (600)	
Panel Height (G1) inches (mm)		67 (1696)	67 (1696)	67 (1696)	67 (1696)	67 (1696)	
Panel Width (F1) inches (mm)		67 (1699)	59 (1499)	67 (1699)	59 (1499)	67 (1699)	
Part No.	1	TSMF717116NC	TSMF716320NC	TSMF717120NC	TSMF716324NC	TSMF717124NC	
Weight lb (kg)		553 (251)	500 (227)	560 (255)	517 (235)	580 (264)	

Accessories

Cable clamp rails for cable clamps	2	4339.000	4338.000	4339.000	4338.000	4339.000	723
Support rails for door	1	4579.000	4598.000	4579.000	4598.000	4579.000	656
Print pocket	1	4123.000	4118.000	4123.000	4118.000	4123.000	617

Lock Systems

Pad locking comfort handle and key locking PB insert may be exchanged for other lock inserts and comfort handles, see page 606.

TS 8 UL Type 3R floormount enclosure



System accessories Page 531 TS 8 floormount enclosure Page 112 TS 8 disconnect floormount enclosure Page 116

Material:

- Carbon steel
- Frame: 16 ga (1.5 mm)
- Door, rear wall, roof, solid floor panel: 14 ga (2.0 mm)
- Legs, mounting panel: 11 ga (3.0 mm)

Surface finish:

- Frame: Dipcoat primed
- Door, roof, rear wall: Dipcoat primed, powder-coated in

- textured RAL 7035 (light grey)
- Mounting panel: zinc plated

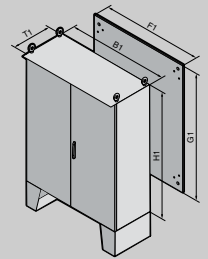
Protection rating:

- UL/cUL Type 3R
- UL file #: E170282

Configuration:

- 16-fold frame
- Overlapping doors with foamed-in-place polyurethane gaskets, no center mullions

- Four point locking system
- Padlocking comfort handle with keylocking pushbutton insert included
- 12" removable floor stands,
- Canopy-style roof
- Removable heavy duty eyebolts for lifting
- Fully depth adjustable mounting panel included



Height: 63 - 71" (1600 - 1800 mm), Depth: 16 - 20" (400 - 500 mm)

Height (H1) inches (mm)	PU	63 (1600)	63 (1600)	71 (1800)	71 (1800)	63 (1600)	Page
Width (B1) inches (mm)		47 (1200)	63 (1600)	63 (1600)	71 (1800)	47 (1200)	
Depth (T1) inches (mm)		16 (400)	16 (400)	16 (400)	16 (400)	20 (500)	
Panel Height (G1) inches (mm)		59 (1496)	59 (1496)	67 (1696)	67 (1696)	59 (1496)	
Panel Width (F1) inches (mm)		43 (1099)	59 (1499)	59 (1499)	67 (1699)	43 (1099)	
Part No.	1	TSM634716NCR	TSM636316NCR	TSM716316NCR	TSM717116NCR	TSM634720NCR	
Weight lb (kg)		352 (160)	459 (209)	493 (224)	553 (251)	366 (166)	

Accessories

Cable clamp rails for cable clamps	2	4196.000	4338.000	4338.000	4339.000	4196.000	723
Support rails for door	1	4596.000	4598.000	4598.000	4579.000	4596.000	656
Print pocket	1	4116.000	4118.000	4118.000	4123.000	4116.000	617

Lock Systems

Pad locking comfort handle and key locking PB insert may be exchanged for other lock inserts and comfort handles, see page 606.



3R roof detail

TS 8 Type 3R floormount enclosure

Height: 63 - 71" (1600 - 1800 mm), Depth: 20 - 24" (500 - 600 mm)

Height (H1) inches (mm)	PU	63 (1600)	71 (1800)	71 (1800)	71 (1800)	Page
Width (B1) inches (mm)		63 (1600)	63 (1600)	71 (1800)	71 (1800)	
Depth (T1) inches (mm)		20 (500)	20 (500)	20 (500)	24 (600)	
Panel Height (G1) inches (mm)		59 (1496)	67 (1696)	67 (1696)	67 (1696)	
Panel Width (F1) inches (mm)		59 (1499)	59 (1499)	67 (1699)	67 (1699)	
Part No.	1	TSFM636320NCR	TSFM716320NCR	TSFM717120NCR	TSFM717124NCR	
Weight lb (kg)		471 (214)	500 (227)	560 (255)	580 (264)	

Accessories

Cable clamp rails for cable clamps	2	4338.000	4338.000	4339.000	4339.000	723
Support rails for door	1	4598.000	4598.000	4579.000	4579.000	656
Print pocket	1	4118.000	4118.000	4123.000	4123.000	617

Lock Systems

Pad locking comfort handle and key locking PB insert may be exchanged for other lock inserts and comfort handles, see page 606.



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TS 8 disconnect floormount enclosure



System accessories Page 531 TS 8 floormount enclosure Page 112 TS 8 Type 3R floormount enclosure Page 114

Material:

- Carbon steel
- Enclosure frame: 16 ga (1.5 mm)
- Roof, rear wall, solid floor panel: 14 ga (2.0 mm)
- Legs: 11 ga (3.0 mm)
- Door: 14 ga (2.0 mm)
- Mounting Panel: 11 ga (3.0 mm)

Surface finish:

- Enclosure frame: Dip-coated
- Door, roof, rear wall and floor panel: Dip-coated and powder coated in RAL 7035 (light grey) on the outside
- Mounting panel: Zinc-plated

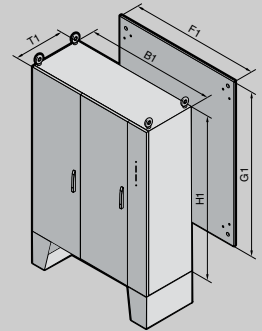
Protection rating:

- UL/cUL Type 12 (with disconnect handle installed)
- UL file #: E170282

Configuration:

- Enclosure frame with removable center mullion
- Two doors (both left hinged)
- Trim panel (right hinged with swing lever at the top and bottom, with cut-out for disconnect handle)
- 12 inch bolt-on leg kit
- Mounting panel
- Roof

- Rear wall
- Sidewalls
- Solid floor panel
- Comfort handle with pad lock hasp and screw driver insert
- Includes handle interlocking kit (8611.310) for the main door as well as the adjacent door locking kit (4911.000) and interlocking rods for the adjacent door



Height: 63 - 71" (1600 - 1800 mm), Depth: 16 - 20" (400 - 500 mm)

Height (H1) inches (mm)	PU	63 (1600)	63 (1600)	71 (1800)	71 (1800)	63 (1600)	Page
Width (B1) inches (mm)		47 (1200)	63 (1600)	63 (1600)	71 (1800)	47 (1200)	
Depth (T1) inches (mm)		16 (400)	16 (400)	16 (400)	16 (400)	20 (500)	
Panel Height (G1) inches (mm)		59 (1496)	59 (1496)	67 (1696)	67 (1696)	59 (1496)	
Panel Width (F1) inches (mm)		43 (1099)	59 (1499)	59 (1499)	67 (1699)	43 (1099)	
Part No.	1	TSM634716XC	TSM636316XC	TSM716316XC	TSM717116XC	TSM634720XC	
Weight lb (kg)		370 (168)	470 (213)	505 (229)	565 (256)	378 (171)	

Accessories

Print pocket	1				2514.000		616
--------------	---	--	--	--	----------	--	-----

Lock Systems

The standard comfort handle with pad lock hasp and pushbutton insert may be exchanged for other comfort handles and lock inserts, see page 601.

TS 8 disconnect floormount enclosure

Height: 63 - 71" (1600 - 1800 mm), Depth: 20 - 24" (500 - 600 mm)

Height (H1) inches (mm)	PU	63 (1600)	71 (1800)	71 (1800)	63 (1600)	63 (1600)	71 (1800)	Page
Width (B1) inches (mm)		63 (1600)	63 (1600)	71 (1800)	47 (1200)	63 (1600)	71 (1800)	
Depth (T1) inches (mm)		20 (500)	20 (500)	20 (500)	24 (600)	24 (600)	24 (600)	
Panel Height (G1) inches (mm)		59 (1496)	67 (1696)	67 (1696)	59 (1496)	59 (1496)	67 (1696)	
Panel Width (F1) inches (mm)		59 (1499)	59 (1499)	67 (1699)	43 (1099)	59 (1499)	67 (1699)	
Part No.	1	TSM636320XC	TSM716320XC	TSM717120XC	TSM634724XC	TSM636324XC	TSM717124XC	
Weight lb (kg)		495 (225)	515 (234)	575 (261)	430 (195)	495 (225)	595 (270)	

Accessories

Print pocket	1	2514.000						616
--------------	---	----------	--	--	--	--	--	-----

Lock Systems

The standard comfort handle with pad lock hasp and pushbutton insert may be exchanged for other comfort handles and lock inserts, see pages 601.



SE 8 system enclosure

Perfect compatibility

- With the TS 8 baying system in width, height and depth
- Identical system accessories for all mounting parts in SE 8 and TS 8

Base installation

- Maximum cable entry versatility
 - Cable entry plates for grommets or connector glands
 - EMC gland plates
 - Cable clamp rail with cable clamps
 - C rail with cable clamps

Wide range of materials with a high protection category and excellent stability

- Protection rating IP 55 including the 71" (1800 mm) wide free-standing enclosure
- Stainless steel enclosures are easy to clean, thanks to their solid basic form



SE 8 system enclosure





- 1 Complete compatibility with TS 8 system accessories for interior installation
- 2 Time saving — Installation can begin quickly without assembling side or rear panels
- 3 Mounting panel and structure both feature high load capacities
- 4 Fully compatible with all gland plate modules and the TS 8 base/plinth
- 5 Easy selection/planning — One module number = complete enclosure



SE 8 system enclosure



System accessories Page 531 SE 8 stainless steel Page 227

Material:

- Enclosure: Carbon steel, 16 ga (1.5 mm)
- Door: Carbon steel, 14 ga (2.0 mm)
- Rear panel and gland plates: Carbon steel, 16 ga (1.5 mm)
- Mounting panel: Carbon steel, 11 ga (3.0 mm)

Surface finish:

- Enclosure, door/double door and rear panel: Dipcoat primed, powder-coated on the outside, textured paint
- Mounting panel and gland plates: Zinc-plated

Color:

RAL 7035

Protection rating:

UL/cUL Type 12, IP 55 to IEC 60 529

Configuration:

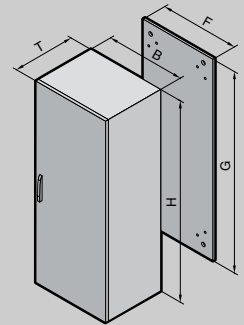
- Enclosure with door(s), double-bit lock insert
- R/h door hinge on single door versions, can be swapped
- Mounting panel
- Gland plates
- Detachable rear panel (two pieces from a width of 63" (1600 mm))

Note:

- The accessories for this enclosure system may be found in the following pages, with references to the respective product groups in the section on system assembly
- System accessories classified under "ES" can only be used with free-standing enclosures in the ES 5000 series

Detailed drawings:

Available at www.rittal-corp.com




Height: 71 - 79" (1800 - 2000 mm), Depth: 16 - 24" (400 - 600 mm)

Height (H) inches (mm)	Packs of	71 (1800)	71 (1800)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B) inches (mm)		24 (600)	32 (800)	32 (800)	32 (800)	32 (800)	
Depth (T) inches (mm)		16 (400)	16 (400)	16 (400)	20 (500)	24 (600)	
Mounting panel width (F) inches (mm)		20 (499)	28 (699)	28 (699)	28 (699)	28 (699)	
Mounting panel height (G) inches (mm)		67 (1696)	67 (1696)	75 (1896)	75 (1896)	75 (1896)	
Part No.	1	5830.500	5831.500	5832.500	5833.500	5834.500	
Door(s)		1	1	1	1	1	
Base/plinth							
Components front and rear	Height 4" (100 mm)	1 set	8601.600	8601.800			533
	Height 8" (200 mm)	1 set	8602.600	8602.800			534
Trim panels, sides	Height 4" (100 mm)	1 set	8601.040		8601.050	8601.060	534
	Height 8" (200 mm)	1 set	8602.040		8602.050	8602.060	534
Roof							
Eyebolts		4	4568.000				626
Rail systems							
Punched section with mounting flange, outer level		4	8612.140		8612.150	8612.160	665
Punched section with mounting flange, inner level		4	8612.040		8612.050	8612.060	652
Other rail systems, based on TS 8		See from page 665					
Base							
Cable entry plate		2	8800.060	8800.080			707
Accessories							
Cable clamp rails for cable clamps		2	4191.000	4192.000			723
Alternative lock systems		See from page 601					

SE 8 system enclosure

Height: 71 - 79" (1800 - 2000 mm), Depth: 16 - 24" (400 - 600 mm)

Height (H) inches (mm)	Packs of	71 (1800)	71 (1800)	71 (1800)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	Page	
Width (B) inches (mm)		39 (1000)	47 (1200)	63 (1600)	47 (1200)	47 (1200)	47 (1200)	47 (1200)		
Depth (T) inches (mm)		16 (400)	16 (400)	16 (400)	16 (400)	20 (500)	24 (600)	20 (500)		
Mounting panel width (F) inches (mm)		35 (899)	43 (1099)	59 (1499)	43 (1099)	43 (1099)	43 (1099)	67 (1699)		
Mounting panel height (G) inches (mm)		67 (1696)	67 (1696)	67 (1696)	75 (1896)	75 (1896)	75 (1896)	75 (1896)		
Part No.	1	5840.500	5841.500	5842.500	5843.500	5844.500	5845.500	5846.500		
Door(s)		2	2	2	2	2	2	2		
Base/plinth										
Components front and rear	Height 4" (100 mm)	1 set	8601.000	8601.200	8601.920	8601.200		8601.980	593	
	Height 8" (200 mm)	1 set	8602.000	8602.200	8602.920	8602.200		8602.980	533	
Trim panels, sides	Height 4" (100 mm)	1 set	8601.040			8601.050	8601.060	8601.050	534	
	Height 8" (200 mm)	1 set	8602.040			8602.050	8602.060	8602.050	534	
Roof										
Eyebolts		4	4568.000						626	
Rail systems										
Punched section with mounting flange, outer level		4	8612.140			8612.150	8612.160	8612.150	665	
Punched section with mounting flange, inner level		4	8612.040			8612.050	8612.060	8612.050	652	
Other rail systems, based on TS 8		See from page 665								
Base										
Cable entry plate		2	8800.100	8800.120	–	8800.120	8800.120	8800.120	–	707
Accessories										
Cable clamp rails for cable clamps		2	4336.000	4196.000	4338.000	4196.000	4196.000	4196.000	4339.000	723
Alternative lock systems		See from page 601								





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LF fiberglass freestanding enclosure



System accessories Page 531

Material:

Fiberglass reinforced polyester

Protection rating:

UL Type 1, 12, 3R, 4X
UL/cUL, CSA
UL file #: E170282

Configuration:

- Rigid body construction and water resistant seal
- Foamed-in-place polyurethane gasketing
- Molded in panel mounting inserts or studs

- Eyebolts and crossbar construction
- Built-in padlock hasp
- Stainless steel hardware

Height: 73" (1842 mm), Depth: 26" (670 mm)

Height inches (mm)	PU	73 (1842)	73 (1842)
Width inches (mm)		26 (648)	50 (1257)
Depth inches (mm)		26 (670)	26 (670)
Part No.	1	L-F72H2525FS	L-F72H4925FSDD

Accessories

Mounting panel	1	L-MPL7225CS	L-MPL7249CS
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Network enclosures

TS 8 network enclosure	128
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Network data rack	131



TS 8 network enclosure



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Our NEMA and UL Type 12 enclosures provide a degree of protection of the equipment inside the enclosure against dust, dirt, dripping water, and external condensation of non corrosive liquids.

External surfaces – doors and walls:

- Secure to external surfaces of frame
- Doors can be easily removed or reversed
- Internal door hinge and lock points for maximum security

Vertical mounting rails:

- Fully depth adjustable and maintain load capacity regardless of where the rails are positioned

- Floating installation system – vertical rails are not secured to frame members or lateral support channels; can be adjusted independently
- “Z” shaped, multi-fold profile – high load bearing capacity and multiple mounting surfaces
- U markings on front and rear surfaces of each rail
- Unique rail design allows for up to 32 U in the zero “U” space

- Each cabinet includes M6 Cage Nuts with insertion tool (bag of 50) and M6 Mounting screws with plastic washers (bag of 100)

Configuration:

- One set of 19" (482.6 mm) EIA rails, front & rear
- Leveling feet

Note:

- 23" mounting capacity on 24" (800 mm) wide cabinets

Height: 48" (1200 mm), Depth: 24 - 32" (600 - 800 mm)

U	Packs of	24	24	24	24	24	24	Page
Height inches (mm)		48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	
Width inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	
Depth inches (mm)		24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	32 (800)	
Color	RAL 7035 light grey	■	–	■	–	■	–	
	Sand Texture Black	–	■	–	■	–	■	
Part No.	Vented viewing door, vented split rear doors	1	9969.874	9969.875	9969.858	9969.859	9969.860	9969.861
	NEMA 12 viewing door, solid rear door	1	9969.876	9969.877	9969.884	9969.885	9969.886	9969.887
	UL Type 12 solid front & rear door	1	9963.487	–	9963.488	–	–	–

Accessories

	Packs of	8170.235	9969.948	8175.235	9969.949	8175.235	9969.949	Page
Sidewalls - full	2	8170.235	9969.948	8175.235	9969.949	8175.235	9969.949	561
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	8602.605	9967.491	8602.805	9967.492	533
Base/plinths 8" (200 mm) side trim	2	8602.065	–	8602.085	–	8602.085	–	534
Caster kit	4	9968.751	9968.751	9968.751	9968.751	9968.751	9968.751	550

Height: 80 - 88" (2000 - 2200 mm), Depth: 24 - 32" (600 - 800 mm)

U	Packs of	42	42	47	47	42	42	42	42	Page
Height inches (mm)		80 (2000)	80 (2000)	88 (2200)	88 (2200)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	
Width inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	
Depth inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	32 (800)	
Color	RAL 7035 light grey	■	-	■	-	■	-	■	-	
	Sand Texture Black	-	■	-	■	-	■	-	■	
Part No.	Vented viewing door, vented split rear doors	1	-	-	-	9969.862	9969.863	9969.864	9969.865	
	NEMA 12 viewing door, solid rear door	1	9969.880	9969.881	9969.882	9969.883	9969.892	9969.893	9969.894	9969.895
	UL Type 12 solid front & rear door	1	9960.301	-	9963.492	-	9960.302	-	9960.303	-

Accessories										
Sidewalls - full	2	8106.235	9969.920	8126.235	9969.917	8108.235	9969.916	8108.235	9969.916	561
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	8602.605	9967.491	8602.605	9967.491	8602.805	9967.492	533
Base/plinths 8" (200 mm) side trim	2	8602.065	-	8602.065	-	8605.085	-	8602.085	-	-
Cable management wall	1	-	9978.360	-	9978.361	-	9978.360	-	9978.360	735
Caster kit	4	9968.751	9968.751	9968.751	9968.751	9968.751	9968.751	9968.751	9968.751	550

Height: 80 - 88" (2000 - 2200 mm), Depth: 32 - 40" (800 - 1000 mm)

U	Packs of	47	47	47	47	42	42	Page
Height inches (mm)		88 (2200)	88 (2200)	88 (2200)	88 (2200)	80 (2000)	80 (2000)	
Width inches (mm)		24 (600)	24 (600)	32 (800)	32 (800)	24 (600)	32 (800)	
Depth inches (mm)		32 (800)	32 (800)	32 (800)	32 (800)	40 (1000)	40 (1000)	
Color	RAL 7035 light grey	■	-	■	-	■	■	
	Sand Texture Black	-	■	-	■	-	-	
Part No.	Vented viewing door, vented split rear doors	1	9969.866	9969.867	9969.868	9969.869	-	-
	NEMA 12 viewing door, solid rear door	1	9969.896	9969.897	9969.898	9969.899	-	-
	UL Type 12 solid front & rear door	1	-	-	-	-	9963.490	9963.608

Accessories										
Sidewalls - full	2	8128.235	9969.352	8128.235	9969.352	8100.235	8100.235	561		
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	8602.805	9967.492	8602.605	8602.805	533		
Base/plinths 8" (200 mm) side trim	2	8602.085	-	8602.085	-	8602.015	8602.015	-		
Cable management wall	1	-	9978.361	-	9978.361	-	-	735		
Caster kit	4	9968.751	9968.751	9986.751	9986.751	9968.751	9968.751	550		

Height: 80 - 88" (2000 - 2200 mm), Depth: 47" (1200 mm)

U	Packs of	47	47	47	47	Page
Height inches (mm)		80 (2000)	80 (2000)	88 (2200)	88 (2200)	
Width inches (mm)		24 (600)	32 (800)	24 (600)	32 (800)	
Depth inches (mm)		47 (1200)	47 (1200)	47 (1200)	47 (1200)	
Color	RAL 7035 light grey	■	■	■	■	
	Sand Texture Black	-	-	-	-	
Part No.	Vented viewing door, vented split rear doors	1	-	-	-	-
	NEMA 12 viewing door, solid rear door	1	-	-	-	-
	UL Type 12 solid front & rear door	1	9963.491	9963.609	9963.495	9963.498

Accessories						
Sidewalls - full	2	9969.955	9969.955	9969.957	9969.957	561
Base/plinths 8" (200 mm) front and rear	2	8602.605	8602.805	8602.605	8602.805	533
Base/plinths 8" (200 mm) side trim	2	8602.025	8602.025	8602.085	8602.025	-
Cable management wall	1	-	-	-	-	-
Caster kit	4	9968.751	9968.751	9986.751	9986.751	550

TS 8 switch enclosure, Cisco Nexus® 7018



Sidewalls Page 561 **Casters** Page 550 **Cable Management** Page 707 **Blanking Panels** Page 766 **Shelves** Page 677 **Baying Kit** Page 573 **Bolt Down Kit** Page 549

Based on Rittal's field-proven frame design, this enclosure captures the air, directs it to the switches and steers it to the rear via a unique duct system. These ducts can be adjusted to allow switch installation at any position. Air enters the open-front duct and is channeled through the enclosure, preventing cold air

from bypassing the IT equipment. A matching duct on the left side, open only to the rear, effectively keeps hot air from escaping into the cold aisle, directing it rearward for efficient heat dissipation. The enclosure comes with Rittal's Manage-IT cable manager system as well as a roof design that provides easy access directly

above the rails for the 768 cables available to the Cisco Nexus 7018 Switch. The unique configuration can accommodate a wide range of options and accessories. This Rittal enclosure is recognized by Cisco as meeting all its specifications and requirements for housing the Nexus 7018 Switch.

Color:
Sand Texture Black

Height: 80" (2000 mm), Depth: 48" (1200 mm)

U	Packs of	42	47	52	Page
Height inches (mm)		80 (2000)	88 (2200)	96 (2450)	
Width inches (mm)		40 (1000)	40 (1000)	40 (1000)	
Depth inches (mm)		48 (1200)	48 (1200)	48 (1200)	
Part No.	1	9967.972	9967.973	9967.974	
Includes					
19" (482.6 mm) EIA rails, front & rear	1 set	■	■	■	
Solid roof with cable entry	1	■	■	■	
Perforated split front and rear doors	1 set	■	■	■	
Comfort handle (8611.200 lock) front & rear	2	■	■	■	
9 U cable manager kit (9969.593)	8	■	■	■	
Front to rear side air baffle	2	■	■	■	
Leveling feet	4	■	■	■	
Casters	1 set	■	■	■	
M6 cage nuts with insertion tool (bag of 50)	1	■	■	■	
M6 mounting screw with plastic washer (bag of 100)	4	■	■	■	
Accessories					
Sidewalls - split	1 set	9969.956	9967.469	9967.977	561
Sidewalls - full	1	9967.464	9969.958	–	565



19" (482.6 mm) installation system Page 745 Monitoring Page 786 Power System Module Page 361

Material:

- Profile frame, base/plinth: Carbon steel
- Feet: Die-cast zinc

Color:

- Profile frame, base/plinth: RAL 7035
- Trim panel, feet: RAL 5018

Load capacity:

Max. 330 lb (150 kg), static/level

Configuration:

- Torsionally stiff profile frame with 19" (482.6 mm) punchings
- Stable base/plinth with integral feet, with the option for base anchoring
- Assembly parts

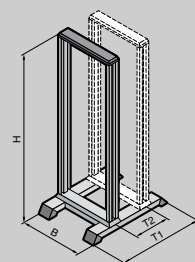
Note:

Order second mounting level separately.

Detailed drawings:

Available at www.rittal-corp.com

Photo shows a configuration with equipment not included in the base part number



Height: 59 - 84" (1500 - 2122 mm), Depth: 30" (750 mm)

U	PU	31	36	40	45	Page
Height (H) inches (mm)		59 (1500)	68 (1722)	75 (1900)	84 (2122)	
Width (B) inches (mm)		22 (550)	22 (550)	22 (550)	22 (550)	
Depth (T1) inches (mm)		30 (750)	30 (750)	30 (750)	30 (750)	
Distance from the second mounting level inches (mm) ¹⁾		min. 6 (150) – max. 14 (350)				
Part No.	1	7391.000	7396.000	7400.000	7445.000	

Accessories

Second mounting level ¹⁾	1	7296.000	7297.000	7298.000	7299.000	761
Baying clamp	3	7494.000				761
Levelling feet	4	7493.000				548
Cable duct, 42 U	1	7827.320				736
C rails, 19" (482.6 mm)	6	7016.100				744
Cable clamp rails, 19" (482.6 mm)	6	7016.110				744
Cable clamp strap D = 10" (250 mm)	6	7016.120				744
Twin casters	4	7495.000				538
Depth stays	2	7401.000				762
Component shelf 2 U for one pair of mounting angles D = 10" (250 mm)	1	7119.250				684
Component shelf 2 U for one pair of mounting angles D = 16" (400 mm)	1	7119.400				684
Component shelf 2 U for one pair of mounting angles D = 12" (300 mm) ³⁾	1	7148.035				682
Drawer 2 U for one pair of mounting angles	1	7281.035				826
Component shelf D = 12" (300 mm) ^{2) 3)}	1	7143.035				687
Component shelf D = 16" (400 mm) ^{2) 3)}	1	7144.035				687
Component shelf D = 20" (500 mm) ^{2) 3)}	1	7145.035				687
Slide rails D max. < 7" (190 mm)	10	1962.200				–
Slide rails D max. > 7" (190 mm)	10	1963.200				–
Slide rails for two pairs of mounting angles ^{1) 2) 4)}	2	7402.000				762

¹⁾ Second mounting level may be positioned on a 2" (50 mm) pitch pattern. ²⁾ A second pair of mounting angles is required for assembly. ³⁾ Stationary installation or full withdrawal, telescopic slides see page 37. ⁴⁾ Distance between levels 14" (350 mm), can be combined with component shelf D = 20" (500 mm).



Server enclosures

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TS 8 LCP enclosure.....	140



TS 8 server enclosure



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External surfaces – doors and walls:

- Secure to external surfaces of frame
- Doors can be easily removed or reversed with tool-less hinge
- Door stiffener to stabilize door and provide additional mounting surfaces
- Maximum perforated area meets

or exceeds server manufacturer specifications for airflow

- Ground studs on all surfaces
- External surfaces do not affect load bearing capacity – same ratings with or without panels
- Fully perforated front and split-rear door

Vertical mounting rails:

- Fully depth adjustable and maintain load capacity regardless of where the rails are positioned
- Floating installation system – vertical rails are not secured to frame members or lateral support channels; can be adjusted independently

- “Z” shaped, multi-fold profile – high load bearing capacity and multiple mounting surfaces
- U markings on front and rear surfaces of each rail
- Each cabinet includes M6 Cage Nuts with insertion tool (bag of 50) and M6 Mounting screws with plastic washers (bag of 100)

Height: 80 - 88" (2000 – 2200 mm), Depth: 36" (900 mm)

U	Packs of	42	42	42	42	42	42	47	47	47	Page
Height inches (mm)		80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	88 (2200)	88 (2200)	88 (2200)	
Width inches (mm)		24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)	24 (600)	24 (600)	28 (700)	
Depth inches (mm)		36 (900)	36 (900)	36 (900)	36 (900)	36 (900)	36 (900)	36 (900)	36 (900)	36 (900)	
Color	RAL 7035 light grey	■	–	■	–	■	–	■	–	■	
	Sand Texture Black	–	■	–	■	–	■	–	■	–	
Part No.	1	9963.702	9963.703	9963.704	9963.705	9963.706	9963.707	9963.708	9963.709	9963.710	

Includes

		■	■	■	■	■	■	■	■	■	
19" (482.6 mm) EIA rails, front & rear	1 set	■	■	■	■	■	■	■	■	■	
Roof with cable entry	1	■	■	■	■	■	■	■	■	■	
Perforated front and split rear doors	1 set	■	■	■	■	■	■	■	■	■	
Comfort handle (8611.200 lock) front & rear	2	■	■	■	■	■	■	■	■	■	
Leveling feet	4	■	■	■	■	■	■	■	■	■	
19" mounting capacity		■	■	■	■	■	■	■	■	■	
23" mounting capacity		–	–	■	■	■	■	–	–	■	

Accessories

Sidewalls - split lockable	1	9967.471	9967.461	9967.471	9967.461	9967.471	9967.461	9967.476	9967.466	9967.476	565
Sidewalls - full	2	8109.235	9968.597	8109.235	9968.597	8109.235	9968.597	9969.311	9968.595	9969.311	561
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	–	–	8602.805	9967.492	8602.605	9967.491	–	533
Base/plinths 8" (200 mm) side trim	2	8602.095	–	8602.095	–	8602.095	–	8602.095	–	8602.095	–
Cable management wall	1	–	9978.360	–	9978.360	–	9978.360	–	9978.361	–	735
Partition panel - cable access	1	–	9971.041	–	9971.041	–	9971.041	–	9971.045	–	566
Partition panel - solid	1	–	9978.377	–	9978.377	–	9978.377	–	9978.381	–	566
Caster kit	1	9967.483	9967.480	9967.484	9967.481	9967.485	9967.482	9967.483	9967.480	9967.484	557
Baffles - brush	2	9961.328	9961.328	9961.329	9961.329	9961.330	9961.330	9961.331	9961.331	9961.332	770
Baffles - metal	2	–	9978.352	–	9978.353	–	9978.354	–	9978.355	–	770

Height: 80 - 88" (2000 - 2200 mm), Depth: 36 - 40" (900 - 1000 mm)

U	PU	47	47	47	42	42	42	42	42	42	Page
Height inches (mm)		88 (2200)	88 (2200)	88 (2200)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	
Width inches (mm)		28 (700)	32 (800)	32 (800)	24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)	
Depth inches (mm)		36 (900)	36 (900)	36 (900)	40 (1000)	40 (1000)	40 (1000)	40 (1000)	40 (1000)	40 (1000)	
Color	RAL 7035 light grey	–	■	–	■	–	■	–	■	–	
	Sand Texture Black	■	–	■	–	■	–	■	–	■	
Part No.	1	9963.711	9963.712	9963.713	9963.716	9963.717	9963.718	9963.719	9963.720	9963.721	
Includes											
19" (482.6 mm) EIA Rails, front & rear	1 set	■	■	■	■	■	■	■	■	■	
Roof with cable entry	1	■	■	■	■	■	■	■	■	■	
Perforated front and split rear doors	1 set	■	■	■	■	■	■	■	■	■	
Comfort handle (8611.200 lock) front & rear	2	■	■	■	■	■	■	■	■	■	
Leveling feet	4	■	■	■	■	■	■	■	■	■	
19" mounting capacity		■	■	■	■	■	■	■	■	■	
23" mounting capacity		■	■	■	–	–	■	■	■	■	
Accessories											
Sidewalls - split lockable	1	9967.466	9967.476	9967.466	9967.472	9967.462	9967.472	9967.462	9967.472	9967.462	565
Sidewalls - full	2	9968.595	9969.311	9968.595	8100.235	9968.596	8100.235	9968.596	8100.235	9968.596	561
Base/plinths 8" (200 mm) front and rear	2	–	8602.805	9967.492	8602.605	9967.491	–	–	8602.805	9967.492	533
Base/plinths 8" (200 mm) side trim	2	–	8602.095	–	8602.015	9967.493	8602.015	9967.493	8602.015	9967.493	534
Cable management wall	1	9978.361	–	9978.361	–	9978.360	–	9978.360	–	9978.360	735
Partition panel - cable access	1	9971.045	–	9971.045	–	9971.042	–	9971.042	–	9971.042	566
Partition panel - solid	1	9978.381	–	9978.381	–	9978.378	–	9978.378	–	9978.378	566
Caster kit	1	9967.481	9967.485	9967.482	9967.483	9967.480	9967.484	9967.481	9967.485	9967.482	551
Baffles - brush	2	9961.332	9961.333	9961.333	9961.328	9961.328	9961.329	9961.329	9961.330	9961.330	770
Baffles - metal	2	9978.356	–	9978.357	–	9978.352	–	9978.353	–	9978.354	770

Height: 80 - 88" (2000 - 2200 mm), Depth: 40 - 42" (1000 - 1050 mm)

U	PU	47	47	47	47	47	47	42	42	42	Page
Height inches (mm)		88 (2200)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	80 (2000)	80 (2000)	80 (2000)	
Width inches (mm)		24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)	24 (600)	24 (600)	28 (700)	
Depth inches (mm)		40 (1000)	40 (1000)	40 (1000)	40 (1000)	40 (1000)	40 (1000)	42 (1050)	42 (1050)	42 (1050)	
Color	RAL 7035 light grey	■	–	■	–	■	–	■	–	■	
	Sand Texture Black	–	■	–	■	–	■	–	■	–	
Part No.	1	9963.722	9963.723	9963.724	9963.725	9963.726	9963.727	9963.730	9963.731	9963.732	
Includes											
19" (482.6 mm) EIA rails, front & rear	1 set	■	■	■	■	■	■	■	■	■	
Roof with cable entry	1	■	■	■	■	■	■	■	■	■	
Perforated front and split rear doors	1 set	■	■	■	■	■	■	■	■	■	
Comfort handle (8611.200 lock) front & rear	2	■	■	■	■	■	■	■	■	■	
Leveling feet	4	■	■	■	■	■	■	■	■	■	
19" mounting capacity		■	■	■	■	■	■	■	■	■	
23" mounting capacity		–	–	■	■	■	■	–	–	■	
Accessories											
Sidewalls - split lockable	1	9967.477	9967.467	9967.477	9967.467	9967.477	9967.467	9967.473	9967.463	9967.473	565
Sidewalls - full	2	9968.593	9968.594	9968.593	9968.594	9968.593	9968.594	9969.309	9969.351	9969.309	561
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	–	–	8602.805	9967.492	8602.605	9967.491	–	533
Base/plinths 8" (200 mm) side trim	2	8602.015	9967.493	8602.015	9967.493	8602.015	9967.493	–	9967.494	–	534
Cable management wall	1	–	9978.361	–	9978.361	–	9978.361	–	9978.360	–	735
Partition panel - cable access	1	–	9971.046	–	9971.046	–	9971.046	–	9971.043	–	566
Partition panel - solid	1	–	9978.382	–	9978.382	–	9978.382	–	9978.379	–	566
Caster kit	1	9967.483	9967.480	9967.484	9967.481	9967.485	9967.482	9967.483	9967.480	9967.484	551
Baffles - brush	2	9961.331	9961.331	9961.332	9961.332	9961.333	9961.333	9961.328	9961.328	9961.329	770
Baffles - metal	2	–	9978.355	–	9978.356	–	9978.357	–	9978.352	–	770

TS 8 server enclosure

Height: 80 - 88" (2000 - 2200 mm), Depth: 42" (1050 mm)

U	PU	42	42	42	47	47	47	47	47	47	Page
Height inches (mm)		80 (2000)	80 (2000)	80 (2000)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	
Width inches (mm)		28 (700)	32 (800)	32 (800)	24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)	
Depth inches (mm)		42 (1050)	42 (1050)	42 (1050)	42 (1050)	42 (1050)	42 (1050)	42 (1050)	42 (1050)	42 (1050)	
Color	RAL 7035 light grey	–	■	–	■	–	■	–	■	–	
	Sand Texture Black	■	–	■	–	■	–	■	–	■	
Part No.	1	9963.733	9963.734	9963.735	9963.736	9963.737	9963.738	9963.739	9963.740	9963.741	

Includes

19" (482.6 mm) EIA rails, front & rear	1 set	■	■	■	■	■	■	■	■	■	
Roof with cable entry	1	■	■	■	■	■	■	■	■	■	
Perforated front and split rear doors	1 set	■	■	■	■	■	■	■	■	■	
Comfort handle (8611.200 lock) front & rear	2	■	■	■	■	■	■	■	■	■	
Leveling feet	4	■	■	■	■	■	■	■	■	■	
19" mounting capacity		■	■	■	■	■	■	■	■	■	
23" mounting capacity		■	■	■	–	–	■	■	■	■	

Accessories

Sidewalls - split lockable	1	9967.463	9967.473	9967.463	9967.478	9967.468	9967.478	9967.468	9967.478	9967.468	565
Sidewalls - full	2	9969.351	9969.309	9969.351	9969.312	9969.355	9969.312	9969.355	9969.312	9969.355	561
Base/plinths 8" (200 mm) front and rear	2	–	8602.805	9967.492	8602.605	9967.491	–	–	8602.805	9967.492	533
Base/plinths 8" (200 mm) side trim	2	9967.494	–	9967.494	–	9967.494	–	9967.494	–	9967.494	534
Cable management wall	1	9978.360	–	9978.360	–	9978.361	–	9978.361	–	9978.361	743
Partition panel - cable access	1	9971.043	–	9971.043	–	9971.047	–	9971.047	–	9971.047	566
Partition panel - solid	1	9978.379	–	9978.379	–	9978.383	–	9978.383	–	9978.383	566
Caster kit	1	9967.481	9967.485	9967.482	9967.483	9967.480	9967.484	9967.481	9967.485	9967.482	551
Baffles - brush	2	9961.329	9961.330	9961.330	9961.331	9961.331	9961.332	9961.332	9961.333	9961.333	770
Baffles - metal	2	9978.353	–	9978.354	–	9978.355	–	9978.356	–	9978.357	770

Height: 80 - 88" (2000 - 2200 mm), Depth: 48" (1200 mm)

U	PU	42	42	42	42	47	47	47	47	Page
Height inches (mm)		80 (2000)	80 (2000)	80 (2000)	80 (2000)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	
Width inches (mm)		24 (600)	24 (600)	32 (800)	32 (800)	24 (600)	24 (600)	32 (800)	32 (800)	
Depth inches (mm)		48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	
Color	RAL 7035 light grey	■	–	■	–	■	–	■	–	
	Sand Texture Black	–	■	–	■	–	■	–	■	
Part No.	1	9963.742	9963.743	9963.744	9963.745	9963.746	9963.747	9963.748	9963.749	

Includes

19" (482.6 mm) EIA rails, front & rear	1 set	■	■	■	■	■	■	■	■	■	
Roof with cable entry	1	■	■	■	■	■	■	■	■	■	
Perforated front and split rear doors	1 set	■	■	■	■	■	■	■	■	■	
Comfort handle (8611.200 lock) front & rear	2	■	■	■	■	■	■	■	■	■	
Leveling feet	4	■	■	■	■	■	■	■	■	■	
19" mounting capacity		■	■	■	■	■	■	■	■	■	
23" mounting capacity		–	–	■	■	–	–	■	■	■	

Accessories

Sidewalls - split lockable	1	9967.474	9967.464	9967.474	9967.464	9967.479	9967.469	9967.479	9967.469	565
Sidewalls - full	2	9969.955	9969.956	9969.955	9969.956	9969.957	9969.958	9969.957	9969.958	561
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	8602.805	9967.492	8602.605	9967.491	8602.805	9967.492	533
Base/plinths 8" (200 mm) side trim	2	8602.025	9967.495	8602.025	9967.495	8602.025	9967.495	8602.025	9967.495	534
Cable management wall	1	–	9978.360	–	9978.360	–	9978.361	–	9978.361	743
Partition panel - cable access	1	–	9971.044	–	9971.044	–	9971.048	–	9971.048	566
Partition panel - solid	1	–	9978.380	–	9978.380	–	9978.384	–	9978.384	566
Caster kit	1	9967.483	9967.480	9967.485	9967.482	9967.483	9967.480	9967.485	9967.482	551
Baffles - brush	2	9961.328	9961.328	9961.330	9961.330	9961.331	9961.331	9961.333	9961.333	770
Baffles - metal	2	–	9978.352	–	9978.354	–	9978.355	–	9978.357	770



Casters Page 550 **Cable Management** Page 707 **Blanking Panels** Page 776 **Shelves** Page 677 **Baying Kit** Page 573 **Bolt Down Kit** Page 549

External surfaces – doors and walls:

- Secure to external surfaces of frame
- Doors can be easily removed or reversed with tool-less hinge
- Door stiffener to stabilize door and provide additional mounting surfaces
- Maximum perforated area meets

or exceeds server manufacturer specifications for airflow

- Ground studs on all surfaces
- External surfaces do not affect load bearing capacity – same ratings with or without panels
- Fully perforated front and split-rear door

Vertical mounting rails:

- Fully depth adjustable and maintain load capacity regardless of where the rails are positioned
- Floating installation system – vertical rails are not secured to frame members or lateral support channels; can be adjusted independently

- “Z” shaped, multi-fold profile – high load bearing capacity and multiple mounting surfaces
- U markings on front surfaces of each rail

Note: Based on the PS frame system

Height: 96” (2450 mm), Depth: 42” (1050 mm)

U	Packs of	52	52	52	52	52	52	Page
Height inches (mm)		96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)	
Width inches (mm)		24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)	
Depth inches (mm)		42 (1050)	42 (1050)	42 (1050)	42 (1050)	42 (1050)	42 (1050)	
Color	RAL 7035 light grey	■	–	■	–	■	–	
	Sand Texture Black	–	■	–	■	–	■	
Part No.	1	9963.700	9963.701	9963.714	9963.715	9963.728	9963.729	

Includes

19” (482.6 mm) EIA rails, front & rear	1 set	■	■	■	■	■	■	
Solid roof with cable entry	1	■	■	■	■	■	■	
Perforated front door and split rear doors	1 set	■	■	■	■	■	■	
Comfort handle (8611.200 lock) front & rear	2	■	■	■	■	■	■	
Leveling feet	4	■	■	■	■	■	■	
M6 cage nuts with insertion tool (bag of 50)	1	■	■	■	■	■	■	
M6 mounting screw with plastic washer (bag of 100)	1	■	■	■	■	■	■	
19” mounting capacity		■	■	■	■	■	■	
23” mounting capacity		–	–	■	■	■	■	

Accessories

Sidewalls - split	1 set	9967.976	9967.975	9967.976	9967.975	9967.976	9967.975	–
Caster kit	1 set	9967.483	9967.480	9967.484	9967.481	9967.485	9967.482	551
PS baying kit (8 brackets)	1 set	9978.414	9978.414	9978.414	9978.414	9978.414	9978.414	–

52 U server enclosure

Height: 96" (2450 mm), Depth: 48" (1200 mm)

U	Packs of	52	52	52	52	52	52	Page
Height inches (mm)		96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)	
Width inches (mm)		24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)	
Depth inches (mm)		48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	
Color	RAL 7035 light grey	■	–	■	–	■	–	
	Sand Texture Black	–	■	–	■	–	■	
Part No.	1	9963.750	9963.751	9963.752	9963.753	9963.762	9963.763	

Includes								
19" (482.6 mm) EIA rails, front & rear	1 set	■	■	■	■	■	■	
Solid roof with cable entry	1	■	■	■	■	■	■	
Perforated front door and split rear doors	1 set	■	■	■	■	■	■	
Comfort handle (8611.200 lock) front & rear	2	■	■	■	■	■	■	
Leveling feet	4	■	■	■	■	■	■	
M6 cage nuts with insertion tool (bag of 50)	1	■	■	■	■	■	■	
M6 mounting screw with plastic washer (bag of 100)	1	■	■	■	■	■	■	
19" mounting capacity		■	■	■	■	■	■	
23" mounting capacity		–	–	■	■	■	■	

Accessories								
Sidewalls - split	1 set	9978.403	9967.977	9978.403	9967.977	9978.403	9967.977	–
Caster kit	1 set	9967.483	9967.480	9967.484	9967.481	9967.485	9967.482	551
PS baying kit (8 brackets)	1 set	9978.414	9978.414	9978.414	9978.414	9978.414	9978.414	–



Sidewalls Page 561 **Casters** Page 550 **Cable Management** Page 707 **Blanking Panels** Page 776 **Shelves** Page 677 **Baying Kit** Page 573 **Bolt Down Kit** Page 549

Intensive physical security requirements are met with durable construction, doors with 2-point latching, internal hinges, locking handles and secure cable management—all standard features on 2, 3 and 4-door configurations.

Doors:

- 64% perforated for maximum airflow
- Two point latch on each compartment for optimum security
- Can convert a multi-door cabinet into a single door version when requirements change

- TS 8 comfort handle with lock insert
- Optional individually keyed compartments available
- Can be either right hand or left hand hinged.
- Internal hinges for optimum security

Color:

Sand Texture Black

Height: 88" (2200 mm), Depth: 42" (1050 mm)

U	Packs of	2 – 22 U each	3 – 14 U each	4 – 10 U each	Page
Height inches (mm)		88 (2200)	88 (2200)	88 (2200)	
Width inches (mm)		24 (600)	24 (600)	24 (600)	
Depth inches (mm)		42 (1050)	42 (1050)	42 (1050)	
Part No.	1	9963.770	9963.771	9963.772	
Accessories					
Cable security kit	1	9962.840	9962.841	9962.842	–
Quick-adjust EIA rail kit	1	9962.843	9962.844	9962.845	–
Combination lock handle ¹⁾	1	9963.601	9963.601	9963.601	603
Security lock insert ¹⁾	1	2467.000	2467.000	2467.000	604
Pushbutton lock insert ¹⁾	1	2469.000	2469.000	2469.000	602

¹⁾ Handles and lock inserts sold separately

TS 8 LCP enclosure



Sidewalls Page 561 Casters Page 550 Cable Management Page 707 Blanking Panels Page 776 Shelves Page 677 Baying Kit Page 573 Bolt Down Kit Page 549

External surfaces – doors and walls:

- Secure to external surfaces of frame
- Doors can be easily removed or reversed
- Sidewalls can be screwed on or locked in place

- Internal door hinge and lock points for maximum security
- Use with LCP cooling products
- Front rails 5" from front of frame
- Secure networking cabinet
- Closed loop system

Vertical mounting rails:

- Fully depth adjustable and maintain load capacity regardless of where the rails are positioned
- Floating installation system – rails are not secured to frame members or lateral support

- channels; adjusted independently
- "Z" shaped, multi-fold profile – high load bearing capacity and multiple mounting surfaces
- U markings on front and rear surfaces of each rail

Height: 80" (2000 mm), Depth: 40 - 48" (1000 - 1200 mm)

U	Packs of	42	42	42	42	42	42	42	42	Page
Height inches (mm)		80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	
Width inches (mm)		24 (600)	24 (600)	32 (800)	32 (800)	24 (600)	24 (600)	32 (800)	32 (800)	
Depth inches (mm)		40 (1000)	40 (1000)	40 (1000)	40 (1000)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	
Color	RAL 7035 light grey	■	–	■	–	■	–	■	–	
	Sand Texture Black	–	■	–	■	–	■	–	■	
Part No.	1	9971.034	9962.166	9971.036	9962.168	9971.035	9962.167	9971.037	9962.169	

Includes

Item	Quantity	42	42	42	42	42	42	42	42	Page
19" (482.6 mm) EIA rails, front & rear	1 set	■	■	■	■	■	■	■	■	
Solid viewing front and solid rear door	1 set	■	■	■	■	■	■	■	■	
Comfort handle (8611.200 lock) front & rear	2	■	■	■	■	■	■	■	■	
Solid roof with cable passes and grommets	1	■	■	■	■	■	■	■	■	
Air brush baffles in front	1 set	■	■	■	■	■	■	■	■	
Solid cable plates on bottom	1 set	■	■	■	■	■	■	■	■	
Leveling feet	4	■	■	■	■	■	■	■	■	
M6 cage nuts with insertion tool (bag of 50)	1	■	■	■	■	■	■	■	■	
M6 mounting screw with plastic washer (bag of 100)	1	■	■	■	■	■	■	■	■	
19" mounting capacity		■	■	■	■	■	■	■	■	
23" mounting capacity		–	–	■	■	–	–	■	■	

Accessories

Item	Quantity	42	42	42	42	42	42	42	42	Page
Sidewalls - split lockable	1 set	9967.472	9967.462	9967.472	9967.462	9967.474	9967.464	9967.474	9967.464	565
Sidewalls - full	2	8100.235	9968.596	8100.235	9968.596	9969.955	9969.956	9969.955	9969.956	561
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	8602.805	9967.492	8602.605	9967.491	8602.605	9967.492	533
Base/plinths 8" (200 mm) side trim	2	8602.015	9967.493	8602.015	9967.493	8602.025	9967.495	8602.025	9967.495	534
LCP automatic door opening kit	1 set	9971.115	9971.115	9971.115	9971.115	9971.115	9971.115	9971.115	9971.115	–

RittalXpress – Stock > Mod > Ship One Program — Three Advantages

The industry's best, most sought-after enclosures and accessories are now available as part of the industry's best support program. RittalXpress features an extensive stocking program, a custom modification program and fast and efficient shipping.

STOCK: The vital enclosures and related accessories you need most often are in our warehouse or available through your local distributor and ready for quick access and on-time delivery. The RittalXpress stocking program includes more than 2,220 part numbers, continuously in stock and ready for shipping when you need them.

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What RittalXpress can mean to you...

- Quick turn-around — delivered to your site
- Thousands of part numbers in stock and ready to ship
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Console systems/ PC enclosure systems/IW

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TP one-piece consoles	154
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Industrial workstation	158



Consolet



System accessories Page 531

Material:

Carbon steel
Enclosure: 14 ga (2 mm)
Door: 14 ga (2 mm)

Surface finish:

Enclosure and door:
Dipcoat primed, powder-coated
textured RAL 7035 (light grey)

Configuration:

Hinged screw cover,
foamed-in-place gasketing,
control panel slants 30 or 60°

Protection rating:

UL Type 12/13
UL/cUL
UL file #: 118617

Depth: 7 - 9" (180 - 231 mm), Height: 8 - 12" (203 - 305 mm)

Height (H1) inches (mm)	PU	8 (203)	8 (203)	8 (203)	8 (203)	12 (305)	12 (305)	Page
Width (B1) inches (mm)		8 (203)	12 (305)	16 (406)	20 (508)	12 (305)	16 (406)	
Depth (T1) inches (mm)		7 (180)	7 (180)	7 (180)	7 (180)	9 (231)	9 (231)	
Part No.	1	C080807HC	C081207HC	C081607HC	C082007HC	C121209HC	C121609HC	
Weight lb (kg)		8 (3.5)	10 (4.7)	13 (5.8)	15 (7.0)	14 (6.5)	18 (8.0)	

Accessories

Base inches (mm)	18 x 18 x 1 (457 x 457 x 25)	1		C18SBASEC			145
Column inches (mm)	4 x 4 x 35 (102 x 102 x 889)	1		C44SCOLC			145

Depth: 9 - 11" (231 - 282 mm), Height: 12 - 16" (305 - 406 mm)

Height (H1) inches (mm)	PU	12 (305)	12 (305)	16 (406)	16 (406)	16 (406)	
Width (B1) inches (mm)		20 (508)	24 (610)	16 (406)	20 (508)	24 (610)	
Depth (T1) inches (mm)		9 (231)	9 (231)	11 (282)	11 (282)	11 (282)	
Part No.	1	C122009HC	C122409HC	C161611HC	C162011HC	C162411HC	
Weight lb (kg)		21 (9.6)	24 (11.1)	23 (10.4)	27 (12.3)	32 (14.3)	

Accessories

Base inches (mm)	18 x 18 x 1 (457 x 457 x 25)	1	C18SBASEC	-	C18SBASEC	-	145
	24 x 24 x 1 (610 x 610 x 25)	1	-	C24SBASEC	-	C24SBASEC	145
Column inches (mm)	4 x 4 x 35 (102 x 102 x 889)	1	C44SCOLC	-	C44SCOLC	-	145
	6 x 6 x 35 (152 x 152 x 889)	1	-	C66SCOLC	-	C66SCOLC	145

Depth: 11 - 13" (282 - 332 mm), Height: 16 - 20" (406 - 508 mm)

Height (H1) inches (mm)	PU	16 (406)	16 (406)	20 (508)	20 (508)	20 (508)	
Width (B1) inches (mm)		30 (762)	36 (914)	20 (508)	24 (610)	30 (762)	
Depth (T1) inches (mm)		11 (282)	11 (282)	13 (332)	13 (332)	13 (332)	
Part No.	1	C163011HC	C163611HC	C202013HC	C202413HC	C203013HC	
Weight lb (kg)		38 (17.0)	44 (19.9)	34 (15.2)	39 (17.5)	46 (20.9)	

Accessories

Base inches (mm)	24 x 24 x 1 (610 x 610 x 25)	1		C24SBASEC			145
Column inches (mm)	6 x 6 x 35 (152 x 152 x 889)	1		C66SCOLC			145

Base and column

for Consolet

To easily mount the enclosure to the plant floor.

Material:

Carbon steel, Type 304 stainless steel

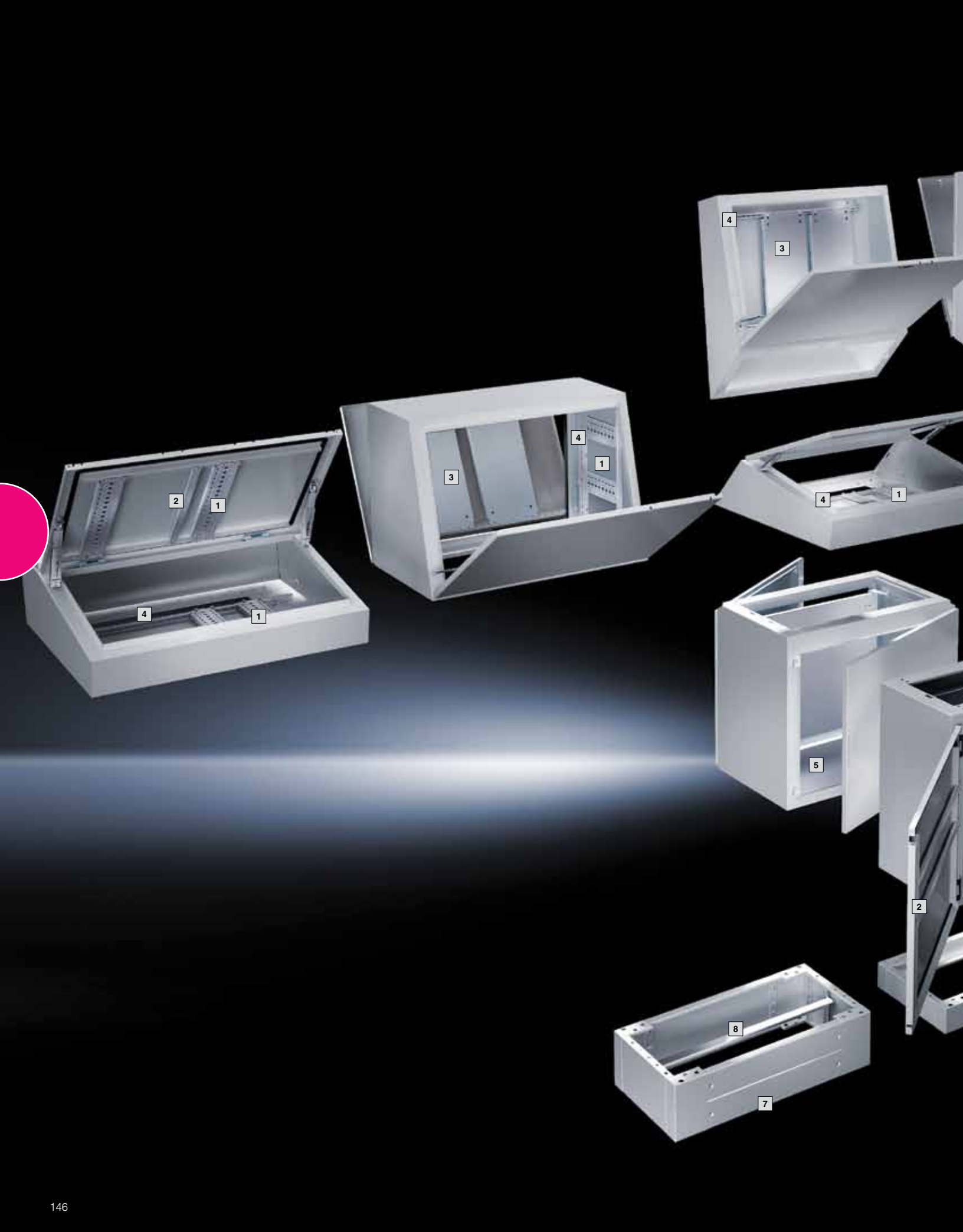
Base

Material	H x W x D inches (mm)	PU	Part No.
Carbon steel	1 x 18 x 18 (25 x 457 x 457)	1	C18SBASEC
	1 x 24 x 24 (25 x 610 x 610)	1	C24SBASEC
Type 304 stainless steel	1 x 18 x 18 (25 x 457 x 457)	1	C18SBASE4
	1 x 24 x 24 (25 x 610 x 610)	1	C24SBASE4

Column

Material	H x W x D inches (mm)	PU	Part No.
Carbon steel	35 x 4 x 4 (889 x 102 x 102)	1	C44SCOLC
	35 x 6 x 6 (889 x 152 x 152)	1	C66SCOLC
Type 304 stainless steel	35 x 4 x 4 (889 x 102 x 102)	1	C44SCOL4
	35 x 6 x 6 (889 x 152 x 152)	1	C66SCOL4





2

1

4

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5

2

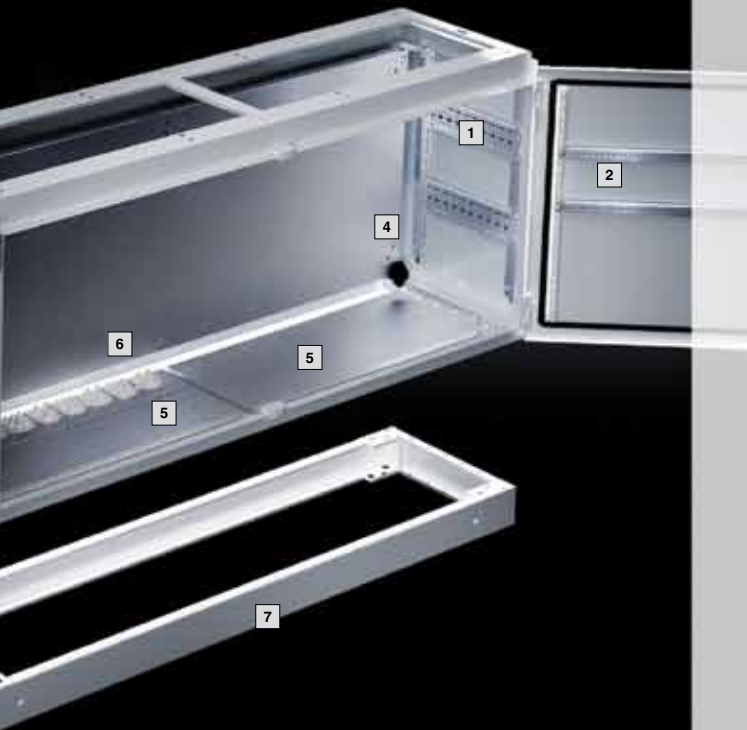
8

7

TP TopConsole system

Overview of mounting components

- 1 Punched section with mounting flange, 17 x 73 mm
- 2 Support strips
- 3 Partial mounting panels
- 4 Rail for interior installation
- 5 Gland plates
- 6 Cable entry grommets
- 7 Base/plinth
- 8 Assembly bolts for base/plinth



TP TopConsole system



System accessories Page 531 Monitors, keyboards From page 798 Climate control Page 375

Material:

- Enclosure: Carbon steel 16 ga (1.5 mm)
- Door and console cover: Carbon steel, 14 ga (2.0 mm), All-round foamed-in PU seal
- Mounting panel: Carbon steel, 10 ga (2.5 mm)

Surface finish:

- Dipcoat primed, powder-coated on the outside, textured paint
- Mounting panel zinc-coated on bottom part

Color:

RAL 7035

Protection rating:

UL/cUL Type 12 (IP 55 to IEC 60 529)

Configuration:

- Console
- Enclosure
 - Cover hinged at bottom, including cover retainer
 - Open base for individual cable entry

Console, deep

- Enclosure
- Front cover hinged at bottom, including cover retainer
- Rear door, hinged at bottom
- Open base for individual cable entry

Desk section

- Enclosure
- Cover hinged
- Two stays with automatic locking and unlocking
- Opening for running cables into the enclosure base

Pedestal

- Enclosure open at top
- Door or double door with locking rod (with depth 16" (400 mm) at the front, with depth 20" (500 mm) at the front and rear)
- Depth-adjustable mounting plate (with depth 20" (500 mm))
- Open base for cable entry

Also required:

Gland plates, see page 554

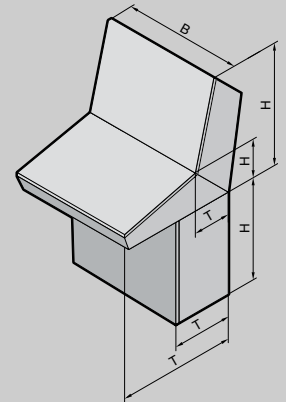
Approvals:

- CE
- UL
- cUL

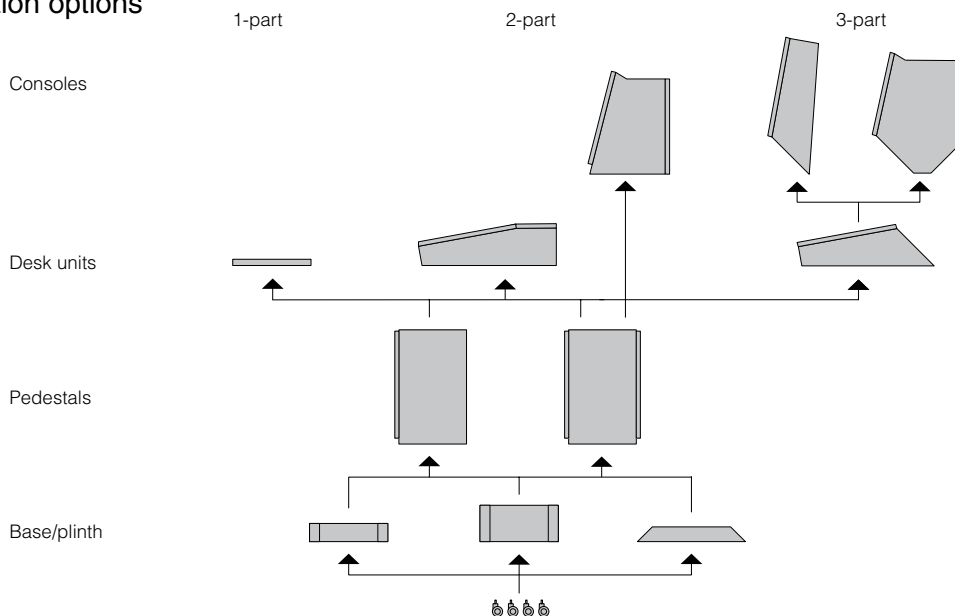
Detailed drawings:

Available at www.rittal-corp.com

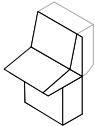

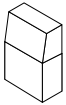

Photo shows a configuration with equipment not included in the base part number



Combination options



24" (600 mm) wide

					
Configuration	3-part		2-part		
Depth of pedestal in inches (mm)	16 (400)	20 (500)	16 (400)	20 (500)	16 (400) 20 (500) 16 (400) 20 (500)

Consoles 28" (700 mm) high									
Height (H) inches (mm)	Packs of	28 (700)	-		-		-		Page
Depth (T) inches (mm)		9 (240)	-		-		-		
Part No.	1	6720.500	-		-		-		

Consoles 21"/29" (540/730 mm) high with enlarged installation depth										
Height (H) inches (mm)	Packs of	-	30 (730)	-		21 (540)		-		Page
Depth (T) inches (mm)		-	20 (520)	-		20 (520)		-		
Part No.	1	-	6720.200	-		6720.100		-		

Accessories										
Partial mounting panel	Width 8" (200 mm)	1	6730.310	-		6730.310		-		642
	Width 20" (500 mm)	1	6730.330	-		6730.330		-		642
Rail for interior installation	For width	4	5001.050	-		5001.050		-		209
	For height	4	5001.051	-		5001.050		-		209

Desk units									
Height (H) inches (mm)	Packs of	9 (235)	9 (235)		-		-		Page
Depth (T) inches (mm)		28 (700)	28 (700)		-		-		
Part No.	1	6714.500	6710.500		-		-		





Accessories									
Rail for interior installation	For width	4	5001.050		-		-		209
Console		1	-	6730.400		-		153	
Trim panel for pedestal		1	-	-		-		5001.130 6370.100	153

Pedestals										
Height (H) inches (mm)	Packs of	27 (675)	27 (675)	27 (675)	27 (675)	-		27 (675)	27 (675) 27 (675)	Page
Depth (T) inches (mm)		16 (400)	20 (500)	16 (400)	20 (500)	-		20 (500)	16 (400) 20 (500)	
Part No.	1	6700.500	6704.500	6700.500	6704.500	-		6704.500	6700.500 6704.500	

Accessories											
Base/plinth components front and rear	Height 4" (100 mm)	1 set	8601.600				-		8601.600		533
	Height 8" (200 mm)	1 set	8602.600				-		8602.600		533
Base/plinth trim panels, side	Height 4" (100 mm)	1 set	8601.040	8601.050	8601.040	8601.050	-		8601.050 8601.040 8601.050	534	
	Height 8" (200 mm)	1 set	8602.040	8602.050	8602.040	8602.050	-		8602.050 8602.040 8602.050	534	
Cross member, adjustable		2	8601.450				-		8601.450		544
Gland plates	1-part	1	5001.222	-	5001.222	-	-		5001.222 -	555	
	2-part	1	5001.214	5001.214	5001.214	5001.214	-		5001.214 5001.214 5001.214	556	
		1	5001.218	5001.222	5001.218	5001.222	-		5001.222 5001.218 5001.222	556	
Individual			For more gland plate versions, see page 710								
Rail for interior installation	For height	4	5001.050				-		5001.050		209
Punched section with mounting flange, 0.7" x 2.9" (17 x 73 mm)	In the depth	4	8612.140	8612.150	8612.140	8612.150	-		8612.150 8612.140 8612.150	653	
Punched rail 0.7" x 1.5" (18 x 38 mm)	In the depth	4	8612.240	8612.250	8612.240	8612.250	-		8612.250 8612.240 8612.250	655	
Support strips	In the depth	20	4694.000	4695.000	4694.000	4695.000	-		4695.000 4694.000 4695.000	656	
Punched section with mounting flange, 0.7" x 2.9" (17 x 73 mm)	For door	4	8612.050				-		8612.050		652
Support strips	For door	20	4596.000				-		4596.000		656
Cable clamp rail		1	5001.080				-		5001.080		723
Wiring plan pocket		1	4116.500				-		4116.500		617
Alternative lock systems			see page 601								

TP TopConsole system

32" (800 mm) wide

							
Configuration	3-part		2-part		2-part	1-part	
Depth of pedestal in inches (mm)	16 (400)	20 (500)	16 (400)	20 (500)	16 (400)	20 (500)	16 (400) 20 (500)

Consoles 28" (700 mm) high							
Height (H) inches (mm)	Packs of	28 (700)	-	-	-	-	Page
Depth (T) inches (mm)		9 (240)	-	-	-	-	
Part No.	1	6721.500	-	-	-	-	

Consoles 21"/29" (540/730 mm) high with enlarged installation depth							
Height (H) inches (mm)	Packs of	-	30 (730)	-	-	21 (540)	Page
Depth (T) inches (mm)		-	20 (520)	-	-	20 (520)	
Part No.	1	-	6721.200	-	-	6721.100	

Accessories							
Partial mounting panel	Width 8" (200 mm)	1	6730.310	-	-	6730.310	642
	Width 20" (500 mm)	1	6730.330	-	-	6730.330	642
	Width 28" (700 mm)	1	6730.340	-	-	6730.340	642
Rail for interior installation	For width	4	5001.051	-	-	5001.051	651
	For height	4	5001.051	-	-	5001.050	651

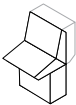



Desk units							
Height (H) inches (mm)	Packs of	9 (235)	9 (235)	-	-	-	Page
Depth (T) inches (mm)		28 (700)	28 (700)	-	-	-	
Part No.	1	6715.500	6711.500	-	-	-	

Accessories							
Rail for interior installation	For width	4	5001.051		-	-	651
Console		1	-	6730.410	-	-	153
Trim panel for pedestal		1	-	-	-	5001.140 6370.110	153

Pedestals										
Height (H) inches (mm)	Packs of	27 (675)	27 (675)	27 (675)	27 (675)	-	27 (675)	27 (675)	27 (675)	Page
Depth (T) inches (mm)		16 (400)	20 (500)	16 (400)	20 (500)	-	20 (500)	16 (400)	20 (500)	
Part No.	1	6701.500	6705.500	6701.500	6705.500	-	6705.500	6701.500	6705.500	

Accessories											
Base/plinth components front and rear	Height 4" (100 mm)	1 set	8601.800				-	8601.800			533
	Height 8" (200 mm)	1 set	8602.800				-	8602.800			533
Base/plinth trim panels, side	Height 4" (100 mm)	1 set	8601.040	8601.050	8601.040	8601.050	-	8601.050	8601.040	8601.050	534
	Height 8" (200 mm)	1 set	8602.040	8602.050	8602.040	8602.050	-	8602.050	8602.040	8602.050	534
Cross member, adjustable		2	8601.450				-	8601.450			544
Gland plates	1-part	1	5001.223	-	5001.223	-	-	5001.223	-		555
	2-part	1	5001.215	5001.215	5001.215	5001.215	-	5001.215	5001.215	5001.215	555
		1	5001.219	5001.223	5001.219	5001.223	-	5001.223	5001.219	5001.223	555
	Individual		For more gland plate versions, see page 710								
Rail for interior installation	For height	4	5001.050				-	5001.050			651
Punched section with mounting flange, 0.7" x 2.9" (17 x 73 mm)	In the depth	4	8612.140	8612.150	8612.140	8612.150	-	8612.150	8612.140	8612.150	652
Punched rail 0.7" x 1.5" (18 x 38 mm)	In the depth	4	8612.240	8612.250	8612.240	8612.250	-	8612.250	8612.240	8612.250	655
Support strips	In the depth	20	4694.000	4695.000	4694.000	4695.000	-	4695.000	4694.000	4695.000	656
Punched section with mounting flange, 0.7" x 2.9" (17 x 73 mm)	For door	4	8612.050				-	8612.050			686
Support strips	For door	20	4598.000				-	4598.000			656
Cable clamp rail		1	5001.081				-	5001.081			723
Wiring plan pocket		1	4118.500				-	4118.500			617
Alternative lock systems			see page 601								

47" (1200 mm) wide

					
Configuration	3-part		2-part		1-part
Depth of pedestal in inches (mm)	16 (400)	20 (500)	16 (400)	20 (500)	16 (400) 20 (500)

Consoles 28" (700 mm) high						
Height (H) inches (mm)	Packs of	28 (700)	-	-	-	Page
Depth (T) inches (mm)		9 (240)	-	-	-	
Part No.	1	6722.500	-	-	-	

Consoles 21"/29" (540/730 mm) high with enlarged installation depth						
Height (H) inches (mm)	Packs of	-	30 (730)	-	-	21 (540)
Depth (T) inches (mm)		-	20 (520)	-	-	20 (520)
Part No.	1	-	6722.200	-	-	6722.100

Accessories							
Partial mounting panel	Width 8" (200 mm)	1	6730.310	-	-	6730.310	642
	Width 20" (500 mm)	1	6730.330	-	-	6730.330	642
	Width 28" (700 mm)	1	6730.340	-	-	6730.340	642
Rail for interior installation	For width	4	5001.053	-	-	5001.053	651
	For height	4	5001.051	-	-	5001.050	651

Desk units						
Height (H) inches (mm)	Packs of	9 (235)	9 (235)	-	-	Page
Depth (T) inches (mm)		28 (700)	28 (700)	-	-	
Part No.	1	6716.500	6712.500	-	-	

Accessories						
Rail for interior installation	For width	4	5001.053	-	-	651
Trim panel for pedestal		1	-	-	-	5001.160 6370.120 153

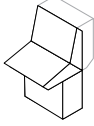

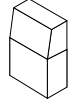

Pedestals						
Height (H) inches (mm)	Packs of	27 (675)	27 (675)	27 (675)	27 (675)	Page
Depth (T) inches (mm)		16 (400)	20 (500)	16 (400)	20 (500)	
Part No.	1	6702.500	6706.500	6702.500	6706.500	6706.500

Accessories											
Base/plinth components front and rear	Height 4" (100 mm)	1 set	8601.200				-	8601.200		533	
	Height 8" (200 mm)	1 set	8602.200				-	8602.200		533	
Base/plinth trim panels, side	Height 4" (100 mm)	1 set	8601.040	8601.050	8601.040	8601.050	-	8601.050	8601.040	8601.050	534
	Height 8" (200 mm)	1 set	8602.040	8602.050	8602.040	8602.050	-	8602.050	8602.040	8602.050	534
Cross member, adjustable		2	8601.450				-	8601.450		544	
Gland plates ¹⁾	1-part	1	5001.225	-	5001.225	-	-	5001.225	-	555	
	2-part	1	5001.217	5001.217	5001.217	5001.217	-	5001.217	5001.217	5001.217	555
		1	5001.221	5001.225	5001.221	5001.225	-	5001.225	5001.221	5001.225	555
	Individual		For more gland plate versions, see page 710								
Rail for interior installation	For height	4	5001.050				-	5001.050		209	
Punched section with mounting flange, 0.7" x 2.9" (17 x 73 mm)	In the depth	4	8612.140	8612.150	8612.140	8612.150	-	8612.150	8612.140	8612.150	652
Punched rail 0.7" x 1.5" (18 x 38 mm)	In the depth	4	8612.240	8612.250	8612.240	8612.250	-	8612.250	8612.240	8612.250	655
Support strips	In the depth	20	4694.000	4695.000	4694.000	4695.000	-	4695.000	4694.000	4695.000	656
Punched section with mounting flange, 0.7" x 2.9" (17 x 73 mm)	For door	4	8612.050				-	8612.050		686	
Support strips	For door	20	4596.000				-	4596.000		656	
Cable clamp rail		1	5001.083				-	5001.083		723	
Wiring plan pocket		1	4116.500				-	4116.500		617	
Alternative lock systems			see page 601								

¹⁾ With the two-door pedestal, the base opening is divided in two, and two sets of gland plates are required.

TP TopConsole system

63" (1600 mm) wide

					
Configuration	3-part		2-part		
Depth of pedestal in inches (mm)	16 (400)	20 (500)	16 (400)	20 (500)	16 (400) 20 (500)

Consoles 28" (700 mm) high										
Height (H) inches (mm)	Packs of	28 (700)	-		-		-		Page	
Depth (T) inches (mm)		9 (240)	-		-		-			
Part No.	1	6723.500	-		-		-			
Consoles 21"/29" (540/730 mm) high with enlarged installation depth										
Height (H) inches (mm)	Packs of	-	30 (730)	-		-	21 (540)	-		Page
Depth (T) inches (mm)		-	20 (520)	-		-	20 (520)	-		
Part No.	1	-	6723.200	-		-	6723.100	-		

Accessories										
Partial mounting panel	Width 8" (200 mm)	1	6730.310	-		-	6730.310	-		642
	Width 20" (500 mm)	1	6730.330	-		-	6730.330	-		642
	Width 28" (700 mm)	1	6730.340	-		-	6730.340	-		642
Rail for interior installation	For height	4	5001.051	-		-	5001.050	-		651

Desk units									
Height (H) inches (mm)	Packs of	9 (235)	9 (235)		-		-		Page
Depth (T) inches (mm)		28 (700)	28 (700)		-		-		
Part No.	1	6717.500	6713.500		-		-		

Accessories											
Rail for interior installation	For width	4	5001.054				-		-		651
Trim panel for pedestal		1	-		-		-		6730.030 6370.130	153	

Pedestals											
Height (H) inches (mm)	Packs of	27 (675)	27 (675)	27 (675)	27 (675)	-		27 (675)	27 (675)	27 (675)	Page
Depth (T) inches (mm)		16 (400)	20 (500)	16 (400)	20 (500)	-		20 (500)	16 (400)	20 (500)	
Part No.	1	6703.500	6707.500	6703.500	6707.500	-		6706.500	6703.500	6707.500	

Accessories												
Base/plinth components front and rear	Height 4" (100 mm)	1 set	8601.920				-		8601.920		533	
	Height 8" (200 mm)	1 set	8602.920				-		8602.920		533	
Base/plinth trim panels, side	Height 4" (100 mm)	1 set	8601.040	8601.050	8601.040	8601.050	-		8601.050	8601.040	8601.050	534
	Height 8" (200 mm)	1 set	8602.040	8602.050	8602.040	8602.050	-		8602.050	8602.040	8602.050	534
Cross member, adjustable		2	8601.450				-		8601.450		534	
Gland plates ¹⁾	1-part	1	5001.236	-	5001.236	-	-		-	5001.236	-	555
	2-part	1	5001.234	5001.234	5001.234	5001.234	-		5001.234	5001.234	5001.234	555
		1	5001.235	5001.236	5001.235	5001.236	-		5001.236	5001.235	5001.236	555
Individual			For more gland plate versions, see page 710									
Rail for interior installation	For height	4	5001.050				-		5001.050		209	
Punched section with mounting flange, 0.7" x 2.9" (17 x 73 mm)	In the depth	4	8612.140	8612.150	8612.140	8612.150	-		8612.150	8612.140	8612.150	652
Punched rail 0.7" x 1.5" (18 x 38 mm)	In the depth	4	8612.240	8612.250	8612.240	8612.250	-		8612.250	8612.240	8612.250	655
Support strips	In the depth	20	4694.000	4695.000	4694.000	4695.000	-		4695.000	4694.000	4695.000	656
Support strips	For door	20	4598.000				-		4598.000		614	
Cable clamp rail	Width 32" (800 mm)	1	5001.081				-		5001.081		723	
Wiring plan pocket		1	4118.500				-		4118.500		617	
Alternative lock systems			see page 301									

¹⁾ With the two-door pedestal, the base opening is divided in two, and two sets of gland plates are required.

Trim panel

for pedestal

for covering the complete top opening when using the pedestal on its own.

Material: Carbon steel

Surface finish: Textured paint

Color: RAL 7035

Protection rating: UL Type 12
(IP 55 to IEC 60 529)

Configuration: Assembly parts

For pedestal		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	16 (400)	5001.130
32 (800)		5001.140
47 (1200)		5001.160
63 (1600)		6730.030
24 (600)	20 (500)	6730.100
32 (800)		6730.110
47 (1200)		6730.120
63 (1600)		6730.130

Strengtheners

for desk unit, rear with hinged cover

- Suitable for mounting operating housings using
 - CP-L enclosure attachment, Ø130 mm, 6525.510, see page 185
 - CP-XL enclosure attachment, round 6130.610, see page 193
 - Housing couplings CP-XL for desk mounting, 6528.410 see page 196
- Easily screw-fastened to the base of the desk unit.
- Connection hole pattern for CP support arm systems in the center as standard; other positions can be accommodated by drilling extra holes.

Mounting cut-out required in the cover of the desk units, mounting cut-outs to match the various support arm systems.

Material:

Carbon steel

Configuration:

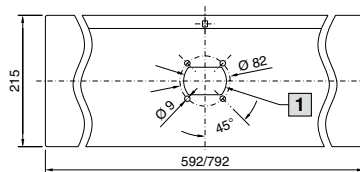
Assembly parts

For width inches (mm)	Packs of	Part No.
24 (600)	1	6730.400
32 (800)	1	6730.410

Mounting cut-outs

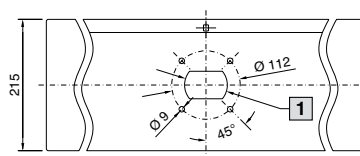
for the covers of the desk units

for external mounting of 6525.510

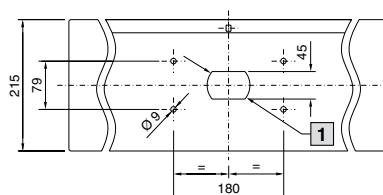


1 Max. Ø 70 mm

for external mounting of 6130.610



for external mounting of 6528.410



TP one-piece consoles



System accessories Page 531 Monitors, keyboards From page 798 Climate control Page 375 One-piece AP consoles, stainless steel Page 231

Material:

- Enclosure: Carbon steel, 16 ga (1.5 mm)
- Door and console cover: Carbon steel, 14 ga (2.0 mm), all-round foamed-in PU seal
- Mounting panel: Carbon steel, 11 ga (3.0 mm)
- Lock cover: Plastic, self-extinguishing

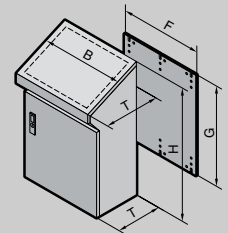
- on the outside, textured paint
- Mounting panel: Zinc-plated

Color:
RAL 7035

Protection rating:
NEMA 12 (IP 55 to EN 60 529), with selection of the appropriate gland plates, see page 554

- with locking rod
- Mounting panel
- Cover hinged at rear, 2 stays with automatic locking and unlocking
- Open base for individual cable entry

Also required:
Gland plates, see page 554



Surface finish:

- Enclosure, cover and door: Dipcoat primed, powder-coated

Configuration:

- Enclosure, solid back and sides
- Door or double door at front,

Detailed drawings:

Available at www.rittal-corp.com

Height (H) inches (mm)	Packs of	38 (960)	38 (960)	38 (960)	38 (960)	Page
Width (B) inches (mm)		24 (600)	32 (800)	39 (1000)	47 (1200)	
Depth (T) inches (mm)	Bottom	16 (400)	16 (400)	16 (400)	16 (400)	
	Top	20 (520)	20 (520)	20 (520)	20 (520)	
Mounting panel width (F) inches (mm)		21 (530)	29 (730)	37 (930)	48 (1130)	
Mounting panel height (G) inches (mm)		35 (900)	35 (900)	35 (900)	35 (900)	
Part No.	1	6746.500	6748.500	6740.500	6742.500	

Base/plinth

Components front and rear	Height 4" (100 mm)	1 set	8601.600	8601.800	8601.000	8601.200	533
	Height 8" (200 mm)	1 set	8602.600	8602.800	8602.000	8602.200	533
Trim panels, sides	Height 4" (100 mm)	1 set	8601.040				534
	Height 8" (200 mm)	1 set	8602.040				534
Cross member, adjustable		2	8601.450				544

Accessories

Gland plates ¹⁾	1-part	1	5001.222	5001.223	5001.224	5001.225	555
	2-part	1 + 1	5001.214 + 5001.218	5001.215 + 5001.219	5001.216 + 5001.220	5001.217 + 5001.221	556
	Individual		For more gland plate versions, see page 557				
Rail for interior installation	For enclosures	4	5001.051				651
	For cover	4	5001.050	5001.051	5001.052	5001.053	651
Punched section with mounting flange, 0.7" x 2.9" (17 x 73 mm)	for enclosures	4	8612.140				652
	For cover	4	8612.040				652
	For door	4	8612.050	–	8612.040	8612.050	652
Punched rail 0.7" x 1.5" (18 x 38 mm)	For enclosure	4	8612.240				655
Cable clamp rail		1	5001.080	5001.081	5001.082	5001.083	723
Wiring plan pocket		1	4116.500	4118.500	4115.500	4116.500	617
Alternative lock systems			see page 601				

¹⁾ With the two-door version the base opening is divided in two, and two sets of gland plates are required.



System accessories Page 531 Monitors, keyboards From page 798 Climate control Page 375

Material:

- Enclosure, gland plates: Carbon steel 16 ga (1.5 mm)
- Doors: Carbon steel 14 ga (2.0 mm)
- Mounting panel: Carbon steel 11 ga (3.0 mm)

Surface finish:

- Enclosure and doors: Dipcoat primed, powder-coated on the outside, textured paint
- Mounting panel and gland plates: Zinc-plated

Color:

RAL 7035

Protection rating:

UL/cUL Type 12 (IP 55 to EN 60 529/10.91) when assembled per instructions

Configuration:

- Enclosure with doors
- Mounting panel
- Gland plates

Note:

Top door with studs left and right for installing vertical perforated mounting strips, 2310.038 and horizontal support strips 2325.000, to be mounted on top (see page 615-616).

Approvals:

- UL
- CSA
- TÜV
- Germanischer Lloyd
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- VDE

Detailed drawings:

Available at www.rittal-corp.com

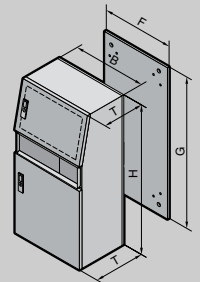


Photo shows a configuration with equipment not included in the base part number

	Packs of	with short front door		with tall front door	Page
Height (H) inches (mm)		51 (1300)		51 (1300)	
Width (B) inches (mm)		24 (600)		24 (600)	
Depth (T) inches (mm)	Bottom	20 (500)		20 (500)	
	Top	16 (417.5)		16 (417.5)	
Mounting panel width (F) inches (mm)		20 (499)		20 (499)	
Mounting panel height (G) inches (mm)		47 (1196)		47 (1196)	
Part No.	1	2694.500		2695.500	
Weight lb (kg)		169 (77)		176 (80)	

Also required

Desk section		2696.500	2696.500	–	–	–
Drawer for keyboard		–	–	4757.500 ¹⁾	–	–

Accessories

Base/plinth	Height 4" (100 mm)	1	2807.200		542
	Height 8" (200 mm)	1	2808.200		542
Cross member, adjustable		2	8601.450		544
Perforated mounting strip		1	2310.038		615
Support strips		1	2325.000		614
Cable clamp rail		1	4191.000		723
Alternative lock systems			see page 601		

¹⁾ Only suitable for installation without a mounting panel.

PC enclosure system



System accessories Page 531 Monitors, keyboards From page 798 Climate control Page 375 PC case system, stainless steel Page 232

Material:

- Enclosure, door, mounting compartment, supports: Sheet steel
- Handles, decorative trim panels: Plastic
- Door trim panels: Aluminum

Protection rating:

UL Type 12 (IP 55 to EN 60 529) when assembled per instructions
UL file #: E76083

Configuration:

Enclosure, door, rear door and enclosure-specific items (see below)

Approvals:

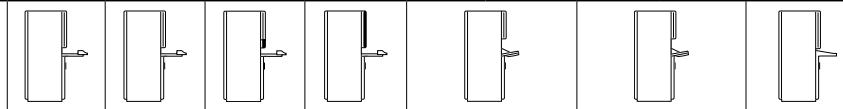
- UL
- CSA

Detailed drawings/

Technical information:

Available at www.rittal-corp.com

Photo shows a configuration with equipment not included in the base part number



Enclosure-specific configuration

	Packs of	■	■	■	■	–	–	–	Page
Keyboard drawer		■	■	■	■	–	–	–	
Folding keyboard		–	–	–	–	■	■	–	
Desk section		–	–	–	–	–	–	■	
Glazed door, top		■	■	■	–	■	■	■	
Mounting compartment, small		–	–	■	–	–	–	–	
Mounting compartment, large		–	–	–	■	–	–	–	
Component shelf		■	■	■	–	■	■	■	
Height inches (mm)		63 (1600)	63 (1600)	63 (1600)	63 (1600)	63 (1600)	63 (1600)	63 (1600)	
Width inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
Depth inches (mm)		25 (636)	33 (836)	25 (636)	25 (636)	25 (636)	33 (836)	25 (636)	
Part No.	1	8366.000	8368.000	8366.300	8366.400	8366.100		8368.100	8366.200
Max. keyboard dimensions inches (mm)	Width	19 (480)	19 (480)	19 (480)	19 (480)	19 (475)		19 (475)	21 (540)
	Height	3 (70)	3 (70)	3 (70)	3 (70)	2 (60)	2 (50)	2 (60)	2 (50)
	Depth	10 (260)	10 (260)	10 (260)	10 (260)	8 (200)	10 (250)	8 (200)	10 (250)
Weight lb (kg)		5 (118)	5 (133)	5 (118)	5 (117)	5 (118)		5 (124)	4 (108)

Accessories

Base/plinth, static		1	8800.920	on request	8800.920		on request	8800.920	538
Base/plinth components front and rear	Height 4" (100 mm)		8601.600						533
	Height 8" (200 mm)		8602.600						533
Base/plinth trim, front	Height 8" (200 mm)	1	8360.920						538
Base/plinth trim, side	Height 4" (100 mm)		8601.060	8601.080	8601.060		8601.080	8601.060	534
	Height 8" (200 mm)		8602.060	8602.080	8602.060		8602.080	8602.060	534
Cross member, adjustable	Height 3" (70 mm)	2	8601.680						544
Partial mounting panel	Height 31" (775 mm)	1	8614.675						640
Component shelf, pull-out		1	6902.960	6902.980	6902.960		6902.980	6902.960	677
Drawer tray		1	6902.700						678
Alternative lock systems			see page 601						



System accessories Page 531 Comfort Panel Page 168 Optipanel Page 170 TFT monitor Page 818

Compact enclosure, ready to connect. Standard commercially available tower PCs, up to H/W/D 21 x 10 x 24" (530 x 250 x 600 mm), max. 44 lb (20 kg) may be attached securely to the base screw fastened to the door using the retaining strap, supplied loose. The rear interfaces of the PC are readily accessible with the door open. Because the socket strip and fan-and-filter unit are already pre-installed the enclosure is ready for immediate use.

Roof prepared for mounting

- Worktop 6902.310
- Beneath surfaces

Base prepared for mounting

- Cast feet 6902.920
- On surfaces

Material:

- Enclosure: Carbon steel
- Door: Carbon steel
- Design strips: Aluminum

Surface finish:

- Enclosure: Powder-coated, textured paint
- Door: Powder-coated

Color:

- Enclosure: RAL 7035
- Door: RAL 7015
- Design strips: RAL 7035

Protection rating:

NEMA 12 (IP 54 to EN 60 529) (in conjunction with connector gland 2400.300/.500, supplied loose)

Configuration:

- Enclosure of all-round solid construction
- R/h door hinge
- Door with base screwfastened on the inside
- Side cam lock
- Rear panel with two cut-outs for use of the connector gland 2400.300/.500 supplied loose
- Cable gland M20, brass, nickel-plated
- Outlet filter fitted in left side panel
- Fan-and-filter unit fitted in the right side panel, door operated switch
- Supply socket for 230 V power supply
- Socket strip with 3 sockets and overvoltage protection

Also required:

Connection cable for infeed, see page 693.

Photo shows a configuration with equipment not included in the base part number

Height inches (mm)	Packs of	30 (760)	Page
Width inches (mm)		30 (760)	
Depth inches (mm)		12 (300)	
Part No.	1	6900.300	
Weight lb (kg)		121 (55)	
Accessories			
Cast feet	2	6902.920	544
Twin caster	1 set	7495.000	549
Worktop without handle	1	6902.310	-
Enclosure attachment, tilting, base mounted	1	6902.640	195
Optipanel for 17" TFT monitor	1	6380.040	170
TFT 17" monitor with safety glass screen	1	6450.020	818
Alternative lock systems		see page 601	

Industrial workstation



System accessories Page 531 Comfort Panel Page 168 Optipanel Page 170 TFT monitor Page 818

Material

- Enclosure, roof, drawer tray, designer door, rear wall and rear door: Carbon steel
- Worktop: Chipboard: Plastic-laminated on both sides (edging)
- Aluminum handle: Powder-coated

Color:

- Enclosure, worktop: RAL 7035
- Worktop edge strip: RAL 7015
- Worktop handle: RAL 9006

Protection rating:

See table

Surface finish:

Enclosure: Dipcoat primed, powder-coated on the outside, textured paint

Detailed drawings:

Available at www.rittal-corp.com

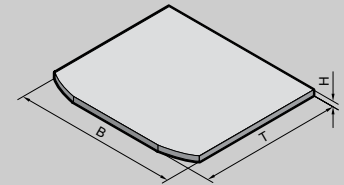
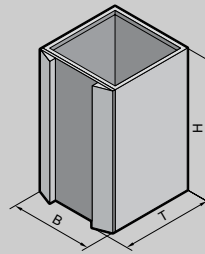
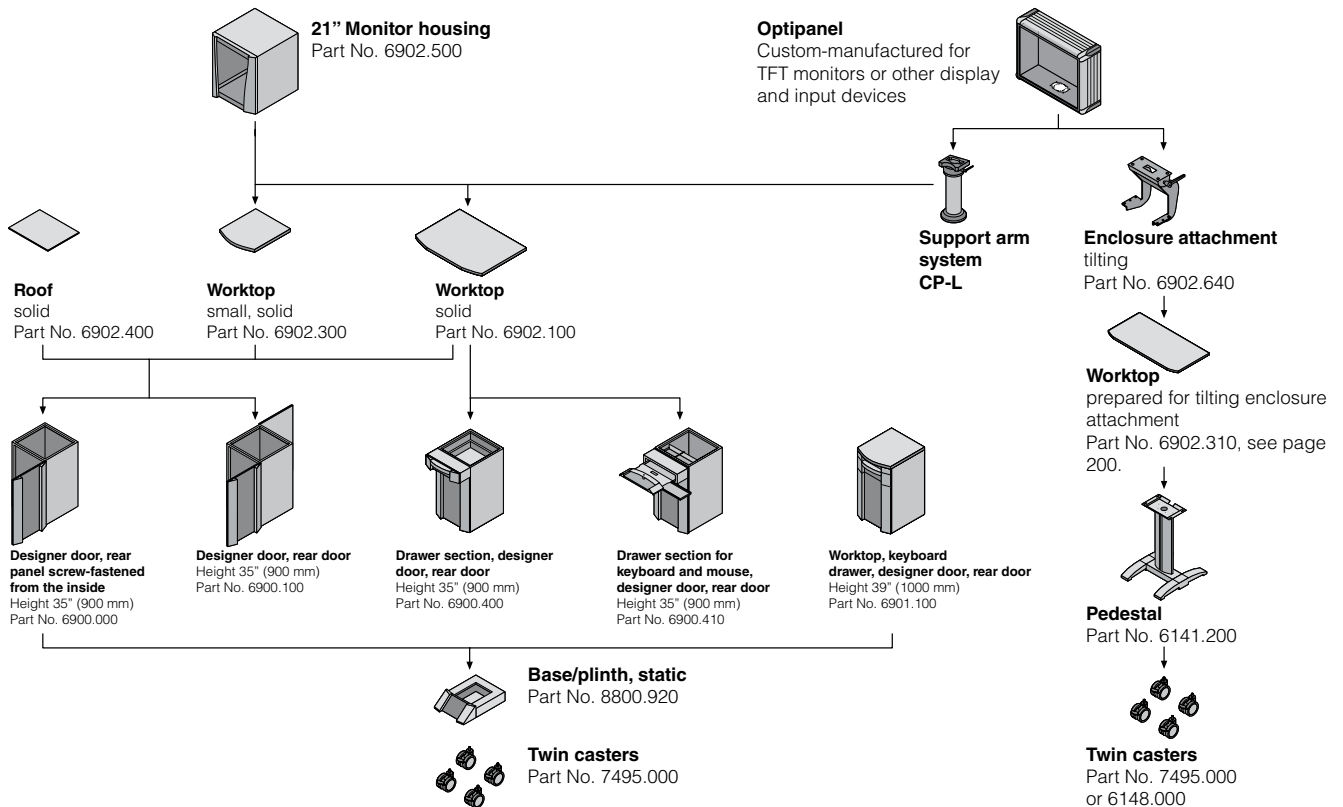






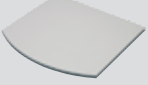




Photo shows a configuration with equipment not included in the base part number

Combination options



IW enclosures and worktops

Enclosure										Page
Design					Designer door, rear panel screw-fastened from the inside	Designer door, rear door	Drawer section, designer door, rear door	Drawer section for keyboard and mouse, designer door, rear door	Worktop, keyboard drawer, designer door, rear door	
Height (H) inches (mm)					35 (900)	35 (900)	35 (900)	35 (900)	39 (1000)	
Width (B) inches (mm)					24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	
Depth (T) inches (mm)					24 (600)	24 (600)	24 (35) (600 (890))	24 (35) (600 (890))	25 (645)	
Weight lb (kg)					121 (55)	132 (60)	161 (73)	161 (73)	200 (91)	
Part No.					6900.000	6900.100	6900.400	6900.410	6901.100	
Protection rating					IP 55 to IEC 60 529, complies with NEMA 12		IP 54 to IEC 60 529, complies with NEMA 12			
	Width (B) inches (mm)	Height (H) inches (mm)	Depth (T) inches (mm)	Weight lb (kg)	Part No.					
Worktops										
	24 (610)	2 (38)	25 (645)	26 (12)	6902.300	6902.300	-	-	■	
	39 (1000)	1 (38)	35 (895)	53 (24)	6902.100	6902.100	6902.100	6902.100	-	
Roof										
	24 (600)	1 (13)	25 (640)	15 (7)	6902.400	6902.400	-	-	-	
Monitor housing										
	24 (600)	24 (600)	24 (600)	95 (43)	6902.500	6902.500	6902.500	6902.500	-	
Accessories					Packs of					
Base/plinth, static					1	8800.920				538
Cross member, adjustable					2	8601.680			-	544
Twin casters					1 set	7495.000				549
Handle adaptor for comfort handle					1	8611.300	-			581
Cable gland					1	6902.770				719
Mounting panel for enclosure width 24" (600 mm)					1	8614.675		8614.680		640
Component shelf, static installation					1	8800.900				-
Component shelf, pull-out					1	6902.960				678
Drawer tray					1	6902.700				678
Adaptor section 19" (482.6 mm)					1	8613.070		-		753
Paper removal flap					1	6903.200				827
Enclosure attachment, tilting						see page 195				
Support arm systems						see page 177				
Operating housings						see page 172				

■ Included as part of the configuration for part number 6901.100



Operating housings/support arm systems/stand systems

Pushbutton enclosures

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Comfort Panel/Optipanel/Compact Panel

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Stand systems, small pillar.....	201
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Stand system accessories	203



PB pushbutton enclosure



System accessories Page 531

Carbon steel pushbutton enclosures:

These UL Type enclosures are designed to house pushbuttons, selector switches, pilot lights, and help protect such equipment against dirt, dust, water, oil or coolant.

- Accepts 22.5 and 30.5 mm devices
- Available in sizes from a single position to 42 hole positions.

Designed For versatility:

The standard holes in these enclosures accept all brands of 22.5 and 30.5 mm, 4-way, oil-tight pushbuttons, switches and pilot lights. Several of these enclosures can be mounted onto a Rittal column and base for use as an operator station. Additionally, external mounting brackets and captive, plated cover screws make installation quick and easy.

Technical specifications:

- Enclosures and covers are made from 14-gauge carbon steel for strength and durability
- Interior and exterior finish is a polyester-urethane powder-coat over phosphatized surface, color is RAL 7035 (light grey)

Protection rating:

- UL Type 12, 13, 4
- UL/cUL
- UL file #: E118617

Part number overview:

See page 838

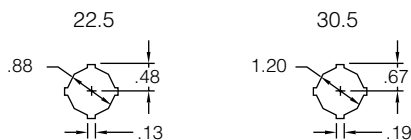
Hole seals:

See page 560

Detailed drawings:

Available at www.rittal-corp.com

Standard 4-Way Keyed Pushbutton Hole Detail:



Hole Arrangement Centered On Cover

Carbon Steel – Standard	
Hole Size 30.5 mm	
Description	Part No.
1 Hole	PB01305S1C
2 Hole	PB02305S1C
3 Hole	PB03305S1C
4 Hole	PB04305S1C
4 Hole	PB04305S2C
5 Hole	PB05305S1C
6 Hole	PB06305S2C
6 Hole	PB06305S1C
8 Hole	PB08305S1C
9 Hole	PB09305S3C
10 Hole	PB10305S1C
12 Hole	PB12305S3C
16 Hole	PB16305S4C

PB pushbutton enclosure

Carbon Steel – Slim	
Hole Size 30.5 mm – all in single column	
Description	Part No.
1 Hole	PB01305L1C
2 Hole	PB02305L1C
3 Hole	PB03305L1C
4 Hole	PB04305L1C
5 Hole	PB05305L1C
6 Hole	PB06305L1C

Carbon Steel – Miniature	
Hole Size 22.5 mm	
Description	Part No.
1 Hole	PB01225M1C
2 Hole	PB02225M1C
3 Hole	PB03225M1C
4 Hole	PB04225M1C
6 Hole	PB06225M2C
9 Hole	PB09225M3C
12 Hole	PB12225M3C
16 Hole	PB16225M4C
20 Hole	PB20225M5C
25 Hole	PB25225M5C
30 Hole	PB30225M5C

Carbon Steel – Extra Large*	
Hole Size 22.5 mm	
Description	Part No.
4 Hole	PB04225E2C
6 Hole	PB06225E2C
9 Hole	PB09225E3C
12 Hole	PB12225E3C
16 Hole	PB16225E4C
20 Hole	PB20225E4C
25 Hole	PB25225E5C
30 Hole	PB30225E5C
36 Hole	PB36225E6C
42 Hole	PB42225E6C

*Carbon Steel Extra Large PB enclosures have a continuous hinge cover and include a galvanized mounting panel (14-gauge, 2 mm thick). All other PB enclosures on these pages use a screw-cover and do not contain a mounting panel.

PB pushbutton enclosure

Carbon Steel – Extra Deep, 4.75" depth

Hole Size 30.5 mm

Description	Part No.
1 Hole	PB01305X1C
2 Hole	PB02305X1C
3 Hole	PB03305X1C
4 Hole	PB04305X1C
4 Hole	PB04305X2C
6 Hole	PB06305X2C
9 Hole	PB09305X3C
10 Hole	PB10305X2C
12 Hole	PB12305X3C
16 Hole	PB16305X4C
16 Hole	PB16305X2C
20 Hole	PB20305X4C
25 Hole	PB25305X5C

Carbon Steel – Slope Top

Hole Size 30.5 mm

Description	Part No.
1 Hole	PB01305T1C
2 Hole	PB02305T2C
3 Hole	PB03305T3C
4 Hole	PB04305T4C
4 Hole	PB04305T2C
6 Hole	PB06305T3C
8 Hole	PB08305T4C
9 Hole	PB09305T3C
10 Hole	PB10305T5C
12 Hole	PB12305T6C
12 Hole	PB12305T3C
16 Hole	PB16305T4C
16 Hole	PB16305T8C
20 Hole	PB20305T5C
25 Hole	PB25305T5C
30 Hole	PB30305T5C

LF fiberglass pushbutton enclosure



System accessories Page 531

Fiberglass pushbutton enclosure:

- Lift-off cover
- Recessed captive stainless steel screws to hold cover
- Notched key hole design
- Metal grounding strap provided
- Foamed-in-place polyurethane gasketing

Protection rating:

UL Type 1, 12, 4X, 6P
UL/cUL and CSA
UL file #: E170282

Detailed drawings:

Available at www.rittal-corp.com

Depth: 3 - 4" (80 - 99 mm), Height: 7 - 14" (168 - 350 mm)

Height inches (mm)	14 (350)	7 (168)	7 (168)	7 (168)	9 (226)	11 (283)	Page
Width inches (mm)	4 (92)	4 (97)	4 (97)	4 (97)	4 (97)	4 (97)	
Depth inches (mm)	3 (80)	4 (99)	4 (99)	4 (99)	4 (99)	4 (99)	
Part No.	30.5 mm	L-F5PB	L-F1PB	L-F2PB	-	L-F3PB	L-F4PB
	25.5 mm	-	L-F1PBGGM	L-F2PBGGM	L-F3PBGGM	L-F4PBGGM	L-F5PBGGM
Weight lb (kg)	2 (0.9)	2 (0.9)	2 (0.9)	2 (0.9)	2 (0.9)	2 (0.9)	

Accessories

Oiltight hole seals	30.5 mm	OHSMPB6	560
	25.5 mm	OHSSPB6	560
External mounting brackets		L-FIMTGFTKIT	-



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www.rittal-india.com



Comfort Panel/Optipanel

Benefits at a glance

- Aluminum enclosure, high thermal conductivity for optimum passive heat dissipation
- Low weight coupled with high stability
- Protection rating IP 65
- Compatible with all Rittal stand and support arm systems

The choice is yours

Standard solutions

- Standard variants offering outstanding value for money and short delivery times
- Easy, fast and reliable selection
- For front panel installations, tailored to the most common operating solutions

Comfort Panel, see page 168

Optipanel, see page 170

Configurable special solutions

- Individual sizes, also for the direct installation of panels with no front plate
- Complete solution diversity for virtually all applications
- Maximum flexibility in design and function



Comfort Panel



System accessories Page 811 Support arm systems Page 177 Stand systems Page 199 Industrial Workstations Page 158

Material:

- Enclosure:
Extruded aluminum section
- Corner pieces:
Die-cast zinc
- Corner protectors:
Plastic

Color:

- Enclosure:
Natural-anodized
- Corner pieces:
RAL 7035
- Corner protectors:
Similar to RAL 7024

Protection rating:

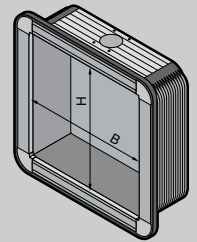
UL/cUL Type 12
(IP 65 to IEC 60 529)

Configuration:

Seals and assembly parts for front panels.

Detailed drawings:

Available at www.rittal-corp.com



For front panel width (B) inches (mm)	Packs of	20 (520)			20 (520)			20 (520)			Page
For front panel height (H) inches (mm)		16 (400)			20 (500)			24 (600)			
Installation depth inches (mm)		3 (74)	6 (152)	8 (191)	3 (74)	6 (152)	8 (191)	3 (74)	6 (152)	8 (191)	
Part No. ¹⁾	1	6372.541	6372.542	6372.543	6372.551	6372.552	6372.553	6372.561	6372.562	6372.563	
Weight lb (kg)		18 (8)	26 (12)	31 (14)	20 (9)	26 (12)	33 (15)	22 (10)	31 (14)	37 (17)	

Design

Support arm connection CP-L, □ 5 x 3" (120 x 65 mm) ²⁾		■	-	-	■	-	-	■	-	-	
Support arm connection CP-L, ∅ 5" (130 mm) ²⁾		-	■	■	-	■	■	-	■	■	
Hinged rear panel with screw lock		■	-	-	■	-	-	■	-	-	
Hinged rear panel with cam ³⁾		-	■	-	-	■	-	-	■	-	
Screw-fastened rear panel ⁴⁾		-	-	■	-	-	■	-	-	■	

Accessories

Front panel	1	6028.014	6028.015	6028.016	816
Handle set, horizontal	1	6375.000			812
Handle set, vertical	2	6375.040	6375.050	6375.060	812
Mounting bracket for interior installation	4	6205.100			665
Spring nut M5	50	6108.000			674
Grounding plate	1	2570.500			700

¹⁾ Configuration examples, see page 169.

²⁾ Top or bottom, by rotating the enclosure.

³⁾ With 3 mm double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 607, plastic handles and T handles, version C, see page 606.

⁴⁾ Enclosure hinged at the front with side double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 607, plastic handles and T handles, version C, see page 606.

Installation examples

Front panel height inches (mm)	Cut-out dimensions					
16 (400)						
	W (B) = 19" (484 mm) H = 14" (364 mm) 1 = 1" (18 mm) all-round for attaching the adaptor plate					
20 (500)						
	W (B) = 19" (484 mm) H = 18" (464 mm) 1 = 1" (18 mm) all-round for attaching the adaptor plate					
24 (600)						
	W (B) = 19" (484 mm) H = 22" (564 mm) 1 = 1" (18 mm) all-round for attaching the adaptor plate					

↓ Free space, available for individual installed equipment such as rows of switches etc.

HE = U

Custom sizes/configurations are also available, visit www.rittal-corp.com for more information

Example:

Operator/keyboard housing

Part No.: 6372.009

The picture shows an example solution together with its corresponding design code number. The key on the far right explains how the code number in our example was created.

We need the following three pieces of information to process your order:

- Part No.: 6372.009
- The dimensions and number of panels/front panels to be installed in the keyboard/Operator housing
- Design code number

Note:

If the design code number does not cover your requirements, please enter an X and enclose a written explanation.



Design code number:

2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8
A3	0	0	0	2	1	1	1

- 2.1 A3** Operator housing, installation depth 4.5" (113 mm)
- 2.2 0** Without cross member
- 2.3 0** No fins
- 2.4 0** Without design strip
- 2.5 2** Support arm connection, CP-L 4.7 x 2.6" (120 x 65 mm), bottom
- 2.6 1** Rear panel, screw-fastened
- 2.7 1** With keyboard housing, Installation depth 1.4" (35 mm)
- 2.8 1** Fitted interface flap

Optipanel



System accessories Page 811 Support arm systems Page 177 Stand systems Page 199 Industrial Workstations Page 158

Material:

- Enclosure:
Extruded aluminum section
- Corner pieces:
Die-cast zinc
- Corner protectors:
Plastic

- Corner pieces:
RAL 7035
- Corner protectors:
Similar to RAL 7024

Protection rating:

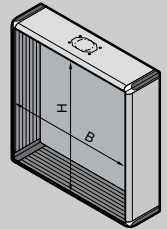
UL/cUL Type 12, NEMA 4 (IP 65 to EN 60 529/09.2000) if the openings in the enclosure are covered or sealed in accordance with the protection rating

Configuration:

Seals and assembly parts for front panels

Detailed drawings:

Available at www.rittal-corp.com



Color:

- Enclosure:
Natural-anodized

For front panel height (H) inches (mm)	Packs of	14 (343)	12 (310.3)	14 (354.8)	16 (400)		20 (500)		24 (600)		Page
For front panel width (B) inches (mm)		430	19 (482.6)	19 (482.6)	20 (520)		20 (520)		20 (520)		
Installation depth inches (mm)		4 (100)	4 (100)	4 (100)	4 (100)	6 (150)	4 (100)	6 (150)	4 (100)	6 (150)	
Part No.	1	6380.020¹⁾	6380.000	6380.040¹⁾	6380.400²⁾	6380.410	6380.500²⁾	6380.510²⁾	6380.600²⁾	6380.610²⁾	
Weight lb (kg)		11 (5)	13 (6)	15 (7)	13 (6)	15 (7)	15 (7)	18 (8)	15 (7)	20 (9)	

Design

Support arm connection CP-L, 5 x 3" (120 x 65 mm) ³⁾		■	■	■	■	–	■	–	■	–	
Support arm connection CP-L, Ø 5" (130 mm) ³⁾		–	–	–	–	■	–	■	–	■	
Hinged rear panel ⁴⁾		■	■	■	■	■	■	■	■	■	

Accessories

Front panel	1	–	6028.010	–	6028.014	6028.015	6028.016	816
Handle set, horizontal	1	–	6385.010	–	6385.000	6385.000	812	
Handle set, vertical	2	–	–	–	6385.040	6385.050	6385.060	812
Mounting bracket for interior installation	4	–	–	–	6205.100	6205.100	665	
Mounting bracket	4	–	–	–	4597.000	4597.000	665	
Grounding plate	1	–	–	–	2570.500	2570.500	700	
Spring nut M5	50	–	–	–	6108.000	6108.000	674	

¹⁾ To fit TFT monitors, see page 818.

²⁾ Configuration examples, see page 171.

³⁾ Top or bottom, by rotating the enclosure.

⁴⁾ With 3 mm double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 607, plastic handles and T handles, version C, see page 606.



To fit **desktop TFT up to 20.1"** with rear connection

- VESA 75
- VESA 100

Part No. 6380.050

Installation examples

Front panel height inches (mm)	Cut-out dimensions						
16 (400)							
	W (B) = 19" (484 mm) H = 14" (364 mm) 1 = 1" (18 mm) all-round for attaching the adaptor plate						
20 (500)							
	W (B) = 19" (484 mm) H = 18" (464 mm) 1 = 1" (18 mm) all-round for attaching the adaptor plate						
24 (600)							
	W (B) = 19" (484 mm) H = 22" (564 mm) 1 = 1" (18 mm) all-round for attaching the adaptor plate						

↓ Free space, available for individual installed equipment such as rows of switches etc.

HE = U

Custom sizes/configurations are also available, visit www.rittal-corp.com for more information

Example:
Operator/keyboard housing
Part No.: 6372.009

The picture shows an example solution together with its corresponding design code number. The key on the far right explains how the code number in our example was created.

We need the following three pieces of information to process your order:

- Part No.: 6372.009
- The dimensions and number of panels/front panels to be installed in the keyboard/Operator housing
- Design code number

Note:

If the design code number does not cover your requirements, please enter an X and enclose a written explanation.



Design code number:

2.1	2.2	2.3	2.4	2.5	2.6
2	1	2	1	1	1

- 2.1 2** Operator housing, installation depth 4.5" (113 mm)
- 2.2 1** With one cross member
- 2.3 2** Support arm connection, CP-L 4.7 x 2.6" (120 x 65 mm), bottom
- 2.4 1** Rear panel, screw-fastened
- 2.5 1** With keyboard housing, Installation depth 2.0" (50 mm)
- 2.6 1** Fitted interface flap

Compact Panel



System accessories Page 811 Support arm systems Page 177 Stand systems Page 199

For small operating units built into front panels. The front panel is inserted from the rear and secured with screw clamps. Special front panels with a material thickness of between 14 ga (2.0 mm) and 3 ga (6.0 mm) are possible. Rear panel optionally hinged on the left or right.

Material:

- Roof tray, base tray, rear panel: Aluminum
- Side parts: Extruded aluminum section
- Screw cover: Plastic

Surface finish:

- Roof tray, base tray, side parts: Powder-coated
- Rear panel: Natural-anodized

Color:

RAL 7024

Protection rating:

IP 65 to IEC 60 529

Configuration:

- Roof tray
- Base tray
- Rear panel
- Side parts
- Screw cover
- Seal and screw clamp

Detailed drawings:

Available at www.rittal-corp.com

Height inches (mm)	Packs of	9 (238)	15 (388)	9 (238)	15 (388)	Page
Width inches (mm)		9 (241)	9 (241)	12 (315)	12 (315)	
Depth inches (mm)		3 (87)	3 (87)	3 (87)	3 (87)	
To fit	Front panel width inches (mm)	7 (178)	7 (178)	10 (252)	10 (252)	
	Front panel height inches (mm)	8 (200)	14 (350)	8 (200)	14 (350)	
Part No. (with support arm connection CP-S)	1	6340.000	6340.010	6340.300	6340.400	
Weight lb (kg)		7 (3)	9 (4)	7 (3)	11 (5)	

Accessories

Front panel, 3.0 mm aluminum, natural-anodized	1	6028.500	6028.510	6028.530	6028.540	816
Wall mounting bracket, vertically hinged	1 set	6341.000				632
Cover plate for support arm connection CP-S	1	6505.200				816
Spring nut M5	50	6108.000				674

To order different heights for front panel width:

- 7" (178 mm) use Part No. 6342.109
- 10" (252 mm) use Part No. 6342.209

and additionally specify the front panel height. Extended delivery times.

Command panel housing with door



System assembly Page 811 Support arm systems Page 177 Stand systems Page 199 Command panel housing with door, stainless steel Page 235

Material:

- Enclosure and door: Carbon steel
- Handle strips: Aluminum
- Cover caps: Plastic

Surface finish:

- Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
- Handle strips: Powder-coated

Color:

- Enclosure and door: RAL 7035
- Handle strips and cover caps: RAL 5018

Protection rating:

- UL Type 12 (IP 55 to EN 60 529)
- UL, CSA
- UL file #: E76083

Configuration:

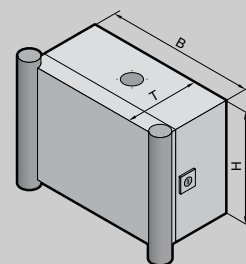
- Enclosure with cut-out and reinforcement for support arm system CP-L, Ø 130 mm
- Cam lock with double-bit insert
- Door with sealing frame
- Side handle strips and cover caps

Note:

- The support arm connection and door hinge may be swapped over by rotating the enclosure.

Detailed drawings:

- Available at www.rittal-corp.com



Height (H) inches (mm)	Packs of	8 (200)	12 (300)	16 (400)	12 (300)	16 (400)	20 (500)	Page
Width (B) inches (mm)		12 (300)	12 (300)	12 (300)	16 (400)	16 (400)	20 (500)	
Depth (T) inches (mm)		7 (180)	7 (180)	7 (180)	7 (180)	7 (180)	7 (180)	
Part No.	1	6534.000	6535.000	6537.000	6536.000	6538.000	6544.000	
Weight lb (kg)		13 (6)	15 (7)	18 (8)	18 (8)	24 (11)	33 (15)	

Accessories

Matching mounting panel	AE Type		1032.500	1033.500	1034.500	1030.500	1380.500	1050.500	593
	Part No. ¹⁾		0271.324	0271.926	0271.927	0274.131	0271.548	0271.333	–
Support rails ²⁾	Part No.	10	2316.000			2317.000		2318.000	662
Alternate lock systems		With 3 mm double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 607, plastic handles and T handles, version C, see page 606.							

¹⁾ Extended delivery times.

²⁾ Only with vertical attachment of punched rail 23 x 23 mm, see page 657.

Operating housing with handle strips



System assembly Page 811 Support arm systems Page 177 Stand systems Page 199 Command panel housing with door, stainless steel Page 235

Material:

- Enclosure, door: Carbon steel
- Handle strips: Aluminum
- Cover caps: Plastic

Surface finish:

- Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
- Handle strips: Powder-coated

Color:

- Enclosure and door: RAL 7035
- Handle strips/cover caps: RAL 7030

Protection rating:

- UL Type 12 (IP 55 to EN 60 529)
- UL, CSA
- UL file #: E76083

Configuration:

- Enclosure with cut-out and reinforcement for support arm system CP-L, Ø 130 mm
- Mounting angles spot welded at the sides
- Front with maximum cut-out, covered with easily machinable 3 mm aluminum front panel

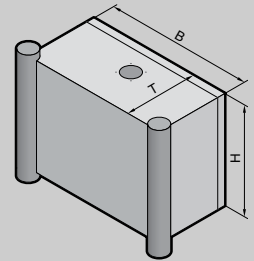
- Side handle strips with cover caps
- Rear door with r/h hinge
- Cam lock with double-bit insert

Note:

The support arm connection and door hinge may be swapped over by rotating the enclosure.

Detailed drawings:

Available at www.rittal-corp.com



Height inches (mm)	Packs of	200	300	380	500	380	Page
Width inches (mm)		300	380	380	500	600	
Depth inches (mm)		155	210	210	210	210	
Part No.	1	6540.200¹⁾	6531.200	6530.200	6532.200	6533.200	
Weight lb (kg)		11 (5)	20 (9)	22 (10)	33 (15)	33 (15)	

Accessories

Support strips for attaching to the mounting angles of the side panel	20	–	–	4594.000	4309.000	4594.000	614
	4	–		2373.210			644
	1	–	–	2537.0X0			–
Alternate lock systems	With 3 mm double-bit lock insert, may be exchanged for 27 mm lock inserts, version A, see page 607, lock cylinder, plastic handles and T handles, version B, see page 606.						

¹⁾ Support arm connection and door hinge at the bottom.

Operating housing with display panel front



System assembly Page 811 Support arm systems Page 177 Stand systems Page 199 Command panel housing with door, stainless steel Page 235

Material:

- Enclosure and door:
Carbon steel
- Frame and front panel:
Aluminum

Surface finish:

- Enclosure and door:
Dipcoat primed, powder-coated on the outside, textured paint
- Frame and front panel:
Natural-anodized

Color:

RAL 7035

Protection rating:

UL Type 12, CSA
(IP 54 to EN 60 529)

Configuration:

- Enclosure without gland plate
- Mounting angles spot welded at the sides
- With maximum cut-out at the front and fitted, easily machinable 11 ga (3.0 mm) front panel with aluminum frame, with r/h hinge, screw-fastened from the inside.
- Rear door with r/h hinge
- Cam lock with double-bit insert

Detailed drawings:

Available at www.rittal-corp.com

Height inches (mm)	Packs of	15 (380)	24 (600)	20 (500)	24 (600)	Page
Width inches (mm)		15 (380)	15 (380)	20 (500)	24 (600)	
Depth inches (mm)		10 (249)	10 (249)	10 (249)	10 (249)	
Part No.	1	6442.500	6462.500	6552.500	6662.500	
Weight lb (kg)		22 (10)	29 (13)	40 (18)	44 (20)	
Cam lock		1	2	2	2	

Accessories

Reinforcement plate with support arm cut-out CP-L	1	6143.210			–	203
Enclosure reinforcement with support arm cut-out CP-XL	1	–	–	–	6503.000	203
Rail for interior installation	4	2373.210				644
Mini comfort handle	1	2537.0X0				604
Alternate lock systems	With 3 mm double-bit lock insert, may be exchanged for 27 mm lock inserts, version A, see page 607, lock cylinder, plastic handles and T handles, version B, see page 606.					



Support arm systems

CP-S support arm system

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CP-L support arm system

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CP-L support arm system	184

CP-C support arm system

Overview.....	187
CP-C support arm system.....	188

CP-XL support arm system

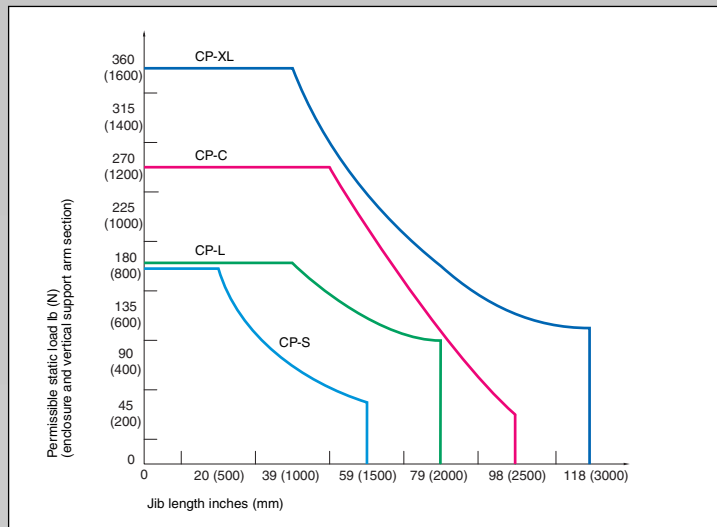
Overview.....	191
CP-XL support arm system	192

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Load information

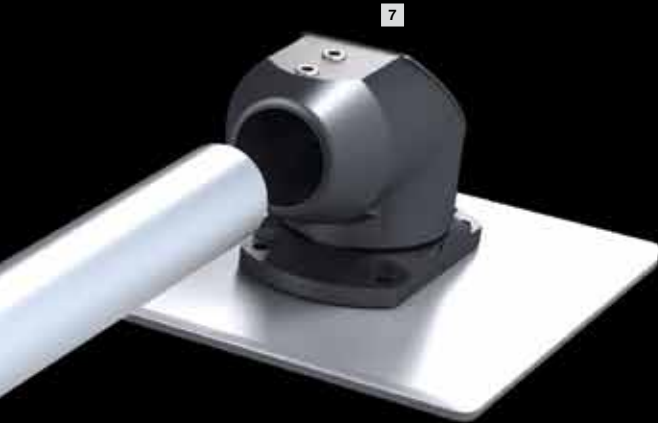
Comparison of support arm systems



CP-S support arm system, steel

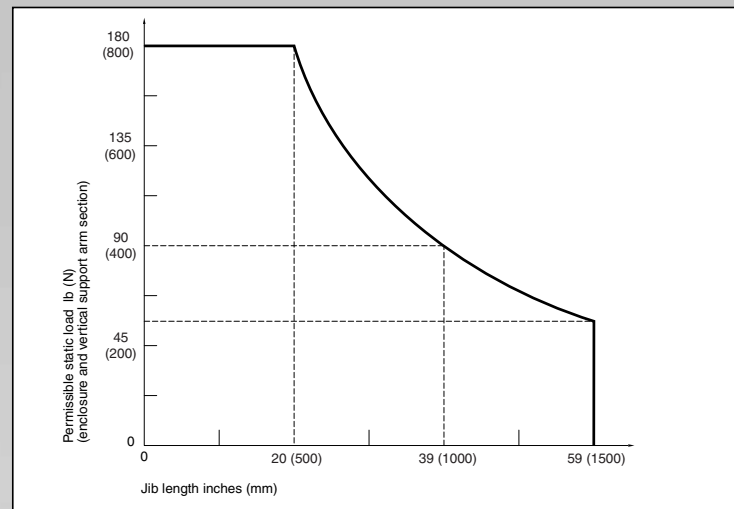
Overview of components

- 1 CP-S enclosure attachment
(6501.070)
- 2 CP-S housing coupling, round
(6501.050)
- 3 CP-S housing coupling for support arm connection
CP-L □ 120 x 65 mm
(6501.130)
- 4 CP-S 90° angle coupling
(6501.120)
- 5 CP-S support section
(6501.000, .020)
- 6 CP-S 90° angle piece
(6501.140)
- 7 CP-S top mounted joint
(6501.160)
- 8 CP-S wall mounted hinge
(6501.150)
- 9 CP-S wall/base mounting bracket
(6501.110)
- 10 Mounting components for signal pillar
(2375.030)



Load information

When using CP-S in conjunction with CP-L
(in the horizontal development of the system),
the CP-L load diagram applies.



CP-S support arm system, steel



Comfort Panel Page 168 Optipanel Page 170 Compact Panel Page 172 Command panel housing with door Page 173 Command panel Page 174

CP-S support section

Attached to the connection components via 2 clamping screws.

Size:

- External diameter: 1.9" (48.3 mm)
- Wall thickness: 0.16" (4.0 mm)

Color:

RAL 7035

Configuration:

CP-S support section

Note:

Stainless steel, see page 236.

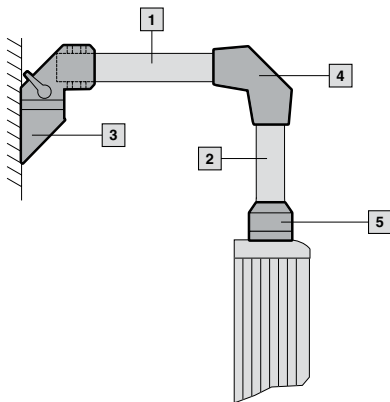
Detailed drawings:

Available at www.rittal-corp.com

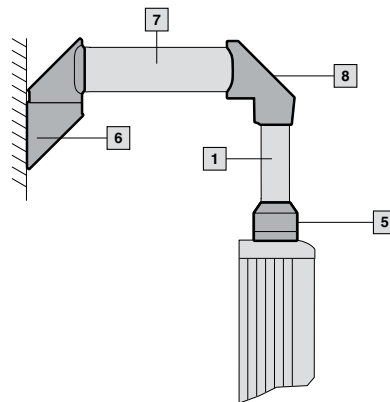
Material:

- Steel conduit, powder-coated

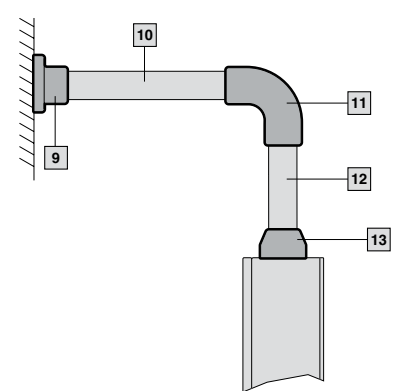
Integral adjustment facility



Combination with support arm system CP-L



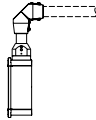
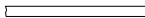
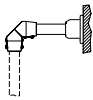



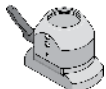

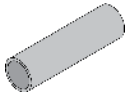
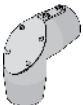


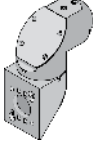

Also available in stainless steel version, see page 236



- 1** CP-S support section, 39" (1000 mm) (6501.020)
- 2** CP-S support section, 20" (500 mm) (6501.000)
- 3** CP-S wall mounted hinge (6501.150)
- 4** CP-S 90° angle piece (6501.140)
- 5** CP-S housing coupling (6501.050)
- 6** CP-L wall mounted hinge (6521.010)
- 7** CP-L support section, 20" (500 mm) (6511.000)

- 8** CP-L to CP-S 90° angle adaptor (6501.090)
- 9** CP-S wall/base mounting, rigid, stainless steel (6663.000)
- 10** CP-S support section, stainless steel, 39" (1000 mm) (6660.010)
- 11** CP-S 90° angle piece, stainless steel (6664.300)
- 12** CP-S support section, stainless steel, 20" (500 mm) (6660.050)
- 13** CP-S housing coupling, stainless steel (6664.000)

CP-S support arm system, steel

	Rotating/tilting	Rigid	Length inches (mm)	Weight lb (kg)	Color RAL	Enclosure section	Desk section	Wall section	
									
Part No.									
	Enclosure attachment, tilting								
see page 198	■	-	-	1.8 (0.8)	7024	6902.670	-	-	
	CP-S enclosure attachment								
	-	■	-	2.2 (1.0)	7024	6501.070	-	-	
	CP-S housing coupling, round								
	■	-	-	2.4 (1.1)	7024	6501.050	-	-	
	CP-S housing coupling								
for support arm connection CP-L □ 120 x 65 mm	■	-	-	3.3 (1.5)	7024	6501.130	-	-	
	CP-S 90° angle coupling								
	■	-	-	3.5 (1.6)	7024	6501.120	-	-	
	CP-S support section								
	-	-	20 (500)	4.6 (2.1)	7035		6501.000		
	-	-	39 (1000)	9.2 (4.2)	7035		6501.020		
	CP-S 90° angle piece								
	-	■	-	2.4 (1.1)	7024	6501.140	-	6501.140	
	Mounting component for signal pillar								
see page 835	-	■	-	.66 (0.3)	7024	2375.030	-	-	
	CP-S top mounted joint								
	■	-	-	4.0 (1.8)	7024	-	-	6501.160	
	CP-S wall mounted hinge								
	■	-	-	4.8 (2.2)	7024	-	-	6501.150	
	CP-S wall/base mounting bracket								
	-	■	-	1.5 (0.7)	7024	-	-	6501.110	
CP-S accessories									
CP-L to CP-S 90° angle adaptor 6501.090								see page 198	



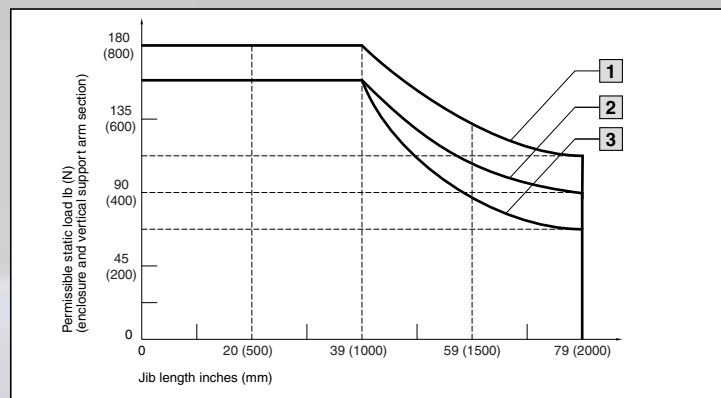
CP-L support arm system

Overview of components

- 1 CP-L tilting adaptor 10°, for support arm connection Ø 130 mm (6527.010)
- 2 CP-L tilting adaptor 10°, for support arm connection CP-L □ 120 x 65 mm (6527.110)
- 3 CP-L tilting adaptor ±45°, for support arm connection Ø 130 mm (6529.010)
- 4 CP-L connection console (6508.010)
- 5 CP-L enclosure attachment, for support arm connection Ø 130 mm (6525.510)
- 6 CP-L enclosure attachment, for support arm connection CP-L □ 120 x 65 mm (6525.610)
- 7 CP-L enclosure attachment, locatable, for support arm connection CP-L □ 120 x 65 mm (6525.210)
- 8 CP-L housing coupling, for support arm connection Ø 130 mm (6525.010)
- 9 CP-L housing coupling, for support arm connection CP-L □ 120 x 65 mm (6525.110)
- 10 CP-L 90° angle coupling for support arm connection Ø 130 mm (6526.010)
- 11 CP-L support section, closed (6509.000, 6511.000, 6513.000, 6515.000)
- 12 CP-L support section, open (6513.050)
- 13 CP-L 90° angle piece (6524.010)
- 14 CP-L 90° articulated joint, may only be top-mounted/suspended on the enclosure side (6524.210)
- 15 CP-L intermediate hinge (6523.010)
- 16 CP-L top mounted joint (6522.010)
- 17 CP-L wall mounted hinge (6521.010)
- 18 CP-L wall/base mounting bracket, small (6520.510)
- 19 CP-L wall/base mounting bracket, large (6520.010)
- 20 CP-L mounting components for signal pillar (2375.000, .020)

Load information

Permissible load depending on system configuration



- 1 System configuration without intermediate hinge
- 2 System configuration with one intermediate hinge
- 3 System configuration with one intermediate hinge and one top-mounted/wall-mounted joint

Note:

- Intermediate hinge 6523.010 should only be used once per system.
- When using the open support section, the load information is 70% of the closed support section.

CP-L support arm system



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CP-L support section

Attachment to the connection components with 4 self-tapping screws in the screw channel, may be cut to any required length, no thread-tapping required.

Size:

- External dimensions: 2.0" x 3.3" (50 x 85 mm)
- Wall thickness: 0.3" (8 mm)

Material:

- Support section: Extruded aluminum section
- Cover: Plastic

Color:

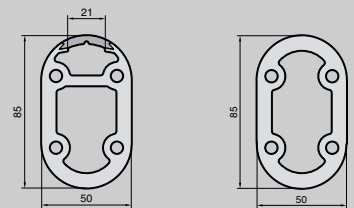
Support section: RAL 7035

Configuration:

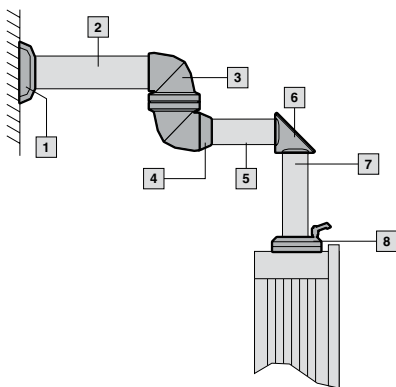
CP-L support section

Detailed drawings:

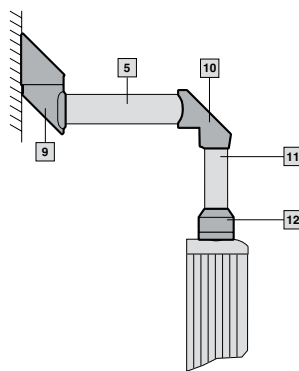
Available at www.rittal-corp.com



Combination with CP-C to CP-L support arm system

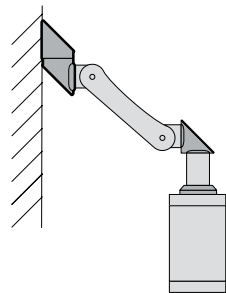
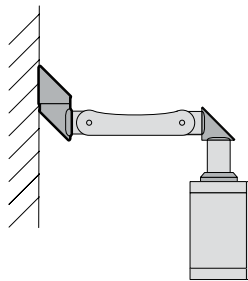
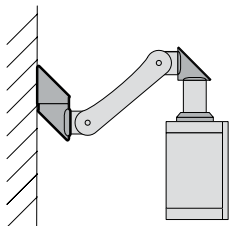


Combination with CP-C to CP-S support arm systems























- 1 CP-C wall/base mounting bracket, large (6072.000)
- 2 CP-C support section, 20" (500 mm) (6074.100)
- 3 CP-C intermediate hinge (6071.800)
- 4 CP-C to CP-L adaptor (6071.600)
- 5 CP-L support section (6511.000)
- 6 CP-L 90° angle piece (6524.010)
- 7 CP-L support section, 20" (500 mm) (6511.000)
- 8 CP-L housing coupling (6525.010)
- 9 CP-L wall mounted hinge (6521.010)
- 10 90° Angle adaptor (6501.090)
- 11 CP-S support section, steel, 20" (500 mm) (6501.000)
- 12 CP-S housing coupling (6501.050)

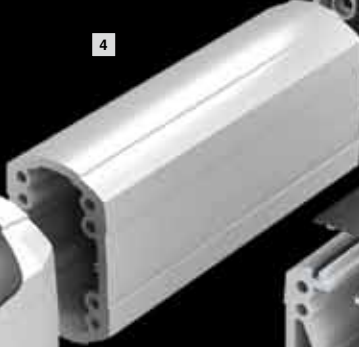
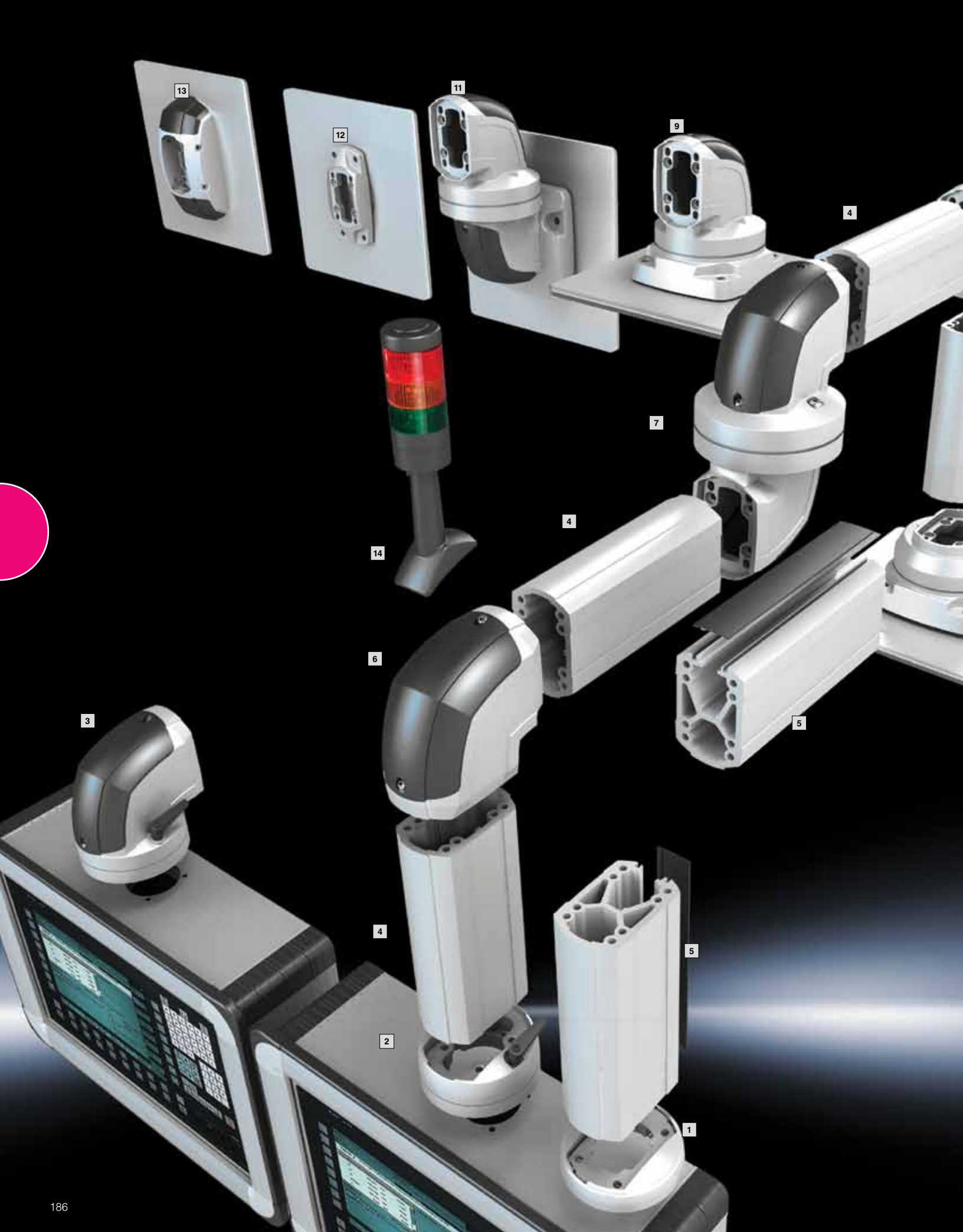
Combination with support arm, height adjustable



- Adjustment range up to 32" (800 mm)
- Integral stay in three stages, except for 6510.210
- Problem-free cable entry with connectors such as DVI, VGA, except with 6510.210
- Support arm, height-adjustable, see page 197

CP-L support arm system

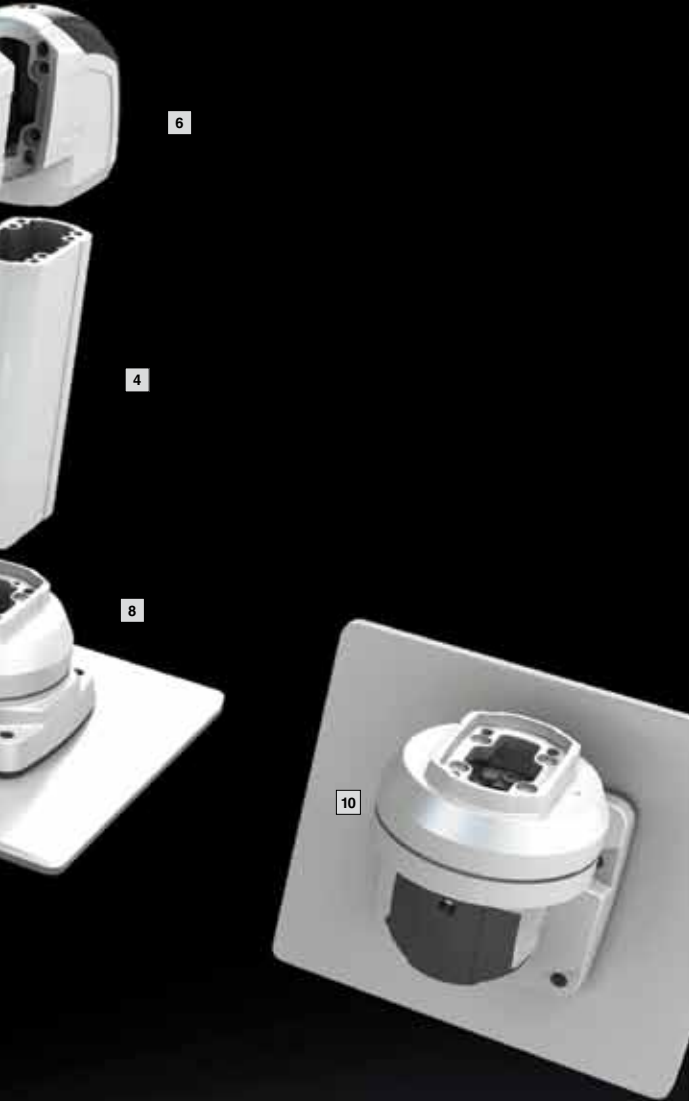
	Rotating/tilting	Rigid	Length inches (mm)	Weight lb (kg)	Color RAL	Enclosure section	Desk section	Wall section
						Part No.		
CP-L tilting adaptor 10°								
 for support arm connection Ø 130 mm	-	■	-	1.3 (0.6)	7024	6527.010	-	-
for CP-L support arm connection  120 x 65 mm	-	■	-	0.9 (0.4)	7024	6527.110	-	-
CP-L tilting adaptor ±45°								
 for support arm connection Ø 130 mm	■	-	-	2.9 (1.3)	7024	6529.010	-	-
CP-L connection console								
 for flat operating housings	-	■	-	1.5 (0.7)	7024	6508.010	-	-
CP-L enclosure attachment								
 for support arm connection Ø 130 mm	-	■	-	2.2 (1.0)	7024	6525.510	-	-
for CP-L support arm connection  120 x 65 mm	-	■	-	2.2 (1.0)	7024	6525.610	-	-
CP-L enclosure attachment, locatable								
 for CP-L support arm connection  120 x 65 mm	-	■	-	0.9 (0.4)	7024	6525.210	-	-
CP-L housing coupling								
 for support arm connection Ø 130 mm	■	-	-	3.7 (1.7)	7024	6525.010	-	-
for CP-L support arm connection  120 x 65 mm	■	-	-	3.1 (1.4)	7024	6525.110	-	-
CP-L 90° angle coupling								
 for support arm connection Ø 130 mm	■	-	-	4.2 (1.9)	7024	6526.010	-	-
CP-L support section								
 Closed	-	-	10 (250)	2.9 (1.3)	7035	6509.000	6509.000	6509.000
	-	-	20 (500)	5.7 (2.6)	7035	6511.000	6511.000	6511.000
	-	-	39 (1000)	11.2 (5.1)	7035	6513.000	6513.000	6513.000
	-	-	79 (2000)	22.4 (10.2)	7035	6515.000	6515.000	6515.000
Open	-	-	1000 (39)	10.6 (4.8)	7035	6513.050	6513.050	6513.050
CP-L 90° angle piece								
 for support arm connection Ø 130 mm	-	■	-	3.1 (1.4)	7024	6524.010	-	6524.010
CP-L 90° articulated joint								
 for support arm connection Ø 130 mm	■	-	-	2.6 (1.2)	7024	6524.210	-	-
CP-L intermediate hinge								
 for support arm connection Ø 130 mm	■	-	-	7.0 (3.2)	7024	-	6523.010	-
CP-L wall/base mounting, large								
 for support arm connection Ø 130 mm	-	■	-	4.2 (1.9)	7024	-	-	6520.010
Mounting component for signal pillar								
 See page 835	-	■	-	0.9 (0.4)	9017	2375.000	-	-
	-	■	-		9017	-	2375.020	2375.020
CP-L top mounted joint								
 for support arm connection Ø 130 mm	■	-	-	6.6 (3.0)	7024	-	-	6522.010
CP-L wall mounted hinge								
 for support arm connection Ø 130 mm	■	-	-	7.0 (3.2)	7024	-	-	6521.010
CP-L wall/base mounting bracket, small,								
 for support arm connection Ø 130 mm	-	■	-	1.3 (0.6)	7024	-	-	6520.510
CP-L accessories:								
Adaptation options								see page 194
Support arm bracket 6519.000								see page 198
Connection plate 6528.210								see page 195



CP-C support arm system

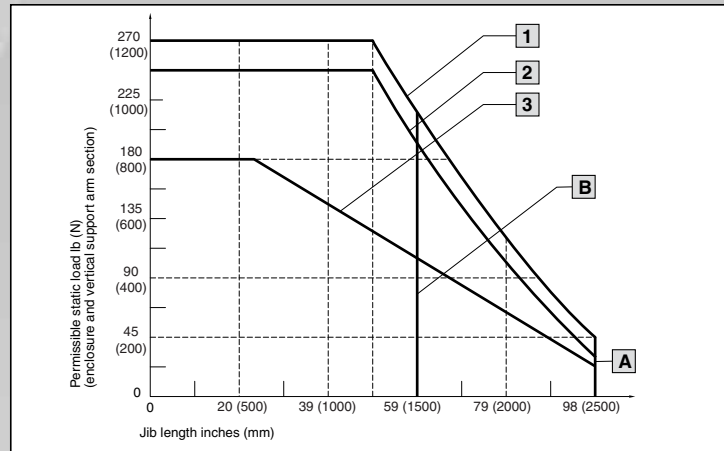
Overview of components

- 1 CP-C enclosure attachment, for support arm connection
CP-L Ø 130 mm (6070.200)
- 2 CP-C enclosure attachment, for support arm connection
CP-L Ø 130 mm (6070.000)
- 3 90° angle coupling, for support arm connection
CP-L Ø 130 mm (6071.200)
- 4 CP-C support section, closed (6074.000, .100, .300, .500)
- 5 CP-C support section, open (6075.100, .300, .500)
- 6 CP-C 90° Angle piece (6071.400)
- 7 CP-C intermediate hinge (6071.800)
- 8 CP-C top-mounted joint, vertical outlet (6072.800)
- 9 CP-C top-mounted joint, horizontal outlet (6072.600)
- 10 CP-C wall-mounted joint, vertical outlet (6072.400)
- 11 CP-C wall-mounted joint, horizontal outlet (6072.500)
- 12 CP-C wall/base mounting bracket, small (6072.200)
- 13 CP-C wall/base mounting bracket, large (6072.000)
- 14 Mounting components for signal pillar (6073.000)



Load information

Permissible load depending on system configuration



- 1 Without intermediate hinge
- 2 With intermediate hinge 6071.800 and closed support section
- 3 With intermediate hinge 6071.800 and open support section
- A Maximum system length 98" (2500 mm) for systems with horizontal outlet at the system start.
- B Maximum system length 59" (1500 mm) for systems **with vertical outlet** at the system start.

Note:

- Wall/base mounting bracket, small 6072.200 must not be used in conjunction with intermediate hinge 6071.800.
- Intermediate hinge 6071.800 should only be used once per system.

CP-C support arm system



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CP-C support section

Attachment to the connection components with 4 self-tapping screws in the screw channel. May be cut to any required length, no thread-tapping required.

Closed cable duct with a large cross-section. Open cable duct for easy servicing access and for pre-assembled cables with connectors; lockable via cover section. X-shaped profile for higher load capacity, large cable routing channels. Upper channel

adequate for cables with large connectors (e.g. DVI or VGA) and available/usable throughout the entire system.

Size:

- External dimensions: 3" x 5" (75 x 120 mm)
- Wall thickness: 0.3" (6.5 mm)

Material:

- Support section: Extruded aluminum section
- Cover: Plastic

Color:

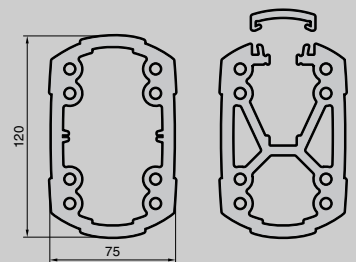
- Support section: RAL 7035
- Cover: RAL 7024

Configuration:

- CP-C support section
- Clip-in lid (only for CP-C open)

Detailed drawings:

Available at www.rittal-corp.com



Function


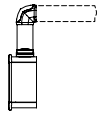








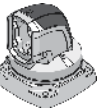
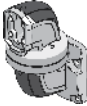



- Easily adjusted without dismantling the system
- Fast, simple assembly of the system
- Rotation range may be limited without dismantling the system

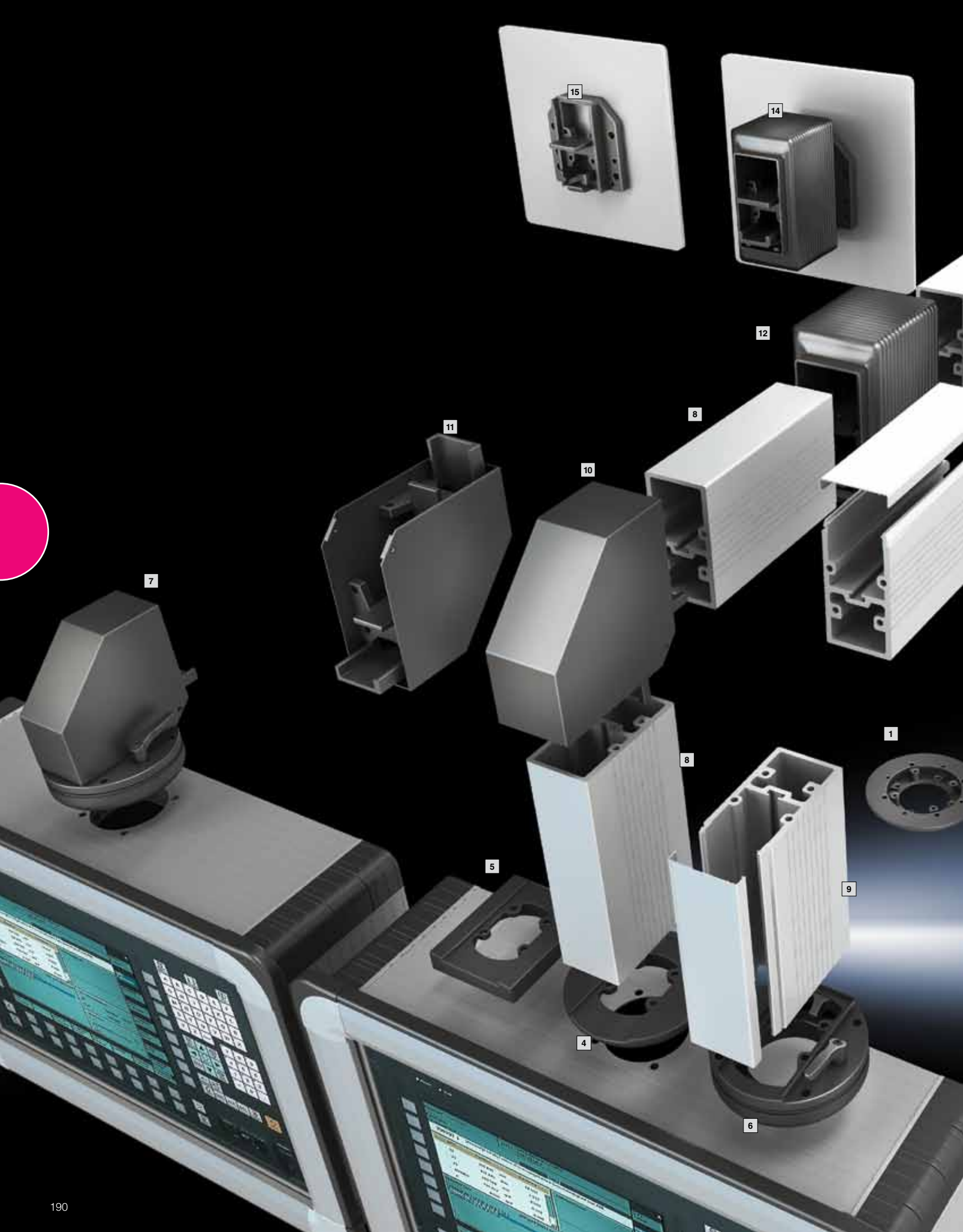
Cable management

- Cross-section sufficient for large connectors
- Separation between data and power cables
- Removable cover for simple cable entry
- Flexible cable entry and routing options



CP-C support arm system

	Rotating/tilting	Rigid	Length inches (mm)	Weight lb (kg)	Color RAL	Enclosure section	Desk section	Wall section	
						Part No.			
	-	■	-	1.5 (0.7)	7035				
CP-C enclosure attachment for CP-L Ø 130 mm support arm connection						6070.200	-	-	
	■	-	-	4.4 (2.0)	7035	6070.000	-	-	
CP-C housing coupling for CP-L Ø 130 mm support arm connection									
	■	-	-	4.6 (2.1)	7035/ 7024	6071.200	-	-	
CP-C support section									
	Closed	-	-	10 (250)	7035	6074.000	6074.000	6074.000	
		-	-	20 (500)		6074.100	6074.100	6074.100	
		-	-	39 (1000)		6074.300	6074.300	6074.300	
		-	-	79 (2000)		6074.500	6074.500	6074.500	
	Open	-	-	20 (500)	7035/ 7024	6075.100	6075.100	6075.100	
		-	-	39 (1000)		6075.300	6075.300	6075.300	
		-	-	79 (2000)		6075.500	6075.500	6075.500	
	-	■	-	2.4 (1.1)	7035/ 7024	6071.400	-	6071.400	
CP-C 90° angle piece									
	■	-	-	9.7 (4.4)	7035/ 7024	-	6071.800	-	
CP-C intermediate hinge									
	Vertical outlet	■	-	-	8.4 (3.8)	7035	-	-	6072.800
		■	-	-	9.5 (4.3)	7035/ 7024	-	-	6072.600
CP-C top-mounted joint									
	Vertical outlet	■	-	-	12.1 (5.5)	7035/ 7024	-	-	6072.400
		■	-	-	13.4 (6.1)	7035/ 7024	-	-	6072.500
CP-C wall-mounted hinge									
	-	■	-	1.1 (0.5)	7035	-	-	6072.200	
CP-C wall/base mounting bracket, small									
	-	■	-	5.5 (2.5)	7035/ 7024	-	-	6072.000	
CP-C wall/base mounting bracket, large									
	see page 835	-	■	-	7024	6073.000	6073.000	6073.000	
Mounting component for signal pillar									
CP-C accessories:									
CP-C to CP-L adaptor 6071.600								see page 196	
CP-L Ø 130 mm to CP-L □ 120 x 65 mm connection adaptor 6071.000								see page 194	
Support arm, height adjustable								see page 197	



7

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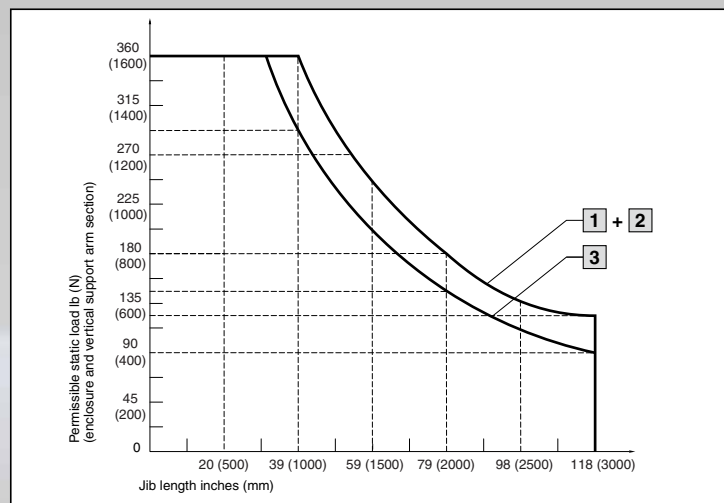
CP-XL support arm system

Overview of components

- 1 CP-L to CP-XL connection adaptor, 20 mm height (6528.010)
- 2 CP-L to CP-XL connection adaptor, 55 mm height (6528.510)
- 3 CP-XL tilting adaptor 10° (6023.010)
- 4 CP-XL enclosure attachment, round (6130.610)
- 5 CP-XL enclosure attachment, square (6130.510)
- 6 CP-XL housing coupling (6130.010)
- 7 CP-XL 90° angle coupling (6140.010)
- 8 CP-XL support section, closed (6050.500, 6100.500, 6200.500)
- 9 CP-XL support section, open (6050.000, 6100.000, 6200.000)
- 10 CP-XL 90° angle piece, outlet at bottom (6140.010)
- 11 CP-XL 90° angle piece, outlet at top (6180.010)
- 12 CP-XL intermediate hinge (6120.010)
- 13 CP-XL top mounted joint (6170.010)
- 14 CP-XL wall mounted hinge (6110.010)
- 15 CP-XL wall/base mounting bracket (6160.010)

Load information

Permissible load depending on system configuration



- 1 Open and closed support section without intermediate hinge
- 2 Closed support section with one intermediate hinge
- 3 Open support section with one intermediate hinge

Note:

Intermediate hinge 6120.010 should only be used once per system.

CP-XL support arm system



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CP-XL support section

Attachment to the connection components with 4 self-tapping screws in a screw channel, may be cut to any required length. Closed cable duct for higher loads and torsion. Open cable duct for easy servicing access and for pre-assembled cables with connectors; lockable via clip-in cover.

Size:

External dimensions:
3.3" x 6.1" (80 x 155 mm)

Material:

Extruded aluminum section

Color:

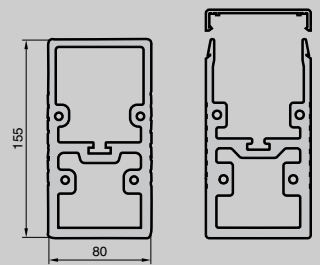
RAL 7035

Configuration:

- CP-XL support section
- Clip-in cover (only for CP-XL open)

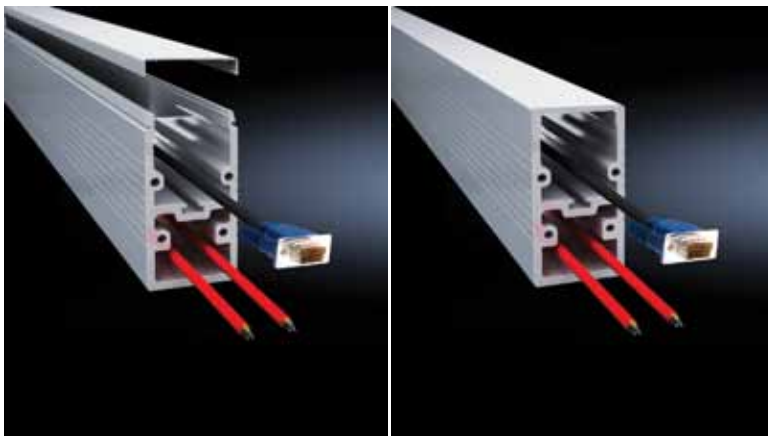
Detailed drawings:

Available at www.rittal-corp.com

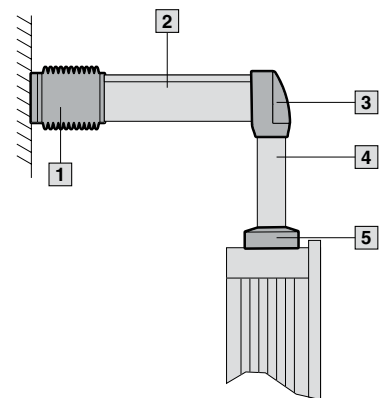


Cable management

- Open support section for retrospective cable insertion
- Separation of control cables from power supply with two separate ducts

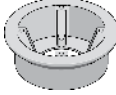
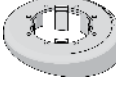
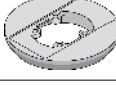


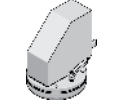




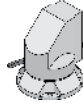

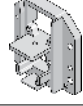



Combination with CP-XL to CP-L support arm systems



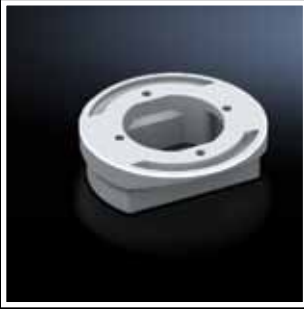
- 1 CP-XL wall mounted hinge (6110.010)
- 2 CP-XL support section (6100.000)
- 3 CP-XL to CP-L 90° angle adaptor (6528.110)
- 4 CP-L support section (6511.000)
- 5 CP-L housing coupling for CP-L Ø 130 mm support arm connection (6525.010)

CP-XL support arm system

	Rotating/tilting	Rigid	Length inches (mm)	Weight lb (kg)	Color RAL	Enclosure section	Desk section	Wall section
						Part No.		
CP-L to CP-XL connection adaptor								
	-	■	-	1.3 (0.6)	7024	6528.010	-	-
Height: 0.8" (20 mm)	-	■	-	1.5 (0.7)	7024	6528.510	-	-
Height: 2.2" (55 mm)	-	■	-					
CP-XL 10° tilting adaptor								
	-	■	-	3.1 (1.4)	7024	6023.010	-	-
CP-XL enclosure attachment, round								
	-	■	-	2.6 (1.2)	7024	6130.610	-	-
CP-XL enclosure attachment, rectangular								
	-	■	-	2.6 (1.2)	7024	6130.510	-	-
CP-XL housing coupling								
	■	-	-	7.9 (3.6)	7024	6130.010	-	-
CP-XL 90° angle coupling								
	■	-	-	4.6 (2.1)	7024	6040.010	-	-
CP-XL support section								
	-	-	20 (500)	12.1 (5.5)	7035	6050.500	6050.500	6050.500
	-	-	39 (1000)	24.2 (11.0)	7035	6100.500	6100.500	6100.500
	-	-	79 (2000)	48.4 (22.0)	7035	6200.500	6200.500	6200.500
	-	-	20 (500)	10.8 (4.9)	7035	6050.000	6050.000	6050.000
	-	-	39 (1000)	21.6 (9.8)	7035	6100.000	6100.000	6100.000
	-	-	79 (2000)	43.1 (19.6)	7035	6200.000	6200.000	6200.000
CP-XL 90° angle piece								
	-	-	-	5.3 (2.4)	7024	6140.010	-	6140.010
	-	-	-	7.9 (3.6)	7024	6180.010	-	6180.010
CP-XL intermediate hinge								
	■	-	-	14.3 (6.5)	7024	-	6120.010	-
CP-XL top mounted joint								
	■	-	-	26.2 (11.9)	7024	-	-	6170.010
CP-XL wall mounted hinge								
	■	-	-	18.7 (8.5)	7024	-	-	6110.010
CP-XL wall/base mounting bracket								
	-	■	-	9.0 (4.1)	7024	-	-	6160.010
Rotation range restrictor								
	-	■	-	1.3 (0.6)	-	-	6110.100	6110.100
for: Intermediate hinge 6120.010 Wall-mounted hinge 6110.010								

Support arm systems

Accessories



CP-L Ø 130 mm to CP-L 120 x 65 mm connection adaptor

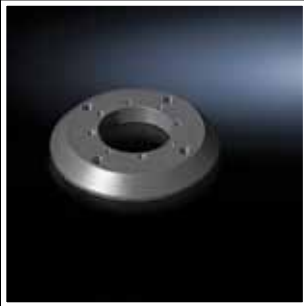
For external mounting of command panels with CP-L 120 x 65 mm support arm cutout.

Material:
Cast aluminum

Configuration:
Seal and assembly parts

Height inches (mm)	Color RAL	Weight lb (kg)	Part No.
1.6 (40)	7035	1.1 (0.5)	6071.000

Detailed drawings:
Available at www.rittal-corp.com



CP-L to CP-XL Connection adaptor

For mounting between enclosures with support arm connection CP-L and support arm system CP-XL. May also be used for the attachment of command panels with cut-out for CP-L directly to machines and systems without a support arm. The mounting cut-out CP-XL should be provided there.

Assembly sequence:
– Mount the connection adaptor on the supporting structure
– Mount the enclosure and tighten the screws

Material:
Cast aluminum

Configuration:
Seal and assembly parts

Detailed drawings:
Available at www.rittal-corp.com

Height inches (mm)	Color RAL	Weight lb (kg)	Part No.
0.8 (20) ¹⁾	7024	1.3 (0.6)	6528.010
2.2 (55)	7024	1.5 (0.7)	6528.510

¹⁾ If the load permits, also suitable for mounting between enclosure with support arm connection CP-XL and support arm system CP-L Ø 130 mm.



Adaptor for Siemens Pro-Panel

– For external mounting of Siemens Simatic Pro-Panel on
– CP-S Support arm system
– CP-L 120 x 65 mm Support arm system

Material:
Aluminum

Configuration:
Assembly parts

Color RAL	Part No.
7024	6528.450



CP-L connection console

for Beckhoff Control-Panels

- Removable cover for easy cable entry with a large opening of 4.3 x 2.0 inches (110 x 50 mm)
- For external mounting of Beckhoff Control Panels on
 - CP-S support arm system
 - CP-L support arm system, 120 x 65 mm

Material:

Cast aluminum

Configuration:

Seals and assembly parts for mounting on the enclosure and 2 cable ties

Color RAL	Weight lb (kg)	Part No.
7024	1.5 (0.7)	6508.020



CP-L connection plates

With reinforcement plate

- For easy location of the command panel onto the support arm or pedestal.
- More space for cable entry
- For mounting command panels
 - Comfort Panel from a front panel width of 9.7" (247 mm) and installation depth of 6.0" (152 mm)
 - Optipanel from a front panel width of 8.6" (220 mm) and installation depth of 5.9" (150 mm)
 - Carbon steel from 5.3" (135 mm) installation depth

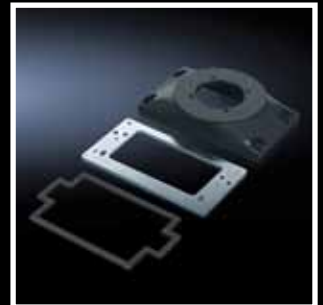
Color RAL	Weight lb (kg)	Part No.
7024	1.5 (0.7)	6528.210

Material:

- Connection plate: Cast aluminum
- Reinforcement plate: Carbon steel, 3 ga (6.0 mm)

Detailed drawings:

Available at www.rittal-corp.com



Enclosure attachment, tilting, base mounting

CP-L □ 120 x 65 mm

For mounting beneath:

- IW worktop with pedestal
- Adequately large surfaces

Fits enclosures with mounting cut-out:

- CP-L □120 x 65 mm (e.g. Optipanel, see page 170, Comfort Panel, see page 168)

With mounting cut-out for connector grommet for sealed cable entry.

Tilt angle:

+/-40°, lockable via clamping levers.

Material:

Carbon steel

Surface finish:

Spray-finished

Configuration:

Assembly parts

Color RAL	Weight lb (kg)	Part No.
7024	3.5 (1.6)	6902.640

Note:

The enclosure attachment can be mounted either on the support arm connection of the Optipanel enclosure or on the underside or rear of any enclosure.

Accessories:

- Connector gland, see page 718
- IW worktop, see page 159
- Pedestal, see page 199

Detailed drawings:

Available at www.rittal-corp.com



Support arm systems

Accessories



CP-C to CP-L connection adaptor

Applications:

- For integration of the CP-L support arm, height adjustable (see page 184) to the CP-C support arm system
- For mounting small, flat operating housings if the load capacity of the CP-C support arm system is needed for long jib lengths

Benefits:

- Integral adjustment facility

Material:

Cast aluminum

Weight lb (kg)	Part No.
1.3 (0.6)	6071.600

Configuration:

- Seals
- Self-tapping screws for CP-L support section attachment

Detailed drawings:

Available at www.rittal-corp.com



CP-XL adjustment set for support section

The adjustment set also supports retrospective alignment of the CP support section.

Material:

Carbon steel 18 ga (1.0 mm)

Surface finish:

Zinc-plated

Packs of	Part No.
10	6205.000



CP-XL housing couplings for desktop mounting

The stable, rotating connection with extra space for cable routing. For additional stability of the roof and base with heavy installed equipment.

For mounting

- Command panels from 5.9" (150 mm) installation depth on
- IW worktops
- Horizontal surfaces (floors or ceilings)

Attachment

- of command panels: With one-man assembly via machined keyholes
- on surfaces: Via external screws with cover

Rotation range:

Max. 350°, lockable via clamping levers. By using additional M6 cheese-head screws, the rotation range may be limited to ±28°, ±73°, ±118°, ±163°.

Material:

- Housing coupling: Cast aluminum/die-cast zinc
- Reinforcement plate: Carbon steel, 3 ga (6.0 mm)

Surface finish:

- Housing coupling: Powder-coated, textured
- Reinforcement plate: Zinc-plated

Color:

Housing coupling: RAL 7024

Design	Optipanel	Comfort Panel	Weight lb (kg)	Part No.
Width = 16" (418 mm)	Width = 17" (432 mm) ¹⁾	Width = 17" (435 mm) ¹⁾	9 (4.2)	6528.410

¹⁾ From front panel width mm without keyboard housing; with keyboard housing on request.

Configuration:

- Reinforcement plate
- Seals
- Assembly parts



CP-L support arm, height adjustable for support arm system

Offers enhanced ergonomics thanks to:

- Adjustment range
 - for tall and short operators
 - for seated and standing work
 - adjustable to a maximum of 32" (800 mm) as required via an adjusting screw at the front of the support arm
- Precise coordination of the compression spring to the enclosure weight via an adjusting screw at the rear of the support arm
- Complete functional reliability – if the compression spring breaks, the arm will remain in position
- Clip-off plastic panels for access to integral cable routing
- Tilting angle of the mounted enclosure is identical in every height position

For 6510.330 and 6510.340:

- More space for cable routing
- Cables with connectors such as DVI, VGA are also easily inserted
- Integral locking in three stages.
- Superior load capacity

Overall length inches (mm)	Color RAL	Weight range lb (kg) ¹⁾	Part No.
38 (962)	9006	22 – 44 (10 – 20)	6510.210
43 (1090)	9006	33 – 97 (15 – 32)	6510.330
43 (1090)	9006	44 – 88 (20 – 40)	6510.340

¹⁾For populated enclosure and vertical support section.

Configuration:

Assembly parts

Note:

Maximum cross-section for cable entry:

6510.210 = 0.3" x 0.6" (8 x 15 mm)

6510.330/.340 = 0.6" x 1.6" (16 x 40 mm)

Detailed drawings:

Available at www.rittal-corp.com



CP-L pivot with/without jib

- For direct, vertically hinged integration into machines and systems
- Enclosure suspended or top-mounted
- With integral rotation range restrictor
- To fit enclosures with mounting cut-out CP-L Ø 130 mm

Detailed drawings:

Available at www.rittal-corp.com

Jib length inches (mm)	Color RAL	Load capacity lb (N)	Part No.
-	7024	157 (700)	6016.700
8 (200)	7024/7035	157 (700)	6016.600



Support arm systems

Accessories



CP-L 90° support arm bracket

- For the configuration of compact systems
- To fit support arm system CP-L
- No thread-tapping required

Detailed drawings:

Available at www.rittal-corp.com

Color RAL	Weight lb (kg)	Part No.
7035	7 (3.4)	6519.000



Enclosure attachment, tilting, top mounting

For mounting on:

- IW worktop, prepared for enclosure attachment CP-L, Ø 130 mm, see page 159
- Surfaces
- Enclosure attachment/coupling CP-L 120 x 65 mm, see page 185
- Attachment/housing coupling CP-S (may also be used as tilting adaptor +100°/–60° for CP-S), see page 181

To fit enclosures up to 44 lb (20 kg) with support arm connection:

- CP-S
- CP-L 120 x 65 mm
- CP-L Ø 130 mm
- VESA Standard 75

With cable tube for protected cable entry.

Tilt angle:

+100°/–60°, adjustable in 7.2° increments via clamping lever and may be limited to +100°/–15° using the stop screw supplied loose.

Color RAL	Weight lb (kg)	Part No.
7024	2 (0.8)	6902.670

Material:

Carbon steel

Surface finish:

Spray-finished

Configuration:

- Assembly parts
- Plastic concertina section

Accessories:

IW worktops prepared for enclosure attachment, see page 159

Detailed drawings:

Available at www.rittal-corp.com



90° angle adaptor

Connection component between:

- small and larger support arm systems

Outlet optionally at the top or bottom if this configuration is chosen for static or visual reasons. The removable cover ensures easier cable entry.

Material:

Cast aluminum

Configuration:

Seal for support section attachment

Detailed drawings:

Available at www.rittal-corp.com

	Color RAL	Weight lb (kg)	Part No.
CP-L to CP-S	7024	2 (1.0)	6501.090
CP-XL to CP-L	7024	4 (1.7)	6528.110

Stand systems, modular pedestal



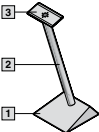
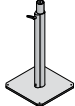
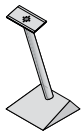
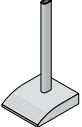
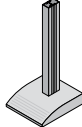


Comfort Panel Page 168 Optipanel Page 170 Compact Panel Page 172 Command panel housing with door Page 173 Command panel Page 174

Pedestal, modular, consisting of:
 – Pedestal base plate
 – Support section
 – Enclosure connection

Color:
 RAL 7035

Detailed drawings:
 Available at www.rittal-corp.com

Photo shows a configuration with equipment not included in the base part number

					
Weight load lb (kg)	33 (15)	40 (18)	77 (35)	110 (50)	Page
1 Pedestal base plate	Part No.				
Pedestal base plate	6146.100	6143.200	6137.535	6137.035	
Dimensions H x W x D inches (mm)	0.4 x 16 x 16 (10 x 400 x 400)	4 x 16 x 16 (108 x 400 x 400)	4 x 19 x 24 (100 x 490 x 600)		
2 Support section	Part No.				
Height-adjustable range: inches (mm) 29 – 44 (732 – 1122)	6146.200	–	–	–	
Closed, length inches (mm) 39 (1000)	–	6513.000		6100.500	193
Open, length inches (mm) 39 (1000)	–	6513.050		6100.000	193
3 Enclosure connection	Part No.				
Enclosure reinforcement, rigid	–	6143.210	–	–	203
CP-S enclosure attachment	6501.070	–	–	–	181
CP-S housing coupling	6501.050	–	–	–	181
CP-L Ø 130 mm enclosure attachment	–	–	6525.510	–	185
CP-L  120 x 65 mm enclosure attachment	–	–	6525.610	–	185
CP-L Ø 130 mm housing coupling	–	–	6525.010	–	185
CP-L  120 x 65 mm housing coupling	–	–	6525.110	–	185
CP-XL round enclosure attachment	–	–	–	6130.610	193
CP-XL rectangular enclosure attachment	–	–	–	6130.510	193
CP-XL husing coupling	–	–	–	6130.010	193
Tilt adjustment	6146.300	–	–	–	–
Accessories					
Twin casters	6148.000	–	6148.000		549
Levelling feet	–	–	4612.000		547
Base mount	–	–	1590.000		628
Gas pressurized spring, load cap. lb (kg) 33 (15)	6146.400	–	–	–	–

Stand systems, complete pedestal



Comfort Panel Page 168 Optipanel Page 170 Compact Panel Page 172 Command panel housing with door Page 173 Command panel Page 174

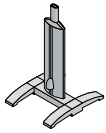
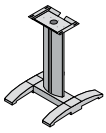
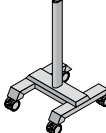
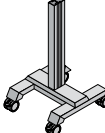
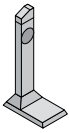



The right system to suit any application:

- Fixed or mobile versions
- Different designs
- Weight load from 33 – 110 lb (15 – 50 kg)
- Reliable protection of cable management

Color:
RAL 7035

Detailed drawings:
Available at www.rittal-corp.com

Photo shows a configuration with equipment not included in the base part number

						
Weight load lb (kg)	55 (25)	55 (25)	77 (35)	110 (50)	110 (50)	Page
Part No.	6141.100	6141.200	6136.500	6136.000	6135.000	
Dimensions H x W x D inches (mm)	43 x 24 x 24 (1093 x 600 x 660)	37 x 24 x 24 (946 x 600 x 660)	40x 24 x22 (1005 x 600 x 550)		39 x 14 x 20 (995 x 360 x 500)	
Supply includes						
Cross member	■	■	■	■	–	
Base plate	–	–	–	–	■	
Twin casters	–	–	■	■	–	
Support section	■	–	■	■	■	
Vertical aluminum moulding, may be opened	■	■	–	–	–	
Worktop attachment	–	■	–	–	–	
Accessories						
Twin casters	6148.000, 7495.000		–	–	–	549
Levelling feet	4612.000		–	–	–	547
Base mount	6147.000		–	–	–	203
Trim panel for pedestal	6144.100		–	–	–	203
CP-L Ø 130 mm enclosure attachment	6525.510	–	6525.510	–	–	185
CP-L  120 x 65 mm enclosure attachment	6525.610	–	6525.610	–	–	185
CP-L Ø 130 mm housing coupling	6525.010	–	–	–	–	185
CP-L,  120 x 65 mm housing coupling	6525.110	–	–	–	–	185
CP-L  120 x 65 mm encl. attachment, locatable	6525.210	–	–	–	–	185
CP-XL enclosure attachment, round	–	–	–	6130.610	–	193
CP-XL enclosure attachment, rectangular	–	–	–	6130.510	–	193
Enclosure attachment, tilting	–	6902.640	–	–	–	195
Worktop without handle ¹⁾	–	6902.310	–	–	–	200

¹⁾H x W x D inches (mm) 2 x 37 x 24 (38 x 950 x 600)



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The welded alternatives to the pedestal, complete
 – Pedestal, open:
 For retrospective cable entry with pre assembled connectors
 – Pillar, small:
 For heavy installed equipment

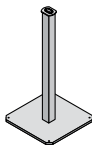
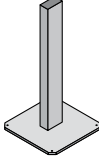
Material:
Steel


Surface finish:
Spray-finished

Color:
RAL 7035

Detailed drawings:
Available at www.rittal-corp.com

Photo shows a configuration with equipment not included in the base part number

			
Weight lb (kg)	88 (40)	176 (80)	Page
Part No.	6215.000	6214.500	
Design			
Base plate cross-section H x W x D inches (mm)	0.4 x 16 x 16 (10 x 400 x 400)	0.5 x 20 x 20 (12 x 500 x 500)	
Pedestal tube cross-section H x W inches (mm)	3 x 3 (73 x 86)	3 x 6 (80 x 160)	
Pedestal tube wall thickness inches (mm)	0.1 (3)	0.1 (3.2)	
Overall height inches (mm)	43 (1093)	45 (1150)	
Accessories			
CP-L Ø 130 mm enclosure attachment	6525.510	–	185
CP-L Ø 130 mm housing coupling	6525.010 ¹⁾	–	185
CP-XL round enclosure attachment	–	6130.610	193
CP-XL rectangular enclosure attachment	–	6130.510	193
CP-XL housing coupling	–	6130.010	193

¹⁾When assembling enclosures with CP-L  120 x 65 mm support arm connection, CP-L Ø 130 mm connection adaptor to CP-L  120 x 65 mm 6071.000 (see page 185) should additionally be used.

Stand systems, pillar



Support arm system CP-S Page 179 Support arm system CP-L Page 183 Support arm system CP-C Page 187 Support arm system CP-XL Page 191

The stable base point for the support arm system. The attachment of additional enclosures, e.g. for security systems, is also possible.

There is a choice of 2 cross sections:

- 6" x 6" (140 x 140 mm)
- 8" x 8" (200 x 200 mm)

Design:

- Base plate, thickness: 0.6" (15 mm), with 4 mounting holes
- Cut-out in the base plate in accordance with the cross section for cable entry from below
- Pedestal tube (wall thickness) 0.2" (5 mm) welded to the base plate
- Connection facility for support arm systems as per the selection table

Delivery time:

Available on request

Material:

Steel

Surface finish:

Spray-finished

Color:

RAL 7035

Configuration:

Assembly parts for support arm system according to selection.

Note:

- Customer-specific designs, such as:
- Other RAL colors
 - Heights
 - Consoles for additional enclosures available on request

Accessories:

- CP-S support arm system, see page 179
- CP-L, see page 183
- CP-C, see page 187
- CP-XL, see page 191
- Gland plates size 2, see from page 712

Detailed drawings:

Available at www.rittal-corp.com

Photo shows a configuration with equipment not included in the base part number

Design	For support arm system	Part No.
Cross-section inches (mm) 6 x 6 (140 x 140), height inches (mm) 79 (2000) ¹⁾	CP-S, CP-L, CP-C	6214.000
Cross-section inches (mm) 8 x 8 (200 x 200), height inches (mm) 79 (2000) ¹⁾	CP-C, CP-XL	6220.000

¹⁾ Unless otherwise specified.

In addition to the part number the following information is also needed:

1. Unless otherwise stated, the position for the cable entry cut-out is on the rear.
2. Position and Item No. of support arm component.

Support arm component	Support arm system			
	CP-S	CP-L	CP-C	CP-XL
Wall/base mounting bracket, large, side mounting	6501.110	6520.010	6072.000	6160.010
Wall mounted hinge, horizontal outlet, side mounting	6501.150	6521.010	6072.500	6110.010
Top mounted joint, mounting on top	6501.160	6522.010	6072.600, 6072.800	6170.010

Base mount

Brackets for screw-fastening from below to the cast feet with posidrive raised countersunk screws M12. Optionally with projection at the front, interior or sides, with Ø 11 mm hole for screwfastening to the base.

Packs of	Part No.
4	6147.000

Material:

Steel

Surface finish:

Zinc-plated

Configuration:

Posidrive raised countersunk screws M12



Trim panel

Material:

Cast aluminum

Color	Part No.
7035 textured	6144.100

Configuration:

Assembly parts for screw-fastening between the cast feet at the front or rear



Enclosure reinforcement

For external or internal reinforcement of enclosures of a corresponding size. Smaller enclosures may also be mounted directly without reinforcement.

Detailed drawings:

Available at www.rittal-corp.com

Configuration:

Assembly parts for the enclosure and support section plus 2 seals

	For enclosure	Support arm connection	Material	Weight lb (kg)	Part No.
1	B1 ≥ 12" (300 mm), T1 ≥ 6" (150 mm)	CP-S	Type 304 Stainless steel	(0.9)	6143.310
2	B1 ≥ 12" (300 mm), T1 ≥ 6" (150 mm)	CP-L	Carbon steel	(0.9)	6143.210
3	6662.500 or AE (B1 = 24" (600 mm), T1 ≥ 8" 210 mm))	CP-XL	Carbon steel	(2.2)	6503.000

B = Width

T = Depth





Hygienic Design

HD small and compact enclosures

Hygienic design terminal box.....	206
Hygienic design compact enclosure	207
Hygienic design accessories.....	208



Hygienic design terminal box



HD accessories Page 208 System accessories Page 531

Material:

- Enclosure and cover:
Type 304 stainless steel,
16 ga (1.5 mm)
- Mounting bracket:
Carbon steel, zinc-plated,
14 ga (2.0 mm)
- Quick-release locks:
Type 304 stainless steel
- Gasket:
Conforms to FDA Guideline
CFR 177.2600

Configuration:

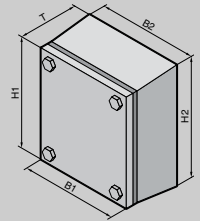
- 3° inclined surfaces on all sides
 - 10° chamfer on cover
 - Replaceable silicone gasket
 - HD quick release locks
 - Internal vertical mounting rails
- ## Surface finish:
- Enclosure and cover:
Brushed, grain 400,
 $R_A < 0.8 \mu\text{m}$
 - Seal: Blue, dyed (RAL 5010)

Protection rating:

- Conforms to NEMA Type 13,
3R, 4X
- IP 66 to EN 60 529
- IP 69K to DIN 40 050-9

Detailed drawings:

Available at www.rittal-corp.com



Depth: 3 - 5" (80 - 120 mm), Height: 7 - 9" (172 - 227 mm)

Height inches (mm)	front (H1)	PU	6 (150)	6 (150)	8 (200)	8 (200)	8 (200)	12 (300)	Page
	rear (H2)		7 (172)	7 (177)	9 (227)	9 (227)	9 (227)	13 (327)	
Width inches (mm)	front (B1)		6 (150)	6 (150)	8 (200)	12 (300)	16 (400)	16 (400)	
	rear (B2)		7 (172)	7 (177)	9 (227)	13 (327)	17 (427)	17 (427)	
Depth (T) inches (mm)			3 (80)	5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	
Part No.	1		1670.600	1671.600	1672.600	1674.600	1675.600	1676.600	
Weight lb (kg)			4 (1.8)	5 (2.2)	7 (3.0)	9 (4.0)	11 (5.0)	13 (5.9)	

Accessories

Accessories	Quantity	Part No.	Weight lb (kg)	Page			
Wall spacer	4	4000.100		208			
Mounting panel	1	1560.700	1562.700	1563.700	1564.700	1568.700	635
Support rail 35/7.5	10	2314.000	2315.000	2316.000	2317.000		662

Hygienic design compact enclosure



HD accessories Page 208 System accessories Page 531

Material:

- Enclosure and door: Type 316L Stainless steel
- Mounting panel: Carbon steel
- HD lock inserts: Type 304 Stainless steel
- Gasket: Conforms to FDA Guideline CFR 177.2600

Configuration:

- 30° overhanging sloped roof
- Chamfer on door fold
- HD lock inserts
- Replaceable silicone gasket
- Internal hinges
- Provisions for rail installation (body and door)

Surface finish:

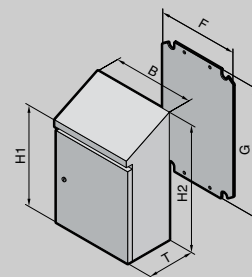
- Enclosure and door: Brushed, grain 400, $R_A < 0.8 \mu\text{m}$
- Mounting panel: Zinc-plated

Protection rating:

- UL/cUL Type 4X (IP 66 to EN 60 529)
- IP 69K to DIN 40 050-9

Detailed drawings:

Available at www.rittal-corp.com



Depth: 6 - 12" (155 - 300 mm), Height: 14 - 56" (350 - 1421 mm)

Height	front (H1)	PU	14 (350)	17 (430)	26 (650)	22 (550)	17 (430)	26 (650)	41 (1050)	49 (1250)	Page
	inches (mm)		rear (H2)	17 (437)	22 (549)	30 (769)	26 (669)	24 (601)	30 (769)	48 (1221)	
Width (B) inches (mm)			9 (220)	15 (390)	15 (390)	20 (510)	24 (610)	24 (610)	32 (810)	32 (810)	
Depth (T) inches (mm)			6 (155)	8 (210)	8 (210)	8 (210)	12 (300)	8 (210)	12 (300)	12 (300)	
Mounting panel height (G) inches (mm)			11 (275)	14 (355)	22 (570)	19 (470)	14 (355)	22 (570)	38 (955)	45 (1155)	
Mounting panel width (F) inches (mm)			6 (162)	13 (334)	13 (334)	18 (449)	22 (549)	22 (549)	29 (739)	29 (740)	
Part No.		1	1302.600	1306.600	1308.600	1307.600	1320.600	1310.600	1316.600	1317.600	
Weight lb (kg)			9 (4)	33 (15)	40 (18)	44 (20)	44 (20)	60 (27)	132 (60)	157 (71)	

Accessories

Accessories	Quantity	Part No.	Weight lb (kg)	Page
Wall spacer	1	4000.100		208
Rail for interior installation	for door ¹⁾	4	–	651
	for body	4	–	651

¹⁾ Only full length rail part numbers shown, see www.rittal-corp.com for more options.

Hygienic Design

Accessories



HD levelling feet for TS 8 in hygienic design applications

Benefits:

- Minimizes cleaning time thanks to fully covered, permanently sealed threads
- Compensation of floor inclines up to an angle of 10° thanks to flexible base plate
- Baying can even be achieved on sloping floors, thanks to a large levelling range of 2.1" (55 mm)

Thread	Levelling range inches (mm)	Base mount	Packs of	Part No.
M12	4.7 – 6.9 (120 – 175)	without	4	4000.200
		with	4	4000.210

Load capacity:

Max. 1124 lb (5000 N) static per levelling foot

Material:

Type 304 Stainless steel

Configuration:

Assembly parts and seals



HD wall spacer bracket

Benefits:

- Creates space for cleaning behind the enclosure
- Shorter assembly times by eliminating the need for an all-round seal
- Greater hygiene safety by avoiding an uncontrollable dead space or gap between the enclosure and wall

Functional principle:

- Mounting on the wall optionally from the enclosure interior via a through-hole (max. M8) or from the rear via an integral M10 thread

Wall distance inches (mm)	Packs of	Part No.
2 (50)	1	4000.100

Material:

Type 304 Stainless steel

Configuration:

Assembly parts and seals



HD enclosure key

Packs of	Part No.
1	2549.600



HD bit for universal key 2549.500 See page 610

Packs of	Part No.
1	2549.510



HD cam lock

Hygienic Design version for easy, safe cleaning.

Applications:

- Compact enclosures AE stainless steel (except 1017.XXX and 1019.XXX)
- May be integrated into customized applications, e.g. covers of machine panels

Material:

Type 316L Stainless steel

Accessories:

HD enclosure key, see above

Packs of	Part No.
1	2304.010

Rails for interior installation for HD compact enclosures

For mounting on the existing threaded bolts. With TS system punchings on three sides.

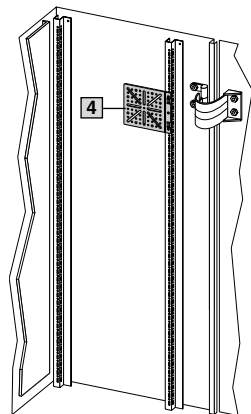
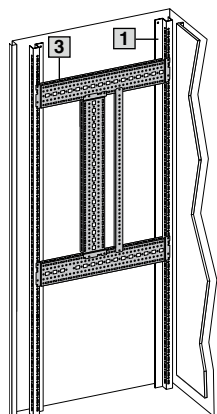
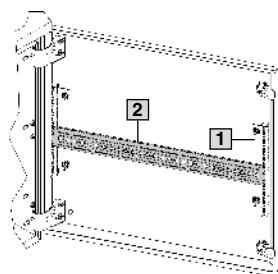
Material:

Carbon steel, zinc-plated

Configuration:

Assembly parts

Length inches (mm)	Packs of	Part No.	Page
510	4	5001.050	651
710	4	5001.051	651
910	4	5001.052	651
1110	4	5001.053	651



Interior installation, door

Enclosure	Part No.	
1316.600	5001.052	5001.050
317.600	5001.053	5001.051 5001.050

Rails for door installation

Enclosure	Part No.
1316.600 1317.600	8612.065

Interior installation, enclosure

Enclosure	Part No.		
1308.600 1310.600	5001.050	–	–
1316.600	5001.052	8612.130 (only on lock side)	8612.400 8612.410
1317.600	5001.053	8612.130 (only on lock side)	8612.400 8612.410



Stainless steel

Junction boxes

KL screw cover junction box	212
JB hinge cover junction box	213

WM wallmount enclosures

WM wallmount enclosure	215
WM disconnect wallmount	218
WM slope top wallmount enclosure	219

AE wallmount enclosures

AE wallmount enclosure	221
AE IP 69K wallmount enclosure	223

TS 8 enclosures

TS 8 freestanding enclosure	224
TS 8 UL Type 4X freestanding enclosure	225
TS 8 UL Type 4X floormount	226

SE 8 enclosures

SE 8 freestanding enclosure	227
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Control enclosures

PB pushbutton enclosure	228
Consolet	230
AP one-piece console	231
PC enclosure system	232
IP 69K premium panel	234
Command panel housing with door	235

Support arm systems

Support arm systems	236
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KL screw cover junction box



System accessories Page 531

Material:

- Type 304 stainless steel
- Enclosure: 18 ga (1.25 mm)
- Cover: 18 ga (1.25 mm)

Surface finish:

Case and cover:
Brushed

Protection rating:

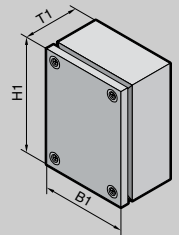
UL/cUL Type 4X
(IP 66 to EN 60 529/10.91)
CSA
UL file #: E76082

Configuration:

- Enclosure
- Cover with foamed-on polyurethane gasket and quick-release cover screws, including plastic bushes

Detailed drawings:

Available at www.rittal-corp.com



Depth: 3 - 5" (80 - 120 mm), Height: 6 - 8" (150 - 200 mm)

Height (H1) inches (mm)	PU	6 (150)	6 (150)	8 (200)	8 (200)	6 (150)	Page
Width (B1) inches (mm)		6 (150)	12 (300)	8 (200)	12 (300)	6 (150)	
Depth (T1) inches (mm)		3 (80)	3 (80)	3 (80)	3 (80)	5 (120)	
Part No.	1	1521.010	1522.010	1523.010	1524.010	1527.010	
Weight lb (kg)		3 (1)	4 (2)	4 (2)	5 (2)	5 (2)	

Accessories

Mounting panel	1	1560.700	1561.700	1562.700	1563.700	1560.700	635
Wallmount bracket	4	1594.000	1594.000	1594.000	1594.000	1594.000	628
Wall angle	1	2583.000	2583.000	2583.000	2583.000	2583.010	630
Support rails TS 35/7.5	10	2314.000	2316.000	2315.000	2316.000	2314.000	662
Cover retainer	3 pairs	1591.000	1591.000	1591.000	1591.000	1591.000	612
Cover hinge	6	1592.010	1592.010	1592.010	1592.010	1592.010	612

To order KL junction boxes in Type 316L stainless steel use the extension .520 (extended delivery times).

Depth: 5" (120 mm), Height: 8 - 12" (200 - 300 mm)

Height (H1) inches (mm)	PU	8 (200)	8 (200)	8 (200)	12 (300)	12 (300)	Page
Width (B1) inches (mm)		8 (200)	12 (300)	16 (400)	12 (300)	16 (400)	
Depth (T1) inches (mm)		5 (120)	5 (120)	5 (120)	5 (120)	5 (120)	
Part No.	1	1528.010	1529.010	1525.010	1526.010	1530.010	
Weight lb (kg)		5 (2)	7 (3)	8 (4)	9 (4)	11 (5)	

Accessories

Mounting panel	1	1562.700	1563.700	1564.700	1567.700	1568.700	635
Wallmount bracket	4	1594.000	1594.000	1594.000	1594.000	1594.000	628
Wall angle	1	2583.010	2583.010	2583.000	2583.000	2583.010	630
Support rails TS 35/7.5	10	2315.000	2316.000	2317.000	2316.000	2317.000	662
Cover retainer	3 pairs	1591.000	1591.000	1591.000	1591.000	1591.000	612
Cover hinge	6	1592.010	1592.010	1592.010	1592.010	1592.010	612

To order KL junction boxes in Type 316L stainless steel use the extension .520 (extended delivery times).

JB hinge cover junction box



System accessories Page 531

Material:

Type 304 stainless steel
– Enclosure:
16 ga (1.5 mm)

Surface finish:

Enclosure and door:
#4 brushed

Protection rating:

UL/cUL Type 12
(IP 54 to EN 60 529/10.91)
UL/cUL Type 3R
UL/cUL 4X
(IP 66 to EN 60 529/10.91)
UL file #: E76083

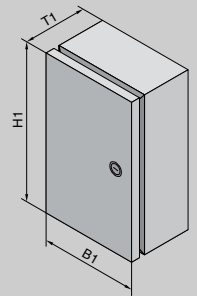
Configuration:

– Door with 180° left-hand hinges
– Includes screwdriver insert and wallmounting blind nuts

Detailed drawings:

Available at www.rittal-corp.com

Note: zinc-plated enclosure mounting panel sold separately (see below)



Depth: 3 - 4" (75 - 100 mm), Height: 4 - 8" (100 - 200 mm)

Height (H1) inches (mm)	PU	4 (100)	6 (150)	6 (150)	6 (150)	8 (200)	8 (200)	Page
Width (B1) inches (mm)		4 (100)	4 (100)	4 (100)	6 (150)	6 (150)	8 (200)	
Depth (T1) inches (mm)		3 (75)	3 (75)	4 (100)	4 (100)	4 (100)	4 (100)	
Panel Height inches (mm)		–	5 (135)	5 (135)	5 (135)	7 (185)	7 (185)	
Panel Width inches (mm)		–	3 (75)	3 (75)	5 (125)	5 (125)	7 (175)	
Part No.	1	JB040403H4	JB060403H4	JB060404H4	JB060604H4	JB080604H4	JB080804H4	
Weight lb (kg)		2 (0.9)	3 (1.4)	3 (1.4)	4 (1.6)	5 (2.0)	6 (2.5)	

Accessories

Mounting panel	1	–	JBMP0604	JBMP0606	JBMP0806	JBMP0808	633
Wallmount bracket Type 304	4	1594.000					628

To order JB junction boxes in Type 316L stainless steel replace H4 ending with H6 (extended delivery times).

Depth: 4 - 6" (100 - 150 mm), Height: 8 - 12" (200 - 300 mm)

Height (H1) inches (mm)	PU	10 (250)	12 (300)	12 (300)	8 (200)	10 (250)	10 (250)	Page
Width (B1) inches (mm)		8 (200)	6 (150)	10 (250)	6 (150)	8 (200)	10 (250)	
Depth (T1) inches (mm)		4 (100)	4 (100)	5 (125)	6 (150)	6 (150)	6 (150)	
Panel Height inches (mm)		9 (235)	11 (285)	11 (285)	7 (185)	9 (235)	9 (235)	
Panel Width inches (mm)		7 (175)	5 (125)	9 (225)	5 (125)	7 (175)	9 (225)	
Part No.	1	JB100804H4	JB120604H4	JB121005H4	JB080606H4	JB100806H4	JB101006H4	
Weight lb (kg)		8 (3.4)	6 (2.7)	9 (4.1)	6 (2.5)	8 (3.4)	9 (3.9)	

Accessories

Mounting panel	1	JBMP1008	JBMP1206	JBMP1210	JBMP0806	JBMP1008	JBMP1010	633
Wallmount bracket Type 304	4	1594.000					628	

To order JB junction boxes in Type 316L stainless steel replace H4 ending with H6 (extended delivery times).

JB hinge cover junction box

Depth: 6 - 10" (150 - 250 mm), Height: 12 - 16" (300 - 400 mm)

Height (H1) inches (mm)	PU	12 (300)	12 (300)	14 (350)	16 (400)	12 (300)	16 (400)	16 (400)	Page
Width (B1) inches (mm)		10 (250)	12 (300)	12 (300)	14 (350)	10 (250)	14 (350)	14 (350)	
Depth (T1) inches (mm)		6 (150)	6 (150)	6 (150)	6 (150)	8 (200)	8 (200)	10 (250)	
Panel Height (G1) inches (mm)		11 (285)	11 (285)	13 (335)	15 (385)	11 (285)	15 (385)	15 (385)	
Panel Width (F1) inches (mm)		9 (225)	11 (275)	11 (275)	13 (325)	9 (225)	13 (325)	13 (325)	
Part No.	1	JB121006H4	JB121206H4	JB141206H4	JB161406H4	JB121008H4	JB161408H4	JB161410H4	
Weight lb (kg)		10 (4.5)	11 (5.0)	12 (5.5)	15 (6.8)	11 (5.0)	17 (7.7)	19 (8.6)	

Accessories

Mounting panel	1	JBMP1210	JBMP1212	JBMP1412	JBMP1614	JBMP1210	JBMP1614	633
Wallmount bracket Type 304	4	1594.000						628

Note: To order JB junction boxes in Type 316L stainless steel replace H4 ending with H6 (extended delivery times).



Rittal Israel

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www.rittal.co.il



System accessories Page 531 WM carbon steel Page 52

Material:

Type 304 stainless steel
 Enclosure and door:
 – 12" H x 12" W – 24" H x 20" W:
 16 ga body/ 16 ga door
 – 24" H x 24" W – 36" H x 24" W:
 16 ga body/ 14 ga door
 – 36" H x 30" W – 42" H x 32" W:
 14 ga body/ 14 ga door

Surface finish:

– Enclosure and door:
 #4 Brushed
 – Mounting panel:
 Zinc-plated carbon steel

Protection rating:

Single door enclosures:
 UL/cUL Type 12
 (IP 55 to EN 60 529/10.91)
 UL/cUL Type 3R
 UL/cUL Type 4
 (IP 66 to EN 60 529/10.91)
 UL/cUL Type 4X
 (IP 66 to EN 60 529/10.91)

Part number overview:

See page 838

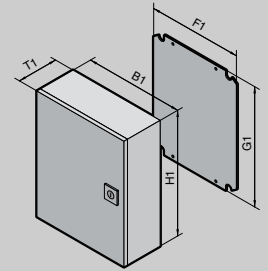
Configuration:

– Left-hand hinge
 – Slotted head insert

- One-piece enclosure body
- Single door WM enclosures less than 20" high have one ¼ turn latch
- Single door WM enclosures 20 - 40" high have two ¼ turn latches
- Single door WM enclosures greater than or equal to 42" high have an L-Handle
- Mounting panel
- Wall-mounting blind nuts
- Foamed-in-place gasket

Detailed drawings:

Available at www.rittal-corp.com



Depth: 6 - 8" (150 - 210 mm), Height: 12 - 20" (300 - 500 mm)

Height (H1) inches (mm)	PU	12 (300)	16 (400)	16 (400)	20 (500)	20 (500)	16 (400)	Page
Width (B1) inches (mm)		12 (300)	12 (300)	16 (400)	16 (400)	20 (500)	12 (300)	
Depth (T1) inches (mm)		6 (150)	6 (150)	6 (150)	6 (150)	6 (150)	8 (210)	
Panel Height (G1) inches (mm)		11 (275)	15 (375)	15 (375)	19 (475)	19 (475)	15 (375)	
Panel Width (F1) inches (mm)		10 (254)	10 (254)	14 (354)	14 (354)	18 (449)	10 (254)	
Part No.	1	WM121206N4	WM161206N4	WM161606N4	WM201606N4	WM202006N4	WM161208N4	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		16 (7)	20 (9)	23 (10)	31 (14)	37 (17)	23 (10)	

Accessories

Handle	1	WMQTPLS6						606
Wallmount bracket for Type 304	4	2433.000						629
Wallmount bracket for Type 316L	4	2433.500						629
Dead front kit	1	DFK1212C	DFK1612C	DFK1616C	DFK2016C	DFK2020C	DFK1612C	585

Note: To order WM wallmount enclosures in Type 316L stainless steel replace N4 ending with N6 (extended delivery times).

WM wallmount enclosure

Depth: 8" (210 mm), Height: 20 - 30" (500 - 760 mm)

Height (H1) inches (mm)	PU	20 (500)	20 (500)	24 (600)	24 (600)	24 (600)	30 (760)	Page
Width (B1) inches (mm)		16 (400)	20 (500)	16 (400)	20 (500)	24 (600)	24 (600)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	
Panel Height (G1) inches (mm)		19 (475)	19 (470)	22 (570)	22 (570)	22 (570)	29 (730)	
Panel Width (F1) inches (mm)		14 (354)	18 (449)	14 (354)	18 (449)	22 (549)	22 (549)	
Part No.	1	WM201608N4	WM202008N4	WM241608N4	WM242008N4	WM242408N4	WM302408N4	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		34 (15)	41 (18)	39 (18)	46 (21)	57 (26)	70 (32)	

Accessories

Handle	1	WMQTPLS6						606
Wallmount bracket for Type 304	4	2433.000						629
Dead front kit	1	DFK2016C	DFK2020C	DFK2416C	DFK2420C	DFK2424C	DFK3024C	585

Note: To order WM wallmount enclosures in Type 316L stainless steel replace N4 ending with N6 (extended delivery times).

Depth: 8 - 10" (210 - 250 mm), Height: 24 - 36" (600 - 900 mm)

Height (H1) inches (mm)	PU	30 (760)	36 (900)	36 (900)	24 (600)	30 (760)	30 (760)	Page
Width (B1) inches (mm)		30 (760)	24 (600)	30 (760)	20 (500)	24 (600)	30 (760)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	10 (250)	10 (250)	10 (250)	
Panel Height (G1) inches (mm)		29 (730)	34 (870)	34 (870)	22 (570)	29 (730)	29 (730)	
Panel Width (F1) inches (mm)		28 (704)	22 (549)	28 (704)	18 (449)	22 (549)	28 (704)	
Part No.	1	WM303008N4	WM362408N4	WM363008N4	WM242010N4	WM302410N4	WM303010N4	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		86 (39)	91 (41)	111 (50)	49 (22)	154 (70)	89 (40)	

Accessories

Handle	1	WMQTPLS6						606
Wallmount bracket for Type 304	4	2433.000						629
Dead front kit	1	DFK3030C	DFK3624C	DFK3630C	DFK2420C	DFK3024C	DFK3030C	585

Note: To order WM wallmount enclosures in Type 316L stainless replace N4 ending with N6 (extended delivery times).

Depth: 10 - 12" (250 - 300 mm), Height: 24 - 48" (600 - 1200 mm)

Height (H1) inches (mm)	PU	36 (900)	48 (1200)	24 (600)	30 (760)	36 (900)	36 (900)	Page
Width (B1) inches (mm)		30 (760)	36 (900)	24 (600)	24 (600)	30 (760)	36 (900)	
Depth (T1) inches (mm)		10 (250)	10 (250)	12 (300)	12 (300)	12 (300)	12 (300)	
Panel Height (G1) inches (mm)		34 (870)	45 (1155)	23 (570)	29 (730)	34 (870)	34 (870)	
Panel Width (F1) inches (mm)		28 (704)	33 (840)	22 (549)	22 (549)	28 (704)	33 (840)	
Part No.	1	WM363010N4	WM483610N4	WM242412N4	WM302412N4	WM363012N4	WM363612N4	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		116 (53)	178 (81)	63 (28)	77 (35)	122 (55)	146 (66)	

Accessories

Handle	1	WMQTPLS6	WMLHKLS6	WMQTPLS6				606
Wallmount bracket for Type 304	4	2433.000						629
Wallmount bracket for Type 316L	4	2433.500						629
Dead Front Kit	1	DFK3630C	DFK4836C	DFK2424C	DFK3024C	DFK3630C	DFK3636C	585

Note: To order WM wallmount enclosures in Type 316L stainless steel replace N4 ending with N6 (extended delivery times).

WM wallmount enclosure

Depth: 12 - 16" (300 - 400 mm), Height: 36 - 60" (800 - 1500 mm)

Height (H1) inches (mm)	PU	42 (1050)	47 (1200)	60 (1500)	36 (900)	47 (1200)	60 (1500)	Page
Width (B1) inches (mm)		36 (900)	36 (900)	36 (900)	30 (760)	36 (900)	36 (900)	
Depth (T1) inches (mm)		12 (300)	12 (300)	12 (300)	16 (400)	16 (400)	16 (400)	
Panel Height (G1) inches (mm)		40 (1020)	45 (1155)	57 (1455)	34 (870)	46 (1155)	57 (1455)	
Panel Width (F1) inches (mm)		33 (840)	33 (840)	33 (840)	28 (704)	33 (840)	33 (840)	
Part No.	1	WM423612N4	WM483612N4	WM603612N4	WM363016N4	WM483616N4	WM603616N4	
Door(s)		1	1	1	1	1	1	
Weight lb (kg)		169 (77)	189 (86)	229 (104)	134 (61)	204 (93)	210 (95)	

Accessories

Handle	1	WMLHKLS6						606
Wallmount bracket for Type 304	4	2433.000						629
Wallmount bracket for Type 316L	4	2433.500						629
Dead front kit	1	DFK4236C	DFK4836C	DFK6036C	DFK3630C	DFK4836C	DFK6036C	585

Note: To order WM wallmount enclosures in Type 316L stainless steel replace N4 ending with N6 (extended delivery times).

WM disconnect wallmount



System accessories Page 531 WM disconnect enclosure Page 56

Material:

Type 304 stainless steel
Enclosure and door:
14 ga body/ 14 ga door
except for 24 x 26 - 16 ga body/14
ga door

Surface finish:

– Enclosure:
#4 Brushed

– Mounting panel:
Zinc-plated carbon steel

Protection rating:

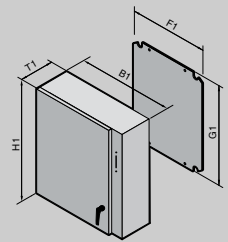
UL/cUL Type 12
(IP 55 to EN 60 529/10.91)
UL/cUL Type 3R
UL/cUL Type 4
(IP 66 to EN 60 529/10.91)
UL/cUL Type 4X
(IP 66 to EN 60 529/10.91)

Part number overview:

See page 838

Configuration:

– Left-hand hinge
– Universal disconnect cut-out
– One-piece enclosure body
– 2 or 3-point latching L-handle
– Mounting panel
– Wall-mounting blind nuts
– Foamed-in-place gasket



Depth: 8 - 12" (210 - 300 mm), Height: 24 - 60" (600 -1500 mm)

Height (H1) inches (mm)	PU	24 (600)	36 (900)	36 (900)	60 (1500)	36 (900)	Page
Width (B1) inches (mm)		26 (650)	32 (825)	32 (825)	38 (975)	32 (825)	
Depth (T1) inches (mm)		8 (210)	8 (210)	10 (250)	10 (250)	12 (300)	
Panel Height (G1) inches (mm)		22 (570)	34 (870)	34 (870)	57 (1455)	34 (870)	
Panel Width (F1) inches (mm)		22 (549)	28 (704)	28 (704)	33 (840)	28 (704)	
Part No.	1	WM242608X4	WM363208X4	WM363210X4	WM603810X4	WM363212X4	
Door(s)		1	1	1	1	1	
Locking handle points		2	2	2	3	2	
Weight lb (kg)		97 (26)	113 (51)	118 (54)	225 (103)	124 (56)	

Accessories

Handle	1			WMLHKLS6		606
Wallmount bracket for Type 304	4			2433.000		629

Note: To order disconnect enclosures in Type 316L stainless steel replace X4 ending with X6 (extended delivery times).

Depth: 12 - 16" (300 - 400 mm), Height: 42 - 60" (1050 -1500 mm)

Height (H1) inches (mm)	PU	42 (1050)	48 (1200)	60 (1500)	48 (1200)	Page
Width (B1) inches (mm)		32 (825)	38 (975)	38 (975)	38 (975)	
Depth (T1) inches (mm)		12 (300)	12 (300)	12 (300)	16 (400)	
Panel Height (G1) inches (mm)		40 (120)	45 (1155)	57 (1455)	46 (1155)	
Panel Width (F1) inches (mm)		33 (840)	33 (840)	33 (840)	33 (840)	
Part No.	1	WM423212X4	WM483812X4	WM603812X4	WM483816X4	
Door(s)		1	1	1	1	
Locking handle points		3	3	3	3	
Weight lb (kg)		162 (74)	191 (87)	231 (105)	205 (94)	

Accessories

Handle	1			WMLHKLS6		606
Wallmount bracket for Type 304	4			2433.000		629

Note: To order disconnect enclosures in Type 316L stainless steel replace X4 ending with X6 (extended delivery times).

WM slope top wallmount enclosure



System accessories Page 531 Hygienic design Page 207

Material:

- Type 304 stainless steel
Enclosure and door:
– 16" H x 12" W – 24" H x 20" W:
16 ga body / 16 ga door
– 24" H x 24" W – 30" H x 24" W:
16 ga body / 14 ga door
– 30" H x 30" W – 60" H x 36" W:
14 ga body / 14 ga door

Surface finish:

- Enclosure and door: #4 Brushed
– Mounting panel: Zinc-plated

Protection rating:

- UL Type 1, 12, 3R, 4, 4X
UL/cUL
UL file #: E170282

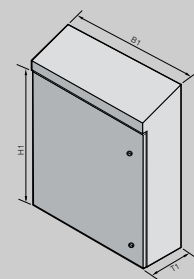
Part number overview:

See page 838

Configuration:

- 20° overhanging sloped roof
– Slotted head spring loaded insert

- One-piece body
- Foamed-in-place gasket
- Recessed blind nuts for mounting to wall
- Enclosures less than 20" high have one ¼ turn latch, 20 - 40" high have two ¼ turn latches, 42" or higher have L-Handle and three point lock rod system
- Includes mounting panel



Depth: 8" (210 mm), Height: 16 - 24" (395 - 595 mm)

Height (H1) inches (mm)	PU	16 (395)	16 (395)	20 (495)	20 (495)	24 (595)	24 (595)	Page
Width (B1) inches (mm)		12 (300)	16 (400)	16 (400)	20 (500)	20 (500)	24 (600)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	
Panel Height inches (mm)		15 (375)	15 (375)	19 (475)	19 (475)	22 (570)	22 (570)	
Panel Width inches (mm)		10 (254)	14 (354)	14 (354)	18 (449)	18 (449)	22 (549)	
Part No.	1	WMS161208N4	WMS161608N4	WMS201608N4	WMS202008N4	WMS242008N4	WMS242408N4	
Weight lb (kg)		21 (10)	26 (12)	34 (15)	41 (19)	47 (21)	58 (26)	

Accessories

Wallmount bracket Type 304	4	2433.000	629
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Note: To order WM slope top enclosures in Type 316L stainless steel replace N4 ending with N6 (extended delivery times).

Depth: 8 - 12" (210 - 300 mm), Height: 20 - 36" (495 - 895 mm)

Height (H1) inches (mm)	PU	30 (755)	30 (755)	36 (895)	20 (495)	20 (495)	24 (595)	Page
Width (B1) inches (mm)		24 (600)	30 (760)	30 (760)	16 (400)	20 (500)	24 (600)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	12 (300)	12 (300)	12 (300)	
Panel Height inches (mm)		29 (730)	29 (730)	34 (870)	19 (475)	19 (475)	22 (570)	
Panel Width inches (mm)		22 (549)	28 (704)	28 (704)	14 (354)	18 (449)	22 (549)	
Part No.	1	WMS302408N4	WMS303008N4	WMS363008N4	WMS201612N4	WMS202012N4	WMS242412N4	
Weight lb (kg)		71 (32)	88 (40)	115 (52)	38 (17)	46 (21)	64 (29)	

Accessories

Wallmount bracket Type 304	4	2433.000	629
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Note: To order WM slope top enclosures in Type 316L stainless steel replace N4 ending with N6 (extended delivery times).

WM slope top wallmount enclosure

Depth: 12 - 16" (300 - 400 mm), Height: 30 - 60" (755 -1495 mm)

Height (H1) inches (mm)	PU	30 (755)	36 (895)	36 (895)	36 (895)	48 (1195)	60 (1495)	Page
Width (B1) inches (mm)		24 (600)	30 (760)	36 (900)	30 (760)	36 (900)	36 (900)	
Depth (T1) inches (mm)		12 (300)	12 (300)	12 (300)	16 (400)	16 (400)	16 (400)	
Panel Height inches (mm)		29 (730)	34 (870)	34 (870)	34 (870)	45 (1155)	57 (1455)	
Panel Width inches (mm)		22 (549)	28 (704)	33 (840)	28 (704)	33 (840)	33 (840)	
Part No.	1	WMS302412N4	WMS363012N4	WMS363612N4	WMS363016N4	WMS483616N4	WMS603616N4	
Weight lb (kg)		79 (36)	126 (57)	153 (69)	139 (63)	209 (95)	251 (114)	

Accessories

Wallmount bracket Type 304	4	2433.000						629
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Note: To order WM slope top enclosures in Type 316L stainless steel replace N4 ending with N6 (extended delivery times).



System accessories Page 531 Compact enclosures AE, carbon steel Page 58 Hygienic Design Page 207

Material:

- Enclosure: Type 304 stainless steel
- Door: Stainless steel, all-round foamed-in PU seal
- Mounting panel: Carbon steel
- Locks: Die-cast zinc

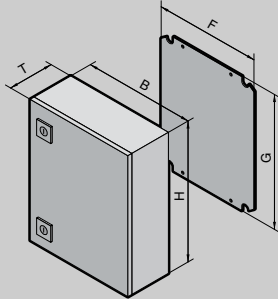
- (IP 55 to EN 60 529/10.91) UL/cUL Type 3R
- UL/cUL Type 4 (IP 66 to EN 60 529/10.91) UL/cUL Type 4X (IP 66 to EN 60 529/10.91)
- Double door enclosures: UL/cUL Type 12 (IP 55 to EN 60 529/10.91) UL file #: E170282

Approvals:

- UL
- CSA

Detailed drawings:

Available at www.rittal-corp.com



Surface finish:

- Enclosure and door: Brushed, grain 240
- Mounting panel: Zinc-plated
- Locks: Nickel-plated

Configuration:

- Enclosure with door(s)
- Cam lock or 3-point lock system (for 1017.X00 and 1019.X00) with double-bit insert
- Mounting panel

Protection rating:

- Single door enclosures: UL/cUL Type 12

Depth: 5 - 8" (120 - 210 mm), Height: 12 - 15" (300 - 380 mm)

Height (H1) inches (mm)	PU	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	15 (380)	15 (380)	Page
Width (B1) inches (mm)		8 (200)	8 (200)	15 (380)	12 (300)	15 (380)	12 (300)	15 (380)	
Depth (T1) inches (mm)		5 (120)	6 (155)	6 (155)	8 (210)	8 (210)	8 (210)	8 (210)	
Panel Height (G1) inches (mm)		11 (275)	11 (275)	11 (275)	11 (275)	11 (275)	13 (334)	14 (355)	
Panel Width (F1) inches (mm)		6 (162)	6 (162)	13 (334)	10 (254)	13 (334)	11 (275)	13 (334)	
Part No.	1	1001.600	1002.600	1004.600	1003.600	1011.600	1005.600	1006.600	
Door(s)		1	1	1	1	1	1	1	
Weight lb (kg)		8 (4)	10 (5)	19 (9)	15 (7)	18 (8)	19 (9)	27 (12)	

Accessories

Wallmount bracket	4								2433.000	629
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Depth: 8 - 12" (210 - 300 mm), Height: 15 - 24" (380 - 600 mm)

Height (H1) inches (mm)	PU	15 (380)	20 (500)	20 (500)	24 (600)	24 (600)	30 (760)	20 (500)	Page
Width (B1) inches (mm)		24 (600)	16 (400)	20 (500)	15 (380)	24 (600)	24 (600)	20 (500)	
Depth (T1) inches (mm)		8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	8 (210)	12 (300)	
Panel Height (G1) inches (mm)		14 (355)	19 (475)	19 (470)	22 (570)	22 (570)	29 (730)	19 (470)	
Panel Width (F1) inches (mm)		22 (549)	14 (354)	18 (449)	13 (334)	22 (549)	22 (549)	18 (449)	
Part No.	1	1009.600	1015.600	1007.600	1008.600	1010.600	1012.600	1013.600	
Door(s)		1	1	1	1	1	1	1	
Weight lb (kg)		38 (17)	28 (13)	41 (18)	38 (17)	95 (25)	70 (32)	42 (19)	

Accessories

Wallmount bracket	4								2433.000	629
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AE wallmount enclosure

Depth: 12" (300 mm), Height: 30 - 47" (760 -1200 mm)

Height (H1) inches (mm)	PU	30 (760)	39 (1000)	39 (1000)	47 (1200)	47 (1200)	Page
Width (B1) inches (mm)		30 (760)	32 (800)	39 (1000)	32 (800)	39 (1000)	
Depth (T1) inches (mm)		12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	
Panel Height (G1) inches (mm)		29 (730)	38 (955)	38 (955)	45 (1155)	45 (1155)	
Panel Width (F1) inches (mm)		28 (704)	29 (730)	37 (939)	29 (740)	37 (940)	
Part No.	1	1014.600	1016.600	1018.600	1017.600	1019.600	
Door(s)		1	1	2	1	2	
Weight lb (kg)		94 (43)	117 (53)	157 (71)	154 (70)	167 (76)	
Accessories							
Wallmount bracket	4	2433.000					629





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AE IP 69K wallmount enclosure



System accessories Page 531 Compact enclosures AE, Carbon steel Page 60 Hygienic Design Page 206

Perfect protection in a tough environment

The compact enclosure AE in IP 69K is the ideal solution when a high protection category combined with corrosion resistance are needed.

- Resistant to high-pressure cleaning (protection category IP 69K). The interior seal is protected against direct hosed water
- Ideal for mounting on vehicles: Lock, hinges and mounting plate are all vibration resistant
- 10° roof tilt prevents liquids from accumulating on the roof

- Foamed-in silicone seal
The closed cell structure of the foam means that water absorption is negligible
Temperature resistant from – 76° F to +356° F (– 60° C to +180° C)

Material:

- Enclosure, hinge and lock: Type 304 stainless steel
- Door: Type 304 stainless steel, all-round foamed in PU seal
- Mounting panel: Carbon steel

Surface finish:

- Enclosure and door: Brushed, grain 240
- Mounting panel: Zinc-plated

Protection rating:

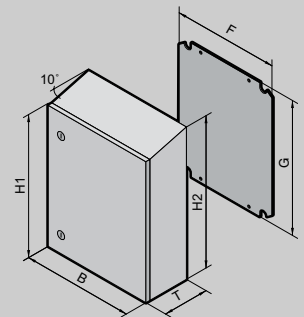
- IP 69K to DIN 40 050-9, complies with NEMA 4X

Configuration:

- Enclosure of all-round solid construction
- Single-door
- Interchangeable door hinge
- Cam lock with double-bit insert
- Mounting panel

Detailed drawings:

Available at www.rittal-corp.com



Height, front (H1) inches (mm)	Packs of	13 (330)	16 (400)	26 (650)	26 (650)	
Height, rear (H2) inches (mm)		14 (352)	17 (439)	27 (689)	27 (689)	
Width (B) inches (mm)		9 (230)	16 (400)	16 (400)	26 (650)	
Depth (T) inches (mm)		6 (155)	10 (250)	10 (250)	10 (250)	
Mounting panel height (G) inches (mm)		11 (275)	14 (355)	22 (570)	22 (570)	
Mounting panel width (F) inches (mm)		6 (162)	13 (334)	13 (334)	22 (549)	
Mounting panel thickness ga (mm)		14 (2)	14 (2)	10 (2.5)	10 (2.5)	
Part No.	1	1101.110	1101.120	1101.130	1101.140	
Locks		1	1	2	2	
Accessories						
Interior door	1	1101.910	1101.920	1101.930	1101.940	585
Door stay	1	1101.800				617
Wall mounting bracket, Type 304 stainless steel	4	2433.000				629
Cable glands		see page 710				

TS 8 freestanding enclosure



System accessories Page 531 Baying systems TS 8, carbon steel Page 573 EMC baying systems TS 8 Page 243

Material:

- Enclosure frame, roof, rear panel and gland plates: Type 304 stainless steel, 16 ga (1.5 mm)
- Door(s): Type 304 stainless steel, 14 ga (2.0 mm)
- Mounting panel: Carbon steel, 11 ga (3.0 mm)

Surface finish:

- Enclosure frame and gland plates: Uncoated
- Door, roof and rear panel: Exterior brushed, grain size 400
- Mounting panel: Zinc-plated

Protection rating:

- UL Type 12 (IP 55 to EN 60 529/09.2000)
- UL file #: E76083

Configuration:

- Enclosure frame with door(s)
- Mounting panel
- Gland plates
- Rear panel
- Roof
- Locking rod with double-bit insert

Note:

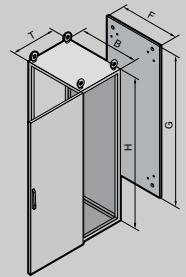
Due to the hardness of the material, we recommend using metal multi-tooth screw 2486.300, see page 674, for the interior installation.

Approvals:

- UL
- CSA

Detailed drawings:

Available at www.rittal-corp.com



Height: 71 - 79" (1800 - 2000 mm), Depth: 16 - 24" (400 - 600 mm)

Height (H) inches (mm)	PU	71 (1800)	71 (1800)	71 (1800)	71 (1800)	71 (1800)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B) inches (mm)		32 (800)	47 (1200)	24 (600)	32 (800)	47 (1200)	24 (600)	32 (800)	47 (1200)	
Depth (T) inches (mm)		16 (400)	16 (400)	20 (500)	20 (500)	20 (500)	24 (600)	24 (600)	24 (600)	
Panel Height (G) inches (mm)		67 (1696)	67 (1696)	67 (1696)	67 (1696)	67 (1696)	75 (1896)	75 (1896)	75 (1896)	
Panel Width (F) inches (mm)		28 (699)	43 (1099)	20 (499)	28 (699)	43 (1099)	20 (499)	28 (699)	43 (1099)	
Part No.	1	8454.600	8456.600	8457.600	8455.600	8453.600	8452.600	8450.600	8451.600	
Door(s)		1	2	1	1	2	1	1	2	
Weight lb (kg)		112.9	170.4	92.5	116.3	174.9	104.4	129.7	194.7	

Walls

Sidewalls	Type 304	2	8700.840	8700.840	8700.850	8700.850	8700.850	8700.060	8700.060	8700.060	562
Divider panel		1	8609.840	8609.840	8609.850	8609.850	8609.850	8609.060	8609.060	8609.060	567
Divider panel for module plates		1	–	–	8609.100	8609.100	8609.100	8609.130	8609.130	8609.130	568

Base/plinth

Components front and rear	Height 4" (100 mm)	1 set	8701.800	8701.200	8701.600	8701.800	8701.200	8701.600	8701.800	8701.200	539
	Height 8" (200 mm)	1 set	8702.800	8702.200	8702.600	8702.800	8702.200	8702.600	8702.800	8702.200	539
Trim panels (sides)	Height 4" (100 mm)	1 set	8701.040	8701.040	8701.050	8701.050	8701.050	8701.060	8701.060	8701.060	539
	Height 8" (200 mm)	1 set	8702.040	8702.040	8702.050	8702.050	8702.050	8702.060	8702.060	8702.060	539
Base/plinth trim, modular		4	2907.000	2907.000	2908.000	2908.000	2908.000	2913.000	2913.000	2913.000	539

Accessories

Cable clamp rails		2	4192.000	4196.000	4191.000	4192.000	4196.000	4191.000	4192.000	4196.000	611
Cable entry plates		2	8700.800	8700.120 ¹⁾	8700.600	8700.800	8700.120 ¹⁾	8700.600	8700.800	8700.120 ¹⁾	707
Wiring plan pocket, carbon steel		1	4118.000	4116.000	4116.000	4118.000	4116.000	4116.000	4118.000	4116.000	617

¹⁾Packs of 4

To order TS 8 freestanding enclosures in Type 316L stainless steel use the extension .500 (extended lead times).

TS 8 UL Type 4X freestanding enclosure



System accessories Page 531 TS 8, carbon steel Page 90 EMC TS 8 Page 243

Material:

- Type 304 stainless steel
- Enclosure frame, roof, base, rear wall: 16 ga (1.5 mm)
- Door: 14 ga (2.0 mm)
- Mounting panel: 11 ga (3.0 mm)

Surface finish:

- Enclosure frame: Type 304 stainless steel.
- Door, roof, base, rear wall: brushed
- Mounting panel: Zinc-plated carbon steel

Protection rating:

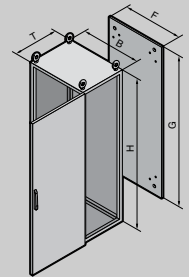
- UL Type 4X
- (IP 66 to EN 60 529)
- UL/cUL
- UL file #: E76083

Configuration:

- Enclosure frame with door
- Roof/base plate
- Rear wall
- Mounting panel

Detailed drawings:

Available at www.rittal-corp.com



Height: 63 - 79" (1600 - 2000 mm), Depth: 16 - 32" (400 - 800 mm)

Height (H1) inches (mm)	PU	63 (1600)	63 (1600)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B1) inches (mm)		24 (600)	32 (800)	32 (800)	32 (800)	32 (800)	
Depth (T1) inches (mm)		16 (400)	16 (400)	16 (400)	24 (600)	32 (800)	
Panel Height (G1) inches (mm)		59 (1496)	59 (1496)	75 (1896)	75 (1896)	75 (1896)	
Panel Width (F1) inches (mm)		20 (449)	28 (699)	28 (699)	28 (699)	28 (699)	
Part No.	1	9978.420	9978.421	9978.422	8450.680	9978.423	
Door(s)		1	1	1	1	1	

Required Accessories

Sidewalls IP 66/UL Type 4X	2	9978.424	9978.425	8700.680	9978.426	–
Baying frame IP 66/UL Type 4X	1	9978.427	9978.428	8700.064	8700.084	–

Base/plinth

Components front and rear inches (mm)	Height 4 (100)	1 set	8701.600	8701.800		539	
	Height 8 (200)	1 set	8702.600	8702.800		539	
Side panels inches (mm)	Height 4 (100)	1 set	8701.040		8701.060	8701.080	539
	Height 8 (200)	1 set	8702.040		8702.060	–	539
Base/plinth trim, modular		4	2907.000		2913.000	–	–

Accessories

Cable clamp rails	2	4191.000	4192.000		723
System support rails	2	4361.000	4362.000		–
Support rails for door	20	4596.000	4598.000		614
Print pocket, carbon steel	1	4116.000	4118.000		617

Lock systems

Standard double-bit lock insert may be exchanged for other lock inserts and comfort handle, see pages 601.

Note: Additional sizes available as special order.

TS 8 UL Type 4X floormount



System accessories Page 531 TS 8 Type 3R floormount enclosure Page 114 TS 8 disconnect floormount enclosure Page 116

Material:

- Enclosure frame, roof/base plate, rear wall: Type 304 stainless steel, 16 ga (1.5 mm)
- Door: Type 304 stainless steel, 14 ga (2.0 mm)
- Leg kit: Type 304 stainless steel, 12 ga (2.5 mm)
- Mounting panel: Carbon steel, 11 ga (3.0 mm)

Surface finish:

- Enclosure frame: Uncoated
- Door, roof/base plate, rear wall, sidewalls: Brushed
- Mounting panel: Zinc-plated carbon steel

Protection rating:

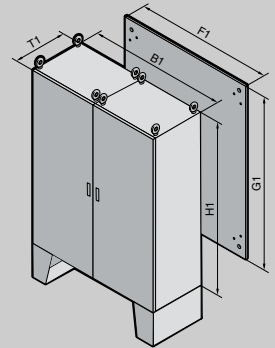
UL Type 4X
(IP 66 to EN 60 529)
UL/cUL
UL file #: E76083

Configuration:

- Two bayed enclosure frames
- NEMA 4X baying kit
- 12 inch bolt-on leg kit
- Individual doors, roof/base plates, rear walls
- Full size mounting panel, installs on slide rails through the enclosure side
- Sidewalls

Detailed drawings:

Available at www.rittal-corp.com



Height (H1) inches (mm)	PU	63 (1600)	63 (1600)	79 (2000)	79 (2000)	79 (2000)	Page
Width (B1) inches (mm)		47 (1200)	63 (1600)	63 (1600)	63 (1600)	63 (1600)	
Depth (T1) inches (mm)		16 (400)	16 (400)	16 (400)	24 (600)	32 (800)	
Panel Height (G1) inches (mm)		59 (1496)	59 (1496)	75 (1896)	75 (1896)	75 (1896)	
Panel Width (F1) inches (mm)		43 (1099)	59 (1499)	59 (1499)	59 (1499)	59 (1499)	
Part No.	1	9978.429	9978.430	9978.431	9978.432	9978.433	
Weight lb (kg)		359 (163)	459 (209)	553 (251)	580 (264)	609 (277)	

Accessories

Cable clamp rails for cable clamps	2	4191.000		4192.000			723
Support rails for door	1	4596.000		4598.000			614/656
Print pocket	1	4116.000		4118.000			617

Lock Systems

Standard comfort handle and PB insert may be exchanged for other lock inserts and comfort handles, see page 601.

SE 8 freestanding enclosure



System accessories Page 531 SE 8 carbon steel Page 122

Material:

- Enclosure: Type 304 stainless steel, 16 ga (1.5 mm)
- Door(s): Type 304 stainless steel, 14 ga (2.0 mm)
- Rear panel: Type 304 stainless steel, 16 ga (1.5 mm)
- Mounting panel: Carbon steel, 11 ga (3.0 mm)

Surface finish:

- Enclosure, rear panel, gland plate and door(s): Brushed, grain 240
- Mounting panel: Zinc-plated

Protection rating:

UL/cUL Type 12
(IP 55 to IEC 60 529)

Configuration:

- Enclosure, solid top and sides
- Door(s)
- Rear panel, detachable
- 130° hinges
- Mounting panel
- Gland plates, divided
- Locking rod with double-bit insert

Note:

- Due to the hardness of the material, we recommend using metal multi-tooth screw 2486.300, see page 674, for the interior installation.
- The system accessories for this enclosure system may be found on the following order

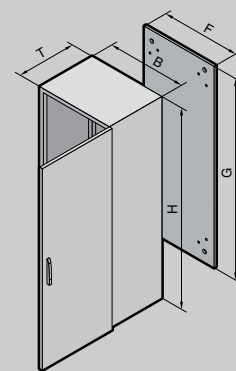
pages, or references to the respective product groups in the section on system assembly.

- The system accessories classified under “ES” can only be used with free-standing enclosures in the ES 5000 series.

Detailed drawings:

Available at www.rittal-corp.com

Photo shows a configuration with equipment not included in the base part number



Height (H) inches (mm)	Packs of	63 (1600)	71 (1800)	71 (1800)	79 (2000)	71 (1800)	79 (2000)	Page
Width (B) inches (mm)		24 (600)	24 (600)	32 (800)	32 (800)	39 (1000)	47 (1200)	
Depth (T) inches (mm)		16 (400)	20 (500)	20 (500)	24 (600)	16 (400)	20 (500)	
Mounting panel height (G) inches (mm)		59 (1496)	67 (1696)	67 (1696)	75 (1896)	67 (1696)	75 (1896)	
Mounting panel width (F) inches (mm)		20 (499)	20 (499)	28 (699)	28 (699)	35 (899)	43 (1099)	
Part No.	1	5850.500	5851.500	5852.500	5853.500	5854.500	5855.500	
Door(s)		1	1	1	1	1	2	

Base/plinth

Components front and rear	Height 4" (100 mm)	1 set	8701.600	8701.800	8701.000	8701.200	539	
	Height 8" (200 mm)	1 set	8702.600	8702.800	8702.000	8702.200	539	
Trim panels	Height 4" (100 mm)	1 set	8701.040	8701.050	8701.060	8701.040	8701.050	539
	Height 8" (200 mm)	1 set	8702.040	8702.050	8702.060	8702.040	8702.050	539

Roof

Eyebolts	4	4568.000	626
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Rail systems

Punched section with mounting flange, outer level	4	8612.140	8612.150	8612.160	8612.140	8612.150	652
Punched section with mounting flange, inner level	4	8612.040	8612.050	8612.060	8612.040	8612.050	652
Other rail systems, based on TS 8	see from page 648						

Accessories

Cable clamp rails for cable clamps	2	4191.000	4192.000	4336.000	4196.000	723	
Alternative lock systems	see from page 601						

PB pushbutton box



System accessories Page 531

Stainless steel pushbutton boxes:

These UL Type boxes are designed to house pushbuttons, selector switches, pilot lights, and help protect such equipment against dirt, dust, water, oil or coolant.

- Accepts 22.5 and 30.5 mm devices
- Available in sizes from a single position to 42 hole positions

Rugged And versatile:

The standard holes accept all brands of 22.5 and 30.5 mm, 4-way, oil-tight pushbuttons, switches and pilot lights. Several of these enclosures can be mounted onto a Rittal column and base for use as an operator station. Additionally, external mounting brackets and captive, stainless steel cover screws make installation quick and easy.

Technical specifications:

- Enclosures and covers are made from 14-gauge Type 304 stainless steel
- Interior and exterior surfaces have a #4 brushed finish

Part number overview:

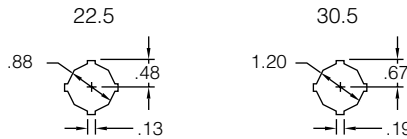
See page 838

Protection rating:

UL Type 12, 13, 4 & 4X
UL/cUL
UL file #: E118617

For oil tight hole seals see page 560

Standard 4-Way Keyed Pushbutton Hole Detail:



Hole Arrangement Centered On Cover

Type 304 Stainless Steel – Standard

Hole Size 30.5 mm

Description	Part No.
1 Hole	PB01305S14
2 Hole	PB02305S14
3 Hole	PB03305S14
4 Hole	PB04305S14
4 Hole	PB04305S24
5 Hole	PB05305S14
6 Hole	PB06305S24
9 Hole	PB09305S34
12 Hole	PB12305S34

Note: To order PB boxes in Type 316L stainless steel replace the ending 4 with a 6 (extended delivery times).

Type 304 Stainless Steel – Slim/Miniature

Hole Size 22.5/30.5 mm – all in single column

Description	Part No.
1 Hole	PB01305L14
1 Hole	PB01225M14
2 Hole	PB02305L14
2 Hole	PB02225M14
3 Hole	PB03225M14
4 Hole	PB04225M14
6 Hole	PB06225M24
9 Hole	PB09225M34
12 Hole	PB12225M34

Note: To order PB boxes in stainless steel Type 316L replace the ending 4 with a 6 (extended delivery times).

Type 304 Stainless Steel – Extra Deep, 4.75" depth

Hole Size 30.5 mm

Description	Part No.
1 Hole	PB01305X14
2 Hole	PB02305X14
3 Hole	PB03305X14
4 Hole	PB04305X14
4 Hole	PB04305X24
6 Hole	PB06305X24
9 Hole	PB09305X34
10 Hole	PB10305X24
12 Hole	PB12305X34
16 Hole	PB16305X44
16 Hole	PB16305X24
20 Hole	PB20305X44
25 Hole	PB25305X54

Note: To order PB boxes in Type 316L stainless steel replace the ending 4 with a 6 (extended delivery times).



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Consolet



System accessories Page 531

Material:

- Type 304 stainless steel
- Enclosure: 14 ga (2 mm)
- Door: 14 ga (2 mm)

Surface finish:

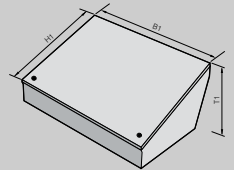
Enclosure and door: #4 Brushed

Configuration:

- Hinged screw cover
- Foamed-in-place gasketing
- Control panel slants 30 or 60°

Protection rating:

UL Type 12/13
UL/cUL
UL file #: 118617



Depth: 7 - 9" (180 - 231 mm), Height: 8 - 12" (203 - 305 mm)

Height (H1) inches (mm)	PU	8 (203)	8 (203)	8 (203)	8 (203)	12 (305)	12 (305)	Page
Width (B1) inches (mm)		8 (203)	12 (305)	16 (406)	20 (508)	12 (305)	16 (406)	
Depth (T1) inches (mm)		7 (180)	7 (180)	7 (180)	7 (180)	9 (231)	9 (231)	
Part No.	1	C080807H4	C081207H4	C081607H4	C082007H4	C121209H4	C121609H4	
Weight lb (kg)		8 (3.5)	10 (4.7)	13 (5.8)	15 (7.0)	14 (6.5)	18 (8.0)	

Accessories

Base inches (mm)	18 x 18 x 1 (457 x 457 x 25)	1		C18SBASE4				145
Column inches (mm)	4 x 4 x 35 (102 x 102 x 889)	1			C44SCOL4			145

Depth: 9 - 11" (231 - 282 mm), Height: 12 - 16" (305 - 406 mm)

Height (H1) inches (mm)	PU	12 (305)	12 (305)	16 (406)	16 (406)	16 (406)	
Width (B1) inches (mm)		20 (508)	24 (610)	16 (406)	20 (508)	24 (610)	
Depth (T1) inches (mm)		9 (231)	9 (231)	11 (282)	11 (282)	11 (282)	
Part No.	1	C122009H4	C122409H4	C161611H4	C162011H4	C162411H4	
Weight lb (kg)		21 (9.6)	24 (11.1)	23 (10.4)	27 (12.3)	32 (14.3)	

Accessories

Base inches (mm)	18 x 18 x 1 (457 x 457 x 25)	1	C18SBASE4	-	C18SBASE4	-	145
	24 x 24 x 1 (610 x 610 x 25)	1	-	C24SBASE4	-	C24SBASE4	145
Column inches (mm)	4 x 4 x 35 (102 x 102 x 889)	1	C44SCOL4	-	C44SCOL4	-	145
	6 x 6 x 35 (152 x 152 x 889)	1	-	C66SCOL4	-	C66SCOL4	145

Depth: 11 - 13" (282 - 332 mm), Height: 16 - 20" (406 - 508 mm)

Height (H1) inches (mm)	PU	16 (406)	16 (406)	20 (508)	20 (508)	20 (508)	
Width (B1) inches (mm)		30 (762)	36 (914)	20 (508)	24 (610)	30 (762)	
Depth (T1) inches (mm)		11 (282)	11 (282)	13 (332)	13 (332)	13 (332)	
Part No.	1	C163011H4	C163611H4	C202013H4	C202413H4	C203013H4	
Weight lb (kg)		38 (17.0)	44 (19.9)	34 (15.2)	39 (17.5)	46 (20.9)	

Accessories

Base inches (mm)	24 x 24 x 1 (610 x 610 x 25)	1		C24SBASE4			145
Column inches (mm)	6 x 6 x 35 (152 x 152 x 889)	1			C66SCOL4		145



System accessories Page 531 Monitors, keyboards Page 818 Climate control Page 375 One-piece consoles, carbon steel Page 154

Material:

- Enclosure: Type 304 stainless steel, 16 ga (1.5 mm)
- Door or double door and console lid: Type 304 stainless steel, 14 ga (2.0 mm)
- Mounting panel: Carbon steel, 11 ga (3.0 mm)

Surface finish:

- Enclosure, door, console lid and gland plates: Brushed, grain 120
- Mounting panel: Zinc-plated

Protection rating:

NEMA 12
(IP 55 to EN 60 529/09.2000)

Configuration:

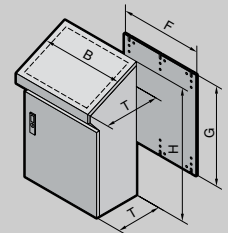
- Enclosure, closed back and sides
- Door or double door at front, with locking rod
- Console lid with lid stay and cam lock latched in the enclosure
- Cam lock with double-bit insert
- Gland plate, divided
- Mounting panel

Approvals:

- UL
- CSA
- TÜV

Detailed drawings:

Available at www.rittal-corp.com



Depth: 16 - 19" (400 - 480 mm), Height: 38" (960 mm)

Height (H) inches (mm)	PU	38 (960)	38 (960)	38 (960)	38 (960)	Page
Width (B1) inches (mm)		24 (600)	32 (800)	39 (1000)	47 (1200)	
Depth Base/ Console (T) inches (mm)		16 (400)/ 19 (480)	16 (400)/ 19 (480)	16 (400)/ 19 (480)	16 (400)/ 19 (480)	
Mounting panel height (G1) inches (mm)		31 (780)	31 (780)	31 (780)	31 (780)	
Mounting panel width (F1) inches (mm)		21 (530)	29 (730)	37 (930)	44 (1130)	
Part No.	Type 304	1	2683.600	2684.600	2685.600	2686.600
	Type 316L	1	2683.500¹⁾	2684.500¹⁾	2685.500¹⁾	2686.500¹⁾
Door(s)		1	1	2	2	
Weight lb (kg)		114 (52.0)	143 (65.2)	175 (79.5)	199 (90.3)	

Accessories

Base/plinth	Height 4" (100 mm)	1	2865.000	2869.000	2867.000	2870.000	543
	Height 8" (200 mm)	1	2875.000	2878.000	2885.000	2886.000	543

Lock systems

Standard double-bit lock insert in the locking rod may be exchanged for 27 mm lock inserts, version A, and for the Ergoform-S lock system, see page 607.

¹⁾ Delivery times available upon request.

PC enclosure system



System accessories Page 531 PC enclosure systems, carbon steel Page 156

Material:

- Enclosure: Stainless steel Type 304, 13 ga (1.8 mm)
- Rear door: Type 304 stainless steel, 14 ga (2.0 mm)
- Gland plates: Type 304 stainless steel, 16 ga (1.5 mm)
- Monitor field: Single-pane safety glass, 4 mm

Surface finish:

Brushed, grain 240

Protection rating:

NEMA 12
(IP 55 to EN 60 529/09.2000)

Configuration:

- Enclosure, solid top and sides
- Rear door with locking rod
- Glazed door at the top, latched from the inside
- Component shelf
- Lock insert, lock no. 3524 E
- Keyboard drawer with front, swing-down for handrest and mouse pad support

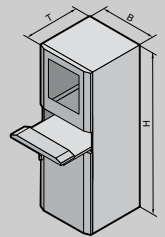
- Bottom door with locking rod
- Gland plate, divided
- Lock with double-bit insert

Approvals:

- UL
- CSA

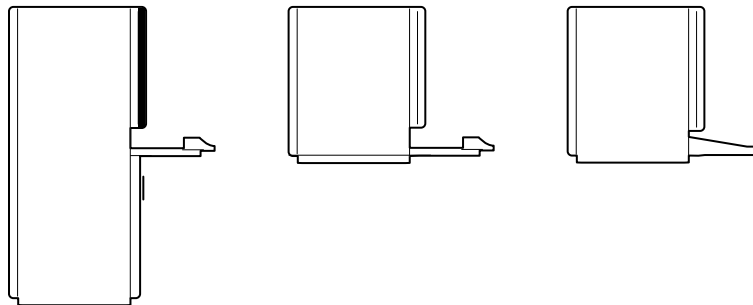
Detailed drawings:

Available at www.rittal-corp.com



Available on request:

- Enclosure system PC with mounting compartment, large and drawer
- PC enclosure system with desk section
- PC enclosure system with drawer
- PC enclosure system with desk section



Depth: 24" (620 mm), Height: 63" (1600 mm)



Version		PU	With keyboard drawer	Page
Height (H) inches (mm)			63 (1600)	
Width (B1) inches (mm)			24 (600)	
Depth (T) inches (mm)			24 (620)	
Part No.	Type 304	1	4650.000	
	Type 316L	1	4650.500	
Weight lb (kg)			253 (115)	
Accessories				
Base/plinth		1	2855.000	543
Levelling feet, 4" (100 mm) high		1 set	2859.000	548
Base/plinth trim, modular		4	2913.000	539
Adaptor pieces, 19" (482.6 mm)		8	4547.000	754
Lock systems				
Standard double-bit lock insert may be exchanged for 27 mm lock inserts, version A, or lock cylinder inserts, version B, see page 607.				



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IP 69K premium panel



System accessories Page 531 TFT monitor Page 818 Support arm system CP-S, stainless steel Page 236 Hygienic Design Page 207

Optionally with or without keyboard housing

- **Resistant to high-pressure cleaning** (protection category IP 69K). The seal lies between two seals and is optimally compressed by the screw fastening
- **Suitable for clean room use**
Screw fastening to comply with high standards in the food industry. With plastic stoppers on the inside or hex screws on the outside

- **Optimum EMC conditions**
The labyrinth seal achieves a particularly high level of RF shielding of the enclosure
- **Accessibility**
Internal rear panel bracket. This solution is clearly superior to external hinges from a hygiene point of view
- **Handling**
Two duct connectors between the enclosures

Material:
Type 304 stainless steel

Surface finish:
Brushed, grain 240

Protection rating:
IP 69K to DIN 40 050-9, complies with NEMA 4X

Clean room:
Air purity class 1 to DIN EN ISO 14 644-1

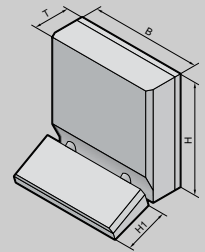


Photo shows a configuration with equipment not included in the base part number

	Packs of	Premium panel	
		With keyboard housing	Without keyboard housing
Part No.	1	6680.000¹⁾	6681.000
Height inches (mm)	Operating housing (H)	18 (460)	14 (360)
	Keyboard housing (H1)	8 (200)	–
Width (B) inches (mm)		21 (530)	21 (530)
Depth inches (mm)	Operating housing (T)	5 (120)	5 (120)
For installation panel W x H inches/U (mm)	Operating housing	19 x 8 U (482.6 x 354.8)	19 x 7 U (482.6 x 310)
	Keyboard housing	19 x 4 U (482.6 x 177)	–
Installation depth inches (mm)	Operating housing	5 (115)	5 (115)
	Keyboard housing	Front 2.3 (58) Rear 2.5 (63)	–
Support arm connection		Top	Top, or bottom by rotating the enclosure

¹⁾ Extended delivery times.

Command panel housing with door



System accessories Page 531 TFT monitor Page 818 Support arm system CP-S, stainless steel Page 236 Hygienic Design Page

Material:

- Enclosure and door:
Type 304 stainless steel
- Handle strips:
Plastic approved for use with foodstuffs

Surface finish:

Brushed, grain 240

Color:

Handle strips:
similar to RAL 5002

Protection rating:

UL Type 4X (IP 66 to IEC 60 529)

Configuration:

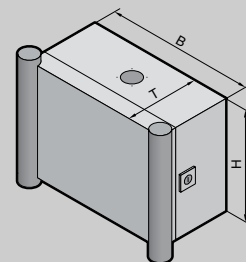
- Enclosure of all-round solid construction
- Cut-out and reinforcement for support arm system
- Fastener with guide plate
- Door with sealing frame and side handle strips
- The support arm connection and door hinge may be swapped over by rotating the enclosure

Approvals:

- UL
- cUL
- CSA

Detailed drawings:

Available at www.rittal-corp.com



Height (H) inches (mm)	Packs of	12 (300)	12 (300)	16 (400)	16 (400)	Page
Width (B) inches (mm)		12 (300)	16 (400)	16 (400)	24 (600)	
Depth (T) inches (mm)		6 (150)	6 (150)	6 (150)	6 (150)	
Part No.	1	6535.010	6536.010	6538.010	6539.010	
Weight lb (kg)		13.9 (6.3)	16.5 (7.5)	19.4 (8.8)	26.6 (12.1)	

Accessories

Matching mounting panel from AE		1033.500	1030.500	1380.500	1039.500	58
	ID No.	0271.926	0274.131	0271.548	0271.351	
Support rails ¹⁾	Part No.	10	2316.000	2317.000	2319.000	662
Alternative lock systems	With 3 mm double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 607, plastic handles and T handles, version C, see page 607.					

¹⁾ Only with vertical attachment of punched rail 23 x 23 mm, see page 657.

CP-S support arm system



Stainless steel enclosures Page 211 Support section CP-S, steel Page 180

CP-S support section, stainless steel

Attached to the connection components via 2 clamping screws.

Size:

- External diameter inches (mm): 1.9 (48.3)
- Wall thickness inches (mm): 0.1 (3)

Material:

Stainless steel

Surface finish:

Brushed, grain size 240 (support section and wall console only)

Protection rating:

IP 69K to DIN 40 050-9 (resistant to high-pressure cleaning)

Configuration:

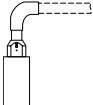
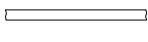
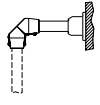



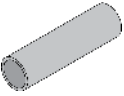



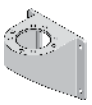
CP-S support section

Detailed drawings:

Available at www.rittal-corp.com

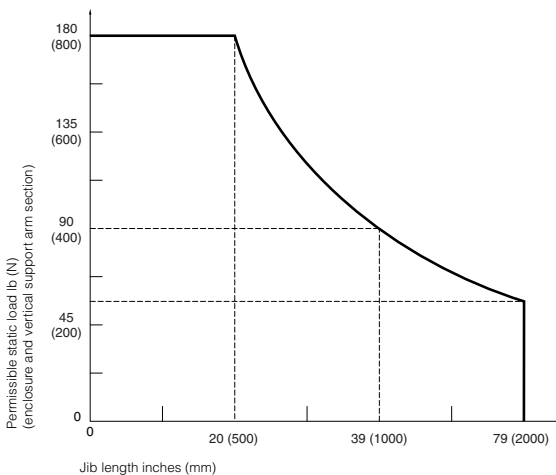


CP-S support arm system

	Rotating/tilting	Rigid	Length inches (mm)	Weight lb (kg)	Material	Enclosure section	Desk section	Wall section
								
Part No.								
	-	■	-	1.5 (0.7)	Type 303	6664.100	-	-
	-	■	-	2.9 (1.3)	Type 303	6664.500	-	-
	■	-	-	2.4 (1.1)	Type 303	6664.000	-	-
	-	■	20 (500) 39 (1000)	4.4 (2.0) 8.6 (3.9)	Type 304	6660.050 6660.010		
	-	■	-	2.9 (1.3)	Type 303	6664.300	-	6664.300
	-	■	-	3.8 (1.7)	Type 303	-	-	6663.000
	■	-	-	8.6 (3.9) 9.9 (4.5)	Type 303	-	-	6663.500 6663.400
	-	■	-	3.3 (1.5) 4.0 (1.8)	Type 304	-	-	6665.000 6665.500

Load information

Permissible load depending on system configuration





Ex enclosures/EMC enclosures

Ex enclosures

Ex enclosure, stainless steel	240
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EMC enclosures

EB EMC E-Box.....	243
AE EMC compact.....	243
TS 8 EMC freestanding	243

Purge systems

Purge systems.....	244
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Ex enclosure, stainless steel



System accessories Page 531

Application range:

- Zone 1 and 2 or 21 and 22 to 94/9/EC
- Ambient temp. range: -22° to +176° F (-30° to +80° C)
- Protection type to IEC 60 079: Equipment protection thanks to increased safety, equipment protection thanks to enclosure

Material:

- Enclosure: Type 304 stainless steel
- Cover or door: Type 304 stainless steel, all-round foamed in silicone seal
- Mounting panel: Carbon steel

Surface finish:

- Enclosure: Brushed, grain 240
- Mounting panel: Zinc-plated

Protection rating:

IP 66 to IEC 60 529

Configuration:

- Enclosure
- Cover or door
- Mounting panel (only for enclosures with door)

Certificates:

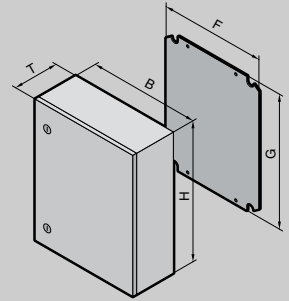
- Enclosure with cover:
 - PTB 03 ATEX 1013U
 - IEC Ex PTB 09.0033U
- Enclosure with door:
 - PTB 02 ATEX 1082U
 - IEC Ex PTB 09.0035U

Approvals:

- ATEX
- IEC

Detailed drawings:

Available at www.rittal-corp.com



With screw fastened cover

Height (H) inches (mm)	Packs of	6 (150)	8 (200)	6 (150)	8 (200)	12 (300)	8 (200)	Page
Width (B) inches (mm)		6 (150)	8 (200)	12 (300)	12 (300)	12 (300)	16 (400)	
Depth (T) inches (mm)		3 (80)	3 (80)	3 (80)	3 (80)	5 (120)	5 (120)	
Part No.	1	9301.000	9303.000	9302.000	9304.000	9306.000	9305.000	
Weight lb (kg)		2.9 (1.3)	4.0 (1.8)	14.0 (1.8)	5.3 (2.4)	8.6 (3.9)	7.9 (3.6)	

Accessories

Mounting panel		1560.700	1562.700	1561.700	1563.700	1567.700	1564.700	635	
Wall mounting bracket ¹⁾	4	1594.000							628
Support rails TS 35/7.5	10	2314.000	2315.000	2316.000			2317.000	662	
Ground strap		see page 699							

¹⁾ Type 304 stainless steel

With hinged door

Height (H) inches (mm)	Packs of	12 (300)	15 (380)	12 (300)	15 (380)	24 (600)	24 (600)	30 (760)	30 (760)	39 (1000)	Page
Width (B) inches (mm)		8 (200)	12 (300)	15 (380)	15 (380)	15 (380)	24 (600)	24 (600)	30 (760)	32 (800)	
Depth (T) inches (mm)		6 (155)	8 (210)	6 (155)	8 (210)	8 (210)	8 (210)	8 (210)	12 (300)	12 (300)	
Mounting panel height (G) inches (mm)		11 (275)	11 (275)	11 (275)	14 (355)	22 (570)	22 (570)	29 (730)	29 (730)	38 (955)	
Mounting panel width (F) inches (mm)		6 (162)	13 (334)	13 (334)	13 (334)	13 (334)	22 (549)	22 (549)	28 (704)	29 (739)	
Part No.	1	9401.600	9409.600	9402.600	9403.600	9404.600	9405.600	9406.600	9407.600	9408.600	
Cam lock with double-bit insert		1	1	1	1	2	2	2	2	2	
Weight lb (kg)		8.4 (3.8)	17.0 (7.7)	163 (7.4)	21.3 (9.7)	29.3 (13.3)	34.3 (15.6)	49.1 (22.3)	67.1 (30.5)	79.9 (36.3)	

Accessories

Wall mounting bracket ¹⁾	4	2433.000									629
Support rails TS 35/7.5	10	2315.000	2316.000	-	-	-	2319.000	2319.000	-	-	662
Rails for interior installation	4	-	2373.210	-	2373.210	2373.210	2373.210	2373.210	2373.300	2373.300	651
Perforated mounting strip	20	-	2310.038	-	2310.038	-	-	-	-	-	615
Ground strap		see page 699									

¹⁾ Type 304 stainless steel



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Ex enclosure, fiberglass



System accessories Page 531

Application range:

- Zone 1 and 2 or 21 and 22 to 94/9/EC
- Ambient temperature range: –22° to +176° F (–30° to +80° C)
- Protection type to IEC 60 079: Equipment protection thanks to increased safety, equipment protection thanks to enclosure

Material:

- Fiberglass reinforced unsaturated polyester, surface resistance: < 109 Ω

- Door: Fiberglass reinforced unsaturated polyester, surface resistance: < 109 Ω, all-round foamed-in silicone seal
- Mounting panel: Carbon steel, zinc-plated

Color:
RAL 9011

Protection rating:
IP 66 to IEC 60 529

Configuration:

- Enclosure
- Door
- Mounting panel

Certificates:

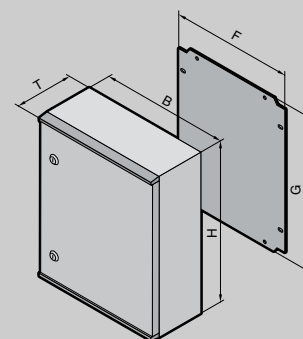
- PTB 03 ATEX 1011U
- IEC Ex PTB 10.0011U

Approvals:

- ATEX
- IEC

Detailed drawings:

Available at www.rittal-corp.com



Plastic

Height (H) inches (mm)	Packs of	12 (300)	14 (350)	16 (400)	16 (400)	24 (600)	20 (500)	24 (600)	32 (800)	39 (1000)	Page
Width (B) inches (mm)		8 (200)	10 (250)	12 (300)	16 (400)	16 (400)	20 (500)	24 (600)	24 (600)	32 (800)	
Depth (T) inches (mm)		6 (150)	6 (150)	8 (200)	8 (200)	8 (200)	12 (300)	8 (200)	12 (300)	12 (300)	
Mounting panel height (G) inches (mm)		10 (250)	12 (300)	14 (350)	14 (350)	22 (550)	18 (450)	22 (550)	30 (750)	37 (950)	
Mounting panel width (F) inches (mm)		6 (145)	8 (195)	10 (245)	14 (345)	14 (345)	16 (417)	21 (545)	20 (517)	28 (717)	
Part No.	1	9201.600	9202.600	9203.600	9204.600	9205.600	9207.600	9206.600	9208.600	9209.600	
Cam lock with double-bit insert		1	1	2	2	2	2	2	–	–	
3-point locking rod		–	–	–	–	–	–	–	■	■	
Weight lb (kg)		8.2 (3.7)	10.1 (4.6)	13.2 (6.0)	14.2 (6.5)	25.4 (11.5)	28.4 (12.9)	35.1 (15.9)	54.6 (24.3)	86.0 (39.0)	

Accessories

Wall mounting bracket	4										630
Threaded inserts M6	20										674
Mounting panel adjustment bracket	4										638
Support rails											see page 660
Ground strap											see page 699
Cable duct											see page 722



Rittal EMC concept

Rittal offers excellent pre-requisites for EMC enclosure configurations in the form of its standard carbon steel enclosures, EMC-shielded enclosures, and a practical range of EMC accessories.

1 EB EMC E-Box

Material:

Carbon steel with aluminum zinc coating

Surface finish:

- Powder-coated on the outside
- Interior surfaces conductive

Color:

RAL 7035

Protection rating:

- IP 55 to IEC 60 529
- The EMC version ("high RF attenuation") has been certified by the VDE

Note:

All sizes available on request.

2 AE EMC compact enclosure

Material:

Carbon steel with aluminum zinc coating

Surface finish:

- Powder-coated on the outside
- Interior surfaces conductive

Color:

RAL 7035

Protection rating:

- IP 55 to IEC 60 529
- The EMC version ("high RF attenuation") has been certified by the VDE

Note:

All sizes available on request.



3 TS 8 EMC freestanding enclosure

Material:

- Door: Carbon steel with aluminum zinc coating, 14 ga (2.0 mm)
- Rear panel: Carbon steel with aluminum zinc coating, 16 ga (1.5 mm)
- Mounting panel: Carbon steel with zinc coating, 11 ga (3.0 mm)

Surface finish:

- Frame structure, door, rear panel and roof plate: Spray-finished on the outside and paint-free on the inside

Color:

RAL 7035

Protection rating:

- IP 55 to IEC 60 529
- The EMC version ("high RF attenuation") has been certified by the VDE

Configuration:

- Enclosure frame with door
- Rear panel and roof plate detachable
- Door hinged on the right, may be swapped to the left
- 4 eyebolts, fitted,
- Mounting panel
- Three-piece gland plates

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.	
			enclosure	sidewalls
32 (800)	79 (2000)	24 (600)	8806.750	8106.750
32 (800)	79 (2000)	32 (800)	8808.750	8108.750

Note:

Other sizes available on request.

Also required:

EMC baying seal 8800.690, see page 698, for bayed enclosures



Purge systems



System accessories Page 531

Application range:

- Type Y from Class I/Div. 1 to Div. 2
- Type Z from Class I/Div. 2 to non-hazardous
- Type X from Class II/Div. 1 to non-hazardous

Material:

- Y/Z: Type 304 stainless steel panel, Type 316 stainless steel tubes and fittings
- X: 316L stainless steel

Configuration:

- Y: Differential Pressure Gauge
- Filter/regulator
- Differential Pressure Switch (Alarm)
- Required vent sold separately

X: Control unit with Ex enclosure

- User-interface
- Manifold with solenoid
- Required vent and regulator sold separately

Certificates:

- Y/Z: cULus to RFPW
- X: SIRA 09 ATEX 9337X
- IEC Ex UL 08.00003X
- DEMKO 07 ATEX 0705753X
- cULus to RFPW

Approvals:

- Y/Z: cULus
- X: cULus, ATEX, IEC

Type Y/Z purge system, < 75 ft³

Height inches (mm)	Packs of	15 (381)	15 (381)	12 (305)	12 (305)
Width inches (mm)		12 (292)	12 (292)	15 (389)	15 (389)
Depth inches (mm)		6 (159)	6 (159)	6 (159)	6 (159)
Mounting configuration		Left	Right	Top	Bottom
Part No.	1	9968.221	9968.222	9968.223	9968.224

Accessories

Vent, straight	1	9968.229	9968.229	9968.229	9968.229
Vent, 90°	1	9968.230	9968.230	9968.230	9968.230

Type Y/Z purge system, < 200 ft³

Height inches (mm)	Packs of	16 (413)	16 (413)	12 (305)	12 (305)
Width inches (mm)		14 (343)	14 (343)	17 (426)	17 (426)
Depth inches (mm)		8 (203)	8 (203)	8 (203)	8 (203)
Mounting configuration		Left	Right	Top	Bottom
Part No.	1	9968.225	9968.226	9968.227	9968.228

Accessories

Vent, straight	1	9968.231	9968.231	9968.231	9968.231
Vent, 90°	1	9968.232	9968.232	9968.232	9968.232

Type X purge system, < 450 ft³

Height inches (mm)	Packs of	14 (367)	16 (413)
Width inches (mm)		9 (220)	14 (343)
Depth inches (mm)		6 (160)	8 (203)
Voltage		100-255V AC	24V DC
Part No.	1	9968.261	9968.262
Accessories			
Pressure relief vent	1	9968.263	9968.263
Filter/regulator	1	9968.264	9968.264



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Outdoor enclosures

CS enclosures

CS wallmount enclosure.....	248
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CS modular enclosure.....	252

CS wallmount enclosure



Stainless steel AE compact enclosures Page 221 IP 69K Stainless steel AE compact enclosures Page 223

Outdoor enclosures for wall or pole mounting. Enclosure-within-an-enclosure concept, outer enclosure with cut-out at the bottom and integrated louvers on the rear panel and side panels for ventilation.

Material:

- Enclosure: Aluminum AlMg3
- Mounting panel: Carbon steel, zinc-plated

Surface finish:

- Powder-coated
- UV-resistant pure polyester

Color:

RAL 7035

Protection rating:

IP 55 to IEC 60 529

Configuration:

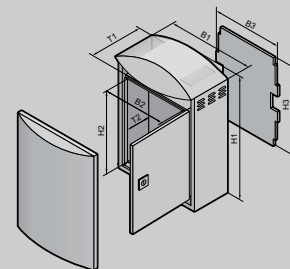
- Double-walled outdoor enclosure, fully preconfigured:
- Inner enclosure with mounting

plate, gland plate and security lock (9791.045 with 2 security locks)

- Mounting bracket for thermostat or hygrostat
- Outer enclosure with designer cover and security lock 3524 E
- 2 C rails on the rear panel

Detailed drawings:

Available at www.rittal-corp.com



Twin-walled, width: 15 - 25" (370 - 630 mm)

Outer enclosure						
Height (H1) inches (mm)	Packs of	21 (522)	22 (560)	28 (700)	31 (780)	Page
Width (B1) inches (mm)		15 (370)	17 (420)	21 (530)	25 (630)	
Depth (T1) inches (mm)		8 (210)	8 (210)	10 (265)	15 (380)	
Inner enclosure						
Height (H2) inches (mm)		16 (400)	17 (440)	22 (565)	23 (580)	
Width (B2) inches (mm)		12 (300)	14 (350)	18 (460)	23 (580)	
Depth (T2) inches (mm)		7 (170)	7 (170)	9 (220)	13 (333)	
Clearance height inches (mm)		15 (380)	17 (420)	21 (545)	22 (560)	
Clearance width inches (mm)		11 (280)	13 (330)	17 (440)	22 (560)	
Clearance depth inches (mm)		6 (145)	6 (145)	8 (195)	12 (308)	
Mounting panel width (B3) inches (mm)		11 (270)	13 (320)	17 (430)	22 (550)	
Mounting panel height (H3) inches (mm)		15 (380)	16 (410)	21 (535)	22 (550)	
Part No.	1	9791.015	9791.025	9791.035	9791.045	
Accessories						
Wall mounting bracket	4			9765.120		631
Pole clamp	1 set			2584.000		631
Enclosure heaters	1			3105.330		469
Enclosure internal thermostat	1			3110.000		476
Hygrostat	1			3118.000		476
Socket	2			2506.100		–
LED system light	1		4140.810		4140.820	692
LED connection cable	1			4315.800		693
Adaptor power pack	1			4315.860		693



Climate control Page 375 Rail systems Page 644 Cable routing Page 707

Outdoor enclosure with 4" (100 mm) transport plinth and rain canopy with projections on all sides. Photo shows a configuration with equipment not included in the base part number.

Material:

Aluminum AlMg3

Surface finish:

- Powder-coated
- UV-resistant pure polyester

Color:

RAL 7035

Protection rating:

IP 55 to IEC 60 529, complies with NEMA 3R in conjunction with the gland plates offered as accessories.

Configuration:

- Single-walled outdoor enclosure, fully pre-configured:
- Basic enclosure with open base
 - 25 mm system punchings in the roof, base, front and in the enclosure depth
 - Front door(s) with door stay, swing lever handle and semi-cylinder, lock BJ 20027

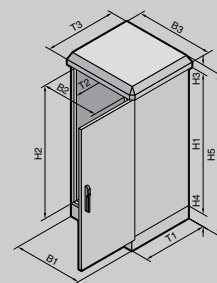
- Transport plinth with screw fastened trim panels front/rear
- Enclosure with width 47" (1200 mm) has two 24" (600 mm) wide mounting panels
- Rain canopy

Detailed drawings:

Available at www.rittal-corp.com

Note:

When configuring with partial mounting panels or 29" (482.6 mm) partial installation, punched rails are required in the enclosure height, see page 648.



Single-walled and one-door, width: 24 - 32" (600 - 800 mm)

Height (H1) inches (mm)	Packs of	32 (800)	47 (1200)	47 (1200)	32 (800)	47 (1200)	47 (1200)	Page
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	
Depth (T1) inches (mm)		16 (400)	16 (400)	20 (500)	16 (400)	16 (400)	20 (500)	
Clearance height (H2) inches (mm)		28 (712)	44 (1112)	44 (1112)	28 (712)	44 (1112)	44 (1112)	
Clearance width (B2) inches (mm)		20 (512)	20 (512)	20 (512)	28 (712)	28 (712)	28 (712)	
Clearance depth (T2) inches (mm)		24 (349)	24 (349)	18 (449)	24 (349)	24 (349)	18 (449)	
Rain canopy height (H3) inches (mm)		2 (55)	2 (55)	2 (55)	2 (55)	2 (55)	2 (55)	
Rain canopy width (B3) inches (mm)		26 (650)	26 (650)	26 (650)	33 (850)	33 (850)	33 (850)	
Rain canopy depth (T3) inches (mm)		18 (450)	18 (450)	22 (550)	18 (450)	18 (450)	22 (550)	
Base/plinth height (H4) inches (mm)		4 (100)	4 (100)	4 (100)	4 (100)	4 (100)	4 (100)	
Overall height (H5) inches (mm)		38 (955)	53 (1355)	53 (1355)	38 (955)	53 (1355)	53 (1355)	
Part No.	1	9783.540	9783.550	9783.530	9783.510	9783.520	9783.610	

Accessories

Concrete base/plinth	1	9765.182	9765.082	9765.088	9765.084	541
Gland plate, divided	1 set	9785.511	9785.514	9785.512	9785.513	560
Cable entry plates	2	8800.060		8800.080		707
Mounting panel	1	9765.090	9765.092	9765.097	9765.095	643
Mounting angles, 19" (482.6 mm)	2	7685.000	7688.000	7685.000	7688.000	755
Installation kit for mounting angles	2	7696.000		7698.000		755
Enclosure heaters	1	3105.400				469
Enclosure internal thermostat	1	3110.000				476
Semi-cylinder, alternative closure	1	9785.040				602

CS New Basic outdoor enclosure

Single-walled and two-door, width: 47" (1200 mm)

Height (H1) inches (mm)	Packs of	47 (1200)		47 (1200)		Page
Width (B1) inches (mm)		47 (1200)		47 (1200)		
Depth (T1) inches (mm)		16 (400)		20 (500)		
Clearance height (H2) inches (mm)		44 (1112)		44 (1112)		
Clearance width (B2) inches (mm)		20 (512)		20 (512)		
Clearance depth (T2) inches (mm)		14 (349)		18 (449)		
Rain canopy height (H3) inches (mm)		2 (55)		2 (55)		
Rain canopy width (B3) inches (mm)		49 (1250)		49 (1250)		
Rain canopy depth (T3) inches (mm)		18 (450)		22 (550)		
Base/plinth height (H4) inches (mm)		4 (100)		4 (100)		
Overall height (H5) inches (mm)		53 (1355)		53 (1355)		
Part No.	1	9784.620	9784.520	9784.640	9784.540	
Without center bar, overlapping doors		■	-	■	-	
With removable center bar, 2 lockable doors		-	■	-	■	

Accessories

Concrete base/plinth	1	9765.089		9765.086		541
Gland plate, divided	1 set	2 x 9785.511		2 x 9785.514		560
Cable entry plates	2	8800.060				707
Mounting panel for one half of the enclosure	1	9765.092				643
Mounting panel, full installation	1	9765.191				643
Mounting angles, 19" (482.6 mm)	2	7688.000				755
Installation kit for mounting angles	2	7696.000				755
Enclosure heaters	1	3105.400				469
Enclosure internal thermostat	1	3110.000				476
Semi-cylinder	1	9785.040	-	9785.040	-	602
	2	-	9785.042	-	9785.042	602



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Climate control Page 375 Rail systems Page 644 Cable routing Page 707

Outdoor enclosure with 4" (100 mm) transport plinth and rain canopy with projections on all sides. Side panels, rear panel and door fully double-walled on the outside, the entire TS 8 frame is available for interior installation.

Material:

- Enclosure frame: Type 304 stainless steel
- Enclosure panels and base/plinth trim: Aluminum, AIMg3

Surface finish:

- Powder-coated
- UV-resistant pure polyester

Color:
RAL 7035

Protection rating:
IP 55 to IEC 60 529

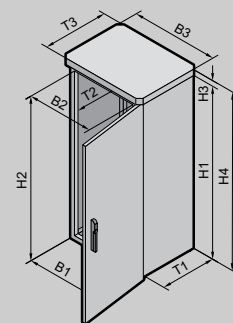
Configuration:

- Double-walled outdoor enclosure, fully pre-configured:
- TS 8 frame with 25 mm system punchings in the roof and base frame plus vertical sections with two mounting levels
 - Front door with door stay, swing lever handle and semi-cylinder, lock BJ20027
 - Side panels left and right

- Rear panel
- Rain canopy
- Base/plinth with screwfastened gland plates and screw-fastened trim panels front and rear
- All enclosure panels are doubled and grounded (external wall onto internal wall)

Detailed drawings:

Available at www.rittal-corp.com



Double-walled, TS 8 platform, width: 24 - 32" (600 - 800 mm)

Height (H1) inches (mm)	Packs of	47 (1200)	47 (1200)	63 (1600)	63 (1600)	Page
Width (B1) in ches (mm)		24 (600)	32 (800)	24 (600)	32 (800)	
Depth (T1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	
Clearance height (H2) inches (mm)		44 (1112)	44 (1112)	60 (1512)	60 (1512)	
Clearance width (B2) inches (mm)		20 (512)	28 (712)	20 (512)	28 (712)	
Clearance depth (T2) inches (mm)		20 (512)	20 (512)	20 (512)	20 (512)	
Rain canopy height (H3) inches (mm)		2 (45)	2 (45)	2 (45)	2 (45)	
Rain canopy width (B3) inches (mm)		27 (694)	35 (894)	27 (694)	35 (894)	
Rain canopy depth (T3) inches (mm)		27 (694)	27 (694)	27 (694)	27 (694)	
Overall height (H4) inches (mm)		53 (1345)	53 (1345)	69 (1745)	69 (1745)	
Part No.	1	9774.105	9774.205	9774.305	9774.405	

Accessories

Concrete base/plinth	1	9765.166	9765.186	9765.166	9765.186	541
Mounting angles, 19" (482.6 mm)	2	7827.120	7827.120	7827.160	7827.160	751
TS punched section with mounting flange as installation kit	4	8612.060	-	8612.060	-	758
Installation bracket TS	2	-	7827.480	-	7827.480	758
Mounting panel	1	9765.092	9765.095	-	9765.096	643
Gland plate	Size	4				710
	Qty.	2				
Semi-cylinder	1	9785.040	9785.040	9785.040	9785.040	602
Cooling unit BTU (W) 3412 (1000)	1	-	9776.500	-	9776.500	466
Heat exchanger, 85 W/K	1	-	9776.102	-	9776.102	466

CS modular enclosure



System accessories Page 531

CS modular enclosures

Double-walled outdoor enclosure with base/plinth and rain canopy projecting on all sides. Side panels doubled up to the outside, door and rear panel to the inside. Photo shows a configuration with equipment not included in the base part number.

Material:

- Enclosure, roof and side panel: Aluminum AIMg3
- Base/plinth, battery plinth: Aluminum AIMg3

Surface finish:

- Powder-coated
- UV-resistant pure polyester

Color:

RAL 7035

Protection rating:

IP 55 to IEC 60 529, complies with NEMA 3R

Order example:

See next page

Other climate control devices:

From page 375

Double-walled, configuration variants, width: 24" (600 mm)

Height inches (mm)	32 (800)	39 (1000)	47 (1200)	63 (1600)	Page
Width inches (mm)	24 (600)	24 (600)	24 (600)	24 (600)	
Depth inches (mm)	24 (600)	20 (500)	24 (600)	24 (600)	
Part No.	9751.015	9751.075	9751.025	9751.035	
Base/plinth					
Standard base/plinth 4" (100 mm)	9755.015	9755.065	9755.015		–
Battery plinth 14" (350 mm)	9754.025	9754.015	9754.025		–
Roof-mounted climate control					
Cooling unit, 3412 BTU (1000 W)			9762.212		467
Heat exchanger, 30 W/K			9764.040		467
Mounting frame for cooling unit			9765.051		–
Climate hood	9756.015	9756.065	9756.015		–
Wall-mounted climate control					
Cooling unit, 3412 BTU (1000 W)	–	–		9761.212	467
Roof					
Standard roof	9757.015	9757.065	9757.015	9757.015	–
Roof for wall-mounted climate control	–	–	9758.015	9758.015	–
Side panel					
Side panel for 4" (100 mm) base/plinth	9753.015	9753.175	9753.035	9753.045	–
Side panel for 14" (350 mm) base/plinth	9753.055	9753.195	9753.075	9753.085	–
Side panel for 4" (100 mm) base/plinth and roof-mounted climate control	9753.095	9753.185	9753.115	9753.125	–
Side panel for 14" (350 mm) base/plinth and roof-mounted climate control	9753.135	9753.205	9753.155	9753.165	–

Delivery times available on request.

Double-walled, configuration variants, width: 32 - 47" (800 - 1200 mm)

Height inches (mm)	39 (1000)	47 (1200)	47 (1200)	1600	47 (1200)	47 (1200)	Page
Width inches (mm)	32 (800)	32 (800)	32 (800)	32 (800)	47 (1200)	47 (1200)	
Depth inches (mm)	20 (500)	20 (500)	24 (600)	24 (600)	20 (500)	24 (600)	
Part No.	9751.085	9751.045	9751.055	9751.065	9752.015	9752.025	

Base/plinth

Standard base/plinth 4" (100 mm)	9755.025	9755.035	9755.045	9755.055	
Battery plinth 14" (350 mm)	9754.035	9754.045	2 x 9754.015	2 x 9754.025	

Roof-mounted climate control

Cooling unit, 3412 BTU (1000 W)		9762.212			467
Heat exchanger, 30 W/K		9764.040			467
Mounting frame for cooling unit		9765.051			-
Climate hood	9756.025	9756.035	9756.045	9756.055	-

Wall-mounted climate control

Cooling unit, 3412 BTU (1000 W)	-	9761.212			467
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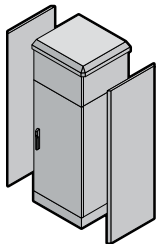
Roof

Standard roof	9757.025	9757.035	9757.045	9757.055	-
Roof for wall-mounted climate control	-	9758.025	9758.035	9758.045	9758.055

Side panel

Side panel for 4" (100 mm)mm base/plinth	9753.175	9753.025	9753.035	9753.045	9753.025	9753.035	-
Side panel for 14" (350 mm) base/plinth	9753.195	9753.065	9753.075	9753.085	9753.065	9753.075	-
Side panel for 4" (100 mm) base/plinth and roof-mounted climate control	9753.185	9753.105	9753.115	9753.125	9753.105	9753.115	-
Side panel for 14" (350 mm) base/plinth and roof-mounted climate control	9753.205	9753.145	9753.155	9753.165	9753.145	9753.155	-

Delivery times available on request.



Order example:

**Enclosure 47 x 32 x 20 inches (1200 x 800 x 500 mm)
of aluminum AIMg3 with standard base/plinth and roof-mounted cooling unit.**

You will need:

Enclosure:	Basic enclosure – 14 x 32 x 20 inches (1200 x 800 x 500 mm)	9751.045
Base/plinth:	Standard base/plinth 4" (100 mm)	9755.025
Roof-mounted climate control:	Roof-mounted cooling unit	9762.212
	Mounting frame	9765.051
	Climate hood	9756.025
Roof:	Standard roof	9757.025
Side panel:	Side panel for 4" (100 mm) base/plinth and roof-mounted climate control	9753.105



Power Distribution

Busbar systems

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SV-TS 8 Form 1-4

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Power

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Experts in power distribution and back-up

Rittal, the world leader in providing systems for safe power distribution and power back-up installations is dedicated to providing optimum value to its customers. This commitment brings with it:

Planning and engineering

- Power engineering/planning software for low-voltage switchgear and busbar systems
- Complete engineering support from Rittal advisors on an individual project basis

Products

- Modular busbar systems including approvals in all worldwide markets
- Flexible, complete solutions for low-voltage switchgear and distribution enclosures
- Universal connection system for most applications
- Versatile, approved fuse elements
- A comprehensive range of system components for individual installation and fast assembly
- Highly efficient, modular UPS systems for optimum power supply reliability
- Intelligent power distributors for IT racks in data centers
- Scalable fuel cell technology for indoor and outdoor applications

Service

- Contiguous global delivery and service network
- Global spare parts service
- Comprehensive quality management
- Accredited laboratories for tests, trials and protection category verification
- Efficiency evaluations/consultations for optimum energy management and lowest energy costs





Busbar systems

RiLine60 busbar system (60 mm)	261
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RiLine60

Busbar systems: 3- and 4-pole

Support + Bars + Contact Hazard Protections

- Flat copper bar system – page 262
- PLS busbar system – page 264
- Accessories – page 296



Connection system 3- and 4-pole

- Busbar connection adaptor – page 266
- Connection clamps – page 304
- Connection block – page 306
- Accessories – page 296



Component adaptors 3- and 4-pole

- OM adaptor – page 269
- Circuit-breaker component adaptor – page 273
- Accessories – page 296



Fuse elements 3-pole

- Bus-mounting fuse bases – page 280
- NH fuse-switch disconnectors – page 282
- NH slimline fuse-switch disconnectors – page 292
- Accessories – page 296



RiLine60 busbar systems up to 800 A (60 mm)



Connection systems Page 266 Component adaptors Page 269 Fuse elements Page 280

Material:

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Note:

The use of a base tray is required for UL applications.

Short-circuit resistance diagrams:

Available at www.rittal-corp.com

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com





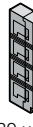
Flat copper bar system

Busbar support							
No. of poles/bar center distance	Packs of	3-pole/60 mm			4-pole/60 mm		Page
External attachment		■	–	–	–	–	
Internal attachment		–	■	■	■	■	
For busbars mm	12 x 5/10	■	■	–	■	–	
	15 x 5 – 25 x 10, 30 x 5	■	■	■	■	–	
	30 x 10	■	■	■	■	■	
Approvals		–	–	Ⓢ	Ⓢ	Ⓢ	
Part No.	4	9340.010	9340.000	9340.050	9340.004	9342.014	
Also required							
Spacer when using busbars 12 x 5/10 mm		■	■	–	■	–	
Part No.	12	9340.090	9340.090	–	9340.090	–	297

RiLine60 busbar systems up to 800 A (60 mm)

Flat copper bar system

Busbar support

						 30 x 10 PLUS	
No. of poles/bar center distance	Packs of	3-pole/60 mm			4-pole/60 mm		Page
Part No.	4	9340.010	9340.000	9340.050	9340.004	9342.014	

Also required

Spacer when using busbars 12 x 5/10 mm		■	■	–	■	–	
Part No.	12	9340.090	9340.090	–	9340.090	–	297

Contact hazard protection

	Components	Length mm	Approvals	Packs of	Part No.			Part No.		Page
	A End cover	–	Ⓛ	2	9340.070	9340.070	9340.070	9340.074	9342.074	–
	B Base tray	500	Ⓛ	2	–	9340.100	9340.100	–	–	303
		700	Ⓛ	2	–	9340.110	9340.110	–	–	303
		900	Ⓛ	2	–	9340.120	9340.120	–	–	303
		1100	Ⓛ	2	–	9340.130	9340.130	9340.134	9340.134	303
		2400	Ⓛ	1	–	9340.170	9340.170	–	–	303
	C Base tray infill	100	Ⓛ	2	–	9340.140	9340.140	–	–	303
	D Cover section	700	Ⓛ	2	–	9340.200	9340.200	–	–	303
		1100	Ⓛ	2	–	9340.210	9340.210	9340.214	9340.214	303
E Support panel	–	Ⓛ	5	–	9340.220	9340.220	9340.224	9340.224	304	
F Cross members	(160	Ⓛ	2	–	–	9340.230	–	–	304	

Busbars E-Cu; length: 2400 mm/bar

	Dimensions mm	DIN EN	UL 508	Approvals	Packs of	Part No.			Part No.		Page
	12 x 5	210 A	–	Ⓛ	6	3580.000	3580.000	3580.000	3580.000	–	297
	12 x 10	340 A	–	Ⓛ	6	3580.100	3580.100	3580.100	3580.100	–	297
	15 x 5	260 A	175 A	Ⓛ	6	3581.000	3581.000	3581.000	3581.000	–	297
	15 x 10	360 A	350 A	Ⓛ	6	3581.100	3581.100	3581.100	3581.100	–	297
	20 x 5	319 A	230 A	Ⓛ	6	3582.000	3582.000	3582.000	3582.000	–	297
	20 x 10	497 A	465 A	Ⓛ	6	3585.000	3585.000	3585.000	3585.000	–	297
	25 x 5	384 A	290 A	Ⓛ	6	3583.000	3583.000	3583.000	3583.000	–	297
	30 x 5	447 A	350 A	Ⓛ	6	3584.000 ¹⁾	3584.000 ¹⁾	3584.000 ¹⁾	3584.000 ¹⁾	–	297
	30 x 10	800 A	700 A	Ⓛ	6	3586.000 ¹⁾	3586.000 ¹⁾	3586.000 ¹⁾	3586.000 ¹⁾	–	297

Accessories

Components	For busbars mm	Approvals	Packs of	Part No.			Part No.		Page
Busbar connectors for single connection	12 x 5 – 15 x 10	Ⓛ	3	9350.075	9350.075	9350.075	9350.075	–	300
	20 x 5 – 30 x 10	Ⓛ	3	9320.020	9320.020	9320.020	9320.020	9320.020	300
Busbar connectors for baying connection ²⁾	20 x 5 – 30 x 10	Ⓛ	3	9320.030	9320.030	9320.030	9320.030	9320.030	300
Busbar cover section Length: 1000 mm/section	12 x 5 – 30 x 10	Ⓛ	10	3092.000	3092.000	3092.000	3092.000	3092.000	298
	12/15 x 5	Ⓛ	4	9350.010	9350.010	9350.010	9350.010	9350.010	298
	12/15 x 10	Ⓛ	4	9350.060	9350.060	9350.060	9350.060	9350.060	298

¹⁾ To order the tin-plated version add extension .200 to the Part No. Delivery times available on request.

²⁾ Connection from enclosure to enclosure (TS 8)

RiLine60 busbar systems 800 A/1600 A (60 mm)



Connection systems Page 266 Component adaptors Page 269 Fuse elements Page 280

Material:

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Note:

The use of a base tray is required for UL applications.

Short-circuit resistance diagrams:

Available at www.rittal-corp.com

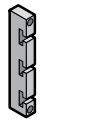
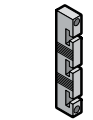
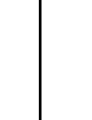
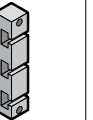
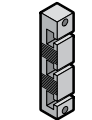
Technical information:

Available at www.rittal-corp.com

Detailed drawings:

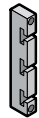
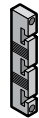
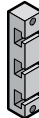
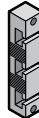
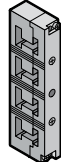
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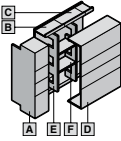
PLS busbar support

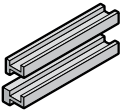
Busbar support								
For Rittal system	Packs of	PLS 800		PLS 1600				
No. of poles/bar center distance		3-pole/60 mm		3-pole/60 mm		4-pole/60 mm		
Internal attachment		■	■	■	■	■		
Busbar support, suitable for top mounting		■	■	■	■	■		
Approvals		-	Ⓢ	-	Ⓢ	Ⓢ		
Part No.	4	9341.000	9341.050	9342.000	9342.050	9342.004		

RiLine60 busbar systems 800 A/1600 A (60 mm)

Flat copper bar system

Busbar support									
									
								PLS 1600 PLUS	
For Rittal system		Packs of		PLS 800		PLS 1600			Page
No. of poles/bar center distance				3-pole/60 mm		3-pole/60 mm		4-pole/60 mm	
Part No.		4		9341.000	9341.050	9342.000	9342.050	9342.004	

Contact hazard protection										
	Components	Length mm	Approvals	Packs of	Part No.		Part No.			Page
	A End cover	–	UL	2	9341.070	9341.070	9342.070	9342.070	9342.074	–
	B Base tray	500	UL	2	9341.100	9341.100	9342.100	9342.100	–	303
		700	UL	2	9341.110	9341.110	9342.110	9342.110	–	303
		900	UL	2	9341.120	9341.120	9342.120	9342.120	–	303
		1100	UL	2	9341.130	9341.130	9342.130	9342.130	9342.134	303
		2400	UL	1	9341.170	9341.170	9342.170	9341.170	–	303
	C Base tray infill	100	UL	2	9341.140	9341.140	9342.140	9342.140	–	303
	D Cover section	700	UL	2	9340.200	9340.200	9340.200	9340.200	–	303
		1100	UL	2	9340.210	9340.210	9340.210	9340.210	9340.214	303
	E Support panel	–	UL	5	9340.220	9340.220	9340.220	9340.220	9340.224	304
	F Cross members	160	UL	2	–	9340.230	–	9340.230	–	304

PLS special busbars E-Cu ¹⁾											
	Design			Packs of	PLS 800		PLS 1600			Page	
	Bar cross-section				300 mm ²		900 mm ²				
	Bar thickness				5 mm		10 mm				
	Max. rated current acc. to				DIN EN		800 A		1600 A		
					UL 508		700 A		1400 A		
	Length mm	For encl. width inches (mm)	Approvals		Part No.		Part No.				
	495	600	UL	3	3524.000		3527.000			299	
	695	800	UL	3	3525.000		3528.000			299	
	895	1000	UL	3	3525.010		3528.010			299	
	1095	1200	UL	3	3526.000		3529.000			299	
	2400	variable	UL	1	3509.000		3516.000			299	

Accessories									
Components		Approvals	Packs of	Part No.		Part No.			Page
PLS busbar connectors	Single connection	UL	3	3504.000		3514.000			300
	Baying connection ²⁾	UL	3	3505.000		3515.000			300
PLS expansion connectors ³⁾		UL	3	9320.060		9320.070			301

¹⁾ To order the tin-plated version of the busbars, please add extension .2X0 to the Part No. Delivery times available on request.

²⁾ Connection from enclosure to enclosure (TS 8)

³⁾ Two PLS busbar connectors (single connection) are required to fit one expansion connector.

RiLine60 connection system



Busbar systems Page 261 Component adaptors Page 269 Fuse elements Page 280

Material:

- Chassis:
 – Polyamide (PA 6.6).
 – Fire protection corresponding to UL 94-V0

Chassis

- 3439.010:
 – Fiberglass-reinforced, thermoplastic polyester (PBT)
 – Fire protection corresponding to UL 94-V0

Cover:

- ABS
 – Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Note:

The technical data given in the tables may vary for UL applications.

3439.010

When connecting round conductors 300 mm² with ring terminals, the terminal clamps fitted as standard in the busbar connection adaptors must be replaced with screws and/or bolts M10.



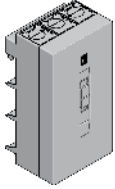
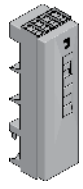
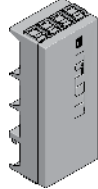





Technical information:

Available at www.rittal-corp.com

Detailed drawings:



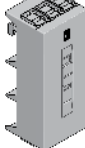
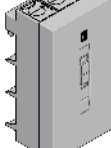
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Busbar connection adaptor 125 A/250 A/800 A, cable outlet top/bottom

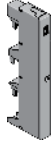

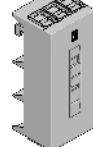
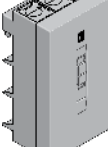
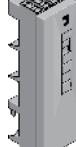
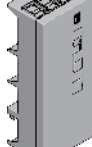
							
Design	Packs Of	3-pole			4-pole		Page
Rated current up to		125 A	250 A	800 A	125 A	250 A	
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	690 V~	
Cable outlet top/bottom		■	■	■	■	■	
Connection of round conductors mm ²							
• fine-wire with wire end ferrule		10 – 25	35 – 120	95 – 185	10 – 25	35 – 120	
• multi-wire		16 – 35	35 – 120	95 – 300	16 – 35	35 – 120	
• solid		–	–	–	–	–	
Clamping area for laminated copper bars W x H mm		10 x 7.8	18.5 x 15.5	33 x 20	10 x 7.8	18.5 x 15.5	
Width mm		55	90	129	75	118	
Height mm		210	210	246	270	270	
Approvals							
For bar systems with center-to-center spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Part No.	1	9342.220	9342.250	9342.280	9342.224	9342.254	
Accessories							
Laminated copper bars		■	■	■	■	■	302

RiLine60 connection system

Busbar connection adaptor 63 A/125 A/250 A/800 A, cable outlet top

						
Design	Packs Of	3-pole	3-pole	3-pole	3-pole	Page
Rated current up to		63 A	125 A	250 A	800 A	
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	
Cable outlet top/bottom		■	■	■	■	
Connection of round conductors mm ² • fine-wire with wire end ferrule • multi-wire • solid		2.5 – 10 2.5 – 10 2.5 – 10	10 – 25 16 – 35 –	35 – 120 35 – 120 –	95 – 185 95 – 300 –	
Clamping area for laminated copper bars W x H mm		–	10 x 7.8	18.5 x 15.5	33 x 20	
Width mm		20	55	90	129	
Height mm		215	210	210	246	
Approvals		Ⓢ	Ⓢ	Ⓢ	Ⓢ	
For bar systems with center-to-center spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Part No.	1	9342.200	9342.230	9342.260	9342.290	
Accessories						
Laminated copper bars		–	■	■	■	302

Busbar connection adaptor 63 A/125 A/250 A/800 A, cable outlet bottom

								
Design	Packs Of	3-pole				4-pole		Page
Rated current up to		63 A	125 A	250 A	800 A	125 A	250 A	
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	
Cable outlet top/bottom		■	■	■	■	■	■	
Connection of round conductors mm ² • fine-wire with wire end ferrule • multi-wire • solid		2.5 – 10 2.5 – 10 2.5 – 10	10 – 25 16 – 35 –	35 – 120 35 – 120 –	95 – 185 95 – 300 –	10 – 25 16 – 35 –	35 – 120 35 – 120 –	
Clamping area for laminated copper bars W x H mm		–	10 x 7.8	18.5 x 15.5	33 x 20	10 x 7.8	18.5 x 15.5	
Width mm		20	55	90	129	75	118	
Height mm		215	210	210	246	270	270	
Approvals		Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ	
For bar systems with center-to-center spacing mm		60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	
Part No.	1	9342.210	9342.240	9342.270	9342.300	9342.244	9342.274	
Accessories								
Laminated copper bars		–	■		■	■	■	302

RiLine60 connection system

Busbar connection adaptor 600 A/800 A/1600 A, cable outlet top/bottom

Design	Packs Of	3-pole			4-pole		Page
		600 A	800 A	1600 A	800 A	1600 A	
Rated current up to		600 A	800 A	1600 A	800 A	1600 A	
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	690 V~	
Cable outlet top/bottom		■	■	■	■	■	
Connection of round conductors mm ² • fine-wire with wire end ferrule • multi-wire		35 – 240 35 – 240	35 – 240 35 – 240	– –	95 – 185 95 – 300	– –	
Clamping area for laminated copper bars W x H mm • For 5 mm bar thickness • For 10 mm bar thickness		24 x 21 24 x 21	33 x 26 33 x 21	65 x 27 65 x 22	33 x 26 33 x 21	65 x 27 65 x 22	
Width mm		180	150	255	150	255	
Height mm		247	210	210	210	210	
Approvals		–	Ⓢ	Ⓢ	Ⓢ	Ⓢ	
For bar systems with center-to-center spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Part No.	1 set	3439.010	9342.310	9342.320	9342.310	9342.320	

Also required

Busbar connection adaptor (extra set for 4-pole configuration)

Width mm		–	–	–	50	85	
Height mm		–	–	–	270	270	
Approvals		–	–	–	Ⓢ	Ⓢ	
For bar systems with center-to-center spacing mm		–	–	–	60	60	
For bar thickness mm		–	–	–	5/10	5/10	
Part No.	1	–	–	–	9342.314	9342.324	

Accessories

Laminated copper bars		■	■	■	■	■	302
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Busbar systems Page 261 Connection system Page 266 Fuse elements Page 280

Material:

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Color:

Chassis: RAL 7035

Note:

- Overview of standard commercially available switchgear with allocation of the relevant adaptor, see page 276 – 279.
- The technical data in the tables may vary for UL applications.

Design of support rails:

- TS XXC with anti-slip guard
- TS XXD without anti-slip guard
- TS XXD-V without anti-slip guard, variable positioning on the support frame
- TS XXE with anti-slip guard, reinforced version


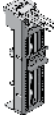






Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

OM adaptors 25 A/32 A with connection cables (3-pole)

Design										
Rated current up to	Packs of	25 A	25 A	25 A	25 A	32 A	32 A	32 A	32 A	Page
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	
Connection cables ¹⁾	Design	AWG 12	AWG 12	AWG 12	AWG 10	AWG 10	AWG 10	AWG 10	AWG 10	
	Length mm	130	130	130	130	130	130	130	130	
With	Support frame mm	–	45 x 170	45 x 170	45 x 170	45 x 170	45 x 237	55 x 170	55 x 170	
	PinBlock	–	–	■	–	–	–	–	–	
	Support frame support	–	–	–	–	–	■	–	–	
Support rls	Qty.	1	1	1	1	2	2	1	2	
	Height mm	10	10	10	10	10	10	10	10	
Design of support rails		TS 45C	TS 45C	TS 45C	TS 45C	TS 45D TS 45 D-V ²⁾	TS 45D TS 45 D-V ²⁾	TS 55D	TS 45D TS 55 D-V ²⁾	307
Width mm		45	45	45	45	45	45	55	55	
Height mm		208	208	208	208	208	272	208	208	
Approvals		UL	UL	UL	UL	UL	UL	UL	UL	
For bar systems with center-to-center spacing mm		60	60	60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	5/10	5/10	
Part No.	1	9340.310	9340.340	9340.370	9340.350	9340.380	9340.390	9340.460	9340.470	

Accessories

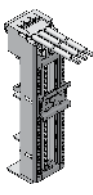
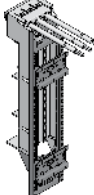
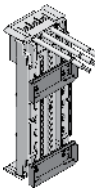
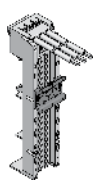
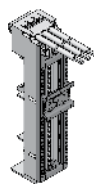
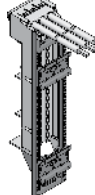

Laminated copper bars	see page 302
Insert strip, support rails	see page 307
Connection pin, support frame, PinBlock for support frame, PinBlock PLUS	see page 308 - 309

¹⁾ AWG = American Wire Gauges • AWG 12 = 3.31 XYX mm² 4 mm² • AWG 10 = 5.26 mm² • 6 mm²

²⁾ Support rail with special latch is secured from behind with the support frame loosened.

RiLine60 component adaptor

OM adaptors 40 A/65 A with connection cables (3-pole)

Design									
Rated current up to	Packs of	40 A	40 A	40 A	65 A	65 A	65 A	65 A	Page
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	
Connection cables ¹⁾	Design	AWG 8	AWG 8	AWG 8	AWG 6	AWG 6	AWG 6	AWG 6	
	Length mm	130	130	130	130	130	130	130	
With	Support frame mm	55 x 170	55 x 237	–	–	55 x 170	55 x 237	–	
	Support frame support	–	■	–	–	–	■	–	
	Insert strips	–	–	■	–	–	–	■	
Support rails	Qty.	1	2	2	1	1	2	1	
	Height mm	10	10	7.5	10	10	10	7.5	
Design of support rails		TS 55D	TS 55D TS 55D-V ²⁾	Metal	TS 55E	TS 55E	TS 55D TS 55D-V ²⁾	Metal	307
Width mm		55	55	75	55	55	55	75	
Height mm		208	272	208	208	208	272	208	
Approvals		UL	UL	UL	UL	UL	UL	UL	
For bar systems with center-to-center spacing mm		60	60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	5/10	
Part No.	1	9340.720	9340.730	9340.710	9340.410³⁾	9340.430³⁾	9340.450³⁾	9340.700³⁾	

Accessories

OM support	see page 302
Insert strip, support rails	see page 307
Connection pin, support frame, PinBlock for support frame, PinBlock PLUS	see page 308 - 309


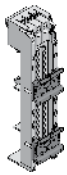


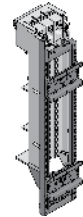

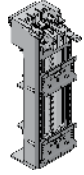
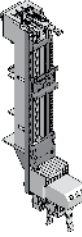
¹⁾ AWG = American Wire Gauges
 AWG 8 = 8.37 XYX mm² 10 mm²
 AWG 6 = 13.3 mm² XYX 16 mm²

²⁾ Support rail with special latch is secured from behind with the support frame loosened.

³⁾ According to a heat dissipation test to IEC 60 439-1, a current carrying capacity of up to 80 A is supported.

RiLine60 component adaptor

OM adaptors 32 A with tension spring clamp/OM Premium adaptors 25 A (3-pole)

Design	Packs of							Premium adaptor			Page
											
Rated current up to		32 A	32 A	32 A	32 A	32 A	32 A	25 A	25 A	25 A	
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	690 V~	
Connection of round conductors mm ²		1.5 – 6	1.5 – 6	1.5 – 6	1.5 – 6	1.5 – 6	1.5 – 6	1.5 – 4	1.5 – 4	1.5 – 4	
With	Support frame mm	–	–	45 x 170	45 x 170	45 x 237	55 x 170	45 x 170	55 x 170	45 x 237	
	Support frame support	–	–	–	–	■	–	–	–	■	
	PinBlock	–	–	–	■	–	–	–	–	■	
	Connector outlet	–	–	–	–	–	–	1)	1)	2)	
Support rails	Qty.	1	2	1	1	2	1	2	2	1	
	Height mm	10	10	10	7.5	10	10	10	10	10	
Design of support rails		TS 45C	TS 45D	TS 45C	TS 45C	TS 45D TS 45D-V ³⁾	TS 55D	TS 45D TS 45D-V ³⁾	TS 55D TS 55D-V ³⁾	TS 45C	307
Width mm		45	45	45	45	45	45	45	45	45	
Height mm		208	208	208	208	272	208	208	208	292	
For bar systems with center-to-center spacing mm		60	60	60	60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	5/10	5/10	5/10	
Part No.	1	9340.510	9340.520	9340.530	9340.550	9340.560	9340.660	9340.910	9340.930	9340.900	
Accessories											
Cable set	AWG 14	15	9340.850	9340.850	9340.850	9340.850	9340.850	9340.850	9340.850	9340.850	309
	AWG 12	15	9340.860	9340.860	9340.860	9340.860	9340.860	9340.860	9340.860	9340.860	309
	AWG 10	15	9340.870	9340.870	9340.870	9340.870	9340.870	9340.870	–	–	–
OM support		see page 302									
Insert strip, support rails		see page 307									
Connection pin, support frame, PinBlock for support frame, PinBlock PLUS, ST combination connector		see page 308									





¹⁾ Supply includes: Connector with connection facility for 3 main contacts (1.5 – 4 mm²).

²⁾ Supply includes: Sub-unit with connection facility for 3 main contacts (1.5 – 4 mm²) and 8 auxiliary contacts (0.5 – 2.5 mm²) including connectors.

³⁾ The support rail with special latch is attached from the rear with the support frame loosened.

RiLine60 component adaptor

OM adaptors 65 A with tension spring clamp (3-pole)

Design						
Rated current up to	Packs of	65 A	65 A	65 A	65 A	Page
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	
Connection of round conductors mm ²		2.5– 16	2.5– 16	2.5– 16	2.5– 16	
With	Support frame mm	–	–	55 x 170	55 x 237	
	Support frame support	–	–	–	■	
Support rails	Qty.	1	2	1	2	
	Height mm	10	10	10	10	
Design of support rails		TS 55E	TS 55E TS 55D	TS 55E	TS 55D TS 55D-V ¹⁾	307
Width mm		55	55	55	55	
Height mm		208	208	208	272	
For bar systems with center-to-center spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Part No.	1	9340.610²⁾	9340.620²⁾	9340.630²⁾	9340.650²⁾	



Accessories

Cable set	AWG 14	15	9340.850	9340.850	9340.850	9340.850	309
	AWG 12	15	9340.860	9340.860	9340.860	9340.860	309
	AWG 10	15	9340.870	9340.870	9340.870	9340.870	309
	AWG 8	6	9340.880	9340.880	9340.880	9340.880	309
	AWG 6	6	9340.890	9340.890	9340.890	9340.890	309
Twin cords AWG 10		6	9340.820	9340.820	9340.820	9340.820	309
Insert strip, support rails	see pages 307 - 308						
Connection pin, support frame, PinBlock for support frame, PinBlock PLUS	see pages 308 - 309						

¹⁾ The support rail with special latch is attached from the rear with the support frame loosened.

²⁾ According to a heat dissipation test to IEC 60 439-1, a current carrying capacity of up to 80 A is supported.

OM supports without contact system (3-pole)

Design					
With	Support frame mm	Packs of	45 x 170	45 x 237	55 x 237
	Support frame support		–	■	■
	PinBlock		■	–	–
Support rails	Qty.		–	1	1
	Height mm		10	10	10
Design of support rails			–	TS 45D	TS 55D-V ¹⁾
Approvals			®	®	®
Width mm			45	45	45
Height mm			208	272	272
For bar systems with center-to-center spacing mm			60	60	60
For bar thickness mm			5/10	5/10	5/10
Part No.	1		9340.260	9340.250	9340.270

Accessories

Insert strip, support rails	see pages 307 - 308
Connection pin, support frame, PinBlock for support frame, PinBlock PLUS	see pages 308 - 309

¹⁾ The support rail with special latch is attached from the rear with the support frame loosened.



Busbar systems Page 261 Connection system Page 266 Fuse elements Page 280

Material:

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Configuration:

Circuit-breaker component adaptor 125 to 630 A

Including terminal cover and sliding blocks for switchgear attachment.

Note:

The technical data given in the tables may vary for UL applications.

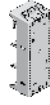



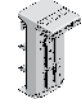
Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Circuit-breaker component adaptors 100 A/125 A/160 A (3-pole)

Design							Page
Rated current up to	Packs of	100 A	125 A		160 A		
Rated operating voltage		690 V~	690 V~		690 V~		
Type of connection		Box terminal	Box terminal		Box terminal		
Connection of round conductors mm ²		10 – 35	35 – 120		35 – 120		
Clamping area for laminated copper bars W x H mm		10 x 7.8	18.5 x 15.5		18.5 x 15.5		
For switchgear make/model	ABB	MS 497	S2, T1, T1 UL, T2, T2 UL		S2, T1, T2		
	Allen Bradley	–	140-CMN		140-CMN		
	Eaton	PKZ2 ¹⁾	NZM1, NZM1 UL, BZM B1		NZM1, BZM B1		
	GE	–	FD		FD		
	OEZ	–	BC160N		BC160N		
	Schneider Electric	GV3ME80 ¹⁾	NS80, NSC100, NSE75, NSE100		NS80, NSC100		
	Siemens	S3	3RV13 53, 3VT1		3RV13 53, 3VT1		
	Terasaki	–	E125, S125		E125, S125		
	Universal application	■ ¹⁾	–		–		
Width mm		72	90		90		
Height mm		210	225		215		
Approvals		®	®		–		
For bar systems with center-to-center spacing mm		60	60		60		
For bar thickness mm		5/10	5/10		5/10		
Cable outlet ²⁾		Top	Bottom	Top	Bottom	Top	Bottom
Part No.	1	9342.400	9342.410	9342.540	9342.550	9342.500	9342.510

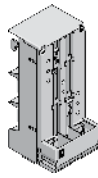
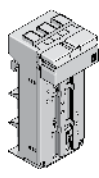
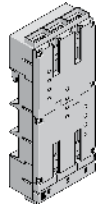
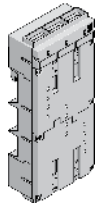
Accessories

Support rail width 72 mm, height 15 mm	5	9320.120	–	–	311
Sliding blocks	6	–	9342.560	9342.560	310
Connection bracket		–	■	■	310

¹⁾ Mounting only possible with support rail 9320.120. ²⁾ Switch outlet or outgoing cable.

RiLine60 component adaptor

Circuit-breaker component adaptors 100 A/125 A/160 A (3-pole)

Design						
Rated current up to	Packs of	250 A		630 A		Page
Rated operating voltage		690 V~		690 V~		
Type of connection		Box terminal		Screw terminal M10		
Connection of round conductors mm ²		35 – 120		max. 150 ¹⁾		
Clamping area for laminated copper bars W x H mm		18.5 x 15.5		32 x 10		
For switchgear make/model	ABB	S3, T3, T4 ⁴⁾ , T3 UL, T4 UL		S5, T5, T5 UL		
	Allen Bradley	140U-J		140U-L		
	Eaton	NZM2, NZM2 UL, BZM B2		NZM3, NZM3 UL		
	GE	FE		–		
	Mitsubishi	NF125-SGW/HGW, NF160-SGW/HGW		NF400-SEW/HEW/REW, NF630-SEW/HEW/REW		
	OEZ	BD250N, BD250S		BH630N, BH630S		
	Schneider Electric	NS(X)100, NS(X)160, NS(X)250, GV7, NSF150, NSF250		NS(X)400, NS(X)630, NSJ400, NSJ600		
	Siemens	VL150X UL, VL150 UL, VL250 UL, VL160X, VL160, VL250, 3RV10 63, 3RV13 63, 3RV13 64, 3VT2 ⁴⁾		VL400, VL630 ²⁾ , VL400X UL, VL400 UL, 3VT3, 3V10 73, 3RV13 73, 3RV13 74		
Terasaki	L125, H125, S160, H160, L160, E250, L250, H250		E400, S400, H400, L400, E630, S630			
Width mm		105		140		
Height mm		240		324		
Approvals		®		®		
For bar systems with center-to-center spacing mm		60		60		
For bar thickness mm		5/10		5/10		
Cable outlet ²⁾		Top	Bottom	Top	Bottom	
Part No.	1	9342.600	9342.610	9342.700	9342.710	
Accessories						
Insert strip 25 mm to extend the construction width from 140 mm to 190 mm	4 (1 set)	–		9342.720		310
Sliding blocks	6	9342.640		–		310
Connection bracket		■		■		310

¹⁾With ring terminal.

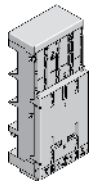
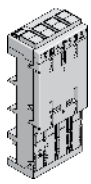
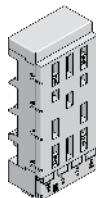
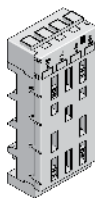
²⁾Also required: Insert strip 25 mm (9342.720).

³⁾Switch outlet or outgoing cable.

⁴⁾The top attachment bars on the circuit-breaker component adaptor must be removed.

RiLine60 component adaptor

Circuit-breaker component adaptors 160 A/250 A (4-pole)

Design						
Rated current up to	Packs of	160 A		250 A		Page
Rated operating voltage		690 V~		690 V~		
Type of connection		Box terminal		Box terminal		
Connection of round conductors mm ²		35 – 120		35 – 120		
Clamping area for laminated copper bars W x H mm		18.5 x 15.5		18.5 x 15.5		
For switchgear make/model	ABB	T1 (160 A), T2 (160 A)		T3S (250 A), T4V (315 A)		
	Eaton	NZM1-4 (125 A), BZM E1-4 (100 A)		NZM2-4 (250 A)		
	Schneider Electric	NSC100		NS(X)100, NS(X)160, NS(X)250		
	Siemens	–		VL160X, VL160, VL250		
Width mm		120		140		
Height mm		277		310		
Approvals		®		®		
For bar systems with center-to-center spacing mm		60		60		
For bar thickness mm		5/10		5/10		
Cable outlet ²⁾		Top	Bottom	Top	Bottom	
Part No.	1	9342.504	9342.514	9342.604	9342.614	
Accessories						
Sliding blocks	6	9342.560	9342.560	9342.640	9342.640	310

¹⁾ Switch outlet or outgoing cable.

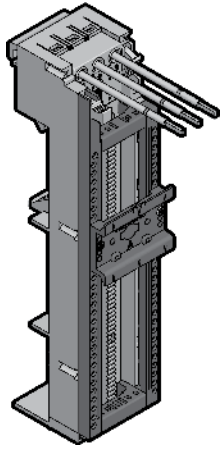


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RiLine60 component adaptor

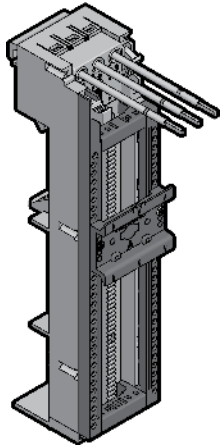
Allocation of switchgear – OM adaptors with connection cables



For make/model		ABB										Eaton																			
		MCB		Starter		Reversing starter		Soft starter		MCB		Starter		Reversing starter		Soft starter															
		MS 116/132	MS 325	MS 450/451	MS 495/496/497	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + PSR3, PSR6, PSR9, PSR12, PSR16, PSR25	MS 325 + PSR25	MS 450 + PSR30	PKZM0	PKZM01	PKZM4	PKE12	PKE32	PKE65	MSC-D + M7 - M15	MSC-D + M17 - M32	PKZM4 + DILM 17-65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	PKE 12, PKE 32 + DS7-340	PKZ0 + DS7-340
		Construction width										Construction width																			
45	54	55	70	45	45	70	90	90	140	45	45	55	45	45	55	45	45	55	45	45	55	90	90	110	45	45					
Part No.	Design	Required quantity (units)										Required quantity (units)																			
9340.340	OM adaptor 25 A, AWG 12, W = 45 mm	1																													
9340.350	OM adaptor 32 A, AWG 10, W = 45 mm				1									1																	
9340.370	OM adaptor 25 A, AWG 12, W = 45 mm							1											1						1						
9340.380	OM adaptor 32 A, AWG 10, W = 45 mm																			1						1					
9340.390	OM adaptor 32 A, AWG 10, W = 45 mm					1			1		1	1											1	1			1	1			
9340.430	OM adaptor 65 A, AWG 6, W = 55 mm			1	1												1														
9340.450	OM adaptor 65 A, AWG 6, W = 55 mm							1			1												1								
9340.460	OM adaptor 32 A, AWG 10, W = 55 mm		1																												
9340.260	OM support, 45 x 208 mm								1																1	1					
9340.250	OM support, 45 x 272 mm									1																					
9340.270	OM support, 55 x 272 mm										1																				
9342.860	Support rail TS45D, 35 x 10 mm	1								1																					
9342.870	Support rail TS45D-V, 35 x 10 mm					1																				1					
9340.290	Insert strip, 10 x 208 mm				2			2			3																				
9340.280	Connection pin								3	3	3															3	3				

RiLine60 component adaptor

Allocation of switchgear – OM adaptors with connection cables

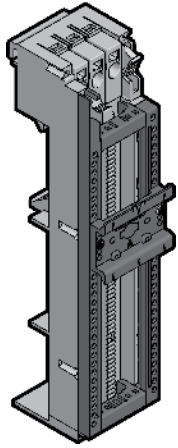


For make/model

		Siemens												Schneider Electric																						
		MCB			Starter					Reversing starter				MCB			Starter					Reverse starter			Soft Starter											
		3RV10 11... (S00)	3RV10 21... (S0)	3RV10 31... (S2)	3RV20 11... (S00) Screw terminal	3RV20 21... (S0) Screw terminal up to 40 A	3FA11 10... (S00)	3FA11 20... (S0)	3FA11 30... (S2)	3FA21 10... (S00) Screw terminal	3FA21 20... (S00/SO) Screw terminal	3FA21 20... (S0) Screw terminal	3FA12 10... (S00 + S00)	3FA11 20... (S0 + S0)	3RV10 31... + 3RT103... (S2 + S2)	3FA22 10... (S00) Screw terminal	3FA22 20... (S0) Screw terminal	GV2 - ME (screw and tension spring terminal)	GV2 - P	GV2 - RT, LE10, L10	GV3 BIS 65A	GV2 P + LC1D	GV2 ME + LC1D	GV2 - DM102 + LC1D/LC1K	GV2 - DP + LC1D/LC1K	GV3 + LC1D65	LUB 12	LUB 32	GV2 P + LC2D (AC)	GV2 ME + LC2D/LC2K (AC)	GV2 DM + LC2D/LC2K	GV2 DP + LC2D/LC2K	GV2 ME + ATS			
		Construction width												Construction width																						
		45	45	55	45	45	45	55	45	45	45	45	90	100	120	90	90	45	55	45	55	45	45	45	45	55	45	45	90	90	90	90	45			
Part No.	Design	Required quantity (units)												Required quantity (units)																						
9340.340	OM adaptor 25 A, AWG 12, W = 45 mm	1	1	1													1	1																		
9340.350	OM adaptor 32 A, AWG 10, W = 45 mm									1	1											1	1	1	1			1	1	1	1	1				
9340.370	OM adaptor 25 A, AWG 12, W = 45 mm					1	1		1				1	1		1																				
9340.390	OM adaptor 25 A, AWG 12, W = 45 mm																																	1		
9340.430	OM adaptor 65 A, AWG 6, W = 55 mm			1														1	1																	
9340.450	OM adaptor 65 A, AWG 6, W = 55 mm						1								1										1											
9340.720	OM support, 45 x 272 mm				1																															
9340.260	OM support, 45 x 208 mm												1	1		1													1	1	1	1				
9340.270	OM support, 55 x 272 mm														1		1																			
9340.290	Insert strip, 10 x 208 mm														1	1																				
9340.280	Connection pin														3	3	3	3	3																	
9342.800	PinBlock, W = 45 mm																					1	1	1	1				2	2	2	2				
9342.820	PinBlock PLUS																					1	1	1	1											

RiLine60 component adaptor

Allocation of switchgear – OM adaptors with tension spring terminal



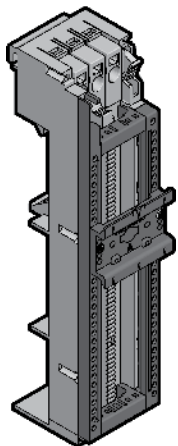
For make/model

ABB													Eaton																	
MCB			Starter			Reversing starter			Soft starter			MCB			Starter			Reversing starter			Soft starter									
MS 116/132	MS 325	MS 450/451	MS 495/496/497	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + PSR3, PSR6, PSR9, PSR12, PSR16, PSR25	MS 325 + PSR25	MS 450 + PSR30	PKZM0	PKZM01	PKZM4	PKE12	PKE32	PKE65	MSC-D + M7 - M15	MSC-D + M17 - M32	PKZM4 + DILM 17-65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	PKE 12 + DS7-340	PKE 32 + DS7-340	PKZ0 + DS7-340
Construction width													Construction width																	
45	54	55	70	45	45	70	90	90	140	45	45	55	45	45	55	45	45	55	45	45	55	45	45	55	90	90	110	45	45	45

Part No.	Design	Required quantity (units)													Required quantity (units)																
		45	54	55	70	45	45	70	90	90	140	45	45	55	45	45	55	45	45	55	45	45	55	90	90	110	45	45	45		
9340.530	OM adaptor 32 A, 1.5 – 6 mm ² , W = 45 mm	1				1										1	1														
9340.550	OM adaptor 32 A, 1.5 – 6 mm ² , W = 45 mm									1										1	1					1	1				
9340.560	OM adaptor 32 A, 1.5 – 6 mm ² , W = 45 mm						1				1		1	1									1	1				1	1	1	
9340.660	OM adaptor 32 A, 1.5 – 6 mm ² , W = 55 mm	1																													
9340.630	OM adaptor 65 A, 2.5 – 16 mm ² , W = 55 mm			1	1										1																
9340.650	OM adaptor 65 A, 2.5 – 16 mm ² , W = 55 mm						1				1										1			1			1				
9340.250	OM support, 45 x 272 mm									1																					
9340.260	OM support, 45 x 208 mm									1															1	1					
9340.270	OM support, 55 x 272 mm											1															1				
9340.290	Insert strip, 10 x 208 mm				2					2																					
9340.280	Connection pin										3	3	3													3	3	3			
9340.860	Cable set AWG 12	3				3				3		3	3							3			3			3			3		
9340.870	Cable set AWG 10		3				3				3					3					3			3			3			3	3
9340.890	Cable set AWG 6			3	3			3				3									3			3							
9342.860	Support rail TS45D, 35 x 10 mm	1																													
9342.930	Support rail TS55D, 35 x 10 mm									1																					

RiLine60 component adaptor

Allocation of switchgear – OM adaptors with tension spring terminal



For make/model		Siemens												Schneider Electric																			
		MCB			Starter						Reversing starter			MCB			Starter						Reverse starter		Soft Starter								
		3RV10 11... (S00)	3RV10 21... (S0)	3RV10 31... (S2)	3RV20 11... (S00) Screw terminal	3RV20 21... (S0) Screw terminal up to 40 A	3RA11 10... (S00)	3RA11 20... (S0)	3RA11 30... (S2)	3RA21 10... (S00) Screw terminal	3RA21 20... (S00/S0) Screw terminal	3RA21 20... (S0) Screw terminal	3RA12 10... (S00 + S00)	3RA11 20... (S0 + S0)	3RV10 31... + 3RT103... (S2 + S2)	3RA22 10... (S00) Screw terminal	3RA22 20... (S0) Screw terminal	GV2 - ME (screw and tension spring terminal)	GV2 - P	GV2 - RT, LE10, L10	GV3 BIS 65A	GV2 P + LC1D	GV2 ME + LC1D	GV2 - DM102 + LC1D/LC1K	GV2 - DP + LC1D/LC1K	GV3 + LC1D65	LUB 12	LUB 32	GV2 P + LC2D (AC)	GV2 ME + LC2D/LC2K (AC)	GV2 DM + LC2D/LC2K	GV2 DP + LC2D/LC2K	GV2 ME + ATS
		Construction width												Construction width																			
45	45	55	45	45	45	55	45	45	45	90	100	120	90	90	45	55	45	55	45	45	45	45	55	45	45	90	90	90	90	45			
Part No.	Design	Required quantity (units)												Required quantity (units)																			
9340.530	OM adaptor 32 A, 1.5 – 6 mm ² , W = 45 mm	1	1	1	1											1	1									1	1						
9340.550	OM adaptor 32 A, 1.5 – 6 mm ² , W = 45 mm					1	1	1	1	1	1	1	1	1							1	1	1	1			1	1	1	1			
9340.560	OM adaptor 25 A, AWG 12, W = 45 mm																															1	
9340.630	OM adaptor 65 A, 2.5 – 16 mm ² , W = 55 mm		1													1	1																
9340.650	OM adaptor 65 A, 2.5 – 16 mm ² , W = 55 mm						1						1										1										
9340.260	OM support, 45 x 208 mm										1	1		1	1												1						
9340.270	OM support, 55 x 272 mm												1																				
9340.290	Insert strip, 10 x 208 mm												1																				
9340.280	Connection pin												3	3	3													3	3	3	3		
9340.860	Cable set AWG 12	3		3	3			3	3	3	3			3												3							
9340.870	Cable set AWG 10		3					3					3		3	3	3	3	3	3						3	3	3	3	3	3		
9340.880	Cable set AWG 8				3																												
9340.890	Cable set AWG 6		3					3					3			3	3						3										
9342.820	PinBlock PLUS																		1				1				1	1	1	1			

RiLine60 fuse element



Busbar systems Page 261 Connection system Page 266 Component adaptors Page 269

Material:

- Bus-mounting fuse base:
 - Fiberglass-reinforced, thermoplastic polyester (PBT)
 - Fire protection corresponding to UL 94-V0

Contact hazard protection:

- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Color:
RAL 7035

Note:

For the use of fuse inserts to DIN EN 60 269-3 (DIN VDE 0636-301).

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Bus-mounting fuse bases (3-pole)

Design	Packs of	Clamping screw fastening			Snap-on mounting					
		D 02-E 18 (adaptor sleeve)	D II-E 27 (adaptor screw)	D III-E 33 (adaptor screw)	D 02-E 18 (adaptor sleeve)	D 02-E 18 (adaptor sleeve)	D II-E 27 (gauge ring)	D II-E 27 (gauge ring)	D III-E 33 (gauge ring)	D III-E 33 (gauge ring)
Fuse inserts										
Width mm		27	42	57	36	36	42	42	57	57
Rated current		63 A	25 A	63 A	63 A	63 A	25 A	25 A	63 A	63 A
Rated operating voltage		400 V~	500 V~	690 V~	400 V~	400 V~	500 V~	500 V~	690 V~	690 V~
Terminal for round conductors ¹⁾ mm ²		1.5 – 16	1.5 – 16	1.5 – 16	1.5 – 16	1.5 – 16	1.5 – 16	1.5 – 16	1.5 – 16	1.5 – 16
For bar systems with center-to-center spacing mm		60	60	60	60	60	60	60	60	60
For bar thickness mm		5/10	5/10	5/10	5	10	5	10	5	10
Part No.	10	3418.000	3427.000	3433.000	3422.000	3423.000	3520.000	3521.000	3530.000	3531.000

Contact hazard protection

Design	Packs of	Part No.			Part No.					
Contact hazard protection cover	10	3419.000	3428.000	3434.000	3424.000	3424.000	3428.000	3428.000	3434.000	3434.000
Extension cover	10	3421.000	3430.000	3436.000	–	–	3430.000	3430.000	3436.000	3436.000
End caps for bar system with base tray	10	3420.010	3429.010	3435.010	3425.010	3425.010	3429.010	3429.010	3435.010	3435.010
End caps for bar system without base tray	10	3420.000	3429.000	3435.000	3425.000	3425.000	3429.000	3429.000	3435.000	3435.000
Side cover	10	3093.000	3093.000	3093.000	3093.000	3093.000	3093.000	3093.000	3093.000	3093.000
Identification labels	10	9320.080	9320.080	9320.080	9320.080	9320.080	9320.080	9320.080	9320.080	9320.080

¹⁾ Wire end ferrules should be used with fine wire conductors.



Busbar systems Page 261 Connection system Page 266 Component adaptors Page 269

Material:

- Polyamide (PA 6)
- Fire protection corresponding to UL 94-V0

Color:

- Chassis: RAL 7035
- Fuse holder: RAL 7001

Basis of test:

- IEC/DIN EN 60 947-3

Configuration:

Reducing retaining springs for D01 and 10 x 38 mm fuses.

Note:

- For the use of fuse inserts to DIN EN 60 269-3 (DIN VDE 0636-301).
- With integral visual fuse monitoring via flashing indicator and operating status display.

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Bus-mounting fuse base D-Switch (3-pole)

Design	Packs of	Snap-on mounting
Fuse inserts		D 01 ¹⁾ D 02 ²⁾ 10 x 38 mm ¹⁾
Rated operating current		63 A
Rated operating voltage		400 V~
Terminal for round conductors ³⁾ mm ²		1.5 – 25
Min. voltage, indicator light		100 – 400 V~
Width mm		27
Height mm		226
For bar systems with center-to-center spacing mm		60
For bar thickness mm		5/10
Part No.	3	9340.950

¹⁾ When using D01 and 10 x 38 mm fuses, reducing retaining springs must be used. Use of D 01 fuses optionally possible with adaptor sleeve for D 02 base/plinths.

²⁾ With Neozeed adaptor sleeves for D 02.

³⁾ Wire end ferrules should be used with fine wire conductors.

RiLine NH fuse element



Busbar systems Page 261 Connection system Page 266 Component adaptors Page 269

Material:

- NH fuse-switch disconnecter:
 - Fiberglass-reinforced polyamide
 - Fire protection corresponding to UL 94-V0
 - Contact tracks: Silver-plated hard copper

Busbar adaptor:

- Fiberglass-reinforced, thermoplastic polyester (PBT)
- Fire protection corresponding to UL 94-V0
- RAL 7035

Color:

- NH fuse-switch disconnecter
 - Chassis: RAL 9011
 - Cover: RAL 7035

Basis of test:

- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

NH fuse-switch disconnectors, size 000 (3-pole)

Rated operating current	Packs of	100 A	Page
Rated operating voltage		690 V~	
Cable outlet		top/bottom	
Type of connection		Terminal	
Connection of round conductors mm ²		1.5 – 50	
Clamping area for laminated copper bars W x H mm		10 x 10	
Width mm		89	
Height mm		141.5	
For construction type		Mounting panel configuration	
Part No.		3431.000	

Also required

Busbar adaptor For mounting 3431.000 on bar systems			
Connection cables mm ²		35	
Width mm		90	
Height mm		230	
For bar systems with center-to-center spacing mm		60	
For bar thickness mm		5	10
Part No.		9320.040	9320.050
Accessories			
Micro-switch	5	3071.000	312



Busbar systems Page 261 Connection system Page 266 Component adaptors Page 269

Material:

- Fiberglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

Color:

- Chassis: RAL 7035
- Cover: RAL 7001

Basis of test:

- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

NH bus-mounting fuse-switch disconnectors, size 000 (3-pole)

Rated operating current	Packs of	100 A	100 A	Page
Rated operating voltage		690 V~	690 V~	
Cable outlet		Top	Bottom	
Type of connection		Box terminal	Box terminal	
Connection of round conductors mm ²		2.5 – 50	2.5 – 50	
Width mm		53	53	
Height mm		213	213	
For bar systems with center-to-center spacing mm		60	60	
For bar thickness mm		5/10	5/10	
Part No.	1	3431.020	3431.030	

Accessories

Micro-switch	1	3071.000	3071.000	312
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RiLine NH fuse elements



Busbar systems Page 261 Connection system Page 266 Component adaptors Page 269

Material:

- Polyamide (PA 6).
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Color:

- Chassis: RAL 7035
- Cover: RAL 7035/7001

Note:

The technical data given in the tables may vary for RU applications. Applications to RU

only in conjunction with “Special Purpose Fuses”.

Basis of test:

- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)





Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

NH fuse-switch disconnectors, size 00 (3-pole)

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly		Page
Rated operating current		160 A	160 A	160 A	160 A	
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	
Connection of round conductors mm ²		4 – 95	up to 95	4 – 95	up to 95	
Clamping area for laminated copper bars W x H mm		13 x 13	20 x 5	13 x 13	20 x 5	
Width mm		106	106	106	106	
Height mm		194	194	194	194	
Approvals						
For bar systems with center-to-center spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Part No.	1	9343.000	9343.010	9344.000	9344.010	

Accessories

Micro-switch	5	3071.000	3071.000	3071.000	3071.000	312
Connection space cover	2	9344.520	9344.520	9344.520	9344.520	311
Prism terminal	3	–	9344.600	–	9344.600	311
Laminated copper bars	–	■	■	■	■	302

NH fuse-switch disconnectors size 00 (3-pole), with electronic fuse monitoring

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly		Page
		160 A	160 A	160 A	160 A	
Rated operating current		160 A	160 A	160 A	160 A	
Rated operating voltage		400 – 690 V~	400 – 690 V~	400 – 690 V~	400 – 690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	
Connection of round conductors mm ²		4 – 95	up to 95	4 – 95	up to 95	
Clamping area for laminated copper bars W x H mm		13 x 13	20 x 5	13 x 13	20 x 5	
Width mm		106	106	106	106	
Height mm		194	194	194	194	
For bar systems with center-to-center spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Part No.	1	9343.020	9343.030	9344.020	9344.030	

Accessories

Micro-switch	5	3071.000	3071.000	3071.000	3071.000	312
Connection space cover	2	9344.520	9344.520	9344.520	9344.520	311
Prism terminal	3	–	9344.600	–	9344.600	311
Laminated copper bars	–	■	■	■	■	302

NH fuse-switch disconnectors size 00 (3-pole), with electromechanical fuse monitoring





Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly		Page
		160 A	160 A	160 A	160 A	
Rated operating current		160 A	160 A	160 A	160 A	
Rated operating voltage		400 – 690 V~	400 – 690 V~	400 – 690 V~	400 – 690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	
Connection of round conductors mm ²		4 – 95	up to 95	4 – 95	up to 95	
Clamping area for laminated copper bars W x H mm		13 x 13	20 x 5	13 x 13	20 x 5	
Width mm		106	106	106	106	
Height mm		194	194	194	194	
For bar systems with center-to-center spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Part No.	1	9343.040	9343.050	9344.040	9344.050	

Accessories

Micro-switch	5	3071.000	3071.000	3071.000	3071.000	312
Connection space cover	2	9344.520	9344.520	9344.520	9344.520	311
Prism terminal	3	–	9344.600	–	9344.600	311
Laminated copper bars	–	■	■	■	■	302

RiLine NH fuse element

NH fuse-switch disconnectors size 1 (3-pole)

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly		Page
Rated operating current		250 A	250 A	250 A	250 A	
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	top/bottom	
Type of connection		Box terminal	Screw M10	Box terminal	Screw M8	
Connection of round conductors mm ²		35 – 150 ¹⁾	up to 150	35 – 150 ¹⁾	up to 150	
Clamping area for laminated copper bars W x H mm		20 x 3 – 14	32 x 10	20 x 3 – 14	32 x 10	
Width mm		184	184	184	184	
Height mm		298	298	298	298	
Approvals						
For bar systems with center-to-center spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Part No.	1	9343.100	9343.110	9344.100	9344.110	

Also required

Busbar adaptor For mounting NH fuse-switch disconnectors on bar systems with 100 mm center-to-center spacing	1	–	–	–	9344.810	312
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Accessories

Micro-switch	2	9344.510	9344.510	9344.510	9344.510	312
Connection space cover	2	9344.530	9344.530	9344.530	9344.530	311
Box terminal	3	–	9344.610	–	9344.610	311
Arcing chamber	3	9344.680	9344.680	9344.680	9344.680	312
Laminated copper bars	–	■	■	■	■	302

¹⁾ Connection of sector-shaped conductors 50 – 150 mm².

NH fuse-switch disconnectors size 1 (3-pole), with electronic fuse monitoring

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly		Page
Rated operating current		250 A	250 A	250 A		
Rated operating voltage		400 – 690 V~	400 – 690 V~	400 – 690 V~		
Cable outlet		top/bottom	top/bottom	top/bottom		
Type of connection		Box terminal	Screw M10	Screw M10		
Connection of round conductors mm ²		35 – 150 ¹⁾	up to 150	up to 150		
Clamping area for laminated copper bars W x H mm		20 x 3 – 14	32 x 10	32 x 10		
Width mm		184	184	184		
Height mm		298	298	298		
For bar systems with center-to-center spacing mm		60	60	–		
For bar thickness mm		5/10	5/10	–		
Part No.	1	9343.120	9343.130	9344.130		

Also required

Busbar adaptor For mounting NH fuse-switch disconnectors on bar systems with 100 mm center-to-center spacing	1	–	–	9344.810		312
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Accessories

Micro-switch	2	9344.510	9344.510	9344.510		312
Connection space cover	2	9344.530	9344.530	9344.530		311
Box terminal	3	–	9344.610	9344.610		311
Arcing chamber	3	9344.680	9344.680	9344.680		312
Laminated copper bars	–	■	■	■		302

¹⁾ Connection of sector-shaped conductors 50 – 150 mm².

NH fuse-switch disconnectors size 1 (3-pole), with electromechanical fuse monitoring

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly	Page
Rated operating current		250 A	250 A	250 A	
Rated operating voltage		690 V~	690 V~	690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	
Type of connection		Box terminal	Screw M10	Screw M10	
Connection of round conductors mm ²		35 – 150 ¹⁾	up to 150	up to 150	
Clamping area for laminated copper bars W x H mm		20 x 3 – 14	32 x 10	32 x 10	
Width mm		184	184	184	
Height mm		298	298	298	
For bar systems with center-to-center spacing mm		60	60	–	
For bar thickness mm		5/10	5/10	–	
Part No.	1	9343.140	9343.150	9344.150	

Also required

Busbar adaptor For mounting NH fuse-switch disconnectors on bar systems with 100 mm center-to-center spacing	1	–	–	9344.810	312
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Accessories

Micro-switch	2	9344.510	9344.510	9344.510	312
Connection space cover	2	9344.530	9344.530	9344.530	311
Box terminal	3	–	9344.610	9344.610	311
Arcing chamber	3	9344.680	9344.680	9344.680	312
Laminated copper bars	–	■	■	■	302

¹⁾ Connection of sector-shaped conductors 50 – 150 mm².







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RiLine NH fuse element

NH fuse-switch disconnectors size 2 (3-pole)

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly		Page
Rated operating current		400 A	400 A	400 A	400 A	
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	top/bottom	
Type of connection		Box terminal	Screw M10	Box terminal	Screw M8	
Connection of round conductors mm ²		95 – 300 ¹⁾	up to 240	95 – 300 ¹⁾	up to 240	
Clamping area for laminated copper bars W x H mm		32 x 10 – 20	50 x 10	32 x 10 – 20	50 x 10	
Width mm		210	210	210	210	
Height mm		298	298	298	298	
Approvals						
For bar systems with center-to-center spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Part No.	1	9343.200	9343.210	9344.200	9344.210	

Also required

Busbar adaptor For mounting NH fuse-switch disconnectors on bar systems with 100 mm center-to-center spacing	1	–	–	–	9344.820	312
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Accessories

Micro-switch	2	9344.510	9344.510	9344.510	9344.510	312
Connection space cover	2	9344.540	9344.540	9344.540	9344.540	311
Box terminal	3	–	9344.620	–	9344.620	311
Arcing chamber	3	9344.680	9344.680	9344.680	9344.680	312
Laminated copper bars	–	■	■	■	■	302

¹⁾ Connection of sector-shaped conductors 120 – 300 mm².

NH fuse-switch disconnectors size 2 (3-pole), with electronic fuse monitoring

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly		Page
Rated operating current		400 A	400 A	400 A		
Rated operating voltage		400 – 690 V~	400 – 690 V~	400 – 690 V~		
Cable outlet		top/bottom	top/bottom	top/bottom		
Type of connection		Box terminal	Screw M10	Screw M10		
Connection of round conductors mm ²		95 – 300 ¹⁾	up to 240	up to 240		
Clamping area for laminated copper bars W x H mm		32 x 10 – 20	50 x 10	50 x 10		
Width mm		210	210	210		
Height mm		298	298	298		
For bar systems with center-to-center spacing mm		60	60	–		
For bar thickness mm		5/10	5/10	–		
Part No.	1	9343.220	9343.230	9344.230		

Also required

Busbar adaptor For mounting NH fuse-switch disconnectors on bar systems with 100 mm center-to-center spacing	1	–	–	9344.820	312
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Accessories

Micro-switch	2	9344.510	9344.510	9344.510	312
Connection space cover	2	9344.540	9344.540	9344.540	311
Box terminal	3	–	9344.620	9344.620	311
Arcing chamber	3	9344.680	9344.680	9344.680	312
Laminated copper bars	–	■	■	■	302

¹⁾ Connection of sector-shaped conductors 120 – 300 mm².

NH fuse-switch disconnectors size 2 (3-pole), with electromechanical fuse monitoring

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly	Page
Rated operating current		400 A	400 A	400 A	
Rated operating voltage		690 V~	690 V~	690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	
Type of connection		Box terminal	Screw M10	Screw M10	
Connection of round conductors mm ²		95 – 300 ¹⁾	up to 240	up to 240	
Clamping area for laminated copper bars W x H mm		32 x 10 – 20	50 x 10	50 x 10	
Width mm		210	210	210	
Height mm		298	298	298	
For bar systems with center-to-center spacing mm		60	60	–	
For bar thickness mm		5/10	5/10	–	
Part No.	1	9343.240	9343.250	9344.250	

Also required

Busbar adaptor For mounting NH fuse-switch disconnectors on bar systems with 100 mm center-to-center spacing	1	–	–	9344.820	312
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Accessories

Micro-switch	2	9344.510	9344.510	9344.510	312
Connection space cover	2	9344.540	9344.540	9344.540	311
Box terminal	3	–	9344.620	9344.620	311
Arcing chamber	3	9344.680	9344.680	9344.680	312
Laminated copper bars	–	■	■	■	302

¹⁾ Connection of sector-shaped conductors 120 – 300 mm².

RiLine NH fuse element

NH fuse-switch disconnectors size 3 (3-pole)

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly		Page
Rated operating current		630 A	630 A	630 A	630 A	
Rated operating voltage		690 V~	690 V~	690 V~	690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	top/bottom	
Type of connection		Box terminal	Screw M10	Box terminal	Screw M8	
Connection of round conductors mm ²		95 – 300 ¹⁾	up to 300	95 – 300 ¹⁾	up to 300	
Clamping area for laminated copper bars W x H mm		32 x 10 – 20	50 x 10	32 x 10 – 20	50 x 10	
Width mm		250	250	250	250	
Height mm		298	298	298	298	
Approvals						
For bar systems with center-to-center spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Part No.	1	9343.300	9343.310	9344.300	9344.310	

Also required

Busbar adaptor For mounting NH fuse-switch disconnectors on bar systems with 100 mm center-to-center spacing	1	–	–	–	9344.830	312
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Accessories

Micro-switch	2	9344.510	9344.510	9344.510	9344.510	312
Connection space cover	2	9344.550	9344.550	9344.550	9344.550	311
Box terminal	3	–	9344.620	–	9344.620	311
Arcing chamber	3	9344.680	9344.680	9344.680	9344.680	312
Laminated copper bars	–	■	■	■	■	302

¹⁾ Connection of sector-shaped conductors 120 – 300 mm².

NH fuse-switch disconnectors size 3 (3-pole), with electronic fuse monitoring

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly		Page
Rated operating current		630 A	630 A	630 A		
Rated operating voltage		400 – 690 V~	400 – 690 V~	400 – 690 V~		
Cable outlet		top/bottom	top/bottom	top/bottom		
Type of connection		Box terminal	Screw M10	Screw M10		
Connection of round conductors mm ²		95 – 300 ¹⁾	up to 300	up to 300		
Clamping area for laminated copper bars W x H mm		32 x 10 – 20	50 x 10	50 x 10		
Width mm		250	250	250		
Height mm		298	298	298		
For bar systems with center-to-center spacing mm		60	60	–		
For bar thickness mm		5/10	5/10	–		
Part No.	1	9343.320	9343.330	9344.330		

Also required

Busbar adaptor For mounting NH fuse-switch disconnectors on bar systems with 100 mm center-to-center spacing	1	–	–	9344.830		312
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Accessories

Micro-switch	2	9344.510	9344.510	9344.510		312
Connection space cover	2	9344.550	9344.550	9344.550		311
Box terminal	3	–	9344.620	9344.620		311
Arcing chamber	3	9344.680	9344.680	9344.680		312
Laminated copper bars	–	■	■	■		302

¹⁾ Connection of sector-shaped conductors 120 – 300 mm².

NH fuse-switch disconnectors size 3 (3-pole), with electromechanical fuse monitoring

Design	Packs of	NH bus-mounting fuse-switch disconnectors for bar systems		NH fuse-switch disconnectors for mounting panel assembly	Page
		630 A	630 A	630 A	
Rated operating current		630 A	630 A	630 A	
Rated operating voltage		400 – 690 V~	400 – 690 V~	400 – 690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	
Type of connection		Box terminal	Screw M10	Screw M10	
Connection of round conductors mm ²		95 – 300 ¹⁾	up to 300	up to 300	
Clamping area for laminated copper bars W x H mm		32 x 10 – 20	50 x 10	50 x 10	
Width mm		250	250	250	
Height mm		298	298	298	
For bar systems with center-to-center spacing mm		60	60	–	
For bar thickness mm		5/10	5/10	–	
Part No.	1	9343.340	9343.350	9344.350	

Also required

Busbar adaptor For mounting NH fuse-switch disconnectors on bar systems with 100 mm center-to-center spacing	1	–	–	9344.830	312
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Accessories

Micro-switch	2	9344.510	9344.510	9344.510	312
Connection space cover	2	9344.550	9344.550	9344.550	311
Box terminal	3	–	9344.620	9344.620	311
Arcing chamber	3	9344.680	9344.680	9344.680	312
Laminated copper bars	–	■	■	■	302

¹⁾ Connection of sector-shaped conductors 120 – 300 mm².

RiLine NH fuse element



Busbar systems Page 261 Connection system Page 266 NH fuse-switch disconnectors Page 282

Material:

- Fiberglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

Color:

- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:

- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

NH slimline fuse-switch disconnectors, size 00 (3-pole)

Rated operating current	Packs of	160 A		160 A		160 A		Page
Rated operating voltage		690 V~		690 V~		690 V~		
Cable outlet		top/bottom		top/bottom		top/bottom		
Type of connection		Box terminal		Screw M8		Screw M8		
Connection of round conductors mm ²		2.5 – 95		up to 95		up to 95		
Width mm		50		50		50		
Height mm		400		400		740		
For converter installation		–	–	–	–	–	■	
For bar systems with center-to-center spacing mm		60	100	60	100	60	100	
For bar thickness mm		5/10	10	5/10	10	10	10	
Part No.	1	9346.000	9346.020	9346.010	9346.030	9346.040	9346.050	

Also required

Busbar adaptor

For mounting 9346.020/.030 on bar systems with 185 mm center-to-center spacing

Design		1	–	9346.410	–	9346.410	–	–	314
Single adaptor		1	–	9346.410	–	9346.410	–	–	314
Two-way adaptor		1	–	9346.420	–	9346.420	–	–	314

Busbar terminal

For mounting 9346.040/.050 on bar systems with 185 mm center-to-center spacing

	3	–	–	–	–	9346.470	9346.470	–
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Accessories

Micro-switch	5	9346.400	9346.400	9346.400	9346.400	9346.400	9346.400	312	
Lug terminal connection part	1 set	–	–	3592.020	3592.020	3592.020	3592.020	313	
Clamp-type terminal connection	1 set	–	–	3592.010	3592.010	3592.010	3592.010	313	
Support bracket	4	9346.430	9346.430	9346.430	9346.430	9346.430	9346.430	314	
Connection space cover	1	9346.460	9346.460	9346.460	9346.460	9346.460	9346.460	313	
Sliding nuts M8 for mounting 9346.040/.050 on busbar systems	Maxi-PLS 1600/2000	15	–	–	–	–	9640.910	9640.910	320
	Maxi-PLS 3200	15	–	–	–	–	9650.905	9650.905	320



Busbar systems Page 261 Connection clamps Page 304 Accessories Page 396

Material:

- Fiberglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks:
Silver-plated hard copper

Color:

- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Configuration:

- 3 screws M12 x 30 for equipment attachment

- 3 inserted screw nuts M12
- 3 hex nuts for cable connection

Basis of test:

- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

NH slimline fuse-switch disconnectors, size 1/size 2/size 3 (3-pole)

Design	Packs of	Size 1	Size 2	Size 3	Page
Rated operating current		250 A	400 A	630 A	
Rated operating current		690 V~	690 V~	690 V~	
Cable outlet		top/bottom	top/bottom	top/bottom	
Type of connection		Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm ²		up to 240	up to 240	up to 240	
Equipment attachment		Screw M12	Screw M12	Screw M12	
Width mm		100	100	100	
Height mm		740	740	740	
For bar systems with center-to-center spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Part No.	1	9346.110	9346.210	9346.310	

Accessories

Design	Packs of	Size 1	Size 2	Size 3	Page
Box terminal	3	9346.450	9346.450	9346.450	313
Busbar terminal	3	9346.440	9346.440	9346.440	314
Support bracket	4	9346.430	9346.430	9346.430	314
Micro-switch	5	3071.000	3071.000	3071.000	312
Inserted screw nuts M12	30	3591.060	3591.060	3591.060	298

RiLine Class CC/J fuse element



Busbar systems Page 261 Connection system Page 266 Component adaptors Page 269 Accessories Page 296

Material:

- Polyamide (PA 6).
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Note:

- Suitable for snap-on mounting on
 - Support rails 35 mm (7.5/15 mm high) to DIN EN 60 715
- or
- RiLine component adaptor combinations (OM adaptor/support), see pages 276 – 279.

Approvals:

UL 512, CSA C22.2 No. 39

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Fuse holder up to 60 A (3-pole)

Fuse type (class)		CC	J	J
Rated operating current		30 A	30 A	60 A
Rated operating voltage		600 V~	600 V~	600 V~
Fuse standard		UL 4248-4	UL 4248-4	UL 4248-4
Fuse size mm		10 x 38	21 x 57	27 x 60
Connection of round conductors	mm ²	2.5 – 10	2.5 – 25	2.5 – 25
	AWG	AWG 6 – 14	AWG 2 – 14	AWG 2 – 14
Width mm		52.5	97.5	120
Height mm		78	114	122
Depth mm			80	89
Approvals		®	®	®
Packs of		4	2	2
Part No.		9345.000	9345.010¹⁾	9345.030

¹⁾ May also be used for cylindrical fuses 22 x 58 mm to French standards without UL licensing.

Mounting example on 60 mm bar systems

Required accessories		For fuse holder			Page
Part No.	Designation	9345.000	9345.010	9345.030	
9340.260	OM support	–	1	–	272
9340.270	OM support	–	–	1	272
9340.280	Connection pin	–	3	6	308
9340.290	Insert strip	–	–	1	308
9340.410	OM support	–	1	1	270
9340.460	OM support	1	–	–	269
9342.880	Support rail	–	–	–	307
9342.950	Support rail	1	–	2	307



Busbar systems Page 261 Connection system Page 266 Component adaptors Page 269 Accessories Page 296

Material:

- Polyamide (PA 6).
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Color:

- Chassis: RAL 7035
- Cover: RAL 7035/7001

Approvals:

- UL 4248-1/UL 4248-8
- CSA C22.2 No. 4248.107/
- CSA C22.2 No. 4248.8-07

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Fuse holder up to 60 A (3-pole)

Fuse type (class)	Packs of	J	J	J
Rated operating current		61 – 100 A	101 – 200 A	201 – 400 A
Rated operating voltage		600 V~	600 V~	600 V~
Fuse standard		UL 4248-8	UL 4248-8	UL 4248-8
Fuse size mm		29 x 118	41 x 146	54 x 181
Cable outlet		top/bottom	top/bottom	top/bottom
Type of connection		Box terminal	Box terminal	Box terminal
Connection of round conductors		AWG 2 – MCM 300	AWG 3/0 – MCM 600	AWG 3/0 – MCM 600
Width mm		184	210	250
Height mm		288	288	328/353 ¹⁾
Approvals				

For bar systems

Bar center distance mm		60	60	60
For bar thickness mm		5/10	5/10	5/10
Part No.	1	9345.100	9345.200	9345.400

For mounting panel assembly

Part No.	1	9345.110	9345.210	9345.410
-----------------	---	-----------------	-----------------	-----------------

¹⁾ 328 mm (9345.400), 353 mm (9345.410)

RiLine accessories

Busbar support/base isolator



Busbar supports 1- and 2-pole

Material:

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Configuration:

9342.030

Including raised section for stepped configuration of the PLS busbars

Note:

9340.030/9342.030

The busbar supports may be bayed with 60 mm bar center distance for the configuration of multipole systems.

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Design	Packs of	1	2	2	Page
Number of poles		1-pole	1-pole	2-pole	
Bar center distance mm		-	-	60	
For busbars E-Cu		PLS 1600	-	-	299
		-	12 x 5/10 ¹⁾ , 15 x 5 - 30 x 10 mm	12 x 5 - 30 x 10 mm	297
PEN/N/PE support		■	■	■	
N/PE support		-	-	■	
Part No.	4	9342.030	9340.030	9340.040	
Accessories					
Spacers	12	-	9340.090	-	297
Captive nuts M5 ²⁾	50	-	4166.000	4166.000	673

¹⁾ If 12 x 5/10 mm busbars are used, the spacer 9340.090 is additionally required.

²⁾ For attaching the busbar support to the TS frame section and punched sections with mounting flanges with rectangular system punchings 12.5 x 10.5 mm.

Base isolators

For configuring busbar systems with any given bar center distances and for assembling insulated PE or PEN bars.

Material:

Duroplastic polyester (UP resin)

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Rated operating voltage	1 kV	1 kV
Tensile strength	12 kN	13 kN
Torsional strength	75 Nm	90 Nm
Bending strength	6 kN	6 kN
Height mm	40	50
Thread	M10	M10
Packs of	6	6
Part No.	3031.000	3032.000



Spacers for RiLine60 busbar supports (flat busbar system)

For adapting 12 x 5 and 12 x 10 mm size busbars.

For busbar supports

- 9340.030 (1-pole), see page 296
- 9340.000/010 (3-pole), see page 262
- 9340.004 (4-pole), see page 262

Packs of	Part No.
12	9340.090

Material:

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035



Busbars E-Cu

To DIN EN 13 601.

Length: 2400 mm/bar

Technical information:

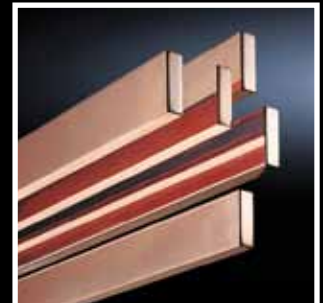
Available at www.rittal-corp.com

Dimensions mm	Approvals	Packs of	Part No.	Page
E-CU				
12 x 5		6	3580.000	
15 x 5		6	3581.000	
20 x 5		6	3582.000	
25 x 5		6	3583.000	
30 x 5		6	3584.000	
12 x 10		6	3580.100	
15 x 10		6	3581.100	
20 x 10		6	3585.000	
30 x 10		6	3586.000	
40 x 10	–	3	3587.000	
50 x 10	–	3	3588.000	
60 x 10	–	3	3589.000	
80 x 10	–	3	3590.000	
100 x 10	–	3	3590.010	
E-Cu tin-plated¹⁾				
30 x 5	–	6	3584.200	
30 x 10	–	6	3586.200	

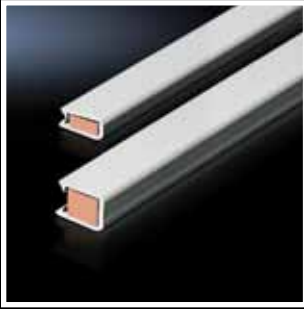
Accessories

Busbar connectors for busbars mm	12 x 5 – 15 x 10 (single connection)	3	9350.075	300
	20 x 5 – 30 x 10 (single connection)	3	9320.020	300
	20 x 5 – 30 x 10 (bayed connection)	3	9320.030	300
Busbar cover section for busbars mm	12/15 x 5	4	9350.010	298
	12/15 x 10	4	9350.060	298
	12 x 5 – 30 x 10	10	3092.000	298
	40 – 60 x 10	10	3085.000	298

¹⁾ Extended delivery times.



Cover section/screw nut



Busbar cover sections

Contact hazard protection via covering of the busbars. May be cut to required length.
Length: 1000 mm/section

Material:

- Thermally modified hard PVC.
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Note:

Contact hazard protection, for more solutions see page 303.

Detailed drawings:

Available at www.rittal-corp.com



For busbars mm	Approvals	Packs of	Part No.
12/15 x 5	-	4	9350.010
12/15 x 10	-	4	9350.060
12 x 5 - 30 x 10	UL	10	3092.000
40 - 60 x 10	-	10	3085.000













Inserted screw nuts M12

Self-holding nuts with knurled ring for busbars E-Cu.
Hole diameter: 14.5 mm

Packs of	Part No.
30	3591.060

PLS special busbars E-Cu

For system PLS 800, bar thickness 5 mm, bar cross-section 300 mm²











For enclosure width inches (mm)	Length inches (mm)	E-Cu tin-plated ¹⁾	Approvals	Packs of	Part No.	Page
24 (600)	19 (495)	–		3	3524.000	
24 (600)	19 (495)	■		3	3524.200	
32 (800)	27 (695)	–		3	3525.000	
32 (800)	27 (695)	■		3	3525.200	
39 (1000)	35 (895)	–		3	3525.010	
39 (1000)	35 (895)	■		3	3525.210	
47 (1200)	43 (1095)	–		3	3526.000	
47 (1200)	43 (1095)	■		3	3526.200	
variable	94 (2400)	–		1	3509.000	
variable	94 (2400)	■		1	3509.200	

Accessories

PLS busbar connector (single connection)	3	3504.000	300
PLS busbar connector (bayed connection)	3	3505.000	300
PLS expansion connectors	3	9320.060	301

¹⁾ Extended delivery times.

For system PLS 1600, bar thickness 10 mm, bar cross-section 900 mm²

For enclosure width mm	Length mm	E-Cu tin-plated ¹⁾	Approvals	Packs of	Part No.	Page
600	19 (495)	–		3	3527.000	
600	19 (495)	■		3	3527.200	
800	27 (695)	–		3	3528.000	
800	27 (695)	■		3	3528.200	
1000	35 (895)	–		3	3528.010	
1000	35 (895)	■		3	3528.210	
1200	43 (1095)	–		3	3529.000	
1200	43 (1095)	■		3	3529.200	
variable	94 (2400)	–		1	3516.000	
variable	94 (2400)	■		1	3516.200	

Accessories

PLS busbar connector (single connection)	3	3514.000	300
PLS busbar connector (bayed connection)	3	3515.000	300
PLS expansion connectors	3	9320.070	301

¹⁾ Extended delivery times.



Busbar



Busbar connectors

For connecting square busbars, no drilling required.

Material:

- 9350.075:
 – Top piece: St 37, nickel-plated surface finish
 – Contact plate: E-Cu, nickel-plated surface finish
 9320.020/9320.030:
 – Top piece: Carbon steel, zinc-plated, passivated
 – Contact plate: E-Cu, silver-plated

Also required:

For UL applications, cross members 9340.230, see page 304

Technical information:

Available at www.rittal-corp.com

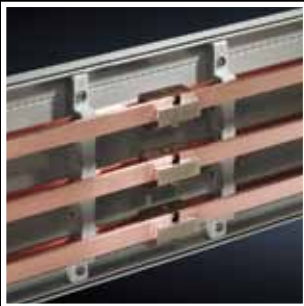
Detailed drawings:

Available at www.rittal-corp.com



For busbars mm	Application		Approvals	Packs of	Part No.
	Single connection	Bayed connection ¹⁾			
12 x 5 – 15 x 10	■	–		3	9350.075
20 x 5 – 30 x 10	■	–		3	9320.020
	–	■		3	9320.030

¹⁾ From enclosure to enclosure (TS 8)



PLS busbar connectors

For connecting the PLS special busbars; no drilling required.

Material:

E-Cu

Surface finish:

Nickel-plated

Also required:

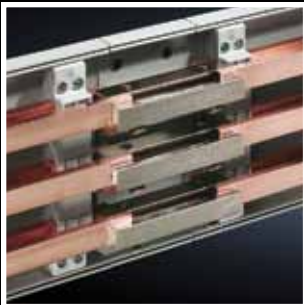
For UL applications, cross members 9340.230, see page 304

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com



Application	For system	Approvals	Packs of	Part No.
Single connection	PLS 800		3	3504.000
	PLS 1600		3	3514.000
Baying connection ¹⁾	PLS 800		3	3505.000
	PLS 1600		3	3515.000

¹⁾ From enclosure to enclosure (TS 8)

PLS expansion connectors

For thermal and mechanical compensation during connection of PLS special busbars from enclosure to enclosure (TS 8).

Material:

E-Cu

Also required:

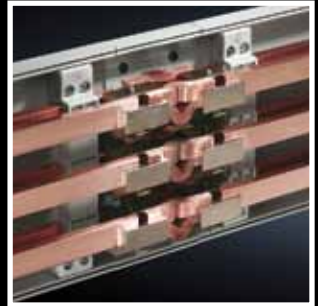
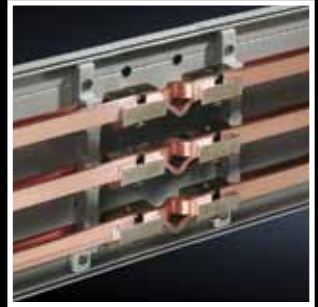
For UL applications, cross members 9340.230, see page 304

Note:

At a temperature increase of 30 K, there is an expansion in the length of the busbars by approximately 0.02" (0.5 mm)/m. For this reason, it is advisable to use an expansion connectors for thermal compensation in busbar systems with busbar sections > 142" (3600 mm).

Detailed drawings:

Available at www.rittal-corp.com



	For system	Approvals	Packs of	Part No.	Page
Expansion connectors	PLS 800		3	9320.060	
	PLS 1600		3	9320.070	

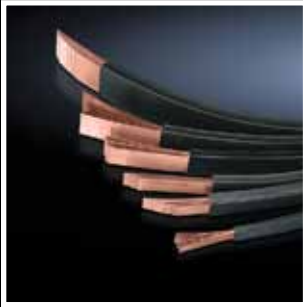
Also required

PLS busbar connectors ¹⁾	PLS 800		3	3504.000	300
	PLS 1600		3	3514.000	300

¹⁾ Two busbar connectors are needed to fit one expansion connector.

RiLine accessories

Laminated copper bar



Laminated copper bars

Length: 79" (2000 mm)/bar.

Material:

Cu lamina
 – High-purity electrolyte copper F20
 Tin plated

Insulation

– High-strength vinyl compound
 – Expansion 370%
 – Temperature range: –22° F to +221° F
 (–30° C to +105° C)
 – Fire protection corresponding
 – Dielectric strength: 20 kV/mm

Short-circuit resistance diagram:
 Available at www.rittal-corp.com

Technical information:
 Available at www.rittal-corp.com



Configuration ¹⁾ mm	I _n for 70 K ²⁾	I _n for 50 K ²⁾	I _n for 30 K ²⁾	Packs of	Part No. (copper)	Part No. (tin plated)
8 x 6 x 0.5	195 A	165 A	125 A	1	3565.000	3565.902
6 x 9 x 0.8	285 A	240 A	180 A	1	3565.000	3565.902
4 x 15.5 x 0.8	330 A	275 A	210 A	1	3567.000	3567.902
6 x 15.5 x 0.8	415 A	350 A	265 A	1	3568.000	3568.902
10 x 15.5 x 0.8	575 A	480 A	365 A	1	3569.000	–
5 x 20 x 1	525 A	435 A	330 A	1	3570.000	3570.903
5 x 24 x 1	605 A	510 A	385 A	1	3571.000	3571.903
10 x 24 x 1	920 A	770 A	585 A	1	3572.000	3572.903
5 x 32 x 1	770 A	645 A	485 A	1	3573.000	3573.903
10 x 32 x 1	1155 A	965 A	730 A	1	3574.000	3574.903
5 x 40 x 1	930 A	780 A	590 A	1	3575.000	3575.903
10 x 40 x 1	1370 A	1145 A	865 A	1	3576.000	3576.903
5 x 50 x 1	1125 A	940 A	710 A	1	3577.000	3577.903
10 x 50 x 1	1635 A	1365 A	1030 A	1	3578.000	3578.903
10 x 63 x 1	1950 A	1610 A	1230 A	1	3579.000	3579.903

¹⁾ Number of lamina x lamina width x lamina thickness

²⁾ The conductor temperature of the laminated copper bar is derived from the sum total of the ambient temperature and the temperature increase.

Example:

3565.000 carrying 220 A, i.e. the temperature increases by 30 K. At an ambient temperature of 35° C, this produces a resultant conductor temperature of 35° C + 30 K = 65° C.



Universal support

For the attachment of laminated copper bars from 5 x 20 x 1 to 10 x 63 x 1 mm.

Material:

– Fiberglass-reinforced, thermoplastic polyester (PBT)
 – Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Configuration:

Screws and "U" nuts for mounting on PS punched rails

Packs of	Part No.
3	3079.000

Accessories:

PS punched rails, see page 649

Short-circuit resistance diagram:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Contact hazard protection

Universal support

For the attachment of multi-stacked laminated copper bars from 5 x 40 x 1 to 10 x 100 x 1 mm.

Material:

- Fiberglass-reinforced, thermoplastic polyester (PBT)
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Configuration:

Screws and sliding nuts for attachment on C rails

Packs of	Part No.
3 sets	3079.010

Note:

3 sets of universal supports correspond to the supply scope shown in the photograph.

Accessories:

C rails 30/15, see page 659



System components

Material:

- Thermally modified hard PVC
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Detailed drawings:

Available at www.rittal-corp.com



For RiLine60 busbar systems	3-pole			4-pole		
	Flat bars	PLS 800	PLS 1600	Flat bars	30 x 10 PLUS	PLS 1600 PLUS

1 Base tray

Length (L) inches (mm)	Packs of	Approvals	Part No.			Part No.		
20 (500)	2	Ⓢ	9340.100	9341.100	9342.100	–	–	–
28 (700)	2	Ⓢ	9340.110	9341.110	9342.110	–	–	–
35 (900)	2	Ⓢ	9340.120	9341.120	9342.120	–	–	–
43 (1100)	2	Ⓢ	9340.130	9341.130	9342.130	9340.134	9342.134	9342.134
94 (2400)	1	Ⓢ	9340.170	9341.170	9342.170	–	–	–

1 Base tray infill

4 (100)	2	Ⓢ	9340.140	9341.140	9342.140	–	–	–
---------	---	---	-----------------	-----------------	-----------------	---	---	---

2 Cover section

28 (700)	2	Ⓢ	9340.200	9340.200	9340.200	–	–	–
43 (1100)	2	Ⓢ	9340.210	9340.210	9340.210	9340.214	9340.214	9340.214

1 Base tray

For rear contact hazard protection of the flat bar assembly.

1 Base tray infill

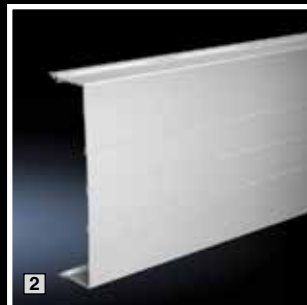
For rear contact hazard protection when connecting the busbars from enclosure to enclosure.

Configuration:
Assembly parts

2 Cover section

May be cut to length as required; for clip-on mounting to the base tray.

Note:
If the cover section is loaded from the front, the support panel is needed for stability.



Contact hazard protection/connection system



Support panel for cover section

To prevent side access to the cover section. The support panel also provides additional stability. Recommended mounting distance 20 inches (500 mm).

Material:

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Detailed drawings:

Available at www.rittal-corp.com

For system assembly	Approvals	Packs of	Part No.
3-pole	Ⓢ	5	9340.220
4-pole	Ⓢ	5	9340.224



Cross member

for RiLine60 busbar connections, 3-pole
To comply with the clearances required for "feeder circuits" under UL 508. For flat bar systems with 60 mm bar center distance and PLS 800/1600.

Material:

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Length inches (mm)	Approvals	Packs of	Part No.
6 (160)	Ⓢ	2	9340.230

Configuration:

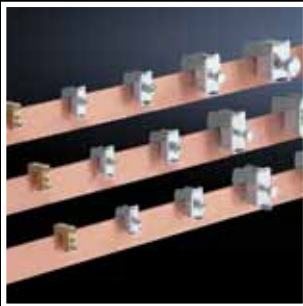
2 pieces for one busbar connection

Also required:

Support panel 9340.220 (2 pieces), see above

Detailed drawings:

Available at www.rittal-corp.com



Conductor connection clamps

Material:

- Carbon steel, zinc-plated, passivated (3450.500 – 3459.500)
- Brass (3550.000/ 3555.000)

Accessories:

Laminated copper bars, see page 302

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

For bar thickness mm	Connection of round conductors ¹⁾ mm ²	Clamping area for laminated copper bars W x H mm	Approvals	Packs of	Part No.
3 – 5	1 – 4	–	Ⓢ	15	3550.000
5	1 – 4	–	Ⓢ	15	3450.500
5	2.5 – 16	8 x 8	Ⓢ	15	3451.500
5	16 – 50	10.5 x 11	Ⓢ	15	3452.500
5	35 – 70	16.5 x 15	Ⓢ	15	3453.500
5	70 – 185	22.5 x 20	Ⓢ	15	3454.500
6 – 10	1 – 4	–	Ⓢ	15	3555.000
10	1 – 4	–	Ⓢ	15	3455.500
10	2.5 – 16	8 x 8	Ⓢ	15	3456.500
10	16 – 50	10.5 x 11	Ⓢ	15	3457.500
10	35 – 70	16.5 x 15	Ⓢ	15	3458.500
10	70 – 185	22.5 x 20	Ⓢ	15	3459.500

¹⁾ Wire end ferrules should be used with fine wire conductors.

Connection system

Plate clamps

For connecting laminated copper bars; no drilling required.

Material:

Carbon steel

Surface finish:

Zinc-plated, passivated

Accessories:

Laminated copper bars, see page 302

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

For busbars mm	Clamping area for laminated copper bars W x H mm	Packs of	Part No.
12 x 5 – 30 x 10	34 x 10	3	3554.000
40 x 10	34 x 10	3	3559.000
50 x 10	34 x 10	3	3560.000
50 x 10	54 x 10	3	3562.000
60 x 10	34 x 10	3	3561.000
60 x 10	54 x 10	3	3563.000
80 x 10	65 x 10	3	3460.500



System covers

For conductor connection clamps and plate clamps.

Material:

- ABS
- Fire protection corresponding to UL 94-V0

Color:

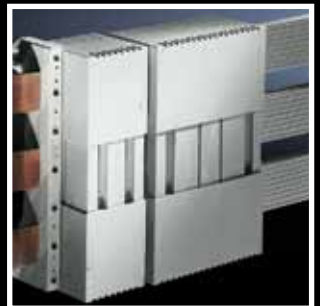
RAL 7035

Note:

For 3-pole systems with 2/4" (60/100 mm) bar center distance. Only suitable for use with systems without a base tray. For systems with a base tray, the system covers must be mechanically shortened.

Detailed drawings:

Available at www.rittal-corp.com



Width inches (mm)	Depth inches (mm)	Height inches (mm)		Approvals	Packs of	Part No.
		For mounting on bar systems				
		2 (60)	4 (100)			
2 (50)	3 (80)	9 (230)	13 (325)		4	3086.000
4 (100)	3 (80)	9 (230)	13 (325)		4	3087.000
4 (100)	4 (110)	9 (230)	13 (325)		4	3090.000
8 (200)	3 (80)	9 (230)	13 (325)		4	3088.000
8 (200)	4 (110)	9 (230)	13 (325)		4	3091.000

Connection system



Connection block

Material:

Chassis

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Cover

- ABS
- Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Configuration:

3 terminals including cover

Note:

When using the terminal on 2-pole busbar systems (9340.040), the terminal must be rotated through 180° for connection to the PE busbar.

Technical information:

Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Outlet	Packs of	top/bottom	top/bottom	Page
Connection of round conductors mm ² <ul style="list-style-type: none"> • fine-wire with wire end ferrule • multi-wire 		95 – 185 95 – 300	– –	
Clamping area for laminated copper bars W x H mm <ul style="list-style-type: none"> • For 5 mm bar thickness • For 10 mm bar thickness 		33 x 27 33 x 22	65 x 27 65 x 22	
Width mm		50	85	
Height mm		88	88	
For bar thickness mm		5/10	5/10	
Part No.	3	9342.311	9342.321	
Accessories				
Laminated copper bars		■	■	302

for RiLine60 component adaptor

Support rails 35 x 10 mm for OM adaptor/support

For attaching to the adaptor section and support frame.

Material:
Polyamide (PA 6.6)

Color:
RAL 9005

Configuration:
Assembly screws

Note:
UL approval in conjunction with OM adaptor/
support.

Design	Width mm	With anti-slip guard ¹⁾	Packs of	Part No.
TS 45C	45	■	5	9342.850
TS 45D	45	–	5	9342.860
TS 45D-V ²⁾	45	–	5	9342.870
TS 55C	55	■	5	9342.920
TS 55D	55	–	5	9342.930
TS 55D-V ²⁾	55	–	5	9342.940
TS 55E ³⁾	55	■	5	9342.960

¹⁾ Anti-slip guard for motor circuit-breaker.

²⁾ Support rail only suitable for non-pitch pattern-dependent mounting on support frame.

³⁾ Reinforced version. Recommended for switchgear with an unladen weight per support rail > 1.3 lb (600 g)



Support rails 35 x 15 mm for OM adaptor/support

For attaching to the adaptor section.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly screws and side anti-slip guard

Width mm	Packs of	Part No.
45	5	9342.880
55	5	9342.950



Support rails 35 x 7.5 mm for OM adaptor/support

For assembly on 55 mm wide OM adaptors/
supports with 10 mm wide insert strips mounted
on the right and left. Arrangement of the mounting
hole for central configuration on 55 mm wide
adaptor section or support frame.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly screws and side anti-slip guard

Width mm	Packs of	Part No.
72	5	9342.980



RiLine accessories

for RiLine60 component adaptor



Insert strip for OM adaptor/support

To extend the construction width in a 10 mm pitch pattern. May be bayed as often as required on both sides. With integral cable duct.

Material:
Polyamide (PA 6.6)

Color:
RAL 7035

Configuration:
6 connection pins (9340.280)

Width mm	Approvals	Packs of	Part No.
10	®	2	9340.290



Connection pin

For any required mechanical connection of OM adaptor/support and insert strip (9340.290)

Material:
Polyamide (PA 6)

Color:
RAL 5010

Approvals	Packs of	Part No.
®	20	9340.280



Support frame for OM adaptor/support

For use as a spare or for the configuration of replacement assemblies.

Material:
Polyamide (PA 6.6)

Color:
RAL 9005

Note:
UL approval in conjunction with OM adaptor/
support.

Length mm	For adaptor width mm	Packs of	Part No.
170	45	5	9341.800
237	45	5	9341.820
170	55	5	9341.830
237	55	5	9341.850

Detailed drawings:
Available at www.rittal-corp.com



Support frame support for OM adaptors

To reinforce support frames 45 x 237 mm and 55 x 237 mm for use on OM adaptors.

Material:
Polyamide (PA 6.6)

Color:
RAL 9005

Note:
UL approval in conjunction with OM adaptor/
support.

Packs of	Part No.
10	9340.800

for RiLine60 component adaptor

PinBlock Plus

for starters with increased contactor attachment

Mounted by simply clipping onto the PinBlock (9342.800/810).

Material:

Polyamide (PA 6.6)

Color:

RAL 9005

Note:

UL approval in conjunction with OM adaptor/ support

Packs of	Part No.
10	9342.820



ST-Combi connector

for OM premium adaptor

May be used as a spare. With tension spring clamp at the outlet end.

Material:

Polyamide (PA 6.6)

Design	Packs of	Part No.
3-pole 1.5 – 4 mm ²	5	9341.980
8-pole 0.25 – 2.5 mm ²	5	9341.990



Cable set

Pre-assembled connection cables for individual connection of switchgear, top-mounted on OM adaptors with tension spring clamps.

Length: 130 mm

Material:

- PVC insulation
- Temperature resistant to 221° F (105° C)
- Wire ends with ultrasonic wire-end compression at both ends

Technical information:

Available at www.rittal-corp.com

Design	Packs of	Part No.
AWG 14 = 2.08 mm ² ± 2.5 mm ²	15	9340.850
AWG 12 = 3.31 mm ² ± 4 mm ²	15	9340.860
AWG 10 = 5.26 mm ² ± 6 mm ²	15	9340.870
AWG 8 = 8.37 mm ² ± 10 mm ²	6	9340.880
AWG 6 = 13.3 mm ² ± 16 mm ²	6	9340.890

AWG = American Wire Gauges



Twin cords

for OM adaptors with tension spring clamp 2.5 – 16 mm²

Pre-assembled connection cables for individual connection of up to two switchgear units per adaptor.

Cable length:

L1 = 140 mm

L2 = 250 mm

Material:

- PVC insulation
- Temperature resistant to 221° F (105° C)
- Wire ends with ultrasonic wire-end compression at both ends

Design	Packs of	Part No.
AWG 10 = 5.26 mm ² ± 6 mm ²	6	9340.820

AWG = American Wire Gauges

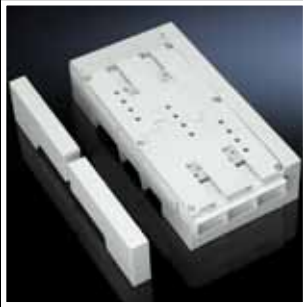
Technical information:

Available at www.rittal-corp.com



RiLine accessories

for RiLine60 CB component adaptor



Insert strip for circuit-breaker component adaptors

To extend the construction width from 140 mm to 190 mm.

Material:
ABS

Color:
RAL 7035

Note:
4 units (1 set) are needed to widen a component adaptor.

For circuit-breaker component adaptor	Width mm	Approvals	Packs of	Part No.
9342.700 9342.710	25	UL	4 (1 set)	9342.720



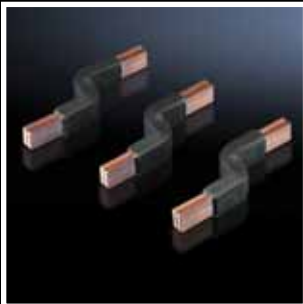
Sliding blocks for circuit-breaker component adaptors

For additional locking of circuit-breakers with more than two attachment points.

Color:
RAL 7035

Note:
UL approval in conjunction with circuit-breaker component adaptor.

For circuit-breaker component adaptor	With threaded insert	Packs of	Part No.
9342.500/.510 9342.504/.514 9342.540/.550	M3/M4	6	9342.560
9342.600/.610 9342.604/.614	M4/M5	6	9342.640



Connection bracket for circuit-breaker component adaptors

Pre-assembled, laminated flat copper for connecting standard, commercially available moulded case circuit-breakers (MCCB).

Material:
Electrolytic copper F20

Insulation:

- Vinyl compound
- Temperature resistant to 221° F (105° C)
- Fire protection corresponding to UL 94-V0

Detailed drawings:

Available at www.rittal-corp.com

Dimensions ¹⁾ mm	For circuit-breaker component adaptor	For connecting moulded case circuit-breakers (MCCB), make (model)	Packs of ²⁾	Part No.
6 x 9 x 0.8	9342.500/.510 9342.540/.550	ABB (T1, T1 UL, T2, T2 UL), Eaton (NZM1, NZM1 UL, BZM B1), OEZ (BC160N), Schneider Electric (NSC100, NSE75, NSE100), Siemens (3RV13 53, 3VT 1)	3	9342.570³⁾
10 x 15.5 x 0.8	9342.600/.610	ABB (T3, T3 UL), GE (FE), Schneider Electric (NSF150, NSF250)	3	9342.660
		Allen Bradley (140U-J), Schneider Electric (NS/NSX100/160/250, GV7)	3	9342.670
		ABB (S3), Eaton (NZM2, NZM2 UL, BZM B2), Siemens (VL250, VL250 UL)	3	9342.680
		Siemens (VL150X UL, VL150 UL, VL160X, VL160)	3	9342.690
10 x 32 x 1	9342.700/.710	ABB (T5, T5 UL), Siemens (3RV10 73, 3RV13 73/74)	3	9342.770
		ABB (S5), Allen Bradley (140U-L), Schneider Electric (NS/SX 400/630, NSJ 400/600)	3	9342.780
		Eaton (NZM3, NZM3 UL)	3	9342.790

¹⁾ Number of lamina x lamina width x lamina thickness

²⁾ 3 pieces = 1 set

³⁾ Universal application for switchgear with a dimensional difference between the mounting level and the upper edge of the contact level of 20 ± 5 mm.

for RiLine60 CB component adaptor/RiLine NH fuse element

Support rail 35 x 15 mm

For
– Circuit-breaker component adaptor
– Mini-PLS component adaptor

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly screws and side anti-slip guard.

For component adaptors	Width mm	Approvals	Packs of	Part No.
S9342.400 S9342.410 S9629.000	72	UL	5	9320.120



Prism terminal for NH disconnectors size 00 with screw terminal

For direct connection of round and sector-shaped conductors.

Material:
Cast brass

Surface finish:
Nickel-plated

Technical information:
Available at www.rittal-corp.com

Connection		Packs of	Part No.
Round conductor mm ²	Sector-shaped conductor mm ²		
10 – 70	10 – 70	3	9344.600



Box terminals for NH disconnectors, sizes 1 to 3 with screw terminal

For direct connection of round and sector-shaped conductors and laminated copper bars.

Material:
Cast brass

Surface finish:
Nickel-plated

Technical information:
Available at www.rittal-corp.com

For NH disconnectors	Clamping area for laminated copper bars W x H mm	Connection		Packs of	Part No.
		Round conductor mm ²	Sector-shaped conductor mm ²		
Size 1	20 x 14	35 – 150	50 – 150	3	9344.610
Size 2/3	32 x 20	95 – 300	120 – 300	3	9344.620



Connection space cover for NH disconnectors

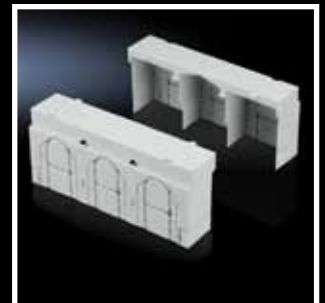
– For extending the contact hazard protection cover, e.g. when using ring terminals with a long collar
– Bayable as required at the top and bottom

Material:
Polyamide (PA 6)

Color:
RAL 7035

Detailed drawings:
Available at www.rittal-corp.com

For NH disconnectors	Packs of	Part No.
Size 00	2	9344.520
Size 1	2	9344.530
Size 2	2	9344.540
Size 3	2	9344.550



RiLine accessories

for RiLine NH fuse element



Arc chambers for NH disconnectors, sizes 1 to 3

To increase switching capacity (utilization category).

Technical information:
Available at www.rittal-corp.com

Packs of	Part No.
3	9344.680



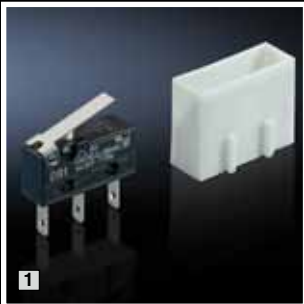
Busbar adaptor

for NH disconnectors, size 1 – 3

For mounting NH disconnectors on bar systems with 100 mm center-to-center spacing

Technical information:
Available at www.rittal-corp.com

For NH disconnectors		Packs of	Part No.
Size	Part No.		
1	9344.110	1	9344.810
	9344.130		
	9344.150		
2	9344.210	1	9344.820
	9344.230		
	9344.250		
3	9344.310	1	9344.830
	9344.330		
	9344.350		



Micro-switch

for NH disconnectors/NH slimline fuse-switch disconnectors

To indicate the switch position of the NH unit (cover).

1 For NH disconnectors

Size	Packs of	Part No.
000/00	5	3071.000
1 – 3	2	9344.510¹⁾

¹⁾ Plastic lug for attaching the micro-switch to the disconnector chassis.

2 For NH slimline fuse-switch disconnectors

Size	Packs of	Part No.
00	5	9346.400
1 – 3	5	3071.000



Connection space cover

for NH slimline fuse-switch disconnectors, size 00

Extended version for the use of ring terminals with a long collar.

Material:

Polycarbonate

Packs of	Part No.
1	9346.460



Lug terminal connection parts

for NH slimline fuse-switch disconnectors, size 00

For connecting laminated copper bars and round conductors 1.5 to 25 mm².

Clamping area W x H: 16 x 10 mm.

Material:

Cast brass

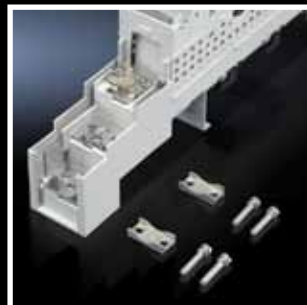
Surface finish:

Nickel-plated

Technical information:

Available at www.rittal-corp.com

Packs of	Part No.
1 set	3592.020



Clamp-type terminal connection

for NH slimline fuse-switch disconnectors, size 00

For the connection of round conductors 1.5 to 95 mm².

Material:

Cast brass

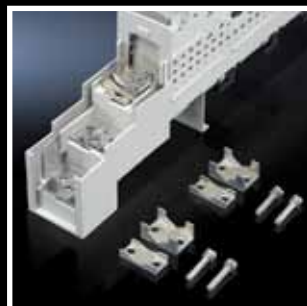
Surface finish:

Nickel-plated

Technical information:

Available at www.rittal-corp.com

Packs of	Part No.
1 set	3592.010



Box terminal

for NH slimline fuse-switch disconnectors, size 1 – 3

For converting NH slimline disconnectors to box terminal connection for round conductors up to 300 mm².

Material:

Cast brass

Surface finish:

Nickel-plated

Packs of	Part No.
3	9346.450



RiLine accessories

For RiLine NH fuse element



Busbar terminal for NH slimline fuse-switch disconnectors, size 1 – 3

For mounting NH slimline disconnectors on bar systems with 185 mm center-to-center spacing, no drilling required.

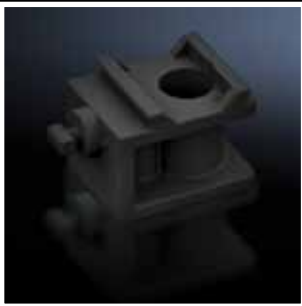
Packs of	Part No.
3	9346.440



Busbar terminal for NH slimline fuse-switch disconnectors, size 1 – 3

For mounting NH slimline disconnectors on bar systems with 185 mm center-to-center spacing, no drilling required.

Packs of	Part No.
3	9346.440



Support bracket for NH slimline fuse-switch disconnectors, size 00 – 3

For optional attachment of a customised contact hazard protection cover e.g. for special applications in conjunction with distribution enclosures. The support brackets may be attached to the left and right of the strip chassis.

Packs of	Part No.
1	9346.430



Busbar adaptor for NH slimline fuse-switch disconnectors, size 00

For mounting NH slimline disconnectors 9346.020/.030 on bar systems with 185 mm center-to-center spacing.

Configuration:
Compensating panels.

Design	Packs of	Part No.
Single adaptor	1	9346.410
Two-way adaptor	1	9346.420

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Ri4Power Form 1-4

Modular system

- For low-voltage switchgear with design certificate to IEC 61 439-1/-2 and DIN EN 61 439-1/-2
- For control systems and power distributors
- Structured system solution for switchgear with Form separation 1-4b
- Simple, installation-friendly system assembly



Busbar systems up to 5500 A

- RiLine60 – The compact busbar system up to 1600 A – page 261
- Maxi-PLS – The assembly-friendly system – page 318
- Flat-PLS – The flat bar system for demanding requirements – page 324
- Tested PE conductor system – page 705
- High levels of short-circuit resistance up to 100 kA for 1 sec./220 kA



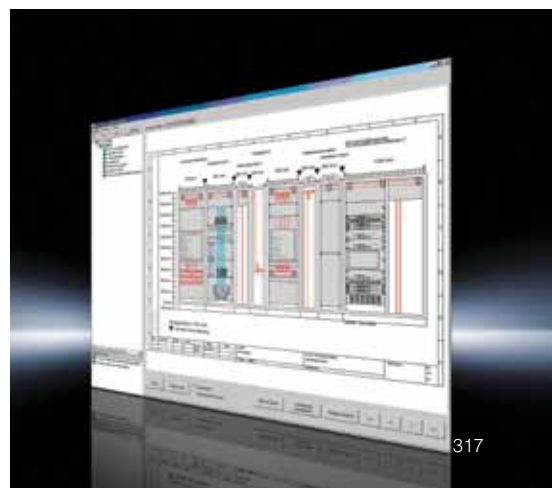
Modular enclosure system

- Based on TS 8 enclosure platform – page 90
- Flexible, modular front design – page 339
- Roof plates to suit every requirement – page 622
- Modular compartment configuration for internal compartmentalization up to Form 4b – page 344
- Internal cover plates, contact hazard protection for air circuit-breaker and NH switch-disconnector fuse sections – page 339
- Accessories for Ri4Power – page 351



Simple planning

- Configuration of low-voltage switchgear with design certificate
- Simple, fast assembly with automatically generated assembly plan
- Generation of parts lists with accompanying graphic output



Maxi-PLS busbar system

System components

Material:

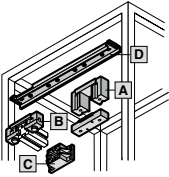
- Busbar support, end support, end cover: PA 6.6
- System attachment: Stainless steel
- Cover section: Hard PVC

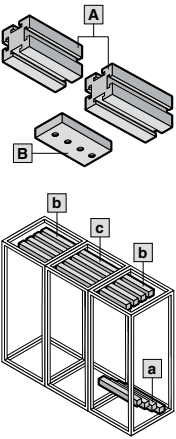
Note:

Busbars for PE/PEN combinations, see page 351/705.

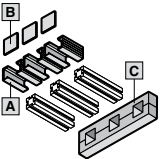
Detailed drawings:

Available at www.rittal-corp.com.

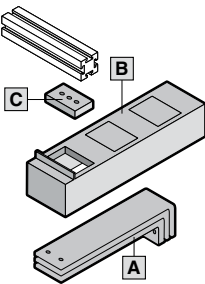
Supports and attachment in the TS 8 enclosure			Packs of	Maxi-PLS 1600/2000		Maxi-PLS 3200	
				Part No.		Part No.	
	A Busbar support		1	9649.000		9659.000	
	B Busbar support, suitable for top mounting		1	9649.160		9659.160	
	C End supports		2	9649.010		9659.010	
System attachment for installation in the busbar support							
For application	For encl. depth inches (mm)	Bar center dist. inches (mm)	Packs of	Part No.		Part No.	
D1 In the roof/base section	24 (600)	4 (100)	2	9640.080		-	
		6 (150)	2	-		9650.100	
	24 (600)	4 (100)	2	9640.088		-	
		6 (150)	2	-		9650.080	
D2 Vertical coupling set	24 (600)	4 (100)	2	9649.076		-	
		6 (150)	2	-		9650.076	
	32 (800)	4 (100)	2	9649.078		-	
		6 (150)	2	-		9659.078	
D3 Rear section top/bottom	-	4 (100)	2	9640.098		-	
		6 (150)	2	-		9650.098	
D4 Rear section, center inches (mm) 7 (185 mm)	-	4 (100)	2	3-pole	4-pole	3-pole	4-pole
		7 (185)	2	9640.150	-	9650.150	-

A Maxi-PLS busbars E-Cu (special lengths available on request)					Maxi-PLS 1600	Maxi-PLS 2000	Maxi-PLS 3200
	For enclosure width inches (mm)	For application ¹⁾	Length inches (mm)	Packs of	Part No.		Part No.
	24 (600)	a	19 (491)	1	9640.206	9640.201	9650.201
24 (600)	b	21 (525)	1	9640.216	9640.211	9650.211	
24 (600)	c	24 (599)	1	9640.226	9640.221	9650.221	
32 (800)	a	27 (691)	1	9640.236	9640.231	9650.231	
32 (800)	b	29 (725)	1	9640.246	9640.241	9650.241	
32 (800)	c	31 (799)	1	9640.256	9640.251	9650.251	
40 (1000)	a	35 (891)	1	9640.266	9640.261	9650.261	
40 (1000)	b	36 (925)	1	9640.276	9640.271	9650.271	
40 (1000)	c	39 (999)	1	9640.286	9640.281	9650.281	
48 (1200)	a	43 (1091)	1	9640.296	9640.291	9650.291	
48 (1200)	b	44 (1125)	1	9640.306	9640.301	9650.301	
48 (1200)	c	47 (1199)	1	9640.316	9640.311	9650.311	
-	-	94 (2400)	3	9640.365	9640.360	9650.360	
-	-	94 (2400)	4	-	9649.360	9659.360	
B Longitudinal connector E-Cu for baying connection of Maxi-PLS busbars. Incl. sliding blocks, bolts, washers and nuts.			1	9640.191	9640.191	9650.191	

¹⁾ A = Cable connection system with end support, B = Left-hand or right-hand end enclosure in a switchgear installation, C = Bayed enclosure with sections bayed on the left and right

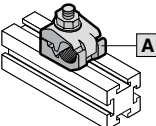
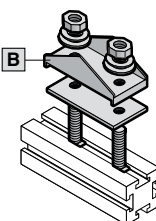
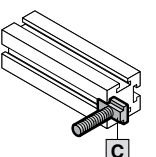
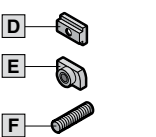


Contact hazard protection/short-circuit protection			Packs of	Part No.		Part No.	
	A Cover section for clip-on mounting on Maxi-PLS busbars, length inches (mm) 40 (1000)		5	9640.050		9650.050	
	B End cover for clip-on mounting on end of Maxi-PLS busbars		2	9649.060		9659.060	
	C Stabilizer to increase short-circuit resistance (ICW up to 124 kA)		4	3-pole	4-pole	3-pole	4-pole
				-	-	9650.140	-

System components

Connection system			Maxi-PLS 1600/2000		Maxi-PLS 3200	
			Part No.		Part No.	
						
A Connection bracket E-Cu, transition from the main busbar system to the connection kits.						
Width inches (mm)	No. of brackets per phase	Packs of	3-pole	4-pole	3-pole	4-pole
			Enclosure depth inches (mm) 24/32 (600/800)		Enclosure depth inches (mm) 24 (600)	
2.4 (60)	1	1 set	9640.433	9640.433 + 9640.434	9650.400	–
2.4 (60)	2	1 set	9640.443	9640.443 + 9640.444	9650.410	–
2.4 (60)	3	1 set	9640.453	9640.453 + 9640.454	9650.420	–
4 (100)	2	1 set	9640.473	9640.473 + 9640.474	9650.470	–
100	3	1 set	9640.483	9640.483 + 9640.484	9650.480	–
5 (120)	3	1 set	–	–	9650.487	–
2.4 (60)	1	1 set	–	–	Enclosure depth inches (mm) 32 (800)	
					9659.403	9659.403 + 9659.404
2.4 (60)	2	1 set	–	–	9659.413	9659.413 + 9659.414
2.4 (60)	3	1 set	–	–	9659.423	9659.423 + 9659.424
4 (100)	2	1 set	–	–	9659.473	9659.473 + 9659.474
4 (100)	3	1 set	–	–	9659.483	9659.483 + 9659.484
5 (120)	3	1 set	–	–	9659.493	9659.493 + 9659.494
B Isolator chassis for isolated routing of the connection brackets. Material: RAL 6.6, black. Incl. assembly parts.						
Bar center distance inches (mm)	For connection bracket width inches (mm)	Packs of	Part No.		Part No.	
4 (100)	2.4 (60)	1	9640.021	9640.021	–	–
6 (150)	2.4 (60)	1	–	–	9650.021	9650.021
6 (150)	2.4 (60)	1	–	–	9650.031	9650.031
C Contact maker E-Cu for contacting the connection brackets to the Maxi-PLS busbars. Incl. sliding blocks.						
Width inches (mm)	2.4 (60)	1	9640.171	9640.171	9650.171	9650.171
	4 (100)	1	9640.181	9640.181	9650.181	9650.181

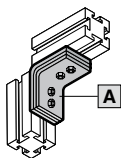
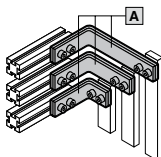
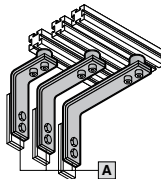
Maxi-PLS busbar system

System components

Connection system		Packs of	Maxi-PLS 1600/2000		Maxi-PLS 3200			
			Part No.		Part No.			
	A Connection clamp for the connection of round conductors (Cu/Al) 95 to 300 mm ² (single-wire and multi-wire). Incl. assembly parts.							
		1	9640.325	9640.325	9650.325	9650.325		
	B Connection plates for the connection of laminated flat copper bars. Assembly parts.							
	Maximum clamping area	2 x 10 x 32 x 1 mm	3	9640.330	9640.330	9650.330	9650.330	
		2 x 10 x 63 x 1 mm	3	9640.340	9640.340	9650.340	9650.340	
2 x 10 x 100 x 1 mm		3	9640.350	9640.350	9650.350	9650.350		
	C Terminal stud for connecting cables with ring terminals. Including sliding blocks.							
				Length 30 mm		Length 32 mm		
Thread	M12	3	9640.370	9640.370	9650.370	9650.370		
	M16	3	9640.380	9640.380	9650.380	9650.380		
	D Sliding blocks for sliding into the Maxi-PLS busbar section at the sides.							
	Thread	M8	Length 20 mm	15	9640.970	9640.970	–	–
		M10	Length 25 mm	15	9640.980	9640.980	9650.980	9650.980
M12		Length 35 mm	15	–	–	9650.990	9650.990	
	E Sliding nuts for retrospective insertion into the Maxi-PLS busbar section.							
	Thread	M6		15	9640.900	9640.900	9650.900	9650.900
		M8		15	9640.910	9640.910	9650.905¹⁾	9650.905¹⁾
		M10		15	9640.920	9640.920	9650.910	9650.910
M12			15	–	–	9650.920	9650.920	
	F Threaded bolts for individual connection options ²⁾ . Incl. nuts, plain washers, spring lock washers (M6 and M8 only) or washers.							
	Thread	M6	Length 35 mm	6	9640.930	9640.930	9640.930	9640.930
		M8	Length 35 mm	6	9640.940	9640.940	9640.940	9640.940
		M10	Length 35 mm	8	9676.971	9676.971	9676.971	9676.971
		M10	Length 45 mm	8	9676.972	9676.972	9676.972	9676.972
		M10	Length 55 mm	8	9676.973	9676.973	9676.973	9676.973
		M10	Length 70 mm	8	9676.976	9676.976	9676.976	9676.976
		M10	Length 80 mm	8	9676.977	9676.977	9676.977	9676.977
		M12	Length 40 mm	8	–	–	9676.981	9676.981
		M12	Length 50 mm	8	–	–	9676.982	9676.982
		M12	Length 60 mm	8	–	–	9676.983	9676.983
M12		Length 70 mm	8	–	–	9676.986	9676.986	
M12	Length 80 mm	8	–	–	9676.987	9676.987		

¹⁾ Packs of 3. ²⁾ Sliding blocks or sliding nuts are additionally required for attachment.

System components

Connection system	Maxi-PLS 1600/2000				Maxi-PLS 3200				Page		
	Part No.				Part No.						
	A Corner bracket E-Cu for connecting horizontal Maxi-PLS busbar systems in the roof/base section to vertical busbar systems, for 90° connection of two Maxi-PLS busbars in the rear section. May be used for individual installation.										
	For Maxi-PLS	Packs of	3/4-pole				3/4-pole				
	Number of brackets per phase		1600	2000	3200						
	Part No.	1	9640.705¹⁾	9640.700¹⁾	9650.700²⁾						
¹⁾ Also required: 4 sliding blocks 9640.980 per corner bracket. ²⁾ Also required: 4 sliding blocks 9650.990 per corner bracket.											
	A Connection kits for busbar riser. For connecting horizontal Maxi-PLS busbar systems in the rear section to vertical busbar systems.										
	For enclosure depth inches (mm)		Number of brackets per phase	Packs of	1600		2000		3200		
	24 (600)	32 (800)			3-pole	4-pole	3-pole	4-pole	3-pole	4-pole	
	■	■	2	1 set	9660.318	9660.318+9660.319	–	–	–	–	
	■	■	3	1 set	–	–	9660.313	9660.313+9660.314	–	–	
	■	–	3	1 set	–	–	–	–	9660.363	–	
	–	■	3	1 set	–	–	–	–	9660.368	9660.368 + 9660.369	
Also required:	Sliding blocks		15	9640.980	9640.980	9640.980	9640.980	9650.990	9650.990	320	
	Threaded bolts		8	9676.972	9676.972	9676.973	9676.973	9676.983	9676.983	320	
	Required quantity			12	16	12	16	12	16		
	A T-connector kits for Maxi-PLS/RiLine60 busbar systems. For connecting horizontal Maxi-PLS main busbar systems to vertical RiLine60 distribution busbar systems in the modular outgoing section, including assembly parts.										



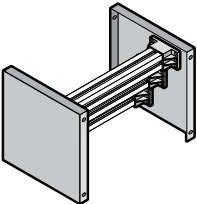
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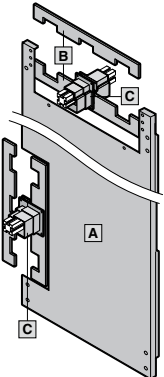
Maxi-PLS busbar system

System components

Main busbar system Maxi-PLS									Maxi-PLS 1600/2000		Maxi-PLS 3200	
									Part No.		Part No.	
Maxi-PLS		Distribution busbar system				Enclosure depth inches (mm)		Packs of	3-pole	4-pole	3-pole	4-pole
In the roof/ base section	In the rear section top/ bottom	Behind the compartment		Inside the compartment		24 (600)	32 (800)					
		30 x 10/5 mm	PLS 1600	30 x 10/5 mm	PLS 1600							
■	-	■	-	-	-	■	■	1 set	9675.303	9675.304	-	-
■	-	■	-	-	-	■	-	1 set	-	-	9675.311	-
■	-	■	-	-	-	-	■	1 set	-	-	9675.313	9675.314
■	-	-	■	-	-	■	■	1 set	9675.306	9675.307	-	-
■	-	-	■	-	-	■	-	1 set	-	-	9675.315	-
-	-	-	■	-	-	-	■	1 set	-	-	9675.316	9675.317
■	-	-	-	■	-	■	-	1 set	9675.321	9675.322	9675.331	-
■	-	-	-	■	-	-	■	1 set	9675.323	9675.324	9675.333	9675.334
■	-	-	-	-	■	■	-	1 set	9675.325	9675.328	9675.335	-
■	-	-	-	-	■	-	■	1 set	9675.326	9675.327	9675.336	9675.337
-	■	■	-	-	-	■	■	1 set	9675.343	9675.344	-	-
-	■	■	-	-	-	-	■	1 set	-	-	9675.353	9675.354
-	■	-	■	-	-	■	■	1 set	9675.346	9675.347	-	-
-	■	-	■	-	-	-	■	1 set	-	-	9675.356	9675.357
-	■	-	-	■	-	■	-	1 set	9675.361	9675.362	-	-
-	■	-	-	■	-	-	■	1 set	9675.363	9675.364	9675.373	9675.374
-	■	-	-	-	■	■	-	1 set	9675.365	9675.368	-	-
-	■	-	-	-	■	-	■	1 set	9675.366	9675.367	9675.376	9675.377

	Compact infeed for Maxi-PLS busbar 1600/2000 For individual use as a 3-pole cable connection bar system. Direct mounting on the mounting panel or punched section without mounting flange. Configuration: 6 end supports, 2 support plates for end supports, 1 PS mounting rail 23 x 23 mm (length 495 mm), mounting accessories	Packs of	Maxi-PLS 1600/2000		Maxi-PLS 3200	
			3-pole	4-pole	3-pole	4-pole
		1 set	9660.980	-	-	-

System components

Shielding	Maxi-PLS 1600/2000					Maxi-PLS 3200				
	Part No.					Part No.				
	A Divider panel for TS enclosures. For side shielding from neighbouring panels. In conjunction with the busbar gland and the divider panel modules to prevent arcing. Assembly parts.									
	Maxi-PLS busbars in the roof section									
	For encl. depth inches (mm)		For enclosure height inches (mm)			Packs of				
	24 (600)	32 (800)	78 (2000)			1	9660.620		9660.620	
	–	–	78 (2000)			1	9659.590		9659.590	
	Maxi-PLS busbars in the rear section									
	For encl. depth inches (mm)		For enclosure height inches (mm)			Packs of				
	24 (600)	32 (800)	78 (2000)			1	9660.610		9660.610	
	–	–	78 (2000)			1	9659.580		9659.580	
	B Divider panel module for busbar gland. Assembly parts.									
For encl. depth mm		Bar center distance mm			Packs of	1600/2000		3200		
24 (600)	32 (800)	4 (100)	6 (150)	7 (185)	1	3-pole	4-pole	3-pole	4-pole	
■	–	■	–	–	1	9640.621		–		
–	■	■	–	–	1	9640.628		–		
■	–	–	■	–	1	–	–	9650.621	–	
–	■	–	■	–	1	–	–	9659.601		
■	■	–	–	■	1	–	–	9650.641¹⁾	–	
C Busbar gland The busbar gland may also be used as a cover for longitudinal connectors. Assembly parts.										
Use with longitudinal connector		Required packs of	Packs of	1600/2000		3200				
no	yes			3-pole	4-pole	3-pole	4-pole			
■	–	6	1 set	9640.600	–	9650.600	–	–	–	
■	–	8	1 set	–	9640.600	–	9650.600	–	9650.600	
–	■	3 3	1 set	9640.610 + 9640.600	–	9650.610 + 9650.600	–	–	–	
–	■	4 4	1 set	–	9640.610 + 9640.600	–	–	–	9650.610 + 9650.600	

¹⁾For assembly in the rear enclosure section.

Flat-PLS busbar system

System components

Busbar system Flat-PLS/Flat-PLS 100, for flat copper bars

For the configuration of busbar systems from flat copper bars. For mounting on a system attachment or directly on the mounting panel. Also suitable for aluminum and copper plated aluminum bars.

Max. permissible tolerance of bar width (60/100 mm) ± 0.3 mm, bar thickness (10 mm) ± 0.15 mm.

Material:

- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Color:

RAL 9005

Short-circuit resistance diagrams:

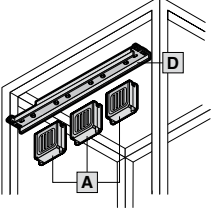
Available at www.rittal-corp.com

Current carrying capacity:

Available at www.rittal-corp.com

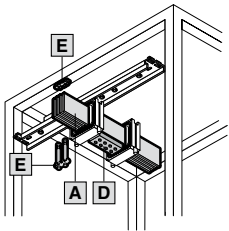
Technical information:

Available at www.rittal-corp.com

Supports and attachment in the TS 8 enclosure				Flat-PLS 60		Flat-PLS 100			
				Part No.		Part No.			
									
A Busbar support									
System	For busbars up to mm ¹⁾			Packs of					
Flat-PLS 60	4 x 60 x 10			1	9676.002		–		
Flat-PLS 100	4 x 100 x 10			1	–		9676.004		
B Busbar support for stabilizer bar									
System	For busbars up to mm ¹⁾			Packs of					
Flat-PLS 60	4 x 60 x 10			1	9676.020		–		
Flat-PLS 100	4 x 100 x 10			1	–		9676.021		
D System attachment for installation in the busbar support									
For application	Encl. depth inches (mm)	Bar center distance inches (mm)			Packs of	3-pole		4-pole	
		5 (120)	6 (165)	7 (185)					
D1 in the roof/base section/directly above/below coupling switch	24 (600)	■	–	–	2	9674.162	9674.162	–	–
	32 (800)	–	■	–	2	–	–	9674.164	–
D2 Vertical coupling set	24 (600)	■	–	–	2	9674.172	9674.172	–	–
	32 (800)	–	■	–	2	–	–	9674.174	–
D3 Rear section top/bottom	24 (600)	■	–	–	2	9674.182	9674.182	–	–
	32 (800)	–	■	–	2	–	–	9674.184	9674.184
D4 Rear section, center (185 mm)	24 (600)	–	–	■	2	9674.122	9674.122	–	–
	32 (800)	–	–	■	2	–	–	9674.124	9674.124
D5 Single-pole assembly, for mounting on the TS 8 frame	–	–	–	■	2	9674.152	–	–	–
		–	–	■	2	–	–	9674.154	–
C Busbar stabilizer bars									
For busbar supports	Bar center distance inches (mm)	System assembly		Packs of	3-pole		4-pole		
9676.020	5 (120)	3/4-pole		2	9676.022	9676.023	–	–	
	7 (185)	3-pole		2	9676.026	–	–	–	
9676.021	6 (165)	3/4-pole		2	–	–	9676.024	9676.025	
	7 (185)	3-pole		2	–	–	9676.027	–	

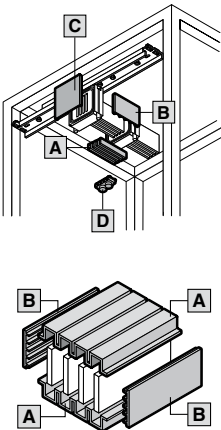
¹⁾ At a bar width of < 60 mm for Flat-PLS 60 or < 100 mm for Flat-PLS 100, the empty gaps in the support should be filled with spacers. When using only 1, 2 or 3 bars, the vacant bar slots should be closed using the filler pieces.

System components

Busbars and accessories for supports				Flat-PLS 60	Flat-PLS 100
				Part No.	Part No.
					
A Busbars E-Cu to DIN EN 13 601. Length: 24" (2400 mm)/bar					
Dimensions mm	Weight/bar lb (kg)	Packs of			
40 x 10	19 (8.55)	3	3587.000	–	
50 x 10	24 (10.68)	3	3588.000	–	
60 x 10	28 (12.82)	3	3589.000	–	
80 x 10	42 (17.09)	3	–	3590.000	
100 x 10	47 (21.44)	3	–	3590.010	
B Spacers – At a bar width of < 60/100 mm the spacer should be used.					
E-Cu Dimensions mm	Required number of spacers per chamber	Packs of			
40 x 10	2	16	9676.007	9676.007	
50 x 10	1				
80 x 10	2				
C Filler pieces – When using only 1, 2 or 3 bars, the vacant bar slots should be closed using the filler pieces.					
		Packs of			
Flat-PLS 60	2 per free bar slot	16	9676.008	9676.008	
Flat-PLS 100	3 per free bar slot				
D Longitudinal connector E-Cu for connecting Flat-PLS busbar systems, no drilling required.					
No. of strands per conductor	For busbar width mm	Screw	Packs of		
2	40 – 100	¹⁾	1	9676.621	9676.621
3 or 4	40 – 100	¹⁾	1	9676.641	9676.641
¹⁾ Must be ordered additionally according to the busbar width B (length = B + 40 mm, see page 335).					
E Busbar claws for Flat-PLS					
For busbar width up to mm		Screw	Packs of		
2 x B x 10		¹⁾	1	9676.017	9676.017
3 x B x 10		¹⁾	1	9676.018	9676.018
4 x B x 10		¹⁾	1	9676.019	9676.019
¹⁾ Must be ordered additionally according to the busbar width B (length = B + 20 mm, screw connections, see page 335).					

Flat-PLS busbar system

System components

Contact hazard protection					Flat-PLS 60	Flat-PLS 100
					Part No.	Part No.
						
Cover sections for Flat-PLS						
For system	No. of bars per conductor	For busbar width mm	Length mm	Packs of		
A Edge cover section for bar systems with no space between the strands	1	–	1000	10	9676.041	9676.041
	2	–	1000	10	9676.042	9676.042
	3	–	1000	10	9676.043	9676.043
A Edge cover section for bar systems with 10 mm space between the strands	2	–	1000	10	9676.052	9676.052
	3	–	1000	10	9676.053	9676.053
	4	–	1000	10	9676.054	9676.054
B Side cover section for bar systems, to match the edge coversections	–	60	1000	10	9676.056	9676.056
	–	80	1000	10	9676.058	9676.058
	–	1000	1000	10	9676.059	9676.059
C End cover for busbar supports Flat-PLS						
For Flat-PLS 60 and Flat-PLS 100				Packs of		
				2	9676.006	9676.006
D Covers for busbar claws						
No. of bars per conductor	For busbar claw		Packs of			
2	9676.017		8	9676.046	9676.046	
	9676.832					
3	9676.018		8	9676.047	9676.047	
4	9676.019		8	9676.048	9676.048	



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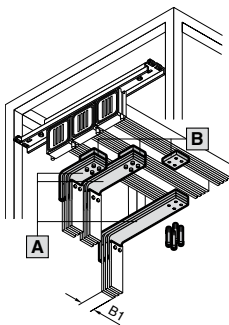
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System components

Connection system	Flat-PLS 60	Flat-PLS100
	Part No.	Part No.

A Connection brackets for Flat-PLS

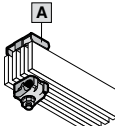
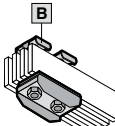
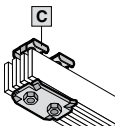
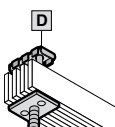
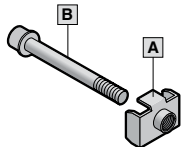
For connecting the connection kits of open air circuit-breakers to a Flat-PLS 60/100 main bar system in the roof section, base section, directly above or below the air circuit-breaker.

	For bar width of connection brackets mm	No. of strands per conductor	For conductor	For enclosure depth inches (mm)	Packs of		
		60	1	L1, L2, L3	24 (600)	1 set	9676.201
N				1 set		9676.202	–
2			L1, L2, L3	1 set		9676.203	9676.303
			N	1 set		9676.204	–
3			L1, L2, L3	1 set		9676.205	9676.305
			N	1 set		9676.206	–
100		2	L1, L2, L3	1 set		9676.213	9676.313
			N	1 set		9676.214	–
		2	L1, L2, L3	1 set		9676.215	9676.315
			N	1 set		9676.216	–
120		3	L1, L2, L3	1 set		9676.217	9676.317
			N	1 set		9676.218	–
	60	1	L1, L2, L3	32 (800)	1 set	9676.221	9676.321
			N		1 set	9676.222	9676.322
		2	L1, L2, L3		1 set	9676.223	9676.323
			N		1 set	9676.224	9676.324
		3	L1, L2, L3		1 set	9676.225	9676.325
			N		1 set	9676.226	9676.326
	100	2	L1, L2, L3		1 set	9676.233	9676.333
			N		1 set	9676.234	9676.334
		2	L1, L2, L3		1 set	9676.235	9676.335
			N		1 set	9676.236	9676.336
		3	L1, L2, L3		1 set	9676.237	9676.337
			N		1 set	9676.238	9676.338
B Contact makers for Flat-PLS							
	For busbar width B mm	Screw	No. of strands per conductor	Packs of			
	60	¹⁾	2	1	9676.526	9676.526	
	60	¹⁾	3 or 4	1	9676.546	9676.546	
	80	¹⁾	2	1	9676.528	9676.528	
	80	¹⁾	3 or 4	1	9676.548	9676.548	
	100	¹⁾	2	1	9676.520	9676.520	
	100	¹⁾	3 or 4	1	9676.540	9676.540	

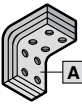
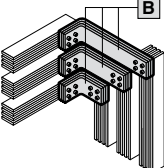
¹⁾ Must be ordered additionally according to the busbar width B (length = B + 40 mm, see page 335).

Flat-PLS busbar system

System components

Connection system	Flat-PLS 60		Flat-PLS 100		
	Part No.		Part No.		
   	A Direct connection terminals for Flat-PLS For the direct connection of round conductors 95 – 300 mm ² (single-wire or multi-wire).				
	For round conductors	Screw	Packs of		
	95 – 300 mm ² RE/RM	¹⁾	1	9676.730	9676.730
	¹⁾ Must be ordered additionally according to the busbar width B (length = B + 60 mm, screw connections, see page 335).				
	B Connection plates for laminated copper bars, incl. assembly parts (excluding screws)				
	For busbar width mm	Screw	Packs of		
	2 x 10 x 32 x 1	¹⁾	1	9676.747	9676.747
	2 x 10 x 63 x 1	¹⁾	1	9676.748	9676.748
	2 x 10 x 100 x 1	¹⁾	1	9676.749	9676.749
	C Connection plates with bolts M10, incl. assembly parts (excluding screws)				
	Terminal studs	Screw	Packs of		
	M10	¹⁾	1	9676.710	9676.710
	2 x M10	¹⁾	1	9676.714	9676.714
	¹⁾ Must be ordered additionally according to the busbar width B (length = B + 40 mm, screw connections, see page 335).				
D Connection plates with bolts M12/M16, incl. assembly parts (excluding screws)					
Terminal studs	Screw	Bolt length mm	Packs of		
M12	¹⁾	30	1	9676.700	9676.700
M16	¹⁾	30	1	9676.704	9676.704
¹⁾ Must be ordered additionally according to the busbar width B (length = B + 20 mm, screw connections, see page 335).					
	A Claw with threaded insert M10				
		Nut	Packs of		
		M10	8	9676.832	9676.832
	B Screw connections				
		Screw design	Packs of		
		M10 x 60	8	9676.806	9676.806
		M10 x 70	8	9676.807	9676.807
		M10 x 80	8	9676.808	9676.808
		M10 x 90	8	9676.809	9676.809
		M10 x 100	8	9676.810	9676.810
		M10 x 110	8	9676.811	9676.811
		M10 x 120	8	9676.812	9676.812
		M10 x 130	8	9676.813	9676.813
		M10 x 140	8	9676.814	9676.814
		M10 x 150	8	9676.815	9676.815
		M10 x 160	8	9676.816	9676.816
		M10 x 170	8	9676.817	9676.817
		M10 x 190	8	9676.819	9676.819

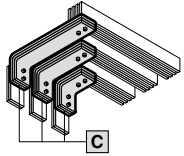
System components

Connection system					Flat-PLS 60	Flat-PLS 100	
					Part No.	Part No.	
 <p>A</p>	<p>A Angular connector for Flat-PLS For connecting horizontal Flat-PLS busbar systems in the roof/base section and vertical Flat-PLS busbar systems.</p>						
	Bar population up to mm	For enclosure depth inches (mm)	No. of brackets mm	Packs of			
	2 x 40 x 10	24/32 (600/800)	2 x 40 x 10	1	9675.842	–	
	2 x 60 x 10	24/32 (600/800)	3 x 40 x 10	1	9675.843	–	
	4 x 60 x 10	24/32 (600/800)	3 x 80 x 10	1	9675.883	–	
	4 x 40 x 10 mm or 2 x 100 x 10	24/32 (600/800)	2 x 80 x 10	1	9675.882	9675.882	
	4 x 80 x 10	24/32 (600/800)	2 x 100 x 10	1	–	9675.892	
4 x 100 x 10	24/32 (600/800)	3 x 100 x 10	1	–	9675.893		
Also required							
Claw with threaded insert			see page 328				
Screw connections			see page 328				
Contact makers			see page 327				
 <p>B</p>	<p>B Angular connector for Flat-PLS For connecting horizontal Flat-PLS busbar systems in the rear section to vertical Flat-PLS busbar systems.</p>						
	Bar population up to mm	For conductor	For enclosure depth inches (mm)	Angular version mm	Packs of		
	2 x 60 x 10	L1, L2, L3	24 (600)	3 x 40 x 10	1 set	9675.846	–
		N		3 x 40 x 10	1 set	9675.847	–
	4 x 60 x 10	L1, L2, L3	24 (600)	3 x 80 x 10	1 set	9675.886	–
		N		3 x 80 x 10	1 set	9675.887	–
	2 x 60 x 10	L1, L2, L3	32 (800)	3 x 40 x 10	1 set	9675.848	–
		N		3 x 40 x 10	1 set	9675.849	–
	4 x 60 x 10	L1, L2, L3	32 (800)	3 x 80 x 10	1 set	9675.888	–
		N		3 x 80 x 10	1 set	9675.889	–
	2 x 100 x 10	L1, L2, L3	24 (600)	2 x 80 x 10	1 set	–	9675.876
	4 x 100 x 10	L1, L2, L3		3 x 100 x 10	1 set	–	9675.896
	2 x 100 x 10	L1, L2, L3	32 (800)	2 x 80 x 10	1 set	–	9675.878
		N		2 x 80 x 10	1 set	–	9675.877
4 x 100 x 10	L1, L2, L3	32 (800)	3 x 100 x 10	1 set	–	9675.898	
	N		3 x 100 x 10	1 set	–	9675.897	

Flat-PLS busbar system

System components

Connection system	Flat-PLS 60	Flat-PLS 100
	Part No.	Part No.



C T-connector kits for Flat-PLS/RiLine60 bar systems.
For connecting horizontal Flat-PLS main busbar systems to vertical RiLine60 distribution busbar systems in the modular outgoing section. Sets of screws for connection to distributor busbar system.

Flat-PLS		Distribution busbar system				Enclosure depth mm		Packs of	3-pole	4-pole	3-pole	4-pole
In the roof/base section	In the rear section top/bottom	Behind the compartment		Inside the compartment		600	800					
		30 x 10/5 mm	PLS 1600	30 x 10/5 mm	PLS 1600							
■	-	■	-	-	-	■	-	1 set	9675.501	9675.502	9675.511	-
■	-	■	-	-	-	-	■	1 set	9675.503	9675.504	9675.513	9675.514
■	-	-	■	-	-	■	-	1 set	9675.505	9675.508	9675.515	-
■	-	-	■	-	-	-	■	1 set	9675.506	9675.507	9675.516	9675.517
■	-	-	-	■	-	■	-	1 set	9675.521	9675.522	9675.531	-
■	-	-	-	■	-	-	■	1 set	9675.523	9675.524	9675.533	9675.534
■	-	-	-	-	■	■	-	1 set	9675.525	9675.528	9675.535	-
■	-	-	-	-	■	-	■	1 set	9675.526	9675.527	9675.536	9675.537
-	■	■	-	-	-	-	■	1 set	9675.543	9675.544	9675.553	9675.554
-	■	-	■	-	-	-	■	1 set	9675.546	9675.547	9675.556	9675.557
-	■	-	-	■	-	-	■	1 set	9675.563	9675.564	9675.573	9675.574
-	■	-	-	-	■	-	■	1 set	9675.566	9675.567	9675.576	9675.577

Also required

Spacer rolls	See page 352
Screw connections	See page 328
Claw with threaded insert	See page 328

Maxi-PLS/Flat PLS connector kit

System accessories

Screw connections for connection brackets

For connecting connection brackets and a connector kit. May be used for 3- and 4-pole connector kits.

Material:

Steel screws, zinc-plated, passivated

Configuration:

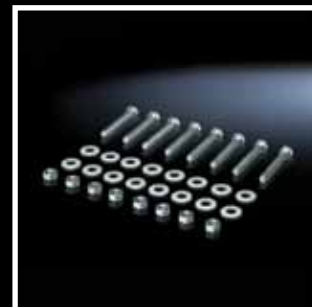
8 nuts and 16 washers

Note:

For a bar width of 120 mm, 2 packs are required per connector kit.

Technical information:

Available at www.rittal-corp.com



For systems	Screw design	No. of bars per phase	Packs of	Part No.
Maxi-PLS ¹⁾ 1600/2000/3200	M10 x 40	1	8	9676.966
	M10 x 60	2	8	9676.967
	M10 x 80	3	8	9676.968
Maxi-PLS ²⁾ 1600/2000/3200 and Flat-PLS 60/100	M12 x 40	1	8	9676.961
	M12 x 60	2	8	9676.962
	M12 x 80	3	8	9676.963

¹⁾For connection bracket width 60/80 mm

²⁾For connection bracket width 100/120 mm

Stacking insulator

To support the connection kits top/bottom for circuit-breakers. Easily retro-fitted.

Packs of	Part No.
6	9660.200

Configuration:

Assembly parts



Support rails for stacking insulator

For attaching to the outer mounting level of the TS 8 enclosure and for the configuration of stacking insulators. C rail may also be used as cable management bar.

For enclosure width inches (mm)	Packs of	Part No.
24 (600)	2	9676.196
32 (800)	2	9676.198

Material:

Carbon steel, zinc-plated

Configuration:

Assembly parts



System accessories



Stabilizer for connection kit

To increase short-circuit resistance of the connection kits from 75 kA to 100 kA, 1 sec.
2 stabilizers are required per connection kit.
May be used for 3- and 4-pole connector kits.
One stabilizer is used in place of a normal stacking insulator arrangement.

Material:

Reinforcement section:
Fiberglass-reinforced plastic

Configuration:

- 2 reinforcement sections
- 10 stacking insulators
- Assembly parts

Also required:

Support rail for stacking insulator, see page 331.

For enclosure width inches (mm)	Packs of	Part No.
24 (600)	2	9676.186
32 (800)	2	9676.188

For air circuit-breakers

For connecting air circuit-breakers (ACB) to Maxi-PLS/Flat-PLS busbar systems in SV-TS 8 enclosures. Please include the design code of the specification below in the order text for your connector kit.

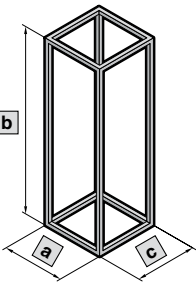
Material:
E-Cu

Design code

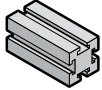
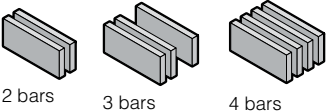
Part No.	Enclosure			Underneath the air circuit-breaker		Air circuit-breaker					Above the air circuit-breaker		Compartment height of air circuit-breaker	
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
Top	9676.910													
Bottom	9676.912													





Note:
Please quote the complete design code on all enquiries and orders.

Also required:
 – M12 screw connections, see page 328.
 – Terminal studs Maxi-PLS see page 328.
 – Screw connections Flat-PLS, see page 331.

Enclosures							Selection				
	a	Width inches (mm)	4	16 (400)	6	24 (600)	8	32 (800)	0	40 (1000)	<input type="checkbox"/>
	b	Height inches (mm)	8	71 (1800)	0	79 (2000)	2	87 (2200)			<input type="checkbox"/>
	c	Depth inches (mm)	6	24 (600)	8	32 (800)					<input type="checkbox"/>

Busbar support underneath the air circuit-breaker

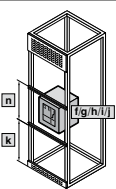
Busbar type					Selection	
d		Maxi-PLS	1600	3-pole	A	<input type="checkbox"/>
			2000	4-pole	B	
				3-pole	C	
			3200	4-pole	D	
				3-pole	E	
				Flat-PLS	60	
4-pole	J					
100	3-pole	M				
	4-pole	N				

Busbar system configuration			Selection	
e		in the base section	6	<input type="checkbox"/>
		in the lower rear section	7	
		as cable connection system	8	
		directly underneath the circuit-breaker	9	



Maxi-PLS/Flat PLS connector kit

For air circuit-breakers






Air circuit-breakers

Selection						Selection													
	f	Brand	ABB	A	<input type="checkbox"/>	h	Rated current	630 A	A	<input type="checkbox"/>	k	Compartment height directly underneath the circuit-breaker	0 mm	0	<input type="checkbox"/>				
			Eaton/Moeller	E				800 A	B				150 mm	1					
			Mitsubishi	J				1000 A	C				200 mm	2					
			Schneider Electric	M				1250 A	D				250 mm	3					
			Siemens/Moeller	S				1600 A	E				300 mm	4					
			Terasaki	T				2000 A	F				400 mm	5					
			Various	V				2500 A	G				600 mm ¹⁾	6					
								3200 A	H				800 mm	7					
			4000 A	I				1000 mm	8										
			g	Size				1/none	1				<input type="checkbox"/>	i		No. of poles/version	Static	3-pole	3
4-pole	4	800 mm			7														
Rack-mounted	3-pole	6			1000 mm	8													
	4-pole	8																	
j	Position	Behind the door			H	<input type="checkbox"/>	j	Position	In front of the door (in door cut-out)	V	<input type="checkbox"/>	<p>¹⁾ Standard height in Form 1 ²⁾ For Form 1 please select a 6</p>							
		2			2				2										
					3				3										
		4			4				4										

Busbar system underneath the air circuit-breaker

Busbar type										Selection	
l		Maxi-PLS	<input type="checkbox"/>	1600	3-pole	A	<input type="checkbox"/>				
					4-pole	B					
					2000	3-pole		C			
						4-pole		D			
					3200	3-pole		E			
						4-pole		F			
		Flat-PLS	<input type="checkbox"/>	60	3-pole	I					
					4-pole	J					
					100	3-pole	M				
						4-pole	N				

Busbar system underneath the air circuit-breaker

Busbar system configuration				Selection
m		in the roof section	1	<input type="checkbox"/>
		in the top rear section	2	
		as cable connection system 600 mm	3	
		as cable connection system 800 mm	8	
		as cable connection system 1000 mm	9	
		directly above the circuit-breaker	4	
	in rear section, Form 1	5		

Sample design code

Part No.		Enclosure			Underneath the air circuit-breaker		Air circuit-breaker					Above the air circuit-breaker		Compartment height of circuit-breaker	
		a	b	c	d	e	f	g	h	i	j	k	l	m	n
Top	9676.910	8	2	8	C	8	S	2	G	3	V	6	J	1	6
Bottom	9676.912														



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Busbar system (100/185/150 mm)



NH slimline fuse-switch disconnectors Page 292 NH fuse-switch disconnectors Page 282 Accessories Page 296

Material:

- Busbar supports, inserts:
 - Fiberglass-reinforced, thermoplastic polyester (PBT)
 - Fire protection corresponding to UL 94-V0

Color:

RAL 7035

Note:

The base component of the busbar support 3052.000 may also be used as a singlepole support.

Short-circuit resistance diagrams:

Available at www.rittal-corp.com

Technical information:

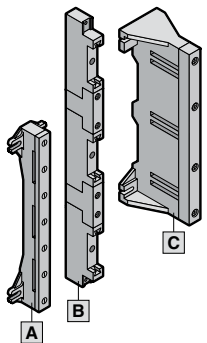
Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Busbar systems up to 1250 A (100 mm), 1600 A (185 mm), 2500 A (150 mm), 3000 A (150 mm)

Busbar support, 3-pole	Packs of	Part No.				Page
		A 1250 A	B 1600 A	C 2500 A	C 3000 A	
Width x height x depth mm		22 x 320 x 70	24 x 515 x 51	30 x 420 x 160	30 x 420 x 170	
Max. bar accommodation		60 x 10	80 x 10	2 x 80 x 10	2 x 100 x 10	
Inserts for		30 x 10 up to 50 x 10	50/60 x 10	–	–	
a) Cross-section reduction to mm		–	–	■	■	
b) Reducing the bar width in 10 mm increments		–	–	■	■	
Bar center distance mm		100	185	150	150	
Packs of		4	2	2	2	
		3073.000	3052.000	3055.000	3057.000	
Accessories						
Inserts to adapt the bar dimensions	30 x 10 mm	24	3074.000	–	–	–
	40 x 10 mm	24	3075.000	–	–	–
	50 x 10 mm	24	3076.000	3074.000	–	–
	60 x 10 mm	24	–	3075.000	–	–
Spacing element for reducing the bar width in 10 mm increments	12	–	–	3056.000	3056.000	



Busbars E-Cu ¹⁾ to DIN EN 13 601. Length 2400 mm.						
	Dimensions mm					
	30 x 10	6	3586.000	–	–	–
	40 x 10	3	3587.000	–	–	–
	50 x 10	3	3588.000	3588.000	–	–
	60 x 10	3	3589.000	3589.000	3589.000	3589.000
	80 x 10	3	–	3590.000	3590.000	3590.000
1000 x 10	3	–	–	–	3590.010	


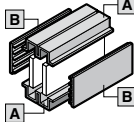
Accessories							
	Baying bracket E-Cu for	30 x 10 mm	4	9661.350	–	–	706
		40 x 10 mm	4	9661.050	–	–	
		80 x 10 mm	4	–	9661.150	–	
	Longitudinal connector for 2 x bar width x 10 mm	1	–	–	9676.621 ²⁾	9676.621 ²⁾	325

¹⁾ Other busbar lengths, see page 297.

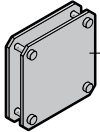
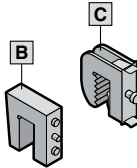
²⁾ Must be ordered additionally according to the busbar width (length = B + 40 mm, see page 335).

Metric measurements for are exact, imperial measurements are rounded

Busbar system (100/185/150 mm)

Contact hazard protection			Packs of	Part No				Page
				1250 A	1600 A	2500 A	3000 A	
End covers for busbar supports			10	3083.000	–	–	–	298
	Busbar cover section, length 1 m for E-Cu	30 x 10 mm	10	3092.000	–	–	–	
		40 x 10 to 60 x 10 mm	10	3085.000	3085.000	–	–	
	Edge cover section for bar systems with 10 mm space between the strands, length 1 m	for 1 busbar per conductor	10	9676.041	9676.041	–	–	326
		for 2 busbars per conductor	10	–	–	9676.052	9676.052	
	Side cover section for bar systems, to match the edge cover sections, length 1 m	For busbar width						
		60 mm	10	9676.056	9676.056	9676.056	9676.056	
		80 mm	10	9676.058	9676.058	9676.058	9676.058	
100 mm	10	9676.059	9676.059	9676.059	9676.059			

Connection system, see page 304 (system accessories)

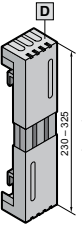

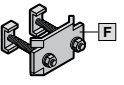
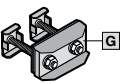

	A Plate clamps for connecting laminated copper bars; no drilling required.							
	For busbars mm	Clamping area for laminated copper bars mm						
	30 x 10	34 x 10	3	3554.000	3554.000	–	–	305
	40 x 10	34 x 10	3	3559.000	3559.000	–	–	
	50 x 10	34 x 10	3	3560.000	3560.000	–	–	
	50 x 10	54 x 10	3	3562.000	3562.000	–	–	
	60 x 10	34 x 10	3	3561.000	3561.000	–	–	
	60 x 10	54 x 10	3	3563.000	3563.000	–	–	
80 x 10	65 x 10	3	–	3460.500	–	–		
Conductor connection clamps for 10 mm bar thickness.								
	Connection of round conductors ¹⁾ mm ²	Clamping area for laminated copper bars mm						
	B 1 – 4	–	15	3455.000	3455.000	3455.000	3455.000	304
	1 – 4	–	15	3455.500	3455.500	3455.500	3455.500	
	2.5 – 16	8 x 8	15	3456.500	3456.500	–	–	
	C 16 – 50	10.5 x 11	15	3457.500	3457.500	–	–	
	35 – 70	16.5 x 15	15	3458.500	3458.500	–	–	
	70 – 185	22.5 x 20	15	3459.500	3459.500	–	–	

¹⁾ Wire end ferrules should be used with fine and extra-fine wire conductors.

Busbar system (100/185/150 mm)

Contact hazard protection	Packs of	Part No				Page
		1250 A	1600 A	2500 A	3000 A	

Connection system, see page 304 (system accessories)

	D System covers for conductor connection clamps and plate clamps.							
	Width x depth mm							
	50 x 80	4	3086.000	-	-	-	305	
	100 x 80	4	3087.000	-	-	-		
	100 x 110	4	3090.000	-	-	-		
	200 x 80	4	3088.000	-	-	-		
200 x 110	4	3091.000	-	-	-			
	E Inserted screw nuts M12, self-holding nuts with knurled ring for mounting NH slimline fuse-switch disconnectors.							
	For drilled holes in busbars Ø 14.5 mm.	30	3591.060	3591.060	-	-	298	
	F Connection plates, material: E-Cu nickel-plated							
	Connection for	1 ring terminal M10 ¹⁾ up to 240 mm ²	3 sets	-	-	3058.000	-	
		2 ring terminals M10 ¹⁾ up to 240 mm ²	3 sets	-	-	3059.000	3061.000	
		Laminated flat copper ²⁾ up to 40 x 10 mm	3 sets	-	-	3061.000	-	
Bar insulation		9	-	-	3060.000	3060.000		
	G Connection plates for laminated copper bars							
	For connecting laminated copper bars up to 2 x 10 x 100 x 1.0 mm to a busbar system with 2 bars per conductor.	For laminated copper bars up to						
		2 x 10 x 32 x 1 mm	1	-	-	9676.747 ³⁾	9676.747 ³⁾	328
		2 x 10 x 63 x 1 mm	1	-	-	9676.748 ³⁾	9676.748 ³⁾	
2 x 10 x 100 x 1 mm	1	-	-	9676.749 ³⁾	9676.749 ³⁾			
	H Direct connection terminals							
	For the direct connection of round conductors 95 – 300 mm ² (single-wire and multi-wire).	1	-	-	9676.730 ³⁾	9676.730 ³⁾	328	

¹⁾ T-head screw M10 x 100.

²⁾ T-head screw M10 x 120.

³⁾ The required screw connection must be ordered additionally according to the busbar width, see page 331.

Device module

For use in air circuit breaker outgoing/incoming sections with a minimum depth of 600 mm.
The removable mounting panel may be used for the configuration e.g. of fuses, power circuitbreakers and switchgear.

Material:

- Side parts, center parts:
Carbon steel
- Mounting panel:
Carbon steel, zinc-plated
- Front panel:
Aluminum, anodized

Color:

Side parts, center parts:
RAL 7035

Configuration:

- 2 side parts
- 2 center parts
- Connector parts
- Mounting panel
- Optional front panel

Note:

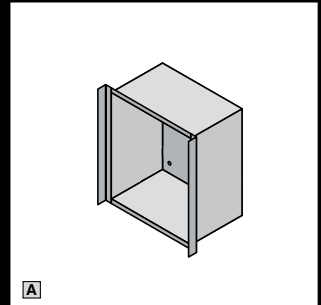
Please observe the manufacturer-specific data regarding the arcing space of air circuit-breakers.

Design of front panel	For enclosure width inches (mm)		Mounting panel inches (mm)		Packs of	Part No	Page
	24 (600)	32 (800)	Width inches (mm)	Height inches (mm)			
without	■	-	17 (420)	10 (250)	1	9660.700	
	-	■	24 (620)	10 (250)	1	9660.710	
vertically hinged	■	-	17 (420)	10 (250)	1	9660.760	
	-	■	24 (620)	10 (250)	1	9660.770	

Also required

Mounting bracket ¹⁾	24	9660.090	341
--------------------------------	----	----------	-----

¹⁾ 4 mounting brackets are required to attach a device module.



Contact hazard protection cover

For TS 8 enclosures with air circuit-breaker

To cover incoming and outgoing sections and NH slimline fuse-switch disconnectors with the Maxi-PLS busbar system in the rear enclosure section so that they are safe from finger contact (IP 2X).

Material: Carbon steel

Color:

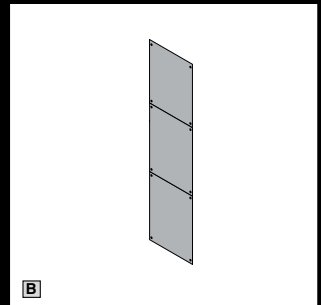
RAL 7035

Configuration:

3 front covers

Note:

- Cut-outs for air circuit-breakers must be provided by the customer.
- TS 8 enclosures, see page 90



For 1-door enclosures

Width mm		Height inches (mm)	Device module version		Packs of	Part No.	Page
24 (600)	32 (800)		with	without			
■	-	79 (2000)	■	-	1 set	9660.280	
■	-	79 (2000)	-	■	1 set	9660.780	
-	■	79 (2000)	■	-	1 set	9660.380	
-	■	79 (2000)	-	■	1 set	9660.880	

Also required

Mounting bracket ¹⁾	24	9660.090	341
--------------------------------	----	----------	-----

For 3-door enclosures

Width mm		Height inches (mm)	Device module version		Packs of	Part No.	Page
24 (600)	32 (800)		with	without			
■	-	79 (2000)	■	-	1 set	9660.290²⁾	
■	-	79 (2000)	-	■	1 set	9660.790	
-	■	79 (2000)	■	-	1 set	9660.390²⁾	
-	■	79 (2000)	-	■	1 set	9660.890	

Also required

Mounting bracket ¹⁾	24	9660.090	341
--------------------------------	----	----------	-----

¹⁾ 12 mounting brackets required to attach contact hazard protection cover plates. ²⁾ Including trim panel

Cover system

Form 1



Contact hazard protection cover

for TS 8 enclosures with NH slimline fuse-switch disconnectors

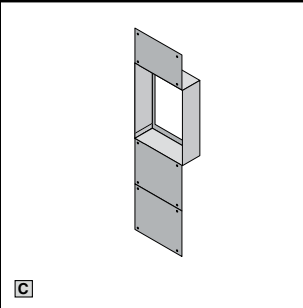
To cover incoming and outgoing sections and NH slimline fuse-switch disconnectors with the Maxi-PLS busbar system in the rear enclosure section so that they are safe from finger contact (IP 2X).

Material:
Carbon steel

Color:
RAL 7035

Configuration:
– 3 front covers
– 2 depth covers
– 2 side covers
– Connector parts

Note:
– TS 8 enclosures, see page 90.
– NH slimline fuse-switch disconnectors, see page 292 - 293.



For enclosures			Free installation width inches (mm) ¹⁾ when using longitudinal connectors			Packs of	Part No.	Page
Width inches (mm)	Height inches (mm)	Depth inches (mm)	without	one side	both sides			
24 (600)	79 (2000)	24 (600)	20 (500)	6 (150)	16 (400)	1 set	9660.460	
32 (800)	79 (2000)	24 (600)	28 (700)	26 (650)	24 (600)	1 set	9660.470	
40 (1000)	79 (2000)	24 (600)	35 (900)	33 (850)	32 (800)	1 set	9660.480	
47 (1200)	79 (2000)	24 (600)	45 (1100)	41 (1050)	40 (1000)	1 set	9660.490	

Also required

Mounting bracket ²⁾		24	9660.090	341
--------------------------------	--	----	-----------------	-----

Accessories

Blanking cover for NH slimline disconnectors	Size 00	4	9660.180	341
	Sizes 1 – 3	4	9660.190	341

¹⁾ When using the top-mounted busbars 9649.160/9659.160, see page 318.

Longitudinal connectors 9640.191/9650.191 for Maxi-PLS busbars, see page 318.

²⁾ 2 mounting brackets are required to attach the contact hazard protection cover plates.

Mounting brackets

For attaching the device modules and cover plates for contact hazard protection.
Tapped hole M6.

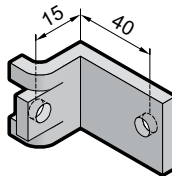
Packs of	Part No.
24	9660.090

Material:

Carbon steel, zinc-plated

Configuration:

Assembly screws



Blanking cover

To cover free NH slimline fuse-switch disconnecter slots.

For NH size	Width (B) mm	Packs of	Part No.
00	49.5	4	9660.180
1 to 3	99.5	4	9660.190

Material:

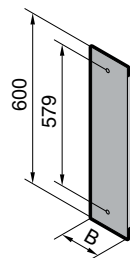
Carbon steel, spray-finished

Color:

RAL 7035

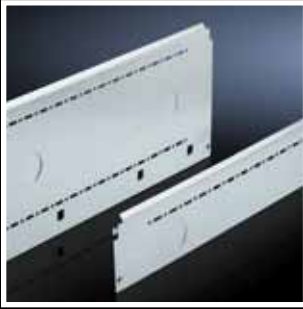
Configuration:

Assembly screws



Compartment configuration

Form 1-4



Functional space side panel modules

For internal compartmentalization

- Side divider panel for compartments, for locating into the TS pitch pattern
- Prepared for the location of mounting brackets for horizontal compartment dividers or mounting plates
- Two TS system punchings allow the use of additional TS accessories
- The side panel modules for reduced compartment depth and an auxiliary construction using TS punched rails 17 x 17 mm can be used to provide a separate enclosure space in the side panel area, e.g. for the provision of a busbar system

Material:

Carbon steel, zinc-plated, passivated, 1.5 mm

Configuration:

Assembly parts

Accessories:

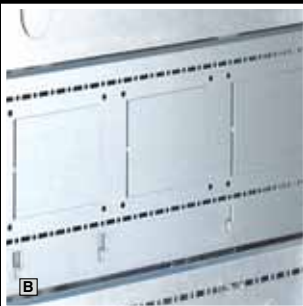
- TS 17 x 17 mm punched rails and connector pieces, see page 663.
- Gland plates, see page 343



A Without gland plate¹⁾

Height inches (mm)	For compartment depth inches (mm)	Packs of	Part No.
4 (100)	17 (425)	6	9673.051
6 (150)	17 (425)	6	9673.055
8 (200)	17 (425)	6	9673.052
4 (100)	24 (600)	6	9673.061
6 (150)	24 (600)	6	9673.065
8 (200)	24 (600)	6	9673.062
24 (600)	24 (600)	2	9673.066
4 (100)	32 (800)	6	9673.081
6 (150)	32 (800)	6	9673.085
8 (200)	32 (800)	6	9673.082
24 (600)	32 (800)	2	9673.086

¹⁾ Version without gland plate has pre-punched cable entries M40.



B With gland plate¹⁾

Height mm	For compartment depth	Packs of	Part No.
6 (150)	17 (425)	6	9673.155
8 (200)	24 (600)	6	9673.162
6 (150)	32 (800)	6	9673.185
8 (200)	32 (800)	6	9673.182
24 (600)	32 (800)	2	9673.186

¹⁾ Version with plastic plate has pre-punched knockouts for cable entry.



Functional space side panel modules

for cable connection space

For mounting a Maxi-PLS cable connection bar system

Material:

Carbon steel, zinc-plated, passivated, 14 ga (2.0 mm)

Configuration:

Assembly parts

Also required:

- 2 functional space side panel modules with height 6" (150 mm), see page 342
- End support, see page 357

Height inches (mm)	Packs of	Part No.	
		For enclosure depth inches (mm)	
		24 (600)	32 (800)
18 (450)	2	9673.069	9673.089

Suitable for cable connection busbar system

Maxi-PLS	Number of poles		
1600/2000	3-pole	■	■
1600/2000	4-pole	■	■
3200	3-pole	■	■
3200	4-pole	–	■



Gland plates

For closing cable entries.

Material:

PVC, 11 ga (3.0 mm), fire protection corresponding to UL 94-V0

Color:

RAL 7004

Configuration:

Assembly parts

For side panel modules height inches (mm)	Packs of	Part No.
6 (150)	10	9673.195
8/24 (200/600)	10	9673.192



Compartment configuration

Form 1-4



Cover plates

for rear busbar system in the cable chamber

To separate an area of the cable chamber enclosure for a rear-mounted busbar system. Attachment requires an auxiliary construction made from Mini-TS sections, to which the cover plates are attached and fastened.

Material:

Carbon steel, zinc-plated, passivated, 16 ga (1.5 mm)

Configuration:

Assembly parts

Also required:

- Frame connection piece (4 x 673.901), see page 670
- Corner connector (2 x 9673.902), see page 671
- TS punched rail 17 x 17 mm for 9673.5X0 (2 x 9673.915, 2 x 9673.953), see page 663
- TS punched rail 17 x 17 mm for 9673.5X2 (2 x 9673.920 or 2 x 9673.940, 2 x 9673.983), see page 663



For enclosure depth inches (mm)	For enclosure width inches (mm)	Width inches (mm)	Height inches (mm)	Depth inches (mm)	Packs of	Part No.
24 (600)	12 (300)	12 (297)	21 (540)	7 (170.5)	2 sets	9673.530¹⁾
24 (600)	16 (400)	16 (397)	21 (540)	7 (170.5)	2 sets	9673.540¹⁾
24 (600)	24 (600)	24 (597)	21 (540)	7 (170.5)	2 sets	9673.560¹⁾
24/32 (600/800)	12 (300)	12 (297)	33 (841)	10 (245.5)	1 set	9673.532²⁾
24/32 (600/800)	16 (400)	16 (397)	33 (841)	10 (245.5)	1 set	9673.542²⁾
24/32 (600/800)	24 (600)	24 (597)	33 (841)	10 (245.5)	1 set	9673.562²⁾

¹⁾ Suitable for RiLine60 and Maxi-PLS 1600/2000

²⁾ Suitable for RiLine60, Maxi-PLS 1600/2000/3200 and Flat-PLS



Terminal box Form 4b

for modular outgoing section

For shielding the connections (terminals) of the functional space, busbar space and cable chamber in accordance with Form 4b to IEC 61439-2. The terminal boxes are externally mounted on the functional space side panel modules in the cable chamber to match the heights of the compartments. If necessary, a clamping strip may be mounted on the cable retainer included with the supply.

Material:

Carbon steel, zinc-plated, passivated, 16 ga (1.5 mm)

Configuration:

Assembly parts

Note:

For installation of the terminal boxes, the width of the cable chamber must be at least 16" (400 mm)

Also required:

Functional space side panel modules for internal compartmentalization, see page 342

For compartment height inches (mm)	For enclosure width inches (mm) ¹⁾	PU	Part No.
6 (150)	16/24 (400/600)	1 set	9674.701
8 (200)	16/24 (400/600)	1 set	9674.702
10 (250)	16/24 (400/600)	1 set	9674.707
12 (300)	16/24 (400/600)	1 set	9674.703
16 (400)	16/24 (400/600)	1 set	9674.704
24 (600)	16/24 (400/600)	1 set	9674.706

¹⁾ Enclosure width of the cable chamber

Mounting bracket for functional space divider

- The mounting bracket is secured
 - to the TS frame,
 - to the side panel module or
 - between a frame section and an auxiliary construction.
- Pre-machined mounting openings allow slide-in attachment of functional space dividers.

Material:

Carbon steel, zinc-plated, passivated,
16 ga (1.5 mm)

Configuration:

Assembly parts

For functional space depth inches (mm)	Length inches (mm)	Packs of	Part No.
17 (425)	17 (427)	8	9673.405¹⁾
24 (600)	22 (552)	8	9673.406
32 (800)	30 (752)	8	9673.408

¹⁾ In conjunction with vertical busbar space separation.



Mounting bracket for functional space divider and air circuit-breaker support rail

- The mounting bracket is secured to the side panel module.
- Pre-machined mounting openings allow slide-in attachment of functional space dividers.
- The air circuit-breaker support bar may be attached to the upper level.

Material:

Carbon steel, zinc-plated, passivated,
14 ga (2.0 mm)

Configuration:

Assembly parts

Also required:

- Functional space side panel modules, see page 343
- Air circuit-breaker support rail, see page 346

For functional space depth inches (mm)	Length mm	Packs of	Part No.
24 (600)	22 (552)	2	9673.426
32 (800)	30 (752)	2	9673.428



Compartment configuration

Form 1-4



Air circuit-breaker support bar

- For the configuration of air circuit-breakers (ACB) in compartments
- The support rail is secured using a mounting bracket

Material:

Carbon steel, zinc-plated, passivated, 10 ga (2.5 mm)

Configuration:

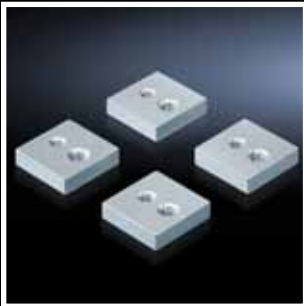
Assembly parts

Also required:

- Mounting bracket for functional space divider and air circuit-breaker support bar, see page 345
- Attachment set for air circuit-breaker installation, see below



For enclosure width inches (mm)	Length inches (mm)	Packs of	Part No.
16 (400)	14 (351)	2	9673.004
24 (600)	22 (551)	2	9673.006
32 (800)	30 (751)	2	9673.008



Attachment set

for air circuit-breaker installation

For attaching air circuit-breakers (ACB) to air circuit-breaker support bars.

Material:

Carbon steel, zinc-plated

Configuration:

4 threaded plates (M8/M12)

Packs of	Part No.
1 set	9660.970

Functional space divider

- For the horizontal separation of compartments
- In combination with the side panel modules, creates separation to Form 3 or 4
- 2 mounting brackets each are required to install the functional space dividers

Material:

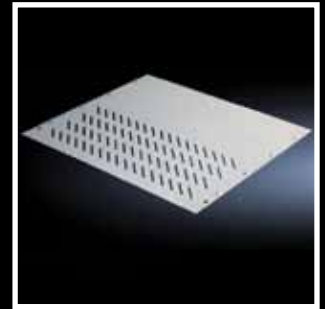
Carbon steel, zinc-plated, passivated, 16 ga (1.25 mm)

Also required:

- Mounting brackets, 2, see page 341
- Cross members, see page 304

With louvers

For enclosure width inches (mm)	For functional space depth inches (mm)	Width inches (mm)	Depth inches (mm)	Packs of	Part No.
16 (400)	17 (425)	12 (306)	14 (445)	4	9673.444
16 (400)	24 (600)	12 (306)	23 (588)	4	9673.445
16 (400)	32 (800)	12 (306)	31 (788)	4	9673.448
24 (600)	17 (425)	20 (506)	14 (445)	4	9673.464
24 (600)	24 (600)	20 (506)	23 (588)	4	9673.465
24 (600)	32 (800)	20 (506)	31 (788)	4	9673.468
32 (800)	17 (425)	28 (706)	14 (445)	4	9673.484
32 (800)	24 (600)	28 (706)	23 (588)	4	9673.485
32 (800)	32 (800)	28 (706)	31 (788)	4	9673.488



Functional space divider for Rittal RiLine60 busbar systems

- For the horizontal separation of compartments with integrated RiLine60 distribution busbar system
- In combination with the side panel modules, creates separation to Form 3 or 4
- 2 mounting brackets each are required to install the functional space dividers

Material:

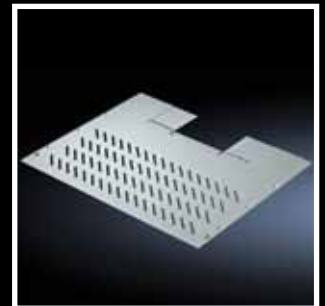
Carbon steel, zinc-plated, passivated, 16 ga (1.25 mm)

Also required:

- Mounting brackets, 2, see page 341
- Cross members, see page 304

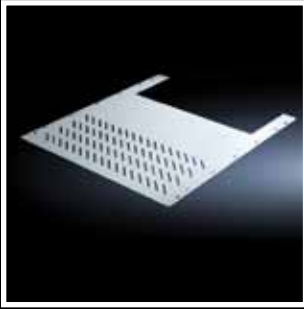
With louvers

For enclosure width inches (mm)	For functional space depth inches (mm)	Width inches (mm)	Depth inches (mm)	Position of the bar system in the functional space	Packs of	Part No.
24 (600)	16 (401)	20 (506)	16 (413)	–	4	9673.454
32 (800)	16 (401)	28 (706)	16 (413)	Right	4	9673.474
32 (800)	16 (401)	28 (706)	16 (413)	Left	4	9673.475



Compartment configuration

Form 1-4



Functional space divider with duct for vertical busbar systems

- For the horizontal separation of compartments with vertical busbars
- In combination with the side panel modules, creates separation to Form 3 or 4
- 2 mounting brackets each are required to install the functional space dividers

Material:

Carbon steel, zinc-plated, passivated, 18 ga (1.25 mm)

Also required:

- Mounting brackets, 2, see page 341
- Cross members, see page 304
- Gland plate, see below

With louvers

For enclosure width inches (mm)	For functional space depth inches (mm)	Width inches (mm)	Depth inches (mm)	Width of entry inches (mm)	Depth of entry inches (mm)	Packs of	Part No.
16 (400)	24 (600)	12 (306)	23 (588)	8 (212)	8 (201)	4	9673.436
16 (400)	32 (800)	12 (306)	31 (788)	8 (212)	8 (201)	4	9673.438
24 (600)	24 (600)	20 (506)	23 (588)	16 (412)	8 (201)	4	9673.456
24 (600)	32 (800)	20 (506)	31 (788)	16 (412)	8 (201)	4	9673.458
32 (800)	24 (600)	28 (706)	23 (588)	20 (612)	8 (201)	4	9673.476
32 (800)	32 (800)	28 (706)	31 (788)	20 (612)	8 (201)	4	9673.478



Gland plate

To shroud the opening for vertical busbar systems.

Material:

ABS PMMA

For enclosure width inches (mm)	Width inches (mm)	Height inches (mm)	Packs of	Part No.
16 (400)	10 (250)	9 (223.5)	4	9673.504
24 (600)	20 (450)	9 (223.5)	4	9673.506
32 (800)	30 (650)	9 (223.5)	4	9673.508

Partial mounting panels

With or without duct

- For direct attachment to the functional space side panel modules
- Universal internal installation with switchgear and control devices
- Additional mounting levels
- In combination with functional space dividers and side panel modules, internal separation in accordance with Form 2, 3 or 4 is possible

Material:

Carbon steel, zinc-plated, passivated, 14 ga (2.0 mm)

Configuration:

- Angle brackets and assembly parts
- For the version with duct:
Additional square cut-out with insulating plates for sealing the cut-out

Also required:

Functional space side panel modules, see page 343



With duct

For enclosure width inches (mm)	For compartment height inches (mm)	Width inches (mm)	Height inches (mm)	Packs of	Part No.
24 (600)	6 (150)	20 (502)	6 (143)	1	9673.671
24 (600)	8 (200)	20 (502)	8 (193)	1	9673.672
24 (600)	10 (250)	20 (502)	10 (243)	1	9673.677
24 (600)	12 (300)	20 (502)	12 (293)	1	9673.673
24 (600)	16 (400)	20 (502)	16 (393)	1	9673.674
32 (800)	6 (150)	28 (702)	6 (143)	1	9673.691
32 (800)	8 (200)	28 (702)	8 (193)	1	9673.692
32 (800)	10 (250)	28 (702)	10 (243)	1	9673.697
32 (800)	12 (300)	28 (702)	12 (293)	1	9673.693
32 (800)	16 (400)	28 (702)	16 (393)	1	9673.694

Without duct

For enclosure width inches (mm)	For compartment height inches (mm)	Width inches (mm)	Height inches (mm)	Packs of	Part No.
16 (400)	6 (150)	12 (302)	6 (143)	1	9673.641
16 (400)	8 (200)	12 (302)	8 (193)	1	9673.642
16 (400)	10 (250)	12 (302)	10 (243)	1	9673.647
16 (400)	12 (300)	12 (302)	12 (293)	1	9673.643
16 (400)	16 (400)	12 (302)	16 (393)	1	9673.644
16 (400)	24 (600)	12 (302)	23 (593)	1	9673.646
16 (400)	32 (800)	12 (302)	31 (793)	1	9673.648
16 (400)	40 (1000)	12 (302)	39 (993)	1	9673.640
24 (600)	6 (150)	20 (502)	6 (143)	1	9673.661
24 (600)	8 (200)	20 (502)	8 (193)	1	9673.662
24 (600)	10 (250)	20 (502)	10 (243)	1	9673.667
24 (600)	12 (300)	20 (502)	12 (293)	1	9673.663
24 (600)	16 (400)	20 (502)	16 (393)	1	9673.664
24 (600)	24 (600)	20 (502)	23 (593)	1	9673.666
24 (600)	32 (800)	20 (502)	31 (793)	1	9673.668
24 (600)	40 (1000)	20 (502)	39 (993)	1	9673.660
32 (800)	6 (150)	28 (702)	6 (143)	1	9673.681
32 (800)	8 (200)	28 (702)	8 (193)	1	9673.682
32 (800)	10 (250)	28 (702)	10 (243)	1	9673.687
32 (800)	12 (300)	28 (702)	12 (293)	1	9673.683
32 (800)	16 (400)	28 (702)	16 (393)	1	9673.684
32 (800)	24 (600)	28 (702)	23 (593)	1	9673.686
32 (800)	32 (800)	28 (702)	31 (793)	1	9673.688
32 (800)	40 (1000)	28 (702)	39 (993)	1	9673.680

Compartment configuration

Form 1-4



Support frame for DIN rail-mounted devices

- Support frame set for accepting DIN rail-mounted devices (e.g. MCBs)
- The support rails are fastened with two mounting brackets to the functional space side panel modules. The cover is fastened to the support frame with knurled screws
- In combination with functional space dividers, partial mounting panels and side panel modules, internal compartmentalization in accordance with Form 2, 3 or 4 is possible

Material:

- Support frame: Carbon steel, zinc-plated, passivated, 16 ga (1.5 mm)
- Cover: Carbon steel, spray-finished, 16 ga (1.5 mm)

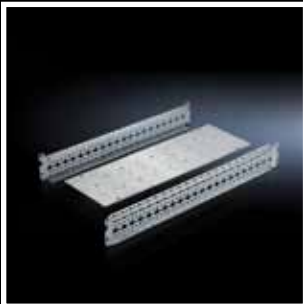
Configuration:

- Support rails
- 2 mounting brackets
- 1 cover with cut-out
- Assembly parts

for enclosure width inches (mm)	For compartment height inches (mm)	No. of pitch units 17.5 mm	Packs of	Part No.
24 (600)	6 (150)	1 x 24	1 set	9674.761
24 (600)	12 (300)	2 x 24	1 set	9674.762
24 (600)	24 (600)	4 x 24	1 set	9674.764
32 (800)	12 (300)	2 x 36	1 set	9674.782
32 (800)	24 (600)	4 x 36	1 set	9674.784

Also required:

- Functional space side panel modules, see page 343
- Partial mounting panels, see page 349



Coupling set mounting kit for busbar enclosure or riser

The mounting kit is used as a base support for a vertical Maxi-PLS busbar system/Flat-PLS busbar system.

Material:

Carbon steel, zinc-plated

Configuration:

- Support plate and punched sections with mounting flanges, assembly parts
- With the version for 12 and 16" (300 and 400 mm) enclosure widths, additionally with insulating plate for the installation of Flat-PLS

Also required:

End support, see page 318

For enclosure width inches (mm)	For enclosure depth inches (mm)	Packs of	Part No.
8 (200)	24 (600)	1 set	9674.196¹⁾
8 (200)	32 (800)	1 set	9674.198¹⁾
12 (300)	24 (600)	1 set	9674.036
12 (300)	32 (800)	1 set	9674.038
16 (400)	24 (600)	1 set	9674.046
16 (400)	32 (800)	1 set	9674.048

¹⁾ Only suitable for Maxi-PLS.



System attachments

for RiLine60 main busbar system

System attachment with threaded holes M5 and M6 on a 50 mm pitch pattern for rear assembly of a RiLine60 main busbar system. For locating into the TS frame.

Material:

Carbon steel, zinc-plated, passivated

Configuration:

Assembly parts

Note:

RiLine60 busbar systems, see page 261

For enclosure width inches (mm)	Width inches (mm)	Height inches (mm)	PU	Part No.
12 (300)	9 (238.5)	14 (362)	1	9674.003
16 (400)	13 (338.5)	14 (362)	1	9674.004
24 (600)	21 (538.5)	14 (362)	1	9674.006
32 (800)	24 (738.5)	14 (362)	1	9674.008



Distribution busbars

Prepared for the connection of T-connector kits.

Material:

E-Cu

Flat bar Cu 30 x 10 mm

For distribution busbar systems behind the compartment	For distribution busbar system in the compartment (indoors)	Packs of	Length inches (mm)	Part No.
For enclosure height inches (mm)				
71 (1800)	–	1	48 (1210)	9675.218
79 (2000)	–	1	56 (1410)	9675.210
87 (2200)	71 (1800) ¹⁾	1	63 (1610)	9675.212
–	79 (2000) ¹⁾	1	71 (1810)	9675.220

¹⁾ Also suitable as a vertical busbar for PE/PEN/N.

PLS 1600

For distribution busbar systems behind the compartment	For distribution busbar system in the compartment (indoors)	Packs of	Length inches (mm)	Part No.
For enclosure height mm				
71 (1800)	–	1	45 (1150)	9675.238
79 (2000)	–	1	53 (1350)	9675.230
87 (2200)	71 (1800) ¹⁾	1	61 (1550)	9675.232
–	79 (2000) ¹⁾	1	69 (1750)	9675.240
–	87 (2200) ¹⁾	1	77 (1950)	9675.242

¹⁾ Also suitable as a vertical busbar for PE/PEN/N.



Rail system



T-connector kits for RiLine60 busbar systems

For connecting horizontal main busbar systems to vertical distribution busbar systems.

Material:
E-Cu

Configuration:
Assembly parts

Also required:
Distribution busbars, see page 351

Main busbar system	Distribution busbar system	3-pole	4-pole	Packs of	Part No.
Behind the compartment					
PLS 1600	Cu 30 x 10/5 mm	■	–	1 set	9675.130
Cu 30 x 10/5 mm	Cu 30 x 10/5 mm	■	–	1 set	9675.133
PLS 1600	PLS 1600	■	–	1 set	9675.136
PLS 1600	Cu 30 x 10/5 mm	–	■	1 set	9675.140
Cu 30 x 10/5 mm	Cu 30 x 10/5 mm	–	■	1 set	9675.143
PLS 1600	PLS 1600	–	■	1 set	9675.146
Inside the compartment					
PLS 1600/Cu 30 x 10/5 mm	Cu 30 x 10/5 mm	■	–	1 set	9675.153¹⁾
PLS 1600	PLS 1600	■	–	1 set	9675.156¹⁾
PLS 1600/Cu 30 x 10/5 mm	Cu 30 x 10/5 mm	–	■	1 set	9675.163¹⁾
PLS 1600	PLS 1600	–	■	1 set	9675.166¹⁾

¹⁾Only suitable for enclosure depth 24" (600 mm).

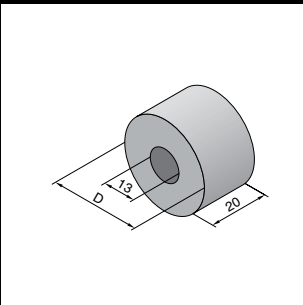


Spacer rolls for Maxi-PLS busbars and flat copper bars

For use as a universal spacer.
Height: 20 mm, hole diameter: 13 mm

Material:
E-Cu

Diameter (D) mm	For connecting						Packs of 4	Part No.
	Cu bar – Cu bar		Maxi-PLS – Cu bar		Flat-PLS – Cu bar			
	Cross-section size mm ²	Max. rated current A	Contact area mm ²	Max. rated current A	Contact area mm ²	Max. rated current A		
30	550	1100	360	800	380	850	4	9676.503
40	1100	2200	780	1600	670	1400	4	9676.504
50	1800	3400	1380	2800	990	2000	4	9676.505



Switch-disconnector-fuse section

Front trim panels

for switch-disconnector-fuse section

The front trim panels cover above and below the mounting area of the NH switch-disconnector fuse on the front. With integral vent openings, protection categories IP 3X/IP 2X of the switch-disconnector-fuse section are achieved.

Material:

Carbon steel, 14 ga (2.0 mm)

Color:

Textured RAL 7035

Configuration:

- 2 front trim panels
- Assembly parts

Also required:

Assembly kit for switch-disconnector-fuse section, see below

Front trim panels height mm		Packs of	Part No.
Top	Bottom		Design
336	136	1 set	IP 3X ¹⁾ With ventilation hole 9674.340
186	336	1 set	9674.342

¹⁾ For IP 2X the inner perforated plate must be removed.



Assembly kit

for switch-disconnector-fuse section

Assembly kit for installing switch-disconnectorfuse brands ABB or Jean Müller and attaching the distribution busbar system.

Material:

- Section corner piece left/right, Carbon steel, zinc-plated, 2 mm
- Trim panel left/right, Carbon steel, 14 ga (2.0 mm), spray-finished

Color:

Textured RAL 7035

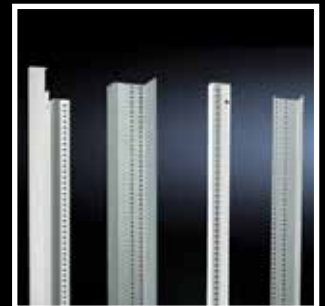
Configuration:

- 2 section corner pieces
- 2 trim panels
- Incl. assembly parts

Also required:

Divider panel for switch-disconnector-fuse section, see page 354

For switch-disconnector fuse brand	For enclosure height inches (mm)	Packs of	Part No.
Jean Müller SASIL	79 (2000)	1 set	9674.350
Jean Müller SASIL	87 (2200)	1 set	9674.352
ABB SlimLine	79 (2000)	1 set	9674.356
ABB SlimLine	87 (2200)	1 set	9674.358



Switch-disconnector-fuse section



Divider panel for switch-disconnector-fuse section

The divider panel is required for interior configuration of the switch-disconnector-fuse section, and divides the connection space from the functional space. Depending on the chosen position of the main busbar system, the divider panel is fitted in the prepared switch-disconnector-fuse enclosures. The prepared cut-outs are suitable for the connection of Jean Müller Sasil and ABB SlimLine switch-disconnector fuses.

Material:

Carbon steel, zinc-plated, passivated, 16 ga (1.5 mm)

Configuration:

Assembly parts



For main busbar system in the roof section

For enclosure height inches (mm)	For enclosure depth inches (mm)	Packs of	Part No.
79 (2000)	24 (600)	1	9674.306
79 (2000)	32 (800)	1	9674.308
87 (2200)	24 (600)	1	9674.326
87 (2200)	32 (800)	1	9674.328

For main busbar system in the rear section, top or bottom

For enclosure height inches (mm)	For enclosure depth mm	Packs of	Part No.
79 (2000)	24 (600)	1	9674.305
79 (2000)	32 (800)	1	9674.307
87 (2200)	24 (600)	1	9674.325
87 (2200)	32 (800)	1	9674.327



Dividing plate for switch-disconnector-fuse section

Dividing plate to divide the busbar chamber and NH switch-disconnector-fuse chamber (compartment).

Material:

Carbon steel, zinc-plated, passivated, 16 ga (1.5 mm)

Configuration:

Assembly parts

Also required:

Assembly kit for switch-disconnector-fuse section, see page 353

For switch-disconnector-fuse brand	Mounting position	Packs of	Part No.
Jean Müller SASIL	top/ bottom	1	9674.346
ABB SlimLine	top/ bottom	1	9674.348



Switch-disconnector-fuse section

Contact hazard protection cover

for switch-disconnector-fuse section (cable chamber)

The contact hazard protection cover plate shields the main busbar in the cable chamber, enabling the safe connection of cables and lines. Suitable for Maxi-PLS and Flat-PLS busbar systems.

Material:

Carbon steel, zinc-plated, passivated, 1.5 mm

Configuration:

Assembly parts

Also required:

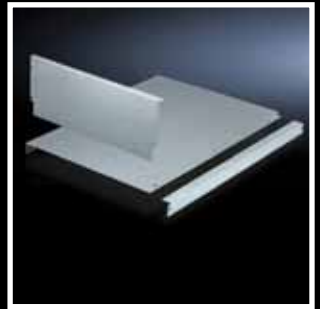
Divider panel for switch-disconnector-fuse section, see page 354

For main busbar system in the roof section

For enclosure width inches (mm)	For enclosure depth inches (mm)	Packs of	Part No.
40 (1000)	24 (600)	1 set	9674.362
40 (1000)	32 (800)	1 set	9674.364
47 (1200)	24 (600)	1 set	9674.366
47 (1200)	32 (800)	1 set	9674.368

For main busbar system in the rear section, top or bottom

For enclosure width mm	Packs of	Part No.
40 (1000)	1 set	9674.372
47 (1200)	1 set	9674.376



Distribution busbar cover

for Jean Müller switch-disconnector-fuse section

To cover the distribution busbar system of a switch-disconnector-fuse section, designed to accommodate Jean Müller devices. The 150 mm high busbar and cable connection space covers shield the busbar compartment from the functional space so that it is safe from finger contact, with a protection category of IP 20.

Material:

PVC, black

Configuration:

Busbar cover and cable connection space cover for enclosure height 79" (2000 mm) and 87" (2200 mm)

Also required:

Punched rail cover, distribution busbar, see page 356

Packs of	Part No.
1 set	9674.380



Switch-disconnector-fuse section



Punched rail for distribution busbar cover

for Jean Müller switch-disconnector-fuse section

Required for mounting the distribution busbar cover. Suitable for use in enclosures with height 79" (2000 mm) and 87" (2200 mm).

Material:

Carbon steel, zinc-plated, passivated

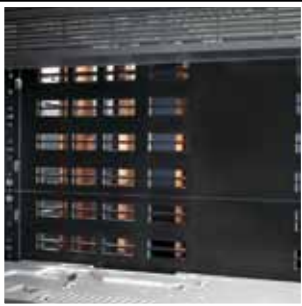
Configuration:

2 punched rails

Note:

For 1 switch-disconnector-fuse section, 1 pack of punched rails is required

Packs of	Part No.
1 set	9674.381



Distribution busbar cover for ABB/Siemens switch-disconnector-fuse section

To cover the distribution busbar system of a switch-disconnector-fuse section, designed to accommodate ABB (SlimLine) or Siemens (3NJ62) devices. The 200 mm high busbar compartment covers shield the busbar compartment from the functional space so that it is safe from finger contact, with a protection category of IP 20.

Material:

PVC, black

Note:

The distribution busbar cover for switch-disconnector-fuse sections from ABB/Siemens may be ordered from ABB under order number NHP 407062R000X. For enclosure height 79" (2000 mm), a height of 59" (1500 mm) should be covered, and for enclosure height 87" (2200 mm), a height of 67" (1700 mm) should be covered.

Switch-disconnector-fuse section

Busbar support

for switch-disconnector-fuse section

Busbar support for the distribution busbar system of the switch-disconnector-fuse section.

Material:

Fiberglass-reinforced plastic

Configuration:

Mounting bracket and screws

Also required:

- Assembly kit for switch-disconnector-fuse section, see page 353
- End support for switch-disconnector-fuse section, see below
- Distribution busbar for switch-disconnector-fuse section, see page 358

For busbars mm	Number of poles	Packs of	Part No.
50 x 10	3/4-pole	1	9674.415
60 x 10	3/4-pole	1	9674.416
80 x 10	3/4-pole	1	9674.418
100 x 10	3/4-pole	1	9674.410



End support

for switch-disconnector-fuse section

End support for the distribution busbar system of the switch-disconnector-fuse section, for vertical support of the distribution busbar system with infeed from above.

Material:

Fiberglass-reinforced plastic

Configuration:

Mounting bracket and screws

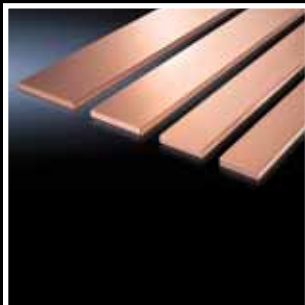
Also required:

- Assembly kit for switch-disconnector-fuse section, see page 353
- Distribution busbar for switch-disconnector-fuse section, see page 358

For busbars mm	Number of poles	Packs of	Part No.
50 x 10	3/4-pole	1	9674.435
60 x 10	3/4-pole	1	9674.436
80 x 10	3/4-pole	1	9674.438
100 x 10	3/4-pole	1	9674.430



Switch-disconnector-fuse section



Distribution busbar for switch-disconnector-fuse section

Distribution busbar to fit the main busbar systems Maxi-PLS and Flat-PLS for installation in the switch-disconnector-fuse sections.

Material:

E-Cu

Also required:

- Busbar support for switch-disconnector-fuse section, see page 357
- End support for switch-disconnector-fuse section, see page 357
- Terminal block, distribution busbar, see page 359

For enclosure height 79" (2000 mm)

Size mm	Length mm	Packs of	Part No.
50 x 10	1632.5	1	9674.405
60 x 10	1632.5	1	9674.406
80 x 10	1632.5	1	9674.408
100 x 10	1632.5	1	9674.400

For enclosure height 87" (2200 mm)

Size mm	Length mm	Packs of	Part No.
50 x 10	1832.5	1	9674.425
60 x 10	1832.5	1	9674.426
80 x 10	1832.5	1	9674.428
100 x 10	1832.5	1	9674.420



Switch-disconnector-fuse section

Connection bracket

for switch-disconnector-fuse section

For connecting Maxi-PLS or Flat-PLS main busbar systems to distributor busbar systems of the switch-disconnector-fuse sections, no drilling required.

Material: E-Cu

Configuration: Assembly parts

Also required:

- Maxi-PLS contact makers, 60 mm, see page 319
- Flat-PLS contact makers, 60 mm, see page 327
- Terminal block, distribution busbar, see below



For enclosure depth 24" (600 mm)

For system	For application	For conductor	Packs of	Part No.
Flat-PLS 60	Roof section/base section	L1, L2, L3	1 set	9674.451
Flat-PLS 60	Roof section/base section	N	1 set	9674.452
Flat-PLS 100	Roof section/base section	L1, L2, L3	1 set	9674.455
Maxi-PLS 1600/2000	Roof section/base section	L1, L2, L3	1 set	9674.441
Maxi-PLS 1600/2000	Roof section/base section	N	1 set	9674.442
Maxi-PLS 1600/2000	Rear section top/bottom	L1, L2, L3	1 set	9674.461
Maxi-PLS 1600/2000	Rear section top/bottom	N	1 set	9674.462
Maxi-PLS 3200	Roof section/base section	L1, L2, L3	1 set	9674.445

For enclosure depth 32" (800 mm)

For system	For application	For conductor	Packs of	Part No.
Flat-PLS 60	Roof section/base section	L1, L2, L3	1 set	9674.453
Flat-PLS 60	Roof section/base section	N	1 set	9674.454
Flat-PLS 60	Rear section top/bottom	L1, L2, L3	1 set	9674.473
Flat-PLS 60	Rear section top/bottom	N	1 set	9674.474
Flat-PLS 100	Roof section/base section	L1, L2, L3	1 set	9674.457
Flat-PLS 100	Roof section/base section	N	1 set	9674.458
Flat-PLS 100	Rear section top/bottom	L1, L2, L3	1 set	9674.477
Flat-PLS 100	Rear section top/bottom	N	1 set	9674.478
Maxi-PLS 1600/2000	Roof section/base section	L1, L2, L3	1 set	9674.443
Maxi-PLS 1600/2000	Roof section/base section	N	1 set	9674.444
Maxi-PLS 1600/2000	Rear section top/bottom	L1, L2, L3	1 set	9674.463
Maxi-PLS 1600/2000	Rear section top/bottom	N	1 set	9674.464
Maxi-PLS 3200	Roof section/base section	L1, L2, L3	1 set	9674.447
Maxi-PLS 3200	Roof section/base section	N	1 set	9674.448
Maxi-PLS 3200	Rear section top/bottom	L1, L2, L3	1 set	9674.467
Maxi-PLS 3200	Rear section top/bottom	N	1 set	9674.468

Terminal block, distribution busbar

for switch-disconnector-fuse section

For connecting the connection brackets to the distribution busbar system of the switch-disconnector-fuse section, no drilling required.

Material:

E-Cu

Configuration:

Assembly parts

Detailed drawings:

Available at www.rittal-corp.com

For bar width mm	Packs of	Part No.
50/60	1	9674.485
80/100	1	9674.488

Also required:

- Connection bracket for switch-disconnector-fuse section, see above
- Distribution busbar for switch-disconnector-fuse section, see page 358





Air circuit breaker

Power

UPS – Power Modular Concept

PMC 12, single-phase, output range 1 – 12 kVA n+1	362
PMC 12 accessories	363

UPS – Three phase modular

Three phase modular UPS	365
Three phase modular UPS accessories	366

Power Distribution Units (PDU)

Basic PDU	367
Metered PDU	368
Smart PDU	369
Switched PDU	370
PDU accessories	372



UPS – Power Modular Concept



Battery packs Page 363

Double conversion technology to the highest classification VFI-SS-111.

- Configuration:**
- Single-phase UPS system
 - Operating manual
 - Software on CD-ROM
 - RS232 cable
 - For 1 – 3 kVA: UPS, grounding-pin connection cable, USB cable

Technical information:
Available at www.rittal-corp.com

Photo shows a configuration with equipment not included in the base part number

PMC 12, single-phase, output range 1 – 12 kVA n+1

UPS		UPS with integral internal hot swap-compatible batteries					
Part No.		9978.416	9978.417	9978.418	7857.430	7857.431	7857.432
Width x height		19" x 2 U (440 mm x 88 mm)					
Depth inches (mm)		16 (405)	26 (650)	26 (650)	16 (405)	26 (650)	26 (650)
Weight lb (kg)		34.6 (15.7)	64 (29)	64 (29)	34.6 (15.7)	64 (29)	64 (29)
Power	VA	1000	2000	3000	1000	2000	3000
	Watts	800	1600	2400	800	1600	2400
	Max. heat loss (W)	105	210	252	105	210	252
Input	Rated voltage	110 V (60 – 144 V)			230 V (160 – 288 V)		
	Frequency	50/60 Hz ±5%					
	Power factor	> 0.99 with linear load					
Output	Voltage	110 V ≤ ±1% (100/110/115/120/127 V adjustable)			230 V ≤ ±1% (200/208/220/230/240 V adjustable)		
	Frequency, synchronised	±1 Hz					
	Efficiency, AC mode	85%	85%	88%	88%	88%	90%
	Power factor	0.8					
Battery 5 years EUROBAT	Autonomy at 100% load	≥ 7 min.	≥ 7 min.	≥ 5 min.	≥ 7 min.	≥ 7 min.	≥ 5 min.
Communication	Interface	1 x USB, 1 x RS232					
	SNMP	Optional network monitoring card 7857.420/relay card 7857.410					
	Operating systems supported	Windows, Unix, Linux, Novell, Apple					
	Emergency Power Off (EPO)	Included					
Connection	Input connection	110 V, 10 A C14		110 V, 16 A C20	230 V, 10 A C14		230 V, 16 A C20
	Output connection	110 V, 6 x 5-15R	110 V, 2 x 5-15R, 2 x 5-20R	110 V, 4 x 5-15R, 1 x L5-30R	230 V, 6 x 10 A, C13, 2 units switched		230 V, 4 x 10 A, C13, 2 units switched, 1 x 16 A, C19
Standards and certifications	Power	IEC/EN 62 040-3					
	EMC	EN 50 091-2/EN 62 040-2 class A, EN 61 000-4-2/-3/-4/-6-8/-11, EN 61 000-3-2/-3					
	Labelling	UL, cUL, FCC			CE, FCC		
Accessories							
Battery pack PMC 12		see page 363					

Battery packs

To operate or increase the power of PMC 12 UPS systems. With overload protection. Vertical siting is also possible. Battery packs are "hot plug"-compatible (replacement of batteries while operational). Batteries can be exchanged from the front, without removing the battery pack from the 19" (482.6 mm) level. Depending on the UPS version, 2 – 3 battery packs may be connected together to increase the autonomy. Cooling of the UPS and the battery packs is absolutely essential.

Material:

Maintenance-free lead gel accumulators, service life 5 years (to EUROBAT)

Configuration:

- Fully preassembled and populated with accumulators (12 V/7 Ah)
- 20" (500 mm) connection cable with connector
- Feet

Note:

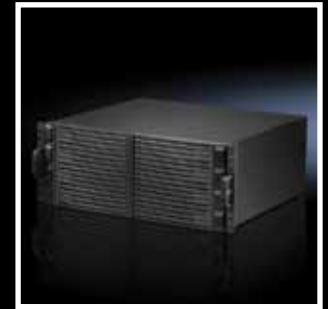
For mounting in the 19" (482.6 mm) rack, a slide rail 7063.883 is required.

Battery packs:

UPS PMC 12 system (UL,cUL, FCC)	9978.416	9978.417	9978.418
UPS PMC 12 system (CE, FCC)	7857.430	7857.431	7857.432
Part No.	7857.435	7857.437	7857.437
Height U (mm)	2 U (89)	2 U (89)	2 U (89)
Width inches (mm)	18 (465)	18 (465)	18 (465)
Depth inches (mm)	26 (650)	26 (650)	26 (650)
Weight lb (kg)	44 (20)	44 (20)	44 (20)
Qty.	6	6	6

Autonomy (min.) at 100% load:

UPS type	In supplied state	Battery packs	
		1	2
1 kVA	7 min.	28 min.	55 min.
2 kVA	7 min.	17 min.	29 min.
3 kVA	5 min.	12 min.	20 min.



Mechanical maintenance bypass

for PMC 12

Facilitates uninterrupted removal/maintenance of the UPS. Connection of the bypass for 1 – 3 kVA UPS models is via a connector (Plug & Play). It is important to ensure the correct prefuse of the UPS bypass depending on the UPS power used.

Dimensions:

W x H x D – U/inch (mm):
– 2 U x 19 x 3 (88 x 465 x 80)

	Part No.
1 – 3 kVA (incl. UPS fuse 16 A)	7857.440



UPS – Power Modular Concept

PMC 12 accessories



Relay card for PMC 12

This card allows the UPS alarm messages (5 UPS alarms) to be forwarded to external indicator devices (e.g. building services management) via floating contacts. The card is plugged into the extension slot on the rear of the PMC 12 UPS.

Note:

Cannot be used together with the SNMP card.

Packs of	Part No.
1	7857.410



UPS monitoring card (SNMP card)

This optional monitoring card facilitates monitoring of the UPS via Web browsers. In this way, various monitoring states of the UPS (e.g. input voltage, output currents/power per phase, battery charging status, autonomies etc.) may be remotely monitored. However, the main application is a controlled server shutdown via the network interface.

Design	Packs of	Part No.
SNMP card, budget version	1	7857.420
SNMP card CS121 with swtiching contacts	1	7857.366

Note:

Only one extension card may be installed per UPS system. Redundant monitoring solutions for UPS systems available on request.



Extended battery module Page 366 Rack power module Page 366

Designed specifically for high-density computing environments, the modular UPS delivers 12 kW of efficient, reliable power in only 6 U of rack space, including batteries. Expand capacity by combining 12 kW modules in a building block fashion to deliver 60 kW of redundant backup power from a single rack enclosure. The

standard internal batteries provide needed ride-through power until an auxiliary power source takes over or systems are gracefully shut down. Extend runtime up to 34 minutes at full load (or 76 minutes at half load) with Extended Battery Modules (see page 366).

Features

- Conserves rack space with 12 kW of power in 6U of rack height, including batteries
- Enables building-block upgrades from 12 kW to 60 kW in a single rack enclosure

- Simplifies installation and service with true plug-and-power connections and hot-swappable batteries and electronics modules
- Increases battery life through ABM® technology, resulting in more uptime and fewer battery replacements

Version	Stand Alone	Modular	Page
Height U (mm)	6 U (267)	6 U (267)	
Width inches (mm)	17 (442)	17 (442)	
Depth inches (mm)	26 (660)	26 (660)	
Weight lb (kg)	307 (140)	307 (140)	
Part No.	9971.057	9971.056	
Capacity	12 kW		
Efficiency	Up to 97%		
Heat Dissipation	371W at 100%		
Input Voltage	208 Vac		
Voltage Range	180 to 265 Vac		
Frequency Range	50 or 60 Hz ± 5 Hz		
Input Requirements	Three-phase, four wire + ground		
Rated Output Voltage	208V model: 180 to 225 Vac, Ph to Ph		
Certifications	UL 1778, cUL		
Accessories			
Top Entry Bus Bar	–	9963.616	–
Bottom Entry Bus Bar	–	9963.617	–
Universal Wireway	–	9963.618	–
Rittal Rack Power Module (RPM)	9961.453		366
SNMP Card	9970.882		–
Extended Battery Modules (Max of 4 per UPS module)	9971.058		366

Three phase modular UPS

Accessories



Extended Battery Module, 3 U

Connect to UPS using Anderson Connector. Up to four units can be connected together to extend runtime

Packs of	Part No.
1	9971.058

Color:
RAL 9005 black

Modular UPS Typical Battery Runtime (In Minutes)

Single Module		Internal Battery	+ 1 EBMs	+ 2 EBMs	+ 3 EBMs	+ 4 EBMs
Load kW	Load %					
1.6	13%	55	118	183	253	329
2.4	20%	37	78.3	119	163	211
4	33%	23	46	69	94	120
6	50%	13	30	44	59	76
8	67%	9	21	32	43	54
9.6	80%	6.9	17	26	34	44
12	100%	4.8	12	20	27	34

Modular UPS Typical Battery Runtime (Parallel UPS, In Minutes)

Number of UPS Modules	Total Load kW	Configuration	Internal Battery	+ 1 EBMs	+ 2 EBMs	+ 3 EBMs	+ 4 EBMs
6	60	N+1	6	15	22	29	37
5	48	N+1	6.9	17	26	34	44
4	36	N+1	18	28	37	47	47
3	24	N+1	9	21	32	43	54
2	12	N+1	13	30	44	59	76



Rack Power Module, 3 U

Delivers output power of the modular UPS with configurable input connections, output receptacle plates, metering choices, and surge suppression.

Packs of	Part No.
1	9961.453

Color:
RAL 9005 black

Product selection:

- Choose from one of four input connectors
- Select a power cord
- Choose two output receptacle plates from the table below

Output Receptacle	Voltage	Connector Amps	Output Amps	Max kW Output Per Receptacle	Receptacles Per Plate
NEMA L21-20R	208	20	16	5.8	2
NEMA L21-30R	208	30	24	8.6	2
NEMA L6-15R	208	15	12	2.5	3
NEMA L6-20R	208	20	16	3.3	3
NEMA L6-30R	208	30	24	5.0	3
NEMA 5-15R	120	15	12	1.4	6
NEMA 5-20R	120	20	16	1.9	6
NEMA L14-20R	208	20	16	3.3	3
NEMA L14-30R	208	30	24	5.0	3
IEC320-C13 ¹⁾	208	15	12	2.5	12
IEC320-C19 ²⁾	208	20	16	3.3	6

¹⁾ Four C13 receptacles installed on each 15A breaker. Total capacity of each breaker is 2.5 kW. Do not exceed maximum breaker rating when powering multiple loads.

²⁾ Two C19 receptacles installed on each 20A breaker. Total capacity of each breaker is 3.3 kW. Do not exceed maximum breaker rating when powering multiple loads.

Power Distribution Units (PDU)

Basic, Metered, Smart, and Switched

Blade servers and high density computing power requirements continue to increase, creating heat expansion and more challenges for managing the IT environment.

To maintain their competitive advantage, data center managers need SNMP-based solutions that monitor, track and manage servers, IT equipment and the equipment cabinet infrastructure that houses them.

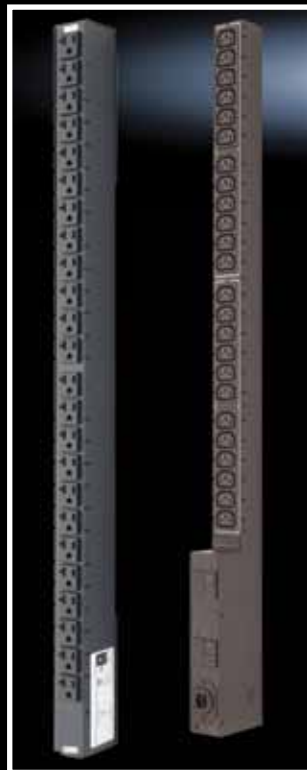


Basic PDU

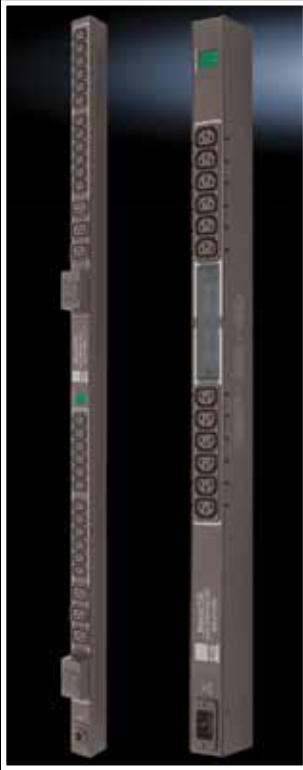
Basic PDU products provide reliable power distribution for equipment racks and other data center applications by offering different input and output connections to distribute 110V or 208V power and 20 or 30 Amp power input feed.

Criteria for Branch Circuit Protection is met by the use of UL-listed fuses or breakers, with 30 Amp models featuring a combination of white and black outlets to easily distinguish between each branch circuit.

Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	L x W x H inches (mm)	Part No.
120V	20	5-20	12	C20	-	1.75 x 17 x 2.25 (44 x 482 x 57)	9970.843
120V	20	5-20	24	C20	-	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9970.847
120V	30	5-20	12	L5-30	-	1.75 x 17 x 2.25 (44 x 482 x 57)	9970.844
120V	30	5-20	24	L5-30	-	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9970.848
208V	20	C13	12	C20	-	1.75 x 17 x 2.25 (44 x 482 x 57)	9970.845
208V	20	C13	24	C20	Breaker	34 x 1.75 x 3.5 (864 x 44 x 89)	9978.440
208V	30	C13	12	L6-30	-	1.75 x 17 x 2.25 (44 x 482 x 57)	9970.846
208V	30	C13	24	L6-30	Breaker	34 x 1.75 x 3.5 (864 x 44 x 89)	9978.441



Power Distribution Unit



Metered PDU

Metered PDU products provide reliable power distribution for all the devices in your equipment cabinet, from 2,000 to 6,000 Watts.

Metered units are available in 20 or 30 Amps, 120 or 208 Volts single-phase. Local input current monitoring allows the installation engineer to verify the combined load on the circuit.

Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	L x W x H inches (mm)	Part No.
120V	20	5-20	10	C20	–	1.75 x 17 x 5 (44 x 432 x 127)	9963.678
120V	20	5-20	12	C20	Fuse	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9963.670
120V	20	5-20	24	C20	Fuse	54 x 1.75 x 2.25 (1372 x 44 x 57)	9963.674
120V	30	5-20	10	L5-30	–	1.75 x 17 x 5 (44 x 432 x 127)	9963.679
120V	30	5-20	12	L5-30	Fuse	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9963.671
120V	30	5-20	24	L5-30	Fuse	54 x 1.75 x 2.25 (1372 x 44 x 57)	9963.675
208V	20	C13	12	C20	–	1.75 x 17 x 5 (44 x 432 x 127)	9963.680
208V	20	C13	12	C20	Fuse	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9963.672
208V	20	C13, C19	24, 6	C20	Breaker	54.1 x 1.75 x 3.38 (1374 x 44 x 86)	9978.442
208V	30	C13	12	L6-30	–	1.75 x 17 x 5 (44 x 432 x 127)	9963.681
208V	30	C13	24	L6-30	–	1.75 x 17 x 5 (44 x 432 x 127)	9978.444
208V	30	C13	12	L6-30	Fuse	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9963.673
208V	30	C13, C19	24, 6	L6-30	Breaker	54.1 x 1.75 x 3.38 (1374 x 44 x 86)	9978.443

Power Distribution Unit

Smart PDU

Smart PDU products provide reliable power distribution combined with remote power and environmental monitoring for 4,000 to 20,000 Watts. Smart units are available in 20, 30, 50, or 60 Amps, 120 or 208 Volts single-phase, 208 Volts three-phase. Use the network interface to view power, temperature and humidity levels via a Web browser, or receive SNMP-based alarms when conditions exceed defined thresholds.

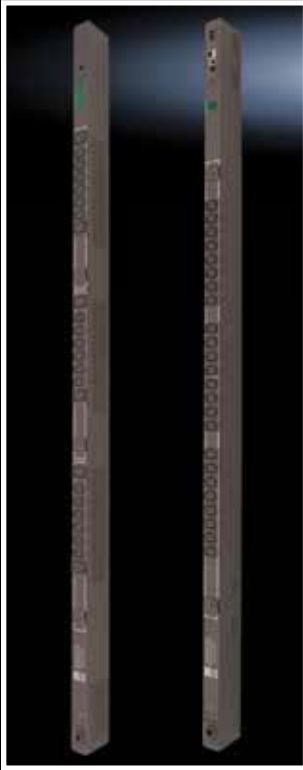
PIPS – Per Inlet Power Sensing – PDUs provide power monitoring per inlet/infeed and includes current, voltage, power, apparent power, crest factor, reactance, power factor and accumulated energy. This information replaces branch circuit monitoring devices typically installed in the power distribution panel or remote power panel (RPP) with higher accuracy and lower cost monitoring of each circuit attached to the PDU.

Voltage	Amps	Receptacles	No. of receptacles	Plug	Overcurrent protection	L x W x H inches (mm)	Master/Expansion	Part No.
208V	20	C13, C19	24, 6	C20	Breaker	60 x 1.75 x 3.38 (1524 x 44 x 86)	Master	9978446¹⁾
208V	20	C13, C19	24, 6	C20	Breaker	60 x 1.75 x 3.38 (1524 x 44 x 86)	Expansion	9978445¹⁾
208V	30	C13, C19	24, 6	L6-30	Breaker	60 x 1.75 x 3.38 (1524 x 44 x 86)	Master	9978448¹⁾
208V	30	C13, C19	24, 6	L6-30	Breaker	60 x 1.75 x 3.38 (1524 x 44 x 86)	Expansion	9978447¹⁾
208 3P Delta	30	C13	24	L15-30	Fuse	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9971104
208 3P Delta	30	C13	24	L15-30	Fuse	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9971105
208 3P Delta	50	C13, C19	12, 12	Cord set	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978450
208 3P Delta	50	C13, C19	12, 12	Cord set	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978449
208V 3P Delta	50	L6-30	6	Cord set	Breaker	3.5 x 17 x 10 (89 x 432 x 254)	Master	9978452
208V 3P Delta	50	L6-30	6	Cord set	Breaker	3.5 x 17 x 10 (89 x 432 x 254)	Expansion	9978451
208V 3P Delta	60	L6-30	6	Cord set	Breaker	3.5 x 17 x 10 (89 x 432 x 254)	Master	9978459
208V 3P Delta	60	L6-30	6	Cord set	Breaker	3.5 x 17 x 10 (89 x 432 x 254)	Expansion	9978457
208 3P Delta	60	C13, C19	12, 12	Cord set	Breaker	69 x 1.75 x 3.5 (1524 x 44 x 89)	Master	9978455
208 3P Delta	60	C13, C19	12, 12	Cord set	Breaker	69 x 1.75 x 3.5 (1524 x 44 x 89)	Expansion	9978453
208 3P Wye	20	5-20, C13, C19	12, 9, 9	L21-20	Breaker	68 x 2 x 3.23 (1728 x 51 x 82)	Master	9971112
208 3P Wye	20	5-20, C13, C19	12, 9, 9	L21-20	Breaker	68 x 2 x 3.23 (1728 x 51 x 82)	Expansion	9971113
208 3P Wye	30	5-20, C13, C19	12, 9, 9	L21-30	Breaker	68 x 2 x 3.23 (1728 x 51 x 82)	Master	9971110
208 3P Wye	30	5-20, C13, C19	12, 9, 9	L21-30	Breaker	68 x 2 x 3.23 (1728 x 51 x 82)	Expansion	9971111
208 3P Wye	30	C13	24	L21-30	Fuse	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9971106
208 3P Wye	30	C13	24	L21-30	Fuse	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9971107
208 3P Wye	60	C13, C19	12, 12	Cord set	Breaker	69 x 1.75 x 3.5 (1524 x 44 x 89)	Master	9978456
208 3P Wye	60	C13, C19	12, 12	Cord set	Breaker	69 x 1.75 x 3.5 (1524 x 44 x 89)	Expansion	9978454
208 3P Wye	60	L6-30	6	Cord set	Breaker	3.5 x 17 x 10 (89 x 432 x 254)	Master	9978460
208 3P Wye	60	L6-30	6	Cord set	Breaker	3.5 x 17 x 10 (89 x 432 x 254)	Expansion	9978458
415	20	C13	24	IEC Red 6Hr 3P+N+G	Fuse	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978462
415	20	C13	24	IEC Red 6Hr 3P+N+G	Fuse	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978461
415	30	C13	24	L22-30	Fuse	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978464
415	30	C13	24	L22-30	Fuse	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978463

¹⁾ Includes PIPS



Power Distribution Unit



Switched PDU

Switched PDU products are flagship PDUs with remote monitoring and management, including reboot commands for connected servers and network equipment. The Switched PDU products provide complete lights-out management of a data center and remote branch office.

Switched PDUs combine remote configuration and management with power distribution and power and environmental monitoring. Features of switched PDUs include the ability to reboot a single or dual-power server with one command, receive SNMP alerts when power or environmental conditions exceed thresholds, and assign users specific access rights to designated outlets or groups. Only the Switched PDU products provide the flexibility needed for all data centers and remote sites, including power requirements for high-amperage, high-voltage; branch circuit protection; SSL & SSH security; and SNMP-based input current monitoring.

PIPS – Per Inlet Power Sensing – PDUs provide power monitoring per inlet/infeed including current, voltage, power, apparent power, crest factor, reactance, power factor and accumulated energy. This information replaces branch circuit monitoring devices typically installed in the power distribution panel or remote power panel (RPP) with higher accuracy and lower cost monitoring of each circuit attached to the PDU.

POPS – Per Outlet Power Sensing – PDUs provide information per individual outlet, including current load (A), voltage (V), power (kW), apparent power (VA), crest factor, and power factor. Using our grouping technology, power information is available per device, groups of devices (application), individual PDU or the entire cabinet.

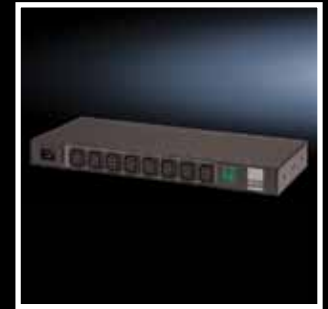
Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	L x W x H inches (mm)	Master/Expansion	Part No.
208-240V	30	C13	8	L6-30	Fuse	64 x 1.75 x 3.5 (1626 x 44 x 89)	Master	9978472
208-240V	30	C13	8	L6-30	Fuse	64 x 1.75 x 3.5 (1626 x 44 x 89)	Expansion	9978471
208-240V	30	C13	16	L6-30	Fuse	69 x 1.75x 2.25 (1753 x 44 x 57)	Master	9978468¹⁾
208-240V	30	C13	16	L6-30	Fuse	69 x 1.75x 2.25 (1753 x 44 x 57)	Expansion	9978465¹⁾
208-240V	30	C13	24	L6-30	Breaker	69 x 1.75x 2.25 (1753 x 44 x 57)	Master	9978469¹⁾
208-240V	30	C13	24	L6-30	Breaker	69 x 1.75x 2.25 (1753 x 44 x 57)	Expansion	9978466¹⁾
208-240V	30	C13, C19	18, 6	L6-30	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978470²⁾
208-240V	30	C13, C19	18, 6	L6-30	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978467²⁾
208V 3P Delta	20	C13	24	L15-20	Fuse	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9970773
208V 3P Delta	20	C13	24	L15-20	Fuse	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9970774
208V 3P Delta	30	C13	24	L15-30	Fuse	69 x 3.5 x 3.5 (1753 x 89 x 89)	Master	9970777
208V 3P Delta	30	C13	24	L15-30	Fuse	69 x 3.5 x 3.5 (1753 x 89 x 89)	Expansion	9970778
208V 3P Delta	30	C13, C19	18, 6	L15-30	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978475²⁾
208V 3P Delta	30	C13, C19	18, 6	L15-30	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978473²⁾
208V 3P Delta	50	C13, C19	12, 12	CS8365C	Breaker	69 x 3.5 x 3.5 (1753 x 89 x 89)	Master	9978479
208V 3P Delta	50	C13, C19	12, 12	CS8365C	Breaker	69 x 3.5 x 3.5 (1753 x 89 x 89)	Expansion	9978477
208V 3P Delta	50	C13	48	Cord Set	Breaker	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978480
208V 3P Delta	50	C13	48	Cord Set	Breaker	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978478
208V 3P Delta	60	C13, C19	12, 12	IEC Blue 9hr 3P+G	Breaker	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978487
208V 3P Delta	60	C13, C19	12, 12	IEC Blue 9hr 3P+G	Breaker	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978481
208V 3P Delta	60	C13	48	Cord Set	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978489
208V 3P Delta	60	C13	48	Cord Set	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978483

¹⁾Includes PIPS

Switched PDU (continued)

Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	L x W x H inches (mm)	Master/Expansion	Part No.
208V 3P Wye	20	C13	24	L21-20	Fuse	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9970771
208V 3P Wye	20	C13	24	L21-20	Fuse	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9970772
208V 3P Wye	30	C13	24	L21-30	Fuse	69 x 3.5 x 3.5 (1753 x 89 x 89)	Master	9970775
208V 3P Wye	30	C13	24	L21-30	Fuse	69 x 3.5 x 3.5 (1753 x 89 x 89)	Expansion	9970776
208V 3P Wye	30	C13, C19	18, 6	L21-30	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978476²⁾
208V 3P Wye	30	C13, C19	18, 6	L21-30	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978474²⁾
208V 3P Wye	60	C13, C19	12, 12	IEC Blue 9hr 3P+N+G	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978488
208V 3P Wye	60	C13, C19	12, 12	IEC Blue 9hr 3P+N+G	Breaker	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978482
208V 3P Wye	60	C13	48	Cord Set	Breaker	69 x 3.5 x 3.5 (1753 x 89 x 89)	Master	9978490
208V 3P Wye	60	C13	48	Cord Set	Breaker	69 x 3.5 x 3.5 (1753 x 89 x 89)	Expansion	9978486

²⁾ Includes PIPS/POPS



Power Distribution Unit

Accessories



Temperature/Humidity Sensor

118" (3000 mm) cord with temperature and humidity probe. Plugs into a Smart/Switched Master PDU.

Cable length inches (mm)	Packs of	Part No.
118 (3000)	1	9970.815

Replacement Power Cord for 20 Amp PDUs

Receptacles	Length inches (mm)	Packs of	Part No.
C19/L6-20P	177 (4500)	1	9970.811
C19/L5-20P	98 (2500)	1	9970.812
C19/5-20P	98 (2500)	1	9970.813
C19/5-15P	118 (3000)	1	9970.814

Equipment Power Cord For connection of server to PDU

Receptacles	Length inches (mm)	Packs of	Part No.
C13/C13	79 (2000)	8	9970.816

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The industry's best, most sought-after enclosures and accessories are now available as part of the industry's best support program. RittalXpress features an extensive stocking program, a custom modification program and fast and efficient shipping.

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Experts in climate control

Rittal, the world leader in providing exceptionally effective, energy-saving and environmentally-friendly climate control solutions precisely tailored to the customer's individual requirements is dedicated to providing optimum value to its customers. This commitment brings with it:

Planning and engineering

- Therm climate calculation software for requirement-based dimensioning
- Rittal system consulting for optimized cost and energy efficiency

Products

- Energy-saving enclosure climate control for all ambient conditions in the industrial sector
- Effective, application-oriented product solutions for machine and process cooling
- Efficient, cost-saving IT climate control concepts, from individual server enclosures through to high-MTBF data centers

Service

- Contiguous global delivery and service network
- Global spare parts service
- Accredited laboratories for testing and simulation of climate conditions





Cooling with ambient air

TopTherm filter fans/exhaust

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TopTherm filter fan/exhaust



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Protection rating:

NEMA 12/IP 54 standard,
IP 55 with additional fine filter mat
NEMA 3R/4/4X/IP 56 with hose-
proof hood

Part number crossover:

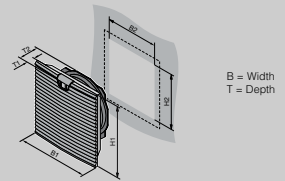
Crossover table for previous
generation filter fans, see page
843.

Certifications:

CE - 3527009
UL/cUL - E76083
CSA - 2460966

Performance diagrams:

Available at www.rittal-corp.com



Air Displacement: 12 - 39 cfm (20 - 66 m³/h)

Part No. (Filter Fan and Filter Unit)	3237.100	3237.110	3237.124	3238.100	3238.110	3238.124
Part No. (Filter Fan and Filter Unit - EMC)	3237.600	3237.610	-	3238.600	3238.610	-
Rated operating voltage V, Hz	230, 50/60	115, 50/60	24 (DC)	230, 50/60	115, 50/60	24 (DC)
Dimensions inches (mm)	B1/H1 5 x 5 (116.5 x 116.5)			6 x 6 (148.5 x 148.5)		
	B2/H2 4 x 4 (92 x 92)			5 x 5 (124 x 124)		
	T1 1 (16)			1 (16)		
Max. install depth inches (mm)	T2 2 (43)			2 (58.5)		
Air throughput, unimpeded air flow	12/15 cfm (20/25 m ³ /h)		12 cfm (20 m ³ /h)	32/39 cfm (55/66 m ³ /h)		32 cfm (55 m ³ /h)
Air throughput with outlet filter including standard filter mat	1 x 3237.200: 9/11 cfm (15/18 m ³ /h)			1 x 3238.200: 25/29 cfm (43/50 m ³ /h) 2 x 3238.200: 27/33 cfm (46/56 m ³ /h)		
Fan motor	Self-starting shaded pole motor		DC motor	Self-starting shaded pole motor		DC motor
Rated current	0.065 A/0.052 A	0.12 A/0.1 A	0.125 A	0.12 A/0.11 A	0.24 A/0.22 A	0.23 A
Power consumption	11 W/9 W		3 W	19 W/18 W		5.5 W
Pre-fuse	2 A					
Noise level	38/43 dB (A)		38 dB (A)	46/49 dB (A)		46 dB (A)
Operating temperature range F° (C°)	5 to 131° F (-15 to +55° C)					
Storage temperature range F° (C°)	-22 to 158° F (-30 to +70° C)					
Color	RAL 7035					
Part No. outlet filter	3237.200			3238.200		
Part No. outlet filter - EMC	3237.060			3238.060		

Accessories	PU	Page			
Filter mats	5	3321.700		3322.700	483
Filter mats - EMC	5	3237.066		3238.066	483
Fine filter mats	5	-		3238.055	484
Hose-proof hood - 304 stainless steel	1	3237.080 ¹⁾		3238.080 ²⁾	485
Hose-proof hood - RAL 7035	1	3237.085 ¹⁾		3238.085 ³⁾	487
Blanking cover	1	3237.020		3238.020	839
Thermostat	1		3110.000		476
Digital temperature display	1		3114.200		475
Hygrostat	1		3118.000		476
Speed control	1		3120.200		477

¹⁾ UL Type 3R ²⁾ UL Type 4X ³⁾ UL Type 3R/4 Special voltages and colors available on request. We reserve the right to make technical modifications.

TopTherm filter fan/exhaust

Air Displacement: 62 - 71 cfm (105 - 120 m³/h)

Part No. (Filter Fan and Filter Unit)	3239.100	3239.110	3239.124
Part No. (Filter Fan and Filter Unit - EMC)	3239.600	3239.610	-
Rated operating voltage V, Hz	230, 50/60	115, 50/60	24 (DC)
Dimensions inches (mm)	B1/H1	8 x 8 (204 x 204)	
	B2/H2	7 x 7 (177 x 177)	
	T1	1 (24)	
Max. installation depth inches (mm)	T2	3.5 (90)	
Air throughput, unimpeded air flow	62/71 cfm (105/120 m ³ /h)		62 cfm (105 m ³ /h)
Air throughput with outlet filter including standard filter mat	1 x 3239.200: 51/59 cfm (87/100 m ³ /h) 2 x 3239.200: 55/64 cfm (93/108 m ³ /h) 1 x 3240.200: 58/65 cfm (98/111 m ³ /h)		
Diagonal fan	Self-starting shaded pole motor		DC motor
Rated current	0.12 A/0.11 A	0.24 A/0.22 A	0.23 A
Power consumption	19 W/18 W		5.5 W
Pre-fuse	2 A		
Noise level	46/49 dB (A)		46 dB (A)
Operating temperature range F° (C°)	-5 to 131° F (-15 to +55° C)		
Storage temperature range F° (C°)	-22 to 158° F (-30 to +70° C)		
Color	RAL 7035		
Part No. outlet filter	3239.200		
Accessories	PU		Page
Filter mats	5	3171.100	483
Filter mats - EMC	5	3239.066	483
Fine filter mats	5	3181.100	484
Hose-proof hood - Type 304 stainless steel	1	3239.080 ¹⁾	487
Hose-proof hood - RAL 7035	1	3239.085 ²⁾	487
Blanking cover	1	3239.020	485
Thermostat	1	3110.000	476
Digital temperature display	1	3114.200	475
Hygrostat	1	3118.000	476
Speed control	1	3120.200	477

¹⁾UL Type 4X

²⁾UL Type 3R/4

Special voltages and colors available on request. We reserve the right to make technical modifications.



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 www.rittal-corp.com

TopTherm filter fan/exhaust

Air Displacement: 106 - 147 cfm (180 - 250 m³/h)

Part No. (Filter Fan and Filter Unit)		3240.100	3240.110	3240.124	3241.100	3241.110	3241.124
Part No. (Filter Fan and Filter Unit - EMC)		3240.600	3240.610	-	3241.600	3241.610	-
Rated operating voltage V, Hz		230, 50/60	115, 50/60	24 (DC)	230, 50/60	115, 50/60	24 (DC)
Dimensions inches (mm)	B1/H1	10 x 10 (255 x 255)					
	B2/H2	9 x 9 (224 x 224)					
	T1	0.98 (25)					
Max. installation depth inches (mm)	T2	4.21 (107)					
Air throughput, unimpeded air flow		106/94 cfm (180/160 m ³ /h)		106 cfm (180 m ³ /h)	135/147 cfm (230/250 m ³ /h)		135 cfm (230 m ³ /h)
Air throughput with outlet filter including standard filter mat		1 x 3240.200: 81/71 cfm (138/121 m ³ /h) 2 x 3240.200: 97/82 cfm (165/140 m ³ /h) 1 x 3243.200: 97/82 cfm (165/140 m ³ /h)			1 x 3240.200: 108/120 cfm (183/205 m ³ /h) 2 x 3240.200: 119/135 cfm (203/230 m ³ /h) 1 x 3243.200: 119/135 cfm (203/230 m ³ /h)		
Diagonal fan		Self-starting shaded pole motor		DC motor	Self-starting shaded pole motor		DC motor
Rated current		0.21 A/0.19 A	0.42 A/0.38 A	0.43 A	0.26 A/0.24 A	0.52 A/0.48 A	0.78 A
Power consumption		35 W/34 W		11 W	40 W/42 W		19 W
Pre-fuse		2 A	4 A	2 A	4 A		2 A
Noise level		51/46 dB (A)		51 dB (A)	54/56 dB (A)		54 dB (A)
Operating temperature range F° (C°)		-22 to 131° F (-30 to +55° C)					
Storage temperature range F° (C°)		-22 to 158° F (-30 to +70° C)					
Color		RAL 7035					
Part No. outlet filter		3240.200					
Accessories		PU					Page
Filter mats	5	3172.100					483
Filter mats – EMC	5	3240.066					483
Fine filter mats	5	3182.100					484
Hose-proof hood - Type 304 stainless steel	1	3240.080 ¹⁾					487
Hose-proof hood - RAL 7035	1	3240.085 ²⁾					487
Blanking cover	1	3240.020					485
Thermostat	1	3110.000					476
Digital temperature display	1	3114.200					475
Hygrostat	1	3118.000					476
Speed control	1	3120.200					477

¹⁾ UL Type 4X

²⁾ UL Type 3R/4

Special voltages and colors available on request. We reserve the right to make technical modifications.

TopTherm filter fan/exhaust

Air Displacement: 323 - 453 cfm (550 - 770 m³/h)

Part No. (Filter Fan and Filter Unit)	3243.100	3243.110	3244.100	3244.110	3244.140
Part No. (Filter Fan and Filter Unit - EMC)	3243.600	3243.610	3244.600	3244.610	-
Rated operating voltage V, Hz	230, 50/60	115, 50/60	230, 50/60	115, 50/60	400/460, 3~, 50/60
Dimensions inches (mm)	B1/H1	13 x 13 (323 x 323)			
	B2/H2	12 x 12 (292 x 292)			
	T1	1 (25)			
Max. installation depth inches (mm)	T2	4½ (118.5)	5 (130.5)		
Air throughput, unimpeded air flow	323/353 cfm (550/600 m ³ /h)		412/424 cfm (700/770 m ³ /h)		
Air throughput with outlet filter including standard filter mat	1 x 3243.200: 259/289 cfm (440/490 m ³ /h) 2 x S243.200: 300/330 cfm (510/560 m ³ /h)		1 x 3243.200: 320/359 cfm (544/610 m ³ /h) 2 x 3243.200: 371/406 cfm (630/690 m ³ /h)		
Diagonal fan	1~ capacitor motor				Rotary current motor
Rated current	0.37 A/0.39 A	0.78 A/0.80 A	0.43 A/0.6 A	0.9 A/1.25 A	0.17 A/0.21 A
Power consumption	70 W/87 W	75 W/90 W	95 W/135 W	100 W/145 W	93 W/140 W
Pre-fuse	4 A	6 A	4 A	6 A	Motor circuit-breaker
Noise level	59/61 dB (A)		65/66 dB (A)		
Operating temperature range	-22 to 131° F (-30 to +55° C)				
Storage temperature range	-22 to 158° F (-30 to +70° C)				
Color	RAL 7035				
Part No. outlet filter	3243.200				
Part No. outlet filter – EMC	3243.060	-	3243.060	-	

Accessories	PU		Page
Filter mats	5	3173.100	483
Filter mats – EMC	5	3243.066	483
Fine filter mats	5	3183.100	484
Hose-proof hood - Type 304 stainless steel	1	3243.080 ¹⁾	487
Hose-proof hood - RAL 7035	1	3243.085 ²⁾	487
Blanking cover	1	3243.020	485
Thermostat	1	3110.000	476
Digital temperature display	1	3114.200	475
Hygrostat	1	3118.000	476
Speed control	1	3120.200	477

¹⁾ UL Type 4X

²⁾ UL Type 3R/4

Special voltages and colors available on request. We reserve the right to make technical modifications.

TopTherm filter fan/exhaust

Air Displacement: 1529 cfm (900 m³/h), with EC technology

Part No.	3245.500 ¹⁾		3245.600 ¹⁾		3245.510 ¹⁾	
EMC version	-		■		-	
Rated operating voltage V, Hz	230, 50/60				115, 50/60	
Dimensions inches (mm)	W x H	13 x 13 (323 x 323)				
	D (T1)	1 (25)				
Max. installation depth inches (mm)	D (T2)	5 (130.5)				
Air throughput with outlet filter including standard filter mat	1 x 3243.200: 406 cfm (680 m ³ /h)		1 x 3243.060: 406 cfm (680 m ³ /h)		1 x 3243.200: 06 cfm (680 m ³ /h)	
	2 x 3243.200: 483 cfm (820 m ³ /h)		2 x 3243.060: 483 cfm (820 m ³ /h)		2 x 3243.200: 483 cfm (820 m ³ /h)	
Diagonal fan	EC motor					
Rated current	1.25 A				2.5 A	
Power consumption	170 W					
Pre-fuse	4 A				6 A	
Noise level	72 dB (A)					
Operating temperature range	-22° F to +131° F (-30° C to +55° C)					
Storage temperature range	-22° F to +158° F (-30° C to +70° C)					
Protection rating						
Standard	IP 51					
With additional fine filter mat	IP 52					
With hose-proof hood	IP 56					
Accessories		PU				Page
SK outlet filter	1	3243.200	-		3243.200	485
SK outlet filter - EMC	1	-	3243.060		-	485
Spare filter mats	5	3173.100	3243.066		3173.100	483
Fine filter mats	5	3183.100				484
Hose-proof hood	1	3245.080				487
Blanking cover	1	3243.020				485
Enclosure internal thermostat	1	3110.000				476
Digital temp. display/thermostat	1	3114.200				475
Hygrostat	1	3118.000				476
Speed control/monitoring	1	3235.440 ²⁾				477

¹⁾ 0 – 10 V input and tacho signal output

²⁾ On request.

Special voltages available on request. We reserve the right to make technical modifications.

19" (482.6 mm) rack-mounted fan



Climate control accessories Page 471 Software & services Page 511

Configuration:

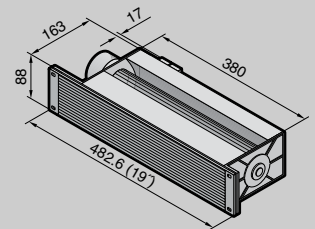
- Fully wired unit ready for connection
- Clamping strip and assembly parts

Guide frame configuration:

- Guide frame
- Connector and fitted connection cable, 118" (3000 mm)
- Mounting bracket for optional attachment to the 19" (482.6 mm) system
- Assembly parts

Detailed drawings:

Available at www.rittal-corp.com



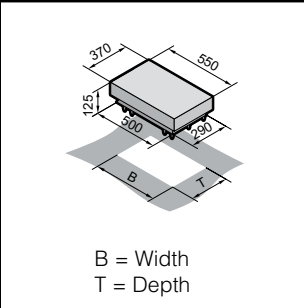
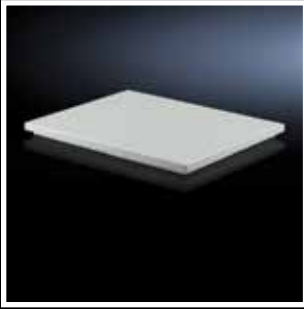
Centrifugal fans, air throughput: 188 cfm (320 m³/h)

Part No.	3145.000	3144.000
Rated operating voltage V, Hz	115, 50/60	230, 50/60
Dimensions inches (mm) W x H x D	19 x 2 U x 6 (482.6 x 88 x 158)	
Air throughput, unimpeded air flow	188 cfm (320 m ³ /h)	
Rated current max.	0.32 A	0.16 A
Power	37 W	
Noise level	52 dB (A)	
Speed	2245 rpm	
Operating temperature range	14° F to +131° F (-10° C to +55° C)	
Maximum static pressure difference	65 - 70 Pa	

Accessories	PU		Page
Digital temp. display/thermostat	1	3114.200	475
Enclosure internal thermostat	1	3110.000	476
Filter mats	5	3177.000	481
Front outlet grill 2 U	1	3176.000	485
Roof vent	1	3148.007	387
Speed control	1	3120.200	477

Special voltages available on request. We reserve the right to make technical modifications.

Fan system



RTT roof-mounted fan and vent attachment for TS

The active roof-mounted fan and the passive vent attachment (8801.380) integrate perfectly into the system-wide mounting concept of the Rittal TopTherm platform. They fit precisely onto the cutouts of the small and medium performance class of TopTherm roof-mounted cooling units. Of course, they may also be mounted on any sufficiently large roof surface. TS roof plates with prepared mounting cut-outs are additionally available.

Roof-mounted fan configuration:

- Unit ready for connection with built-in radial fan
- Sealing and assembly parts

Vent attachment:

See page 478

Protection rating:

IP 43 to EN 60 529, CSA Type 12, CE

Part No.	3149.410	3149.420	3149.440 ¹⁾	3149.810	3149.820	3149.840 ¹⁾	8801.380
Rated operating voltage V/Hz	115, 50/60	230, 50/60	400, 3~, 50/60 460, 3~, 60	115, 50/60	230, 50/60	400, 3~, 50/60 460, 3~, 60	Roof vent
Air throughput, unimpeded air flow	235 cfm (400 m ³ /h)			471 cfm (800 m ³ /h)			Without motor
Required mounting cut-out W x D inches (mm)	18.7 x 10.2 (475 x 260)						19.3 x 15.4 (490 x 390)
Power consumption of fan	120 W/170 W		95 W/140 W	170 W/225 W		180 W/310 W	–
Rated current of fan	1.1/1.6 A	0.55/0.88 A	0.35/0.35 A	1.5/2.2 A	0.75/1.1 A	0.35/0.55 A	–
Temperature range	13 to 131° F (–10 to +60° C)						
Noise level	68/69 dB (A)			69/70 dB (A)			
Weight lb (kg)	22 (10)			24 (11)			13 (6)
Color	RAL 7035 (light grey)						

Accessories

Roof plate 24 x 24" (600 x 600 mm) for TS 8 with cut-out	8801.300						8801.310
Roof plate 24 x 32" (600 x 800 mm) for TS 8 with cut-out	8801.320						8801.330
Roof plate 47 x 32" (1200 x 600 mm) for TS 8 with cut-out	–						8801.350
Digital temperature display	3114.200	–	–	3114.200	–	–	–
Speed control	3120.200	–	–	3120.200	–	–	–

¹⁾ CSA pending

Roof-mounted fan, roof ventilation

- The roof-mounted fan is easily installed using 6 screws. The sealing tape supplied can be used to seal it against the enclosure
- The assembly screws are invisible from the outside
- The roof-mounted fan casing has a large air outlet surface and labyrinth air ducting

Protection rating:

IP 43 to IEC 60 529. Via additional installation of the filter holder with filter mat 3175.000, a protection category of IP 44 is achieved with roof vent 3148.007. CSA Type 12.

Configuration:

- Unit ready for connection with built-in radial fan
- Sealing and assembly parts
- Connection cable 118" (3 m)
- Drilling template

Accessories:

Filter holder, see page 485

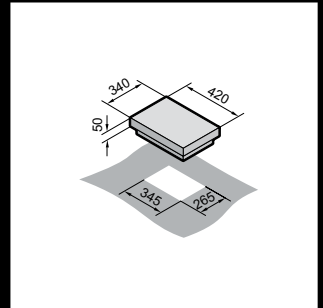
Detailed drawings:

Available at www.rittal-corp.com

Part No.	3149.007 ¹⁾	3169.007	3148.007 ¹⁾
Rated operating voltage V/Hz	230, 50/60	115, 50/60	Without fan motor
Air throughput	212 cfm (360 m³/h)		
Rated current max.	0.2 A	0.55 A	–
Power consumption	42 W	65 W	–
Temperature range	13 to 131° F (–10 to +60° C)		
Noise level	53 dB (A)		
Weight lb (kg)	1.7 (7.8)		
Color	RAL 7035 (light grey), textured enamel		

¹⁾ CSA pending

Special voltages available on request. We reserve the right to make technical modifications.



Roof-mounted fan for TS in the office environment

This new roof ventilation concept offers a wealth of performance, assembly and cost benefits associated with the use of integrated ventilation systems. This roof-mounted fan may be ordered with and without a roof plate. Another outstanding feature is the enormous volumetric flow in proportion to exceptionally low noise levels, making it ideal for use in sensitive office areas.

Technical specifications:

- Fitted onto a roof plate based on TS.
- Easy assembly; mounting cut-outs have been provided
- Radial fan

Configuration:

- Fully wired ready for connection
- Assembly parts

Detailed drawings:

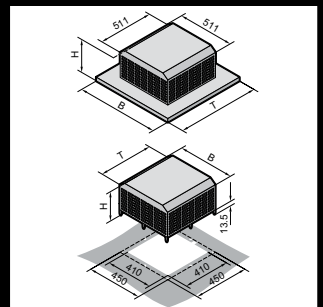
Available at www.rittal-corp.com

Part No.	3164.115	3164.230	3164.610	3164.620	Page
Rated operating voltage V, Hz	115, 50/60	230, 50/60	115, 50/60	230, 50/60	
Air throughput, unimpeded air flow	883 cfm (1500 m³/h)¹⁾				
Design	without roof plate		with roof plate		
Dimensions inches (mm)	W (B)	20 (511)	32 (800)		
	H	9 (227)	9 (240)		
	D (T)	20 (511)	32 (800)		
Power consumption	68 W/81 W				
Rated current	0.6 A/0.7 A	0.3 A/0.35 A	0.6 A/0.7 A	0.3 A/0.35 A	
Noise level	40 dB (A)				
Operating temperature range °F (°C)	+68° F to +131° F (+20° C to +55° C)				
Color	RAL 7035				

Accessories

Accessories	7109.035	7109.035	7109.035	7109.035	475
Temperature indicator in 1 U patch panel	7109.035	7109.035	7109.035	7109.035	475
Digital temperature display/thermostat	3114.200	3114.200	3114.200	3114.200	475
Enclosure internal thermostat	3110.000	3110.000	3110.000	3110.000	476

¹⁾ 800 m³/h at 40 Pa counterpressure using two integrated louvers, type 7825.801, in the enclosure base/plinth. Special voltages available on request. We reserve the right to make technical modifications.



Fan system



Enclosure internal fan for TS

To prevent hot-spots and support the air routing of active enclosure climate control components. Adjustable in two axes. Attached to the TS 8 frame section. Several fans may be cascaded using the quick-release clamping strip.

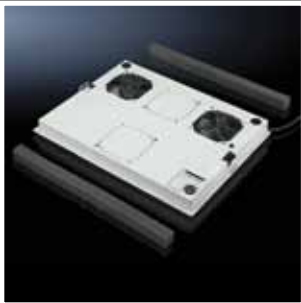
Configuration:

- Complete unit with radial fan ready for connection
- Snap-on pivot device
- Assembly parts

Air throughput (unimpeded air flow)	Power consumption W	Rated current A	Rated voltage V, Hz	Part No.
94 cfm (160 m³/h)	19.0/18.0	0.12/0.11	230, 50/60	3108.100
94 cfm (160 m³/h)	19.0/18.0	0.24/0.23	115, 50/60	3108.115
94 cfm (160 m³/h)	3.5	0.15	24 V (DC)	3108.024

Detailed drawings:

Available at www.rittal-corp.com



Fan tray for TS

The fan mounting panel may be retro-fitted in all TS 8 network enclosures from above. The plate is mounted at the front of the enclosure, and the rear section is left free for cable entry. A rubber cable clamp strip is supplied loose for optional sealing at the rear.

The following combinations are also possible:

- Solid roof plate raised with 0.75" or 2" (20 or 50 mm) roof spacers
- Roof plate for cable entry raised with 0.75" or 2" (20 or 50 mm) roof spacers
- Vented roof plate for cable entry

For enclosures		Number of fans	Max. number of fans	Part No.
Width inches (mm)	Depth inches (mm)			
24 (600)	24 (600)	2	4	7966.035
24 (600)	32 (800) 39 (1000) 47 (1200)	2	6	7968.035
32 (800)	24 (600)	2	6	7986.035
32 (800)	32 (800) 39 (1000) 47 (1200)	2	6	7988.035

Color:

RAL 7035

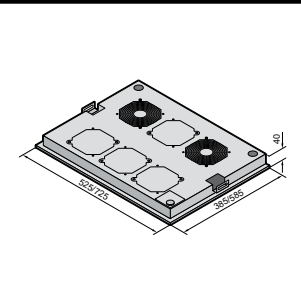
Configuration:

- 2 fans
- 2/4 cut-outs to extend to 4/6 fans
- Thermostat
- Foam rubber cable clamp strip
- Thermostat and fan fully wired to connection cable, 138" (3.5 m)

The air throughput can be increased with the fan expansion kit 7980.000.

Accessories:

- Fan expansion kit, see page 389
- Self-adhesive foam cable clamp strip 2573.000 for sealing at the sides and targeted air routing when bayed, see page 709



In conjunction with the large swing frame, usage is only possible from an enclosure depth of 32" (800 mm), in conjunction with a roof plate for cable entry from 39" (1000 mm).

Note:

- Not suitable for crane transportation
- Not suitable for combination with 19" (482.6 mm) mounting frame

Technical specifications for one fan:

- Rated operating voltage: 230 V
- Power consumption: 15/14 W at 50/60 Hz
- Air throughput (unimpeded air flow): 94/106 cfm (160/180 m³/h), 50/60 Hz
- Operating temperature range: +14° F to +131° F (–10° C to +55° C)

Technical specifications of thermostat:

- Rated operating voltage: 250 V
- Operating temperature range: +41° F to +131° F (+5° C to +55° C)

Mini-fan

Compact DC fan for enclosure and component cooling in enclosures.

Technical specifications:

- Rated operating voltage: 24 V (DC)
- Power consumption: 1 W
- Air throughput (unimpeded air flow): 12 cfm (21 m³/h)
- Noise level (unimpeded air flow): 20 dB (A)
- Operating temperature range: -4°F to +158°F (-20°C to +70°C)

Dimensions W x H x D inches (mm)	Packs of	Part No.
2 x 2 x 1 (60 x 60 x 25.4)	1	3236.124

Configuration:

- Fans
- Assembly screws
- Contact hazard protection



Fan expansion kit

For retro-fitting various fan units or to supplement the fan mounting panel and modular fan roof.

Technical specifications 7980.000:

- Rated operating voltage: 230 V~
- Power consumption: 15/14 W at 50/60 Hz
- Air throughput (unimpeded air flow): 94/106 cfm (160/180 m³/h), 50/60 Hz
- Noise level (unimpeded air flow): 37 dB (A)
- Operating temperature range: +14° F to +131° F (-10° C to +55° C)

Technical specifications 7980.100, 110:

- Rated operating voltage: 230 V~
- Power consumption: 14/12 W at 50/60 Hz
- Air throughput (unimpeded air flow): 64/71 cfm (108/120 m³/h), 50/60 Hz
- Noise level (unimpeded air flow): 34 dB (A)
- Operating temperature range: -4° F to +158° F (-20° C to +70° C)

Technical specifications 7980.148:

- Rated operating voltage: 48 V (DC)
- Power consumption: 7.7 W
- Air throughput (unimpeded air flow): 108 cfm (184 m³/h)
- Noise level (unimpeded air flow): 43 dB (A)
- Operating temperature range: -4° F to +158° F (-20° C to +70° C)

Dimensions W x H x D inches (mm)	Packs of	Part No.
5 x 5 x 1 (119 x 119 x 25)	1	7980.110
5 x 5 x 2 (119 x 119 x 38)	1	7980.000
5 x 5 x 1 (119 x 119 x 25)	1	7980.100
5 x 5 x 2 (119 x 119 x 38)	1	7980.148

Configuration:

- Fans
- Assembly parts
- Connection cable 24" (0.61 m)



Cover plates for fan panels for FlatBox

To cover unused fan panels when using fans in the FlatBox.

Material:

Carbon steel

Surface finish:

Powder-coated

Color:

RAL 7035

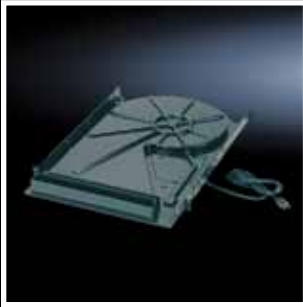
Configuration:

Assembly parts

Packs of	Part No.
6	7507.760



Fan system



Enclosure blower

Lightweight polymer housing, fits in the bottom of server cabinets where it draws cool air from beneath the floor and delivers it directly to server fronts. Suggested for solid or partially vented front doors with rails set back a minimum of four inches to establish the column of air to raise to the top of the cabinet.

- 115 V AC, 0.65 Amp
- 78" (1981 mm) power cord
- 5-15 flug
- 250 cfm

Description	Weight lb (kg)	Part No.
Enclosure blower with attachment brackets	20 (9)	9969.639
Filter assembly	2 (1)	9969.640
Replacement filters (12)	5 (2)	9969.641
Dual power transfer switch	5 (2)	9969.658



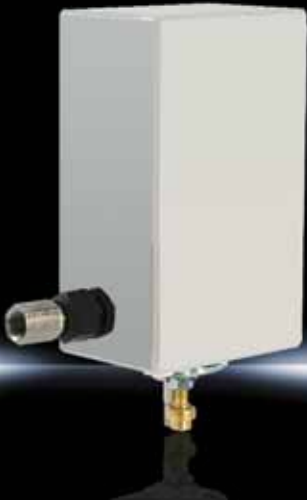
Split rear door fan

Split rear door fans take advantage of the front to rear airflow of most servers. The design allows for positioning the fan assembly in the most critical location within the cabinet. Two high pressure fans provide the ability to exhaust hot air out the rear of the enclosure at a dramatically higher rate than traditional roof mount fan trays. The result is cooler operating equipment, even with very high enclosure heat loads.

Configuration:

- 2 fans per assembly (210 cfm total)
- Includes 10 ft (3048 mm) cord/plug, mounting hardware
- Can be used for venting through roof by installing system bars/dual brackets (not included)

Volts	Total cfm	Enclosure width inches (mm)	Color	Part No.
115	210	24 (600)	RAL 7035 light grey	9969.936
			RAL 9005 black	9969.937
		28 (700)	RAL 7035 light grey	9969.940
			RAL 9005 black	9969.941
		32 (800)	RAL 7035 light grey	9969.944
			RAL 9005 black	9969.945
230	210	24 (600)	RAL 7035 light grey	9969.938
			RAL 9005 black	9969.939
		28 (700)	RAL 7035 light grey	9969.942
			RAL 9005 black	9969.943
		32 (800)	RAL 7035 light grey	9969.946
			RAL 9005 black	9969.947



Vortex cooler accessories Page 393

Advantages:

- Easy quick top or side mounting
- No wiring
- No maintenance required
- Very quiet, 62 dB(A) operation
- Slight pressurization of enclosure
- Integrated mechanical thermostat
- Maintains +22 – +35° C (+80 – +95° F) temperature
- Operates in environments up to +79° C (+175° F)

Material:

Plastic with stainless steel or aluminum

Color:

Pebble grey

Protection rating:

UL Type 12, 4/4X
UL listed
UL file #: E191061

Configuration:

Includes low noise vortex cooler, ducting kit and mechanical thermostat. No electrical wiring required.

Vortex coolers use compressed air to create a cool stream of air which is distributed inside an enclosure using a flexible hose ducting kit. This low noise version is housed in a UL94 V-O plastic cover with sound deadening insulation for quieter operation.

These coolers are especially effective in small enclosures where air conditioners will not fit, when an existing source of compressed air exists, when heat loads are low to moderate, or when a NEMA 4/4X cooling solution is required. Vortex coolers are also effective in applications where EMI/ RFI must be minimized.

Rittal can provide sizing assistance and, through Rittal's modification service center, mounting cut-outs for these coolers. For an explanation of the science behind Rittal vortex coolers, see page 393.

Useful cooling capacity: 900 - 5000 (264 - 1465 W)

Part No.	9963.957	9963.959	9963.961	9963.963
UL Type Rating	12	12	12	12
Cooling Capacity (BTU) ¹⁾	900	1500	2500	5000
Noise level at dBa at 100 psi	62	62	62	62
Air consumption SCFM	15	25	35	70
Pressure psi	100	100	100	100
Port size NPT inches	0.375	0.375	0.375	0.375

Useful cooling capacity: 900 - 5000 (264 - 1465 W)

Part No.	9963.958	9963.960	9963.962	9963.964
UL Type Rating	4/4X	4/4X	4/4X	4/4X
Cooling Capacity (BTU) ¹⁾	900	1500	2500	5000
Noise level at dBa at 100 psi	62	66	62	62
Air consumption SCFM	15	25	35	70
Pressure range psi	100	100	100	100
Port size NPT inches	0.375	0.375	0.375	0.375

¹⁾ Cooling capacity at 100 p_{sig}, 70° F inlet air, 90° F thermostat setting, -40° F pressure dew point.

Vortex cooler



Advantages:

- Small physical size
- No EMI/RFI created
- Creates cooled air without refrigerants (CFCs/HFCs)
- Exceptionally reliable, no moving parts to break
- Low maintenance
- Maintain UL Type 12, 4 and 4X ratings

Material:

Stainless steel or aluminum

Color:

Satin finish

Protection rating:

CE, UL
UL listed
UL file #: E191061

Configuration:

Includes vortex cooler, thermostat, solenoid, filter, and ducting kit (230 V solenoid available for 230 V operation)

Vortex coolers use compressed air to create a cool stream of air which is distributed inside an enclosure using a flexible hose ducting kit. These coolers are especially effective in small enclosures where air conditioners will not fit, when an existing source of compressed air

exists, when heat loads are low to moderate, or when a NEMA 4/4X cooling solution is required. Vortex coolers are also effective in applications where EMI/ RFI must be minimized.

Rittal can provide sizing assistance and, through Rittal's modification service center, mounting cut-outs for these coolers.

Useful cooling capacity: 400 - 5000 (117 - 1465 W)

Part No.	9963.944	9963.945	9963.946	9963.947	9963.948 ³⁾
UL Type Rating	12	12	12	12	12
Voltage ¹⁾	115/50/60	115/50/60	115/50/60	115/50/60	115/50/60
Cooling Capacity (BTU) ²⁾	400	900	1500	2500	5000
Noise level at dBA at 100 psi	69	80	83	90	90
Air consumption SCFM	8	15	25	35	70
Pressure range psi	70 – 150	70 – 150	70 – 150	70 – 150	70 – 150
Port size NPT inches	0.125	0.25	0.25	0.25	0.25

¹⁾ 230 V available by substituting 230 V solenoid – see Accessories, 24 V DC and 480 V AC available by special order.

²⁾ Cooling capacity at 100 psig, 70° F inlet air, 90° F thermostat setting, -40° F pressure dew point.

³⁾ Ships with two 2500 BTU vortex tubes.

Useful cooling capacity: 900 - 5000 (264 - 1465 W)

Part No.	9963.949	9963.950	9963.953	9963.954 ³⁾
UL Type Rating	4	4	4	4
Voltage ¹⁾	115/50/60	115/50/60	115/50/60	115/50/60
Cooling Capacity (BTU) ²⁾	900	1700	2500	5000
Noise level at dBA at 100 psi	83	86	90	90
Air consumption SCFM	15	25	35	70
Pressure range psi	70 – 150	70 – 150	70 – 150	70 – 150
Port size NPT inches	0.125	0.25	0.25	0.25

¹⁾ 230 V available by substituting 230 V solenoid – see Accessories, 24 V DC and 480 V AC available by special order.

²⁾ Cooling capacity at 100 psig, 70° F inlet air, 90° F thermostat setting, -40° F pressure dew point.

³⁾ Ships with two 2500 BTU vortex tubes.

Useful cooling capacity: 900 - 5000 (264 - 1465 W)

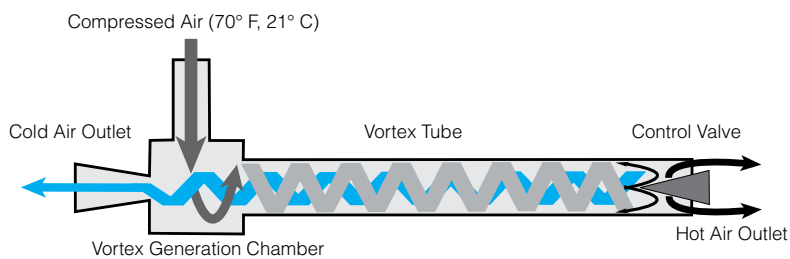
Part No.	9963.951	9963.955	9963.956	9963.952 ³⁾
UL Type Rating	4X	4X	4X	4X
Voltage ¹⁾	115/50/60	115/50/60	115/50/60	115/50/60
Cooling Capacity (BTU) ²⁾	900	1700	2500	5000
Noise level at dBa at 100 psi	83	86	90	90
Air consumption SCFM	15	25	35	70
Pressure range psi	70 – 150	70 – 150	70 – 150	70 – 150
Port size NPT inches	0.125	0.25	0.25	0.25

¹⁾ 230 V available by substituting 230 V solenoid – see Accessories, 24 V DC and 480 V AC available by special order.

²⁾ Cooling capacity at 100 psig, 70° F inlet air, 90° F thermostat setting, -40° F pressure dew point.

³⁾ Ships with two 2500 BTU vortex tubes.

Accessories	Port size NPT inches	PU	
5 micron filter for up to 1700 BTU capacity	0.375	1	9963.936
5 micron filter for up to 2500 BTU capacity	0.375	1	9963.937
5 micron filter for up to 5000 BTU capacity	0.75	1	9963.938
Oil filter for up to 1700 BTU capacity	0.375	1	9963.939
Oil filter for up to 5000 BTU capacity	0.375	1	9963.940
UL Type 12 230V solenoid for up to 1700 BTU capacity	0.25	1	9961.458
UL Type 4/4X 230V solenoid for up to 1700 BTU capacity	0.25	1	9961.459
UL Type 4/4X 230V solenoid for up to 2500 BTU capacity	0.375	1	9963.943



The Rittal vortex cooler - how it works

A vortex cooler uses the principle of vortex cooling which occurs when air rotates around an axis. The vortex tube creates a "mini tornado" from compressed air, which is separated into hot and cold airstreams. This compressed air enters into the tube and passes through the generation chamber to start the airflow rotating. As the air spins down the tube towards the control valve a small portion of the compressed air passes out as hot exhaust. The remaining air is forced back through the tube at a slower air speed. This cooled return air exits through the cold air exhaust port and into the enclosure.

The Rittal vortex cooler has no moving parts and is commonly used for spot cooling when a compressed air source is readily available.

Air/air heat exchanger



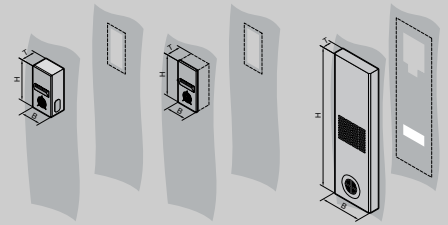
Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL file #: E117603

Configuration:

Fully wired unit ready for
connection



3125.800

Compact wall-mount air/air heat exchanger. Ideal for small enclosures and command panels. Suitable for external and internal mounting.

3129.800

Super-slimline air/air heat exchangers. Ideal for external/ internal door mounting.

Specific Thermal Output: 12 – 62 W/C

Part No.		3125.800	3129.800 ¹⁾
Voltage V, Hz			230, 50/60
Dimensions inches (mm)	H x B x T	16 x 8 x 6 (400 x 200 x 146)	54 x 16 x 4 (1360 x 400 x 110)
Specific thermal output		12 W/C	62 W/C
Fans		2 per heat exchanger	
Maximum rated current per fan (230 V)		0.11 A/0.13 A	0.45 A/0.55 A
Power per fan (230 V)		25 W/30 W	100 W/130 W
Air displacement of fans	External circuit	156/185 cfm	506/530 cfm
	Internal circuit	(265/315 m ³ /h)	(860/900 m ³ /h)
Temperature range		23 to 131° F (-5 to +55° C)	
Type of connection		connection cable	
Weight lb (kg)		18 (8)	66 (30)
Color		RAL 7035 (light grey)	
Environmental ratings	Internal circuit	UL Type 12 (IP 54)	
Accessories	PU		Page
Thermostat	1	3110.000	476
Digital temperature display	1	3114.200	475
Speed control	1	3120.200	477

¹⁾ UL Pending

Special voltages available on request. We reserve the right to make technical modifications.



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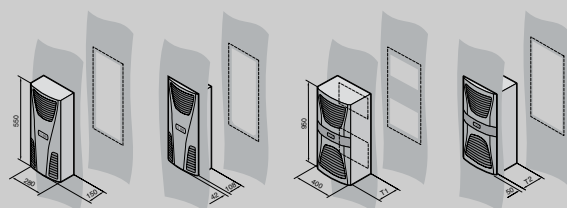
Protection rating:

UL/cUL recognized, CE
UL file #: E117603A

Property rights:

German registered designs
no. 402 02 324 and
no. 402 02 325
IR reg. design no. DM/061 967

and no. DM/062 557
Chinese registered design
no. ZL 0330 8461.1
Indian registered design
no. 190 269 and no. 189 953
Japanese registered design
no. 1 187 905 and no. 1 187 896
US design patent no. US D
488,480S



Specific Thermal Output: 17.5 – 60 W/C

Part No.	3126.100	3126.115	3127.100	3127.115	3128.100	3128.115	3129.100	3129.115
Voltage V, Hz	230, 50/60	115, 50/60	230, 50/60	115, 50/60	230, 50/60	115, 50/60	230, 50/60	115, 50/60
Dimensions inches (mm) H x B x T1 x T2	22 x 11 x 6 (550 x 280 x 150)		37 x 16 x 8 x 6 (950 x 400 x 205 x 155)		37 x 16 x 9 x 7 (950 x 400 x 225 x 175)			
Specific thermal output	17.5 W/C		30 W/C		45 W/C		60 W/C	
Fans	2 per heat exchanger							
Maximum rated current per fan (230 V)	0.11 A/0.13 A		0.28 A/0.34 A		0.3 A/0.4 A		0.38 A/0.4 A	
Power per fan (230 V)	23 W/27 W		60 W/75 W		70 W/90 W		85 W/90 W	
Pre-fuse T	2.0 A				4.0 A			
Air displacement of fans	External circuit	156/185 cfm (265/315 m ³ /h)	283/309 cfm (480/525 m ³ /h)	353/368 cfm (600/625 m ³ /h)	506/530 cfm (860/900 m ³ /h)			
	Internal circuit							
Temperature range	23 to 131° F (-5 to +55° C)							
Type of connection	Plug-in terminal strip							
Weight lb (kg)	22 (10)		40 (18)		42 (19)		46 (21)	
Color	RAL 7035 (light grey)							
Environmental ratings	Internal circuit UL Type 12 (IP 54)							
Accessories	PU							Page
Filter mats	3	3286.300			3286.400			481
Metal filters	1	3286.310			3286.410			482
Thermostat	1					3110.000		476
Digital temperature display	1					3114.200		475
Speed control	1					3120.200		477

Special voltages available on request. We reserve the right to make technical modifications.

Air/air heat exchanger



Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized
UL file #: E117603A

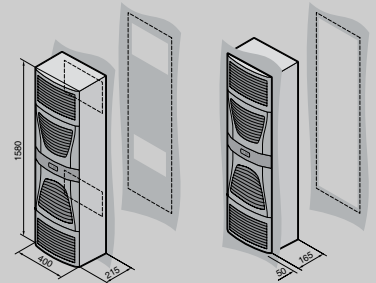
Configuration:

- Fully wired unit ready for connection.
- With comfort controller and digital temperature indicator
- Floating fault signal contact in case of overtemperature
- Separately controllable air circuits

Property rights:

German registered designs
no. 402 02 324 and no. 402 02 325
IR reg. design no. DM/061 967
and no. DM/062 557
Brazilian registered design
no. DI 6203240-2
Chinese registered design
no. ZL 0330 4386.8
Indian registered designs
nos. 190 270, 189 954,
189 955, 189 958
Japanese registered design

no. 1 187 906 and no. 1 187 897
US design patent
no. US D 492,319S and
US D 492,320S



Specific Thermal Output: 90 W/C

Part No.		3130.100	3130.115
Voltage V, Hz		230, 50/60	115, 50/60
Dimensions inches (mm)	H x W x D	62 x 16 x 9 (1580 x 400 x 215)	
Specific thermal output		90 W/C	
Fans		2 per heat exchanger	
Maximum rated current per fan (230 V)		0.67 A/0.88 A	
Power per fan (230 V)		150 W/200 W	
Air displacement of fans	External circuit	500/556 cfm (850/945 m ³ /h)	
	Internal circuit	500/556 cfm (850/945 m ³ /h)	
Temperature range		25 to 131° F (-5 to +55° C)	
Type of connection		Plug-in terminal strip	
Weight lb (kg)		75 (34)	
Color		RAL 7035 (light grey)	
Environmental ratings	Internal circuit	UL Type 12 (IP 54)	
Accessories	PU		Page
Filter mats	3	3286.400	481
Metal filters	1	3286.410	482
Thermostat	1	3110.000	476
Digital temperature display	1	3114.200	475
Speed control	1	3120.200	477

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized
UL file #: E117603A

Configuration:

- Fully wired unit ready for connection.
- Single-unit heat exchanger module and housing
- Integrated radial fans
- Fan motors have internal thermal winding protection

Specific Thermal Output: 66 W/C

Part No.	3248.000		3248.110	
Voltage V, Hz	230, 50/60		115, 50/60	
Dimensions inches (mm)	H x W x D		14 x 23 x 17 (362 x 595 x 440)	
Specific thermal output	66 W/C			
Fans	2 per heat exchanger			
Maximum rated current per fan (230 V)	0.45 A/0.55 A			
Pre-fuse T	4.0 A			
Power per fan (230 V)	75 W			
Air displacement of fans	External circuit	568 cfm (965 m ³ /h)		
	Internal circuit	568 cfm (965 m ³ /h)		
Temperature range	25 to 131° F (-5 to +55° C)			
Type of connection	Connection cable			
Weight lb (kg)	37 (17)			
Color	RAL 7035/9005			
Environmental ratings	Internal circuit	UL Type 12 (IP 54)		
Accessories		PU		Page
Digital temperature display	1	3114.200		475
Thermostat	1	3110.000		476
Hygrostat	1	3118.000		476
Speed control	1	3120.200		477

Special voltages available on request. We reserve the right to make technical modifications.



Cooling units

Thermoelectric cooler

Thermoelectric cooler, 341 BTU	400
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Wall-mounted cooling units

Mini air conditioners, 809 BTU	401
Air conditioner, basic controller, 864-2400 BTU	402
Air conditioner, comfort controller, 864-2400 BTU	403
Air conditioner, basic controller, 2663 BTU	404
Air conditioner, comfort controller, 2663 BTU	405
Air conditioner, basic controller, 3916-5794 BTU	406
Air conditioner, comfort controller, 3916-5794 BTU	407
Air conditioner, basic controller, 8706-10525 BTU	408
Air conditioner, comfort controller, 8706-10525 BTU	409
Air conditioner, basic controller, 16841 BTU	410
Air conditioner, comfort controller, 16841 BTU	411
Air conditioner, basic controller, 5804 BTU	412
Air conditioner, comfort controller, 5804 BTU	413
UL Type 4X air conditioner, basic controller, 2400-5794 BTU	414
UL Type 4X air conditioner, comfort controller, 2400-5794 BTU	415
UL Type 4X air conditioner, basic controller, 8706-10525 BTU	416
UL Type 4X air conditioner, comfort controller, 8706-10525 BTU	417

Roof-mounted cooling units

Air conditioner, basic controller, 1581-3081 BTU	418
Air conditioner, comfort controller, 1581-3081 BTU	419
Air conditioner, basic controller, 4462 BTU	420
Air conditioner, comfort controller, 4462 BTU	421
Air conditioner, basic controller, 6009-8272 BTU	422
Air conditioner, comfort controller, 6009-8272 BTU	423
Air conditioner, basic controller, 12632-18436 BTU	424
Air conditioner, comfort controller, 12632-18436 BTU	425

Modular climate control concept

Cooling modules	426
Section doors for installing cooling modules	427



Generation “Blue e”

Save energy permanently with Rittal cooling units.



Thermoelectric cooler



Climate control accessories Page 471 Therm software Page 515

Application:

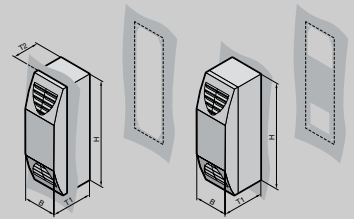
- Ideal for cooling or heating small enclosures and operator interface panels
- Especially suitable for use on support arm systems as well
- Optimum space utilization
- Targeted cooling of hot spots

Protection rating:

NEMA 12/IP 54
CE

Configuration:

Thermoelectric cooling unit, wired ready for connection, with multilingual documentation, mounting hardware and USB connection cable



Useful cooling capacity: 341 BTU (100 W)

Part No.		3201.200	3201.300	
Dimensions inches (mm)	H x B x T	16 x 5 x 6 (400 x 125 x 155)		
	T ₁ , T ₂	155, 100 (6.1, 4.0)		
Rated operating voltage V/Hz		100 – 230 V AC / 50/60 Hz	24 V DC	
Coefficiency of Performance/COP	T _i 95 T _a 95	1.0	1.2	
Useful cooling output Q _k to DIN 3168	T _i 95 T _a 95	341 BTU (100 W)	341 BTU (100 W)	
Useful heating output		341 BTU (100 W)	341 BTU (100 W)	
Starting current		120 V: 9.2 A 230 V: 4.7 A	40 A	
Max. running current		120 V: 1.2 A 230 V: 0.6 A	5.2 A	
Power pack integrated		■	–	
Color of cover/unit		RAL 7024/Anodized aluminum		
Protection rating		NEMA 12/IP 54		
Weight lb (kg)		7.7 (3.5)	6.6 (3.0)	
Temperature range		+32 to +131° F (0 to +55° C)	+32 to +131° F (0 to +55° C)	
Air throughput, unimpeded air flow		29 cfm (50 m ³ /h)		
Type of connection		Plug-in spring connection terminal		
Pre-fuse T		2 A	10 A	
Accessories	PU		Page	
Power supply 150 watts for 35 mm DIN rail	1	–	3201.030	–
Filter mat	1		3201.050	483
Door-operated switch	1		4127.010	694
Digital temperature display	1		3114.200	475

We reserve the right to make technical modifications. Special voltages available on request.

Wall-mounted air conditioner

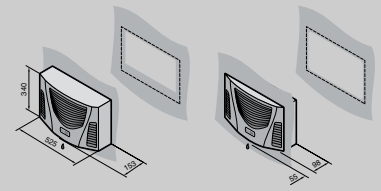


Climate control accessories Page 471 Software & services Page 511

Mini air conditioners for horizontal mounting, ideal for cooling small equipment and operating housings with optimum space utilization.

Protection rating:
UL/cUL recognized, CSA
UL Type 12/ IP 54
UL file #: SA8250

Configuration:
– Fully wired ready for connection, including drilling template and assembly parts. With nano-coated condenser



Useful cooling capacity: 809 BTU (237 W)

Part No.		3302.300	3302.310
Voltage V, Hz		230, 50/60	115, 60
Dimensions inches (mm)	H x W x D	13 x 21 x 6 (340 x 525 x 153)	
Useful cooling capacity Q_k BTU (W)	T_i 131 T_a 131	809 (237)	
Useful cooling capacity Q_k to DIN 3168 BTU (W)	T_i 95 T_a 95	1025/1093 (300/320)	1025 (300)
	T_i 95 T_a 122	512/546 (150/160)	512 (150)
Rated current maximum		1.6 A/1.7 A	4.0 A
Starting current		4.3 A/5.3 A	12.0 A
Pre-fuse T			10 A
Power consumption P_{el} to DIN 3168	T_i 95 T_a 95	285 W/300 W	290 W
	T_i 95 T_a 122	320 W/340 W	340 W
Cooling coefficient $j = Q_k/P_{el}$	T_i 95 T_a 95	1.1	
Refrigerant		R134a, 3.5 oz (100 g)	R134a, 3.4 oz (95 g)
Maximum allowable operating pressure		363 psi (25 bar)	
Temperature and setting range		+86 to +131° F (+30 to +55° C)	
Environmental ratings		UL Type 12 (IP 54)	
Duty cycle		100%	
Type of connection		Plug-in terminal strip	
Weight lb (kg)		28.7 (13)	
Color		RAL 7035 (light grey)	
Air displacement of fans	External circuit	203 cfm (345 m ³ /h)	
	Internal circuit	182 cfm (310 m ³ /h)	
Temperature control		Basic controller (factory setting 95° F (+35° C))	
Accessories	PU		Page
Digital temperature display	1	3114.200	475
Condensate hose	1	3301.608	484
Door operated switch	1	4127.010	694
Filter mats	3	3286.110	481
Metal filters	1	3286.120	482

Special voltages available on request. We reserve the right to make technical modifications.

Wall-mounted air conditioner



Climate control accessories Page 471 Software & services Page 511

Protection rating:

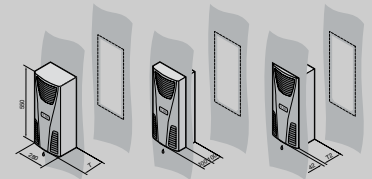
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser

Property rights:

US design patent no. D 488,480
IR reg. design no. DM/061 967 with validity for FR, IT, ES
German registered designs no. 402 02 324 and no. 402 02 325
Japanese registered design no. 1 187 896
Indian registered design no. 189 953



Useful cooling capacity: 864 - 2400 BTU (253 - 703 W)

Part No. with basic controller, RAL 7035 (light grey)	3302.100	3302.110	3303.100 ¹⁾	3303.110 ¹⁾
Part No. with basic controller, Type 304 stainless steel	3302.200	3302.210	3303.200 ¹⁾	3303.210 ¹⁾
Voltage V, Hz	230, 50/60	115, 60	230, 50/60	115, 60
Dimensions inches (mm)	H x B x T x T2 22 x 11 x 6 x 4 (550 x 280 x 140 x 98)		22 x 11 x 8 x 7 (550 x 280 x 200 x 164)	
Useful cooling capacity Q _k BTU (W)	T _i 131 T _a 131 864 (253)		2400 (703)	
Useful cooling capacity Q _k to DIN 3168 BTU (W)	T _i 95 T _a 95	1025/1093 (300/320)	1025 (300)	1708/2083 (500/610)
	T _i 95 T _a 122	512/581 (150/170)	512 (150)	957/1195 (280/350)
Rated current maximum	1.6 A/1.7 A	3.3 A	2.6 A/2.6 A	5.7 A
Starting current	3.0 A/3.4 A	8.0 A	5.1 A/6.4 A	11.5 A
Pre-fuse T	10.0 A	10.0 A	10.0 A	10.0 A
Power consumption Pel to DIN 3168	T _i 95 T _a 95	245 W/255 W	290 W	360 W/380 W
	T _i 95 T _a 122	255 W/275 W	340 W	420 W/390 W
Cooling coefficient j = Q _k /Pel	T _i 95 T _a 95	1.2		1.4
Refrigerant	R134a, 3.5 oz (100 g)		R134a, 6.0 oz (170 g)	
Maximum allowable operating pressure	263 psi (25 bar)		406 psi (28 bar)	
Temperature and setting range	Basic controller - +86 to +131° F (+30 to +55° C)			
Environmental ratings	UL Type 12 (IP 54)			
Duty cycle	100%			
Type of connection	Plug-in terminal strip			
Weight lb (kg)	28.7 (13)		37.5 (17)	
Air displacement of fans	External circuit	182 cfm (310 m ³ /h)	203 cfm (345 m ³ /h)	
	Internal circuit	203 cfm (345 m ³ /h)	182 cfm (310 m ³ /h)	
Temperature control	Basic controller (factory setting 95° F (+35° C))			
Accessories	PU			Page
Filter mats	3		3286.300	481
Metal filters	1		3286.310	482
Door-operated switch	1		4127.010	694
Master/slave cable for comfort controller	1	–		3124.100
RiDiag II including cables for comfort controller	1	–		3159.100
Interface card for comfort controller	1	–		3124.200
Condensate hose	1	3301.608		3301.610

¹⁾Partial internal mounting possible with 3303.XXX only.

Special voltages available by request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

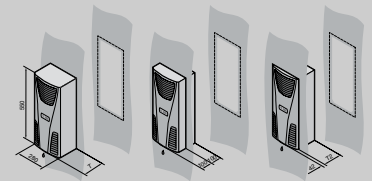
- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser

Note:

Air conditioners with comfort controller may be integrated into a monitoring system with an optional interface card 3124.200 (RS 232, RS 485, RS 422 and PLC interface). See page 477.

Property rights:

US design patent no. D 488,480
IR reg. design no. DM/061 967 with validity for FR, IT, ES
German registered designs no. 402 02 324 and no. 402 02 325
Japanese registered design no. 1 187 896
Indian registered design no. 189 953



Useful cooling capacity: 864 - 2400 BTU (253 - 703 W)

Part No. with comfort controller, RAL 7035 (light grey)	3303.500 ¹⁾	3303.510 ¹⁾
Part No. with comfort controller, Type 304 stainless steel	3303.600 ¹⁾	3303.610 ¹⁾
Voltage V, Hz	230, 50/60	115, 60
Dimensions inches (mm)	H x B x T x T2 22 x 11 x 8 x 7 (550 x 280 x 200 x 164)	
Useful cooling capacity Q _k BTU (W)	T _i 131 T _a 131 2400 (703)	
Useful cooling capacity Q _k to DIN 3168 BTU (W)	T _i 95 T _a 95 1708/2083 (500/610)	T _i 95 T _a 95 1708 (500)
	T _i 95 T _a 122 957/1195 (280/350)	T _i 95 T _a 122 957 (280)
Rated current maximum	2.6 A/2.6 A	5.7 A
Starting current	5.1 A/6.4 A	11.5 A
Pre-fuse T	10.0 A	10.0 A
Power consumption Pel to DIN 3168	T _i 95 T _a 95 360 W/380 W	T _i 95 T _a 95 470 W
	T _i 95 T _a 122 420 W/390 W	T _i 95 T _a 122 500 W
Cooling coefficient j = Q _k /Pel	T _i 95 T _a 95 1.4	
Refrigerant	R134a, 6.0 oz (170 g)	
Maximum allowable operating pressure	406 psi (28 bar)	
Temperature and setting range	Comfort controller - +68 to +131° F (+20 to +55° C)	
Environmental ratings	UL Type 12 (IP 54)	
Duty cycle	100%	
Type of connection	Plug-in terminal strip	
Weight lb (kg)	37.5 (17)	
Air displacement of fans	External circuit 203 cfm (345 m ³ /h)	Internal circuit 182 cfm (310 m ³ /h)
Temperature control	Comfort controller (factory setting 95° F (+35° C))	
Accessories	PU	Page
Filter mats	3	481
Metal filters	1	482
Door-operated switch	1	694
Master/slave cable for comfort controller	1	477
RiDiag II including cables for comfort controller	1	515
Interface card for comfort controller	1	477
Condensate hose	1	484

¹⁾Partial internal Mounting possible.

Special voltages available by request. We reserve the right to make technical modifications.

Wall-mounted air conditioner



Climate control accessories Page 471 Software & services Page 511

Protection rating:

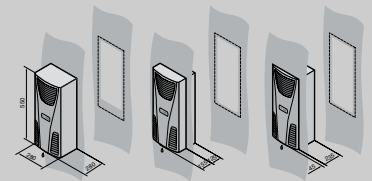
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser

Property rights:

US design patent no. D 488,480
IR reg. design no. DM/061 967 with validity for FR, IT, ES
German registered designs no. 402 02 324 and no. 402 02 325
Japanese registered design no. 1 187 896
Indian registered design no. 189 953



Useful cooling capacity: 2663 BTU (780 W)

Part No. with basic controller, RAL 7035 (light grey)	3361.100	3361.110	3361.140 ¹⁾
Part No. with basic controller, Type 304 stainless steel	3361.200	3361.210	3361.240 ¹⁾
Voltage V, Hz	230, 50/60 ²⁾	115, 60 ²⁾	400, 2~, 50/60 ²⁾
Dimensions inches (mm)	H x W x D 22 x 11 x 11 (550 x 280 x 280)		
Useful cooling capacity Q _k BTU (W)	T _i 131 T _a 131 2663 (780)		
Useful cooling capacity Q _k to DIN 3168 BTU (W)	T _i 95 T _a 95 2561/2664 (750/780)	T _i 95 T _a 95 2561 (750)	T _i 95 T _a 95 2561/2664 (750/780)
	T _i 95 T _a 122 1742/1844 (510/540)	T _i 95 T _a 122 1742 (510)	T _i 95 T _a 122 1742/1844 (510/540)
Rated current maximum	2.3 A/2.4 A	5.3 A	1.2 A/1.4 A
Starting current	5.6 A/5.6 A	12.0 A	3.1 A/3.3 A
Pre-fuse T	10 A	10 A	10 A
Power consumption Pel to DIN 3168	T _i 95 T _a 95 480 W/555 W	T _i 95 T _a 95 570 W	T _i 95 T _a 95 480 W/550 W
	T _i 95 T _a 122 530 W/640 W	T _i 95 T _a 122 670 W	T _i 95 T _a 122 530 W/640 W
Cooling coefficient j = Q _k /Pel	T _i 95 T _a 95 1.5		
Refrigerant	R134a, 9.9 oz (280 g)		
Maximum allowable operating pressure	406 psi (28 bar)		
Temperature and setting range	Basic controller - +86 to +131° F (+30 to +55° C)		
Environmental ratings	UL Type 12 (IP 54)		
Duty cycle	100%		
Type of connection	Plug-in terminal strip		
Weight lb (kg)	48.5 (22)		
Air displacement of fans (unimpeded air flow)	External circuit 283 cfm (480 m ³ /h)	Internal circuit 353 cfm (600 m ³ /h)	
Temperature control	Basic controller (factory setting 95° F (+35° C))		
Accessories	PU		Page
Filter mats	3	3286.300	481
Metal filters	1	3286.310	482
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Condensate hose	1	3301.608	484

¹⁾ External transformer Ø 5 x 3" (126 x 65 mm) deep which must be mounted by the end customer.

²⁾ T_a maximum = 125° F (52° C)/60 Hz.

Special voltages available upon request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

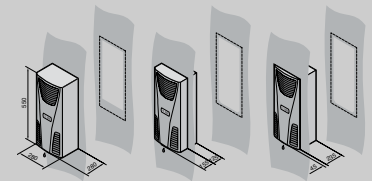
- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser

Note:

Air conditioners with comfort controller may be integrated into a monitoring system with an optional interface card 3124.200 (RS 232, RS 485, RS 422 and PLC interface). See page 477.

Property rights:

US design patent no. D 488,480
IR reg. design no. DM/061 967 with validity for FR, IT, ES
German registered designs no. 402 02 324 and no. 402 02 325
Japanese registered design no. 1 187 896
Indian registered design no. 189 953



Useful cooling capacity: 2663 BTU (780 W)

Part No. with comfort controller, RAL 7035 (light grey)	3361.500	3361.510	3361.540 ¹⁾
Part No. with comfort controller, Type 304 stainless steel	3361.600	3361.610	3361.640 ¹⁾
Voltage V, Hz	230, 50/60 ²⁾	115, 60 ²⁾	400, 2~, 50/60 ²⁾
Dimensions inches (mm)	22 x 11 x 11 (550 x 280 x 280)		
Useful cooling capacity Q _k BTU (W)	2663 (780)		
Useful cooling capacity Q _k to DIN 3168 BTU (W)	T _i 131 T _a 131	2561 (750)	2561/2664 (750/780)
	T _i 95 T _a 95	1742 (510)	1742/1844 (510/540)
Rated current maximum	2.3 A/2.4 A	5.3 A	1.2 A/1.4 A
Starting current	5.6 A/5.6 A	12.0 A	3.1 A/3.3 A
Pre-fuse T	10 A	10 A	10 A
Power consumption Pel to DIN 3168	T _i 95 T _a 95	480 W/555 W	480 W/550 W
	T _i 95 T _a 122	530 W/640 W	530 W/640 W
Cooling coefficient j = Q _k /Pel	T _i 95 T _a 95	1.5	
Refrigerant	R134a, 9.9 oz (280 g)		
Maximum allowable operating pressure	406 psi (28 bar)		
Temperature and setting range	Comfort controller - +68 to +131° F (+20 to +55° C)		
Environmental ratings	UL Type 12 (IP 54)		
Duty cycle	100%		
Type of connection	Plug-in terminal strip		
Weight lb (kg)	48.5 (22)		
Air displacement of fans (unimpeded air flow)	External circuit	283 cfm (480 m ³ /h)	
	Internal circuit	353 cfm (600 m ³ /h)	
Temperature control	Comfort controller (factory setting 95° F (+35° C))		
Accessories	PU		Page
Filter mats	3	3286.300	481
Metal filters	1	3286.310	482
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Condensate hose	1	3301.608	484

¹⁾ External transformer Ø 5 x 3" (126 x 65 mm) deep which must be mounted by the end customer.

²⁾ T_a maximum = 125° F (52° C)/60 Hz.

Special voltages available upon request. We reserve the right to make technical modifications.

Wall-mounted air conditioner



Climate control accessories Page 471 Software & services Page 511

Protection rating:

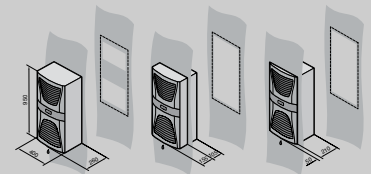
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser

Property rights:

German registered design
no. 402 02 325
IR reg. design no. DM/062 557
with validity for FR, IT, ES
Indian registered design
no. 190 269
Japanese registered design
no. 1 187 905



Useful cooling capacity: 3916 - 5794 BTU (1147 - 1697 W)

Part No. with basic controller, RAL 7035 (light grey)	3304.100	3304.110	3304.140	3305.100	3305.110	3305.140	
Part No. with basic controller, Type 304 stainless steel	3304.200	3304.210	3304.240	3305.200	3305.210	3305.240	
Voltage V, Hz	230, 50/60	115, 50/60	400, 50/460, 60, 3~	230, 50/60	115, 50/60	400, 50/460, 60, 3~	
Dimensions inches (mm)	H x W x D 37 x 16 x 10 (950 x 400 x 260)						
Useful cooling capacity Q_k BTU (W)	3916 (1147)			5794 (1697)			
Useful cooling capacity Q_k to DIN 3168 BTU (W)	3415/3620 (1000/1060)			5123/5157 (1500/1510)			
	2698/2869 (790/840)			4201/4269 (1230/1250)			
Rated current maximum	4.8 A/ 4.4 A	9.5 A/ 10.0 A	2.5 A/ 2.6 A	5.4 A/ 6.0 A	11.0 A/ 12.5 A	2.3 A/ 2.6 A	
Starting current	12.0 A/ 14.0 A	26.0 A/ 28.0 A	11.5 A/ 12.7 A	22.0 A/ 24.0 A	42.0 A/ 46.0 A	12.2 A/ 11.3 A	
Pre-fuse T	10.0 A/ 10.0 A	16.0 A/ 16.0 A	10.0 A/ 10.0 A ¹⁾	16.0 A/ 16.0 A	20.0 A/ 20.0 A	10.0 A/ 10.0 A ¹⁾	
Power consumption Pel to DIN 3168	T_i 95 T_a 95	700 W/ 650 W	725 W/ 680 W	580 W/ 550 W	850 W/ 1000 W	880 W/ 1050 W	800 W/ 980 W
	T_i 95 T_a 122	750 W/ 710 W	780 W/ 750 W	660 W/ 680 W	1000 W/ 1160 W	1040 W/ 1200 W	960 W/ 1150 W
Cooling coefficient $j = Q_k/Pel$	T_i 95 T_a 95 1.4		1.7	1.8	1.7	1.9	
Refrigerant	R134a, 11.4 oz (325g)		R134a, 17.6 oz (500 g)	R134a, 21.2 oz (600 g)			
Maximum allowable operating pressure	363 psi (25 bar)						
Temperature and setting range	Basic controller - +86 to +131° F (+30 to +55° C)						
Environmental ratings	UL Type 12 (IP 54)						
Duty cycle	100%						
Type of connection	Plug-in terminal strip						
Weight lb (kg)	86.0 (39)	97.0 (44)	88.2 (40)	90.3 (41)	101.4 (46)	92.6 (42)	
Air displacement of fans	External circuit	530 cfm (900 m ³ /h)					
	Internal circuit	353 cfm (600 m ³ /h)			471 cfm (600 m ³ /h)		
Temperature control	Basic controller (factory setting +95° F (+35° C))						
Accessories	PU					Page	
Filter mats	3			3286.400		481	
Metal filters	1			3286.410		482	
Door-operated switch	1			4127.010		694	
Master/slave cable for comfort controller	1			3124.100		477	
RiDiag II including cables for comfort controller	1			3159.100		515	
Interface card for comfort controller	1			3124.200		477	
Condensate hose	1			3301.612		484	

¹⁾ Motor circuit-breaker.

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

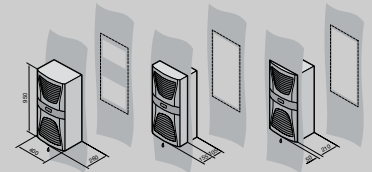
- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser

Note:

Air conditioner with comfort controller may be integrated into a monitoring system with an optional interface card 3124.200 (RS 232, RS 485, RS 422 and PLC interface). See page 618.

Property rights:

German registered design no. 402 02 325
IR reg. design no. DM/062 557 with validity for FR, IT, ES
Indian registered design no. 190 269
Japanese registered design no. 1 187 905



Useful cooling capacity: 3916 - 5794 BTU (1147 - 1697 W)

Part No. with comfort controller, RAL 7035 (light grey)	3304.500	3304.510	3304.540	3305.500	3305.510	3305.540	
Part No. with comfort controller, Type 304 stainless steel	3304.600	3304.610	3304.640	3305.600	3305.610	3305.640	
Voltage V, Hz	230, 50/60	115, 50/60	400, 50/460, 60, 3~	230, 50/60	115, 50/60	400, 50/460, 60, 3~	
Dimensions inches (mm)	H x W x D 37 x 16 x 10 (950 x 400 x 260)						
Useful cooling capacity Q_k BTU (W)	3916 (1147)			5794 (1697)			
Useful cooling capacity Q_k to DIN 3168 BTU (W)	3415/3620 (1000/1060)			5123/5157 (1500/1510)			
	2698/2869 (790/840)			4201/4269 (1230/1250)			
Rated current maximum	4.8 A/ 4.4 A	9.5 A/ 10.0 A	2.5 A/ 2.6 A	5.4 A/ 6.0 A	11.0 A/ 12.5 A	2.3 A/ 2.6 A	
Starting current	12.0 A/ 14.0 A	26.0 A/ 28.0 A	11.5 A/ 12.7 A	22.0 A/ 24.0 A	42.0 A/ 46.0 A	12.2 A/ 11.3 A	
Pre-fuse T	10.0 A/ 10.0 A	16.0 A/ 16.0 A	10.0 A/ 10.0 A ¹⁾	16.0 A/ 16.0 A	20.0 A/ 20.0 A	10.0 A/ 10.0 A ¹⁾	
Power consumption Pel to DIN 3168	T_i 95 T_a 95	700 W/ 650 W	725 W/ 680 W	580 W/ 550 W	850 W/ 1000 W	880 W/ 1050 W	800 W/ 980 W
	T_i 95 T_a 122	750 W/ 710 W	780 W/ 750 W	660 W/ 680 W	1000 W/ 1160 W	1040 W/ 1200 W	960 W/ 1150 W
Cooling coefficient $j = Q_k/Pel$	T_i 95 T_a 95 1.4		1.7	1.8	1.7	1.9	
Refrigerant	R134a, 11.4 oz (325g)		R134a, 17.6 oz (500 g)	R134a, 21.2 oz (600 g)			
Maximum allowable operating pressure	363 psi (25 bar)						
Temperature and setting range	Comfort controller - +68 to +131° F (+20 to +55° C)						
Environmental ratings	UL Type 12 (IP 54)						
Duty cycle	100%						
Type of connection	Plug-in terminal strip						
Weight lb (kg)	86.0 (39)	97.0 (44)	88.2 (40)	90.3 (41)	101.4 (46)	92.6 (42)	
Air displacement of fans	External circuit	530 cfm (900 m ³ /h)					
	Internal circuit	353 cfm (600 m ³ /h)			471 cfm (600 m ³ /h)		
Temperature control	Comfort controller (factory setting +95° F (+35° C))						
Accessories	PU					Page	
Filter mats	3	3286.400				481	
Metal filters	1	3286.410				482	
Door-operated switch	1	4127.010				694	
Master/slave cable for comfort controller	1	3124.100				477	
RiDiag II including cables for comfort controller	1	3159.100				515	
Interface card for comfort controller	1	3124.200				477	
Condensate hose	1	3301.612				484	

¹⁾ Motor circuit-breaker.

Special voltages available on request. We reserve the right to make technical modifications.

Wall-mounted air conditioner



Climate control accessories Page 471 Software & services Page 511

Protection rating:

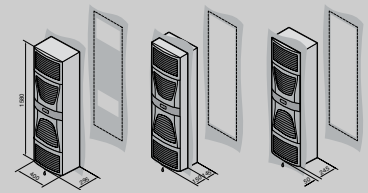
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator.

Additional parts needed:

For installation in the door, the use of a door alignment roller (4538.000) is recommended, see page 618.



Useful cooling capacity: 8706 - 10525 BTU (2550 - 3083 W)

Part No. with basic controller, RAL 7035 (light grey)	3328.100	3328.110	3328.140	3329.100	3329.110	3329.140	
Part No. with basic controller, Type 304 stainless steel	3328.200	3328.210	3328.240	3329.200	3329.210	3329.240	
Voltage V, Hz	230, 50/60	115, 50/60	400, 50/460, 60, 3~	230, 50/60	115, 50/60	400, 50/460, 60, 3~	
Dimensions inches (mm)	H x W x D 62 x 16 x 11 (1580 x 400 x 295)						
Useful cooling capacity Q_k BTU (W)	8706 (2550)			10525 (3083)			
Useful cooling capacity Q_k to DIN 3168 BTU (W)	T_i 95 T_a 95	6830/8026 (2000/2350)		8537/9392 (2500/2750)		8537/9392 (2500/2700)	
	T_i 95 T_a 122	4952/6771 (1450/1690)		5464/5977 (1600/1750)		6489/6660 (1900/1950)	
Rated current maximum	7.5 A/9.1 A	14.7 A/17.3 A	2.8 A/3.3 A	8.6 A/10.6 A	17.0 A/22.0 A	3.7 A/3.8 A	
Starting current	22.0 A/26.0 A	36.0 A/39.0 A	6.8 A/7.8 A	21.0 A/21.0 A	44.0 A/42.0 A	6.8 A/7.6 A	
Pre-fuse T	16.0 A	25.0 A	10.0 A/10.0 A ¹⁾	16.0 A	25.0 A	10.0 A/10.0 A ¹⁾	
Power consumption P_{el} to DIN 3168	T_i 95 T_a 95	1025 W/1200 W	1085 W/1250 W	930 W/1150 W	1320 W/1550 W	1380 W/1600 W	1300 W/1500 W
	T_i 95 T_a 122	1130 W/1220 W	1170 W/1290 W	1150 W/1400 W	1500 W/1880 W	1550 W/1940 W	1550 W/1850 W
Cooling coefficient $j = Q_k/P_{el}$	T_i 95 T_a 95 1.7		2.3	T_i 95 T_a 95 1.9		2.0	
Refrigerant	R134a, 33.5 oz (950 g)						
Maximum allowable operating pressure	406 psi (28 bar)						
Temperature and setting range	Basic controller - +86 to +131° F (+30 to +55° C)						
Environmental ratings	UL Type 12 (IP 54)						
Duty cycle	100%						
Type of connection	Plug-in terminal strip						
Weight lb (kg)	145.5 (66)	160.9 (73)	147.7 (67)	152.1 (69)	167.6 (76)	154.3 (70)	
Air displacement of fans	External circuit	377 cfm (640 m ³ /h)			418 cfm (710 m ³ /h)		
	Internal circuit	324 cfm (550 m ³ /h)			377 cfm (640 m ³ /h)		
Temperature control	Basic controller (factory setting 95° F (+35° C))						

Accessories	PU		Page
Filter mats	3	3286.400	481
Metal filters	1	3286.410	482
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Condensate hose	1	3301.612	484

¹⁾ Motor circuit-breaker.

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

– Fully wired ready for connection
– Includes drilling template and assembly parts

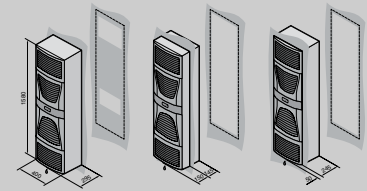
– With nano-coated condenser and integrated condensate evaporator

Note:

Air conditioners with comfort controller may be integrated into a monitoring system with an optional interface card 3124.200 (RS 232, RS 485, RS 422 and PLC interface). See page 477.

Additional parts needed:

For installation in the door, the use of a door alignment roller (4538.000) is recommended, see page 618.



Useful cooling capacity: 8706 - 10525 BTU (2550 - 3083 W)

Part No. with comfort controller, RAL 7035 (light grey)	3328.500	3328.510	3328.540	3329.500	3329.510	3329.540	
Part No. with comfort controller, Type 304 stainless steel	3328.600	3328.610	3328.640	3329.600	3329.610	3329.640	
Voltage V, Hz	230, 50/60		400, 50/460, 60, 3~		230, 50/60		
Dimensions inches (mm)	H x W x D 62 x 16 x 11 (1580 x 400 x 295)						
Useful cooling capacity Q_k BTU (W)	8706 (2550)			10525 (3083)			
Useful cooling capacity Q_k to DIN 3168 BTU (W)	T_i 131 T_a 131		6830/8026 (2000/2350)		8537/9392 (2500/2700)		
	T_i 95 T_a 95		4952/6771 (1450/1690)		5464/5977 (1600/1750)		
	T_i 95 T_a 122		8537/9392 (2500/2700)		6489/6660 (1900/1950)		
	T_i 95 T_a 122		5464/5977 (1600/1750)		6489/6660 (1900/1950)		
Rated current maximum	7.5 A/9.1 A	14.7 A/17.3 A	2.8 A/3.3 A	8.6 A/10.6 A	17.0 A/22.0 A	3.7 A/3.8 A	
Starting current	22.0 A/26.0 A	36.0 A/39.0 A	6.8 A/7.8 A	21.0 A/21.0 A	44.0 A/42.0 A	6.8 A/7.6 A	
Pre-fuse T	16.0 A	25.0 A	10.0 A/10.0 A ¹⁾	16.0 A	25.0 A	10.0 A/10.0 A ¹⁾	
Power consumption P_{el} to DIN 3168	T_i 95 T_a 95		1025 W/1200 W	1085 W/1250 W	930 W/1150 W	1320 W/1550 W	1380 W/1600 W
	T_i 95 T_a 122		1130 W/1220 W	1170 W/1290 W	1150 W/1400 W	1500 W/1880 W	1550 W/1850 W
Cooling coefficient $j = Q_k/P_{el}$	T_i 95 T_a 95		1.7		2.3		
Refrigerant	R134a, 33.5 oz (950 g)						
Maximum allowable operating pressure	406 psi (28 bar)						
Temperature and setting range	Comfort controller - +68 to +131° F (+20 to +55° C)						
Environmental ratings	UL Type 12 (IP 54)						
Duty cycle	100%						
Type of connection	Plug-in terminal strip						
Weight lb (kg)	145.5 (66)	160.9 (73)	147.7 (67)	152.1 (69)	167.6 (76)	154.3 (70)	
Air displacement of fans	External circuit		377 cfm (640 m³/h)		418 cfm (710 m³/h)		
	Internal circuit		324 cfm (550 m³/h)		377 cfm (640 m³/h)		
Temperature control	Comfort controller (factory setting 95° F (+35° C))						
Accessories	PU					Page	
Filter mats	3					3286.400	481
Metal filters	1					3286.410	482
Door-operated switch	1					4127.010	694
Master/slave cable for comfort controller	1					3124.100	477
RiDiag II including cables for comfort controller	1					3159.100	515
Interface card for comfort controller	1					3124.200	477
Condensate hose	1					3301.612	484

¹⁾ Motor circuit-breaker.

Special voltages available on request. We reserve the right to make technical modifications.

Wall-mounted air conditioner



Climate control accessories Page 471 Software & services Page 511

Protection rating:

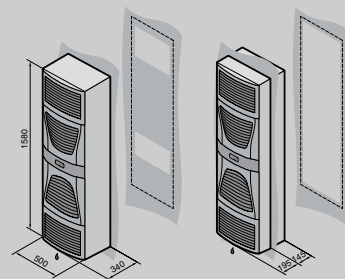
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator

Additional parts needed:

For installation in the door, the use of a door alignment roller (4538.000) is recommended, see page 618.



Useful cooling capacity: 16841 BTU (4933 W)

Part No. with basic controller, RAL 7035 (light grey)		3332.140
Part No. with basic controller, Type 304 stainless steel		3332.240
Voltage V, Hz		400, 50/460, 60, 3~
Dimensions inches (mm) H x W x D		62 x 20 x 13 (1580 x 500 x 340)
Useful cooling capacity Q_k BTU (W) T_i 131 T_a 131		16841 (4933)
Useful cooling capacity Q_k to DIN 3168 BTU (W) T_i 95 T_a 95		13661/15027 (4000/4400)
		T_i 95 T_a 122
		10485/12192 (3070/3570)
Rated current maximum		4.2 A/4.2 A
Starting current		9.2 A/11.0 A
Pre-fuse T		Motor circuit breaker 10.0 A/10.0 A
Power consumption P_{el} to DIN 3168 T_i 95 T_a 95		1710 W/2110 W
		T_i 95 T_a 122
		1980 W/2450 W
Cooling coefficient $j = Q_k/P_{el}$ T_i 95 T_a 95		2.3
Refrigerant		R134a, 105.8 oz (3000 g)
Maximum allowable operating pressure		406 psi (28 bar)
Temperature and setting range		Basic controller - +86 to +131° F (+30 to +55° C)
Environmental ratings		UL Type 12 (IP 54)
Duty cycle		100%
Type of connection		Plug-in terminal strip
Weight lb (kg)		200.6 (91)
Air displacement of fans		External circuit
		Internal circuit
		1177 cfm (2000 m ³ /h)
		883 cfm (1500 m ³ /h)
Temperature control		Basic (factory setting 95° F (+35° C))
Accessories		PU
Filter mats	3	3286.400
Metal filters	1	3286.410
Door-operated switch	1	4127.010
Master/slave cable for comfort controller	1	3124.100
RiDiag II including cables for comfort controller	1	3159.100
Interface card for comfort controller	1	3124.200
Condensate hose	1	3301.612
		481
		482
		694
		477
		515
		477
		484

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

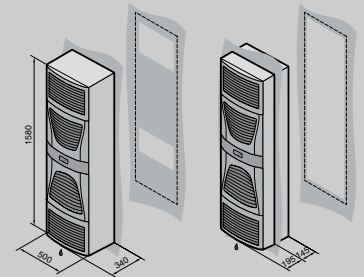
– With nano-coated condenser and integrated condensate evaporator

Note:

Air conditioners with comfort controller may be integrated into a monitoring system with an optional interface card 3124.200 (RS 232, RS 485, RS 422 and PLC interface). See page 477.

Additional parts needed:

For installation in the door, the use of a door alignment roller (4538.000) is recommended, see page 618.



Useful cooling capacity: 16841 BTU (4933 W)

Part No. with comfort controller, RAL 7035 (light grey)		3332.540
Part No. with comfort controller, Type 304 stainless steel		3332.640
Voltage V, Hz		400, 50/460, 60, 3~
Dimensions inches (mm)	H x W x D	62 x 20 x 13 (1580 x 500 x 340)
Useful cooling capacity Q_k BTU (W)	T_i 131 T_a 131	16841 (4933)
Useful cooling capacity Q_k to DIN 3168 BTU (W)	T_i 95 T_a 95	13661/15027 (4000/4400)
	T_i 95 T_a 122	10485/12192 (3070/3570)
Rated current maximum		4.2 A/4.2 A
Starting current		9.2 A/11.0 A
Pre-fuse T		Motor circuit breaker 10.0 A/10.0 A
Power consumption P_{el} to DIN 3168	T_i 95 T_a 95	1710 W/2110 W
	T_i 95 T_a 122	1980 W/2450 W
Cooling coefficient $j = Q_k/P_{el}$	T_i 95 T_a 95	2.3
Refrigerant		R134a, 105.8 oz (3000 g)
Maximum allowable operating pressure		406 psi (28 bar)
Temperature and setting range		Comfort controller - +68 to +131° F (+20 to +55° C)
Environmental ratings		UL Type 12 (IP 54)
Duty cycle		100%
Type of connection		Plug-in terminal strip
Weight lb (kg)		200.6 (91)
Air displacement of fans	External circuit	1177 cfm (2000 m ³ /h)
	Internal circuit	883 cfm (1500 m ³ /h)
Temperature control		Comfort controller (factory setting 95° F (+35° C))

Accessories	PU		Page
Filter mats	3	3286.400	481
Metal filters	1	3286.410	482
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Condensate hose	1	3301.612	484

Special voltages available on request. We reserve the right to make technical modifications.

Wall-mounted air conditioner



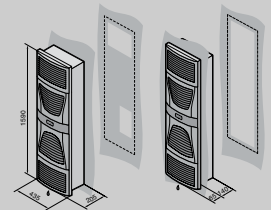
Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator



Useful cooling capacity: 5804 BTU (1700 W)

Part No. with basic controller, RAL 7035 (light grey)		3366.100	3366.110	3366.140
Part No. with basic controller, Type 304 stainless steel		3366.200	3366.210	3366.240
Voltage V, Hz		230, 50/60		115, 50/60
Dimensions inches (mm)		62 x 18 x 8 (1590 x 435 x 205)		62 x 18 x 8 (1590 x 435 x 205)
Useful cooling capacity Q_k BTU (W)		5804 (1700)		5804 (1700)
Useful cooling capacity Q_k to DIN 3168 BTU (W)		3415/5123 (1500/1500)		3415/5123 (1500/1500)
Rated current maximum		7.1 A/7.3 A		14.2 A/14.7 A
Starting current		22.0 A/24.0 A		43.0 A/47.0 A
Pre-fuse T		10.0 A		20.0 A
Power consumption P_{el} to DIN 3168		1045 W/1175 W		1075 W/1200 W
Cooling coefficient $j = Q_k/P_{el}$		1.4		1.3
Refrigerant		R134a, 24.7 oz (700 g)		
Maximum allowable operating pressure		406 psi (28 bar)		
Temperature and setting range		Basic controller - +86 to +131° F (+30 to +55° C)		
Environmental ratings		UL Type 12 (IP 54)		
Duty cycle		100%		
Type of connection		Plug-in terminal strip		
Weight lb (kg)		99.2 (45)		110.2 (50)
Air displacement of fans (unimpeded air flow)		536 cfm (910 m ³ /h)		506 cfm (860 m ³ /h)
Temperature control		Basic controller (factory setting 95° F (+35° C))		
Accessories		PU		
Filter mats	3	3286.400	3286.400	3286.400
Metal filters	1	3286.410	3286.410	3286.410
Trim frame for external mounting	1		3377.000	479
Door-operated switch	1		4127.010	477
Master/slave cable for comfort controller	1		3124.100	477
RiDiag II including cables for comfort controller	1		3159.100	515
Interface card for comfort controller	1		3124.200	477
Condensate hose	1		3301.612	484

Special voltages available by request. We reserve the right to make technical modifications.



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Protection rating:

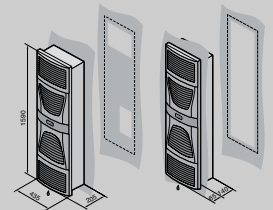
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator

Note:

Air conditioner with comfort controller may be integrated into a monitoring system with an optional interface card 3124.200 (RS 232, RS 485, RS 422 and PLC interface). See page 477.



Useful cooling capacity: 5804 BTU (1700 W)

Part No. with comfort controller, RAL 7035 (light grey)		3366.500	3366.510	3366.540	
Part No. with comfort controller, Type 304 stainless steel		3366.600	3366.610	3366.640	
Voltage V, Hz		230, 50/60		115, 50/60	
Dimensions inches (mm)		62 x 18 x 8 (1590 x 435 x 205)		62 x 18 x 8 (1590 x 435 x 205)	
Useful cooling capacity Q_k BTU (W)		5804 (1700)		5804 (1700)	
Useful cooling capacity Q_k to DIN 3168 BTU (W)		3415/5123 (1500/1500)		3415/5123 (1500/1500)	
Rated current maximum		7.1 A/7.3 A		14.2 A/14.7 A	
Starting current		22.0 A/24.0 A		43.0 A/47.0 A	
Pre-fuse T		10.0 A		20.0 A	
Power consumption P_{el} to DIN 3168		1045 W/1175 W		1075 W/1200 W	
Cooling coefficient $j = Q_k/P_{el}$		1.4		1.3	
Refrigerant		R134a, 24.7 oz (700 g)			
Maximum allowable operating pressure		406 psi (28 bar)			
Temperature and setting range		Comfort controller - +68 to +131° F (+20 to +55° C)			
Environmental ratings		UL Type 12 (IP 54)			
Duty cycle		100%			
Type of connection		Plug-in terminal strip			
Weight lb (kg)		99.2 (45)		110.2 (50)	
Air displacement of fans (unimpeded air flow)		536 cfm (910 m³/h)		506 cfm (860 m³/h)	
Temperature control		Comfort controller (factory setting 95° F (+35° C))			
Accessories		PU			Page
Filter mats	3	3286.400	3286.400	3286.400	481
Metal filters	1	3286.410	3286.410	3286.410	482
Trim frame for external mounting	1		3377.000		479
Door-operated switch	1		4127.010		477
Master/slave cable for comfort controller	1		3124.100		477
RiDiag II including cables for comfort controller	1		3159.100		515
Interface card for comfort controller	1		3124.200		477
Condensate hose	1		3301.612		484

Special voltages available by request. We reserve the right to make technical modifications.

Wall-mounted UL Type 4X air conditioner



Climate control accessories Page 471 Software & services Page 511

Protection rating:

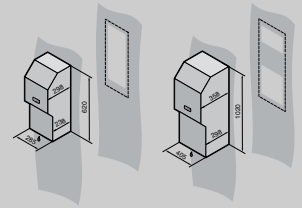
UL/cUL recognized, CSA
UL Type 4X
UL file #: SA8250

Material:

Type 304 stainless steel

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator



Useful cooling capacity: 2400 - 5794 BTU (703 - 1697 W)

Part No. with basic controller	3303.104 ²⁾	3303.114 ²⁾	3304.104	3304.114	3304.144	3305.104	3305.114	3305.144
Voltage V, Hz	230, 50/60	115, 60	230, 50/60	115, 60	400, 50/ 460, 60, 3~	230, 50/60	115, 60	400, 50/ 460, 60, 3~
Dimensions inches (mm) H x W x D	24 x 11 x 12 (620 x 285 x 298)		40 x 16 x 14 (1020 x 405 x 358)					
Useful cooling capacity Q _k BTU (W) T _i 131 T _a 131	2400 (703)		3916 (1147)			5794 (1697)		
Useful cooling capacity Q _k to DIN 3168 BTU (W) T _i 95 T _a 95	1708/2083 (500/610)	1708 (500)	3415/3620 (1000/1060)			5123/5157 (1500/1510)		
	956/1195 (280/350)	956 (280)	2698/2869 (790/840)			4201/4269 (1230/1250)		
Rated current maximum	2.6/2.6 A	5.7 A	5.4/5.0 A	10.6/11.1 A	2.8/2.9 A	6.0/6.5 A	12.1/13.6 A	2.6/2.9 A
Starting current	5.1/6.4 A	11.5 A	12.0/14.0 A	26.0/28.0 A	11.5/12.7 A	22.0/24.0 A	42.0/46.0 A	12.2/11.3 A
Pre-fuse T	10.0 A	10.0 A	10.0 A	16.0 A	10.0 A ¹⁾	16.0 A	20.0 A	10.0 A ¹⁾
Power consumption Pel to DIN 3168 T _i 95 T _a 95	360/380 W	470 W	700/650 W	725/680 W	580/550 W	850/1000 W	880/1050 W	800/980 W
	420/390 W	500 W	750/710 W	780/750 W	660/680 W	1000/1160 W	1040/1200 W	960/1150 W
Cooling coefficient j = Q _k /Pel T _i 95 T _a 95	1.4			1.7		1.8	1.7	1.9
Refrigerant	R134a, 6.0 oz (170 g)		R134a, 17.6 oz (500 g)			R134a, 21.1 oz (600 g)		
Maximum allowable operating pressure	406 psi (28 bar)		363 psi (25 bar)					
Temperature and setting range	Basic controller - +86 to +131° F (+30 to +55° C)							
Environmental ratings	UL Type 4X (IP 66)							
Duty cycle	100%							
Type of connection	Plug-in terminal strip							
Weight lb (kg)	55.1 (25)	108.2 (49)	119.0 (54)	110.2 (50)	112.4 (51)	123.5 (56)	114.6 (52)	
Material	Type 304 stainless steel							
Air displacement of fans	External circuit	203 cfm (345 m ³ /h)		530 cfm (900 m ³ /h)			530 cfm (900 m ³ /h)	
	Internal circuit	182 cfm (310 m ³ /h)		353 cfm (600 m ³ /h)			471 cfm (800 m ³ /h)	
Temperature control	Basic controller (factory setting 95° F (+35° C))							

Accessories	PU							Page
Door-operated switch	1	4127.010						694
Master/slave cable for comfort controller	1	3124.100	-			3124.100		477
RiDiag II including cables for comfort controller	1	3159.100						515
Interface card for comfort controller	1	3124.200						477
Condensate hose	1	3301.610	3301.612				484	

¹⁾ Motor circuit breaker.

²⁾ Internal condensate evaporator not included.

Special voltages and technical modifications available on request.

Wall-mounted UL Type 4X air conditioner



Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized, CSA
UL Type 4X
UL file #: SA8250

Material:

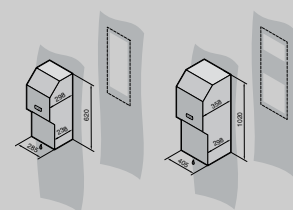
Type 304 stainless steel

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator

Note:

Air conditioner with comfort controller may be integrated into a monitoring system with an optional interface card 3124.20 (RS 232, RS 485, RS 422 and PLC interface). See page 477.



Useful cooling capacity: 2400 - 5794 BTU (703 - 1697 W)

Part No. with comfort controller	3303.504 ²⁾	3303.514 ²⁾	3304.504	3304.514	3304.544	3305.504	3305.514	3305.544
Voltage V, Hz	230, 50/60	115, 60	230, 50/60	115, 60	400, 50/ 460, 60, 3~	230, 50/60	115, 60	400, 50/ 460, 60, 3~
Dimensions inches (mm) H x W x D	24 x 11 x 12 (620 x 285 x 298)		40 x 16 x 14 (1020 x 405 x 358)					
Useful cooling capacity Q _k BTU (W) T _i 131 T _a 131	2400 (703)		3916 (1147)			5794 (1697)		
Useful cooling capacity Q _k to DIN 3168 BTU (W) T _i 95 T _a 95	1708/2083 (500/610)	1708 (500)	3415/3620 (1000/1060)			5123/5157 (1500/1510)		
	956/1195 (280/350)	956 (280)	2698/2869 (790/840)			4201/4269 (1230/1250)		
Rated current maximum	2.6/2.6 A	5.7 A	5.4/5.0 A	10.6/11.1 A	2.8/2.9 A	6.0/6.5 A	12.1/13.6 A	2.6/2.9 A
Starting current	5.1/6.4 A	11.5 A	12.0/14.0 A	26.0/28.0 A	11.5/12.7 A	22.0/24.0 A	42.0/46.0 A	12.2/11.3 A
Pre-fuse T	10.0 A	10.0 A	10.0 A	16.0 A	10.0 A ¹⁾	16.0 A	20.0 A	10.0 A ¹⁾
Power consumption Pel to DIN 3168 T _i 95 T _a 95	360/380 W	470 W	700/650 W	725/680 W	580/550 W	850/1000 W	880/1050 W	800/980 W
	420/390 W	500 W	750/710 W	780/750 W	660/680 W	1000/1160 W	1040/1200 W	960/1150 W
Cooling coefficient j = Q _k /Pel T _i 95 T _a 95	1.4			1.7		1.8	1.7	1.9
Refrigerant	R134a, 6.0 oz (170 g)		R134a, 17.6 oz (500 g)			R134a, 21.1 oz (600 g)		
Maximum allowable operating pressure	406 psi (28 bar)		363 psi (25 bar)					
Temperature and setting range	Comfort controller - +68 to +131° F (+20 to +55° C)							
Environmental ratings	UL Type 4X (IP 66)							
Duty cycle	100%							
Type of connection	Plug-in terminal strip							
Weight lb (kg)	55.1 (25)	108.2 (49)	119.0 (54)	110.2 (50)	112.4 (51)	123.5 (56)	114.6 (52)	
Material	Type 304 stainless steel							
Air displacement of fans	External circuit	203 cfm (345 m ³ /h)		530 cfm (900 m ³ /h)			530 cfm (900 m ³ /h)	
	Internal circuit	182 cfm (310 m ³ /h)		353 cfm (600 m ³ /h)			471 cfm (800 m ³ /h)	
Temperature control	Comfort controller (factory setting 95° F (+35° C))							

Accessories	PU							Page
Door-operated switch	1	4127.010						694
Master/slave cable for comfort controller	1	3124.100	-			3124.100	477	
RiDiag II including cables for comfort controller	1	3159.100						515
Interface card for comfort controller	1	3124.200						477
Condensate hose	1	3301.610	3301.612				484	

¹⁾ Motor circuit breaker.

²⁾ Internal condensate evaporator not included.

Special voltages and technical modifications available on request.

Wall-mounted UL Type 4X air conditioner



Climate control accessories Page 471 Software & services Page 511

Protection rating:

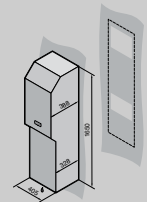
UL/cUL recognized, CSA
UL Type 4X
UL file #: SA8250

Material:

Type 304 stainless steel

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator



Useful cooling capacity: 8706 - 10525 BTU (2550 - 3083 W)

Part No. with basic controller	3328.104	3328.114	3328.144	3329.104	3329.114	3329.144
Rated operating voltage V, Hz	230, 50/60	115, 50/60	400, 50/460, 60, 3~	230, 50/60	115, 50/60	400, 50/460, 60, 3~
Dimensions inches (mm) H x W x D	65 x 16 x 15 (1650 x 405 x 388)					
Useful cooling capacity Q_k BTU (W) T_i 131 T_a 131	8706 (2550)			10525 (3083)		
Useful cooling capacity Q_k to DIN 3168 T_i 95 T_a 95	6860/8025 (2000/2350)			8538/9392 (2500/2750)		
BTU (W) T_i 95 T_a 122	4952/5772 (1450/1690)			5464/5977 (1600/1750)		
Rated current max.	7.5 A/9.1 A	14.7 A/17.3 A	2.8 A/3.3 A	8.6 A/10.6 A	17.0 A/22.0 A	3.7 A/3.8 A
Start-up current	22.0 A/26.0 A	36.0 A/39.0 A	6.8 A/7.8 A	21.0 A/21.0 A	44.0 A/42.0 A	6.8 A/7.6 A
Pre-fuse T	16.0 A	25.0 A	10.0A/10.0 A ¹⁾	16.0 A	25.0 A	10.0 A/10.0 A ¹⁾
Power consumption P_{el} to DIN 3168 T_i 95 T_a 95	1025/1200 W	1085/1250 W	1050/1275 W	1450/1675 W	1500/1725 W	1425/1625 W
T_i 95 T_a 122	1250/1350 W	1300/1410 W	1275/1525 W	1625/2000 W	1675/2065 W	1675/1975 W
Cooling coefficient $j = Q_k/P_{el}$ T_i 95 T_a 95	1.7		2.3	1.9		2.0
Refrigerant	R134a, 31.7 oz (900 g)					
Maximum allowable operating pressure	406 psi (28 bar)					
Temperature and setting range	Basic controller - +86 to +131° F (+30 to +55° C)					
Protection rating	UL Type 4X (IP 66)					
Duty cycle	100%					
Type of connection	Plug-in terminal strip					
Weight lb (kg)	176.4 (80)	191.8 (87)	176.4 (80)	183.0 (83)	198.4 (90)	183.0 (83)
Material	Type 304 stainless steel					
Air displacement of fans	External circuit	377 cfm (640 m³/h)			418 cfm (710 m³/h)	
	Internal circuit	324 cfm (550 m³/h)			377 cfm (640 m³/h)	
Temperature control	Basic controller (factory setting 95° F (+35° C))					

Accessories	PU		Page
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Condensate hose	1	3301.612	484

¹⁾ Motor circuit breaker. Special voltages available on request. We reserve the right to make technical modifications.

Wall-mounted UL Type 4X air conditioner



Climate control accessories Page 471 Software & services Page 511

Protection rating:

UL/cUL recognized, CSA
UL Type 4X
UL file #: SA8250

Material:

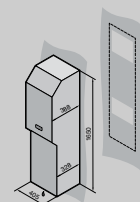
Type 304 stainless steel

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator

Note:

Air conditioner with comfort controller may be integrated into a monitoring system with an optional interface card 3124.200 (RS 232, RS 485, RS 422 and PLC interface). See page 477.



Useful cooling capacity: 8706 - 10525 BTU (2550 - 3083 W)

Part No. with comfort controller	3328.504	3328.514	3328.544	3329.504	3329.514	3329.544
Rated operating voltage V, Hz	230, 50/60	115, 50/60	400, 50/460, 60, 3~	230, 50/60	115, 50/60	400, 50/460, 60, 3~
Dimensions inches (mm)	H x W x D 65 x 16 x 15 (1650 x 405 x 388)					
Useful cooling capacity Q_k BTU (W)	8706 (2550)			10525 (3083)		
Useful cooling capacity Q_k to DIN 3168 BTU (W)	6860/8025 (2000/2350)			8538/9392 (2500/2750)		
	4952/5772 (1450/1690)			5464/5977 (1600/1750)		
Rated current max.	7.5 A/9.1 A	14.7 A/17.3 A	2.8 A/3.3 A	8.6 A/10.6 A	17.0 A/22.0 A	3.7 A/3.8 A
Start-up current	22.0 A/26.0 A	36.0 A/39.0 A	6.8 A/7.8 A	21.0 A/21.0 A	44.0 A/42.0 A	6.8 A/7.6 A
Pre-fuse T	16.0 A	25.0 A	10.0A/10.0 A ¹⁾	16.0 A	25.0 A	10.0 A/10.0 A ¹⁾
Power consumption P_{el} to DIN 3168	1025/1200 W		1085/1250 W	1050/1275 W	1450/1675 W	1500/1725 W
	1250/1350 W		1300/1410 W	1275/1525 W	1625/2000 W	1675/2065 W
Cooling coefficient $j = Q_k/P_{el}$	1.7		2.3	1.9		2.0
Refrigerant	R134a, 31.7 oz (900 g)					
Maximum allowable operating pressure	406 psi (28 bar)					
Temperature and setting range	Comfort controller - +68 to +131° F (+20 to +55° C)					
Protection rating	UL Type 4X (IP 66)					
Duty cycle	100%					
Type of connection	Plug-in terminal strip					
Weight lb (kg)	176.4 (80)	191.8 (87)	176.4 (80)	183.0 (83)	198.4 (90)	183.0 (83)
Material	Type 304 stainless steel					
Air displacement of fans	External circuit	377 cfm (640 m ³ /h)			418 cfm (710 m ³ /h)	
	Internal circuit	324 cfm (550 m ³ /h)			377 cfm (640 m ³ /h)	
Temperature control	Comfort controller (factory setting 95° F (+35° C))					

Accessories	PU		Page
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Condensate hose	1	3301.612	484

¹⁾ Motor circuit breaker. Special voltages available on request. We reserve the right to make technical modifications.

Roof-mounted air conditioner



Climate control accessories Page 471 Software & services Page 511 RiDiag II Page 515

Protection rating:

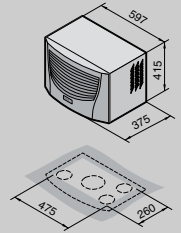
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator

Property rights:

German registered design
no. 402 02 324, 402 02 325



Useful cooling capacity: 1581 - 3081 BTU (463-903 W)

Part No. with basic controller, RAL 7035 (light grey)	3382.100	3382.110	3359.100	3359.110	3359.140
Part No. with basic controller, Type 304 stainless steel	3382.200	3382.210	3359.200	3359.210	3359.240
Voltage V, Hz	230, 50/60	115, 50/60	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D 16 x 24 x 15 (417 x 597 x 380)				
Useful cooling capacity Q_k BTU (W)	T _i 131 T _a 131 1581 (463)		3081 (903)		
Useful cooling capacity Q_k to DIN 3168 BTU (W)	T _i 95 T _a 95 1708/1742 (500/510)		2561/2766 (750/810)		
	T _i 95 T _a 122 922/1264 (270/370)		1861/2015 (545/590)		
Rated current maximum	3.3 A/3.5 A	6.7 A/7.2 A	3.6 A/4.5 A	7.2 A/9.0 A	2.1 A/2.4 A
Starting current	9.2 A/10.2 A	18.4 A/18.4 A	10.0 A/10.7 A	20.0 A/21.4 A	5.8 A/6.2 A
Pre-fuse T	10.0 A			16.0 A	10.0 A
Power consumption Pel to DIN 3168	T _i 95 T _a 95 550 W/550 W 510 W/560 W		550 W/660 W		560 W/675 W
	T _i 95 T _a 122 550 W/590 W 560 W/610 W		630 W/740 W		640 W/750 W
Cooling coefficient j = Q_k /Pel	T _i 95 T _a 95 1.0		1.4		
Refrigerant	R134a, 8.8 oz (250 g)		R134a, 10.6 oz (300 g)		
Maximum allowable operating pressure	363 psi (25 bar)				
Temperature and setting range	Basic controller - +86 to +131° F (+30 to +55° C)				
Environmental rating	UL Type 12 (IP 54)				
Duty cycle	100%				
Type of connection	Plug-in terminal strip				
Weight lb (kg)	66.1 (30)	77.1 (35)	70.5 (32)	81.5 (37)	
Air displacement of fans (unimpeded air flow)	External circuit		536 cfm (910 m³/h)		
	Internal circuit		259 cfm (440 m³/h)		
Temperature control	Basic controller (factory setting 95° F (+35° C))				
Accessories	PU				Page
Filter mats	3		3286.500		481
Metal filters	1		3286.510		482
Quick-change frame	1		3286.700		479
Door-operated switch	1		4127.010		694
Master/slave cable for comfort controller	1		3124.100		477
RiDiag II including cables for comfort controller	1		3159.100		515
Interface card for comfort controller	1		3124.200		477
Air ducting system	1		3286.870		471
Shallow air ducting system	1		3286.850		472
Plugs for interior air outlet	2		3286.780		473
Condensate hose	1		3301.612		484

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511 RiDiag II Page 515

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

– With nano-coated condenser and integrated condensate evaporator

(RS 232, RS 485, RS 422 and PLC interface). See page 477.

Configuration:

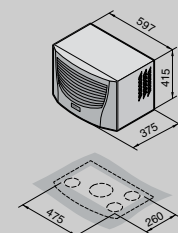
– Fully wired ready for connection
– Includes drilling template and assembly parts

Note:

Air conditioners with a comfort controller may be integrated into a monitoring system with an optional interface card 3124.200

Property rights:

German registered design no. 402 02 324, 402 02 325



Useful cooling capacity: 1581 - 3081 BTU (463-903 W)

Part No. with comfort controller, RAL 7035 (light grey)	3382.500	3382.510	3359.500	3359.510	3359.540
Part No. with comfort controller, Type 304 stainless steel	3382.600	3382.610	3359.600	3359.610	3359.640
Voltage V, Hz	230, 50/60	115, 50/60	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D 16 x 24 x 15 (417 x 597 x 380)				
Useful cooling capacity Q_k BTU (W)	1581 (463)		3081 (903)		
Useful cooling capacity Q_k to DIN 3168 BTU (W)	T_i 131 T_a 131	1708/1742 (500/510)		2561/2766 (750/810)	
	T_i 95 T_a 95	922/1264 (270/370)		1861/2015 (545/590)	
Rated current maximum	3.3 A/3.5 A	6.7 A/7.2 A	3.6 A/4.5 A	7.2 A/9.0 A	2.1 A/2.4 A
Starting current	9.2 A/10.2 A	18.4 A/18.4 A	10.0 A/10.7 A	20.0 A/21.4 A	5.8 A/6.2 A
Pre-fuse T	10.0 A			16.0 A	10.0 A
Power consumption P_{el} to DIN 3168	T_i 95 T_a 95	550 W/550 W	510 W/560 W	550 W/660 W	560 W/675 W
	T_i 95 T_a 122	550 W/590 W	560 W/610 W	630 W/740 W	640 W/750 W
Cooling coefficient $j = Q_k/P_{el}$	T_i 95 T_a 95	1.0		1.4	
Refrigerant	R134a, 8.8 oz (250 g)		R134a, 10.6 oz (300 g)		
Maximum allowable operating pressure	363 psi (25 bar)				
Temperature and setting range	Comfort controller - +68 to +131° F (+20 to +55° C)				
Environmental rating	UL Type 12 (IP 54)				
Duty cycle	100%				
Type of connection	Plug-in terminal strip				
Weight lb (kg)	66.1 (30)	77.1 (35)	70.5 (32)	81.5 (37)	
Air displacement of fans (unimpeded air flow)	External circuit	536 cfm (910 m³/h)			
	Internal circuit	259 cfm (440 m³/h)			
Temperature control	Comfort controller (factory setting 95° F (+35° C))				

Accessories	PU		Page
Filter mats	3	3286.500	481
Metal filters	1	3286.510	482
Quick-change frame	1	3286.700	479
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Air ducting system	1	3286.870	471
Shallow air ducting system	1	3286.850	472
Plugs for interior air outlet	2	3286.780	473
Condensate hose	1	3301.612	484

Special voltages available on request. We reserve the right to make technical modifications.

Roof-mounted air conditioner



Climate control accessories Page 471 Software & services Page 511 RiDiag II Page 515

Protection rating:

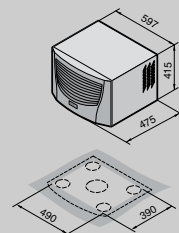
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator

Property rights:

German registered design
no. 402 02 324, 402 02 325



Useful cooling capacity: 4462 BTU (1307 W)

Part No. with basic controller, RAL 7035 (light grey)	3383.100	3383.110	3383.140
Part No. with basic controller, Type 304 stainless steel	3383.200	3383.210	3383.240
Voltage V, Hz	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D 16 x 24 x 19 (417 x 597 x 475)		
Useful cooling capacity Q_k BTU (W)	4462 (1307)		
Useful cooling capacity Q_k to DIN 3168 BTU (W)	3415/3688 (1000/1080)		
	2596/2800 (760/820)		
Rated current maximum	4.9 A/5.1 A	9.5 A/10.0 A	2.8 A/2.8 A
Starting current	15.5 A/15.5 A	25.3 A/24.3 A	8.0 A/8.8 A
Pre-fuse T	10.0 A	16.0 A	10.0 A
Power consumption P_{el} to DIN 3168	T_i 95 T_a 95	690 W/790 W	720 W/800 W
	T_i 95 T_a 122	800 W/890 W	810 W/900 W
Cooling coefficient $j = Q_k/P_{el}$	T_i 95 T_a 95	1.4	
Refrigerant	R134a, 17.6 oz (500 g)		
Maximum allowable operating pressure	363 psi (25 bar)		
Temperature and setting range	Basic controller - +86 to +131° F (+30 to +55° C)		
Environmental rating	UL Type 12 (IP 54)		
Duty cycle	100%		
Type of connection	Plug-in terminal strip		
Weight lb (kg)	88.2 (40)	101.4 (46)	
Air displacement of fans	External circuit	1036 cfm (1760 m³/h)	
	Internal circuit	259 cfm (440 m³/h)	
Temperature control	Basic controller (factory setting 95° F (+35° C))		
Accessories	PU		Page
Filter mats	3	3286.500	481
Metal filters	1	3286.510	482
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Air ducting system	1	3286.870	471
Shallow air ducting system	1	3286.850	472
Plugs for interior air outlet	2	3286.880	473
Condensate hose	1	3301.612	484

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511 RiDiag II Page 515

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

– With nano-coated condenser and integrated condensate evaporator

(RS 232, RS 485, RS 422 and PLC interface). See page 477.

Configuration:

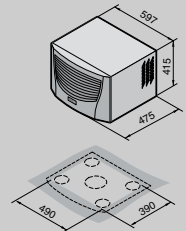
– Fully wired ready for connection
– Includes drilling template and assembly parts

Note:

Air conditioners with a comfort controller may be integrated into a monitoring system with an optional interface card 3124.200

Property rights:

German registered design no. 402 02 324, 402 02 325



Useful cooling capacity: 4462 BTU (1307 W)

Part No. with comfort controller, RAL 7035 (light grey)	3383.500	3383.510	3383.540
Part No. with comfort controller, Type 304 stainless steel	3383.600	3383.610	3383.640
Voltage V, Hz	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D 16 x 24 x 19 (417 x 597 x 475)		
Useful cooling capacity Q _k BTU (W)	T _i 131 T _a 131 4462 (1307)		
Useful cooling capacity Q _k to DIN 3168 BTU (W)	T _i 95 T _a 95 3415/3688 (1000/1080)		
	T _i 95 T _a 122 2596/2800 (760/820)		
Rated current maximum	4.9 A/5.1 A	9.5 A/10.0 A	2.8 A/2.8 A
Starting current	15.5 A/15.5 A	25.3 A/24.3 A	8.0 A/8.8 A
Pre-fuse T	10.0 A	16.0 A	10.0 A
Power consumption Pel to DIN 3168	T _i 95 T _a 95 690 W/790 W		720 W/800 W
	T _i 95 T _a 122 800 W/890 W		810 W/900 W
Cooling coefficient j = Q _k /Pel	T _i 95 T _a 95 1.4		
Refrigerant	R134a, 17.6 oz (500 g)		
Maximum allowable operating pressure	363 psi (25 bar)		
Temperature and setting range	Comfort controller - +68 to +131° F (+20 to +55° C)		
Environmental rating	UL Type 12 (IP 54)		
Duty cycle	100%		
Type of connection	Plug-in terminal strip		
Weight lb (kg)	88.2 (40)	101.4 (46)	
Air displacement of fans	External circuit	1036 cfm (1760 m³/h)	
	Internal circuit	259 cfm (440 m³/h)	
Temperature control	Comfort controller (factory setting 95° F (+35° C))		

Accessories	PU		Page
Filter mats	3	3286.500	481
Metal filters	1	3286.510	482
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Air ducting system	1	3286.870	471
Shallow air ducting system	1	3286.850	472
Plugs for interior air outlet	2	3286.880	473
Condensate hose	1	3301.612	484

Special voltages available on request. We reserve the right to make technical modifications.

Roof-mounted air conditioner



Climate control accessories Page 471 Software & services Page 511 RiDiag II Page 515

Protection rating:

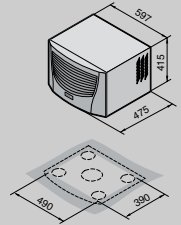
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator

Property rights:

German registered design
no. 402 02 324, 402 02 325



Useful cooling capacity: 6009 - 8272 BTU (1760 - 2423 W)

Part No. with basic controller, RAL 7035 (light grey)	3384.100	3384.110	3384.140	3385.100	3385.110	3385.140
Part No. with basic controller, Type 304 stainless steel	3384.200	3384.210	3384.240	3385.200	3385.210	3385.240
Voltage V, Hz	230, 50/60	115, 50/60	400, 2~, 50/60	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D 16 x 24 x 19 (417 x 597 x 475)					
Useful cooling capacity Q_k BTU (W)	6009 (1760)			8272 (2423)		
Useful cooling capacity Q_k to DIN 3168 BTU (W)	5123/5191 (1500/1520)			6830/7274 (2000/2130)		
	T _i 95 T _a 95			T _i 95 T _a 122		
Rated current maximum	6.3 A/7.4 A	13.7 A/15.3 A	3.8 A/4.4 A	6.3 A/7.2 A	14.2 A/15.4 A	3.7 A/4.2 A
Starting current	16.6 A/17.1 A	30.7 A/29.1 A	9.8 A/9.6 A	16.8 A/18.4 A	36.0 A/32.0 A	10.0 A/12.0 A
Pre-fuse T	10.0 A	20.0 A	10.0 A	10.0 A	20.0 A	10.0 A
Power consumption Pel to DIN 3168	T _i 95 T _a 95 955 W/1070 W		990 W/1090 W		1140 W/1310 W	
	T _i 95 T _a 122 1090 W/1290 W		1140 W/1290 W		1300 W/1520 W	
Cooling coefficient $j = Q_k/P_{el}$	T _i 95 T _a 95 1.6		1.5		1.8	
Refrigerant	R134a, 17.6 oz (500 g)			R134a, 33.4 oz (950 g)		
Maximum allowable operating pressure	363 psi (25 bar)					
Temperature and setting range	Basic controller - +86 to +131° F (+30 to +55° C)					
Environmental ratings	UL Type 12 (IP 54)					
Duty cycle	100%					
Type of connection	Plug-in terminal strip					
Weight lb (kg)	90.3 (41)	103.6 (47)	92.6 (42)	105.8 (48)		
Air displacement of fans	External circuit 1036 cfm (1760 m³/h)		1071 cfm (1820 m³/h)		Internal circuit 277 cfm (470 m³/h)	
Temperature control	Basic controller (factory setting 95° F (+35° C))					

Accessories	PU		Page
Filter mats	3	3286.500	481
Metal filters	1	3286.510	482
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Air ducting system	1	3286.870	471
Shallow air ducting system	1	3286.850	472
Plugs for interior air outlet	2	3286.880	473
Condensate hose	1	3301.612	484

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511 RiDiag II Page 515

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

– With nano-coated condenser and integrated condensate evaporator

(RS 232, RS 485, RS 422 and PLC interface). See page 477.

Configuration:

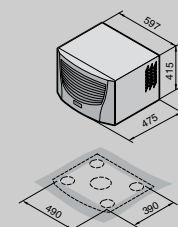
– Fully wired ready for connection
– Includes drilling template and assembly parts

Note:

Air conditioners with a comfort controller may be integrated into a monitoring system with an optional interface card 3124.200

Property rights:

German registered design no. 402 02 324, 402 02 325



Useful cooling capacity: 6009 - 8272 BTU (1760 - 2423 W)

Part No. with comfort controller, RAL 7035 (light grey)	3384.500	3384.510	3384.540	3385.500	3385.510	3385.540
Part No. with comfort controller, Type 304 stainless steel	3384.600	3384.610	3384.640	3385.600	3385.610	3385.640
Voltage V, Hz	230, 50/60	115, 50/60	400, 2~, 50/60	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D 16 x 24 x 19 (417 x 597 x 475)					
Useful cooling capacity Q_k BTU (W)	6009 (1760)			8272 (2423)		
Useful cooling capacity Q_k to DIN 3168 BTU (W)	5123/5191 (1500/1520)			6830/7274 (2000/2130)		
Rated current maximum	6.3 A/7.4 A	13.7 A/15.3 A	3.8 A/4.4 A	6.3 A/7.2 A	14.2 A/15.4 A	3.7 A/4.2 A
Starting current	16.6 A/17.1 A	30.7 A/29.1 A	9.8 A/9.6 A	16.8 A/18.4 A	36.0 A/32.0 A	10.0 A/12.0 A
Pre-fuse T	10.0 A	20.0 A	10.0 A	10.0 A	20.0 A	10.0 A
Power consumption P_{el} to DIN 3168	955 W/1070 W		990 W/1090 W	1140 W/1310 W		1190 W/1390 W
Cooling coefficient $j = Q_k/P_{el}$	1.6		1.5	1.8		1.7
Refrigerant	R134a, 17.6 oz (500 g)			R134a, 33.4 oz (950 g)		
Maximum allowable operating pressure	363 psi (25 bar)					
Temperature and setting range	Comfort controller - +68 to +131° F (+20 to +55° C)					
Environmental ratings	UL Type 12 (IP 54)					
Duty cycle	100%					
Type of connection	Plug-in terminal strip					
Weight lb (kg)	90.3 (41)	103.6 (47)	92.6 (42)	105.8 (48)		
Air displacement of fans	1036 cfm (1760 m³/h)			1071 cfm (1820 m³/h)		
Temperature control	277 cfm (470 m³/h)					
	Comfort controller (factory setting 95° F (+35° C))					

Accessories	PU		Page
Filter mats	3	3286.500	481
Metal filters	1	3286.510	482
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Air ducting system	1	3286.870	471
Shallow air ducting system	1	3286.850	472
Plugs for interior air outlet	2	3286.880	473
Condensate hose	1	3301.612	484

Special voltages available on request. We reserve the right to make technical modifications.

Roof-mounted air conditioner



Climate control accessories Page 471 Software & services Page 511 RiDiag II Page 515

Protection rating:

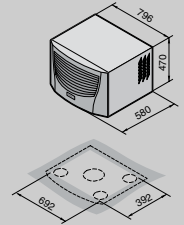
UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator

Property rights:

German registered design
no. 402 02 324, 402 02 325



Useful cooling capacity: 12632 - 18436 BTU (3700 - 5400 W)

Part No. with basic controller, RAL 7035 (light grey)		3386.140	3387.140
Part No. with basic controller, Type 304 stainless steel		3386.240	3387.240
Voltage V, Hz		400, 50/460, 60, 3~	400, 50/460, 60, 3~
Dimensions inches (mm)		19 x 31 x 23 (470 x 796 x 580)	
Useful cooling capacity Q_k BTU (W)	T_i 131 T_a 131	12632 (3700)	18436 (5400)
Useful cooling capacity Q_k to DIN 3168 BTU (W)	T_i 95 T_a 95	10246/11270 (3000/3300)	13661/14344 (4000/4200)
	T_i 95 T_a 122	8401/9392 (2460/2750)	11099/11919 (3250/3490)
Rated current maximum		3.4 A/3.4 A	3.9 A/3.9 A
Starting current		8.0 A/9.0 A	17.0 A/19.0 A
Pre-fuse T		Motor circuit breaker 6.3 A/10.0 A	
Power consumption P_{el} to DIN 3168	T_i 95 T_a 95	1320 W/1630 W	1760 W/2200 W
	T_i 95 T_a 122	1570 W/1910 W	2010 W/2480 W
Cooling coefficient $j = Q_k/P_{el}$		2.3	
Refrigerant		R134a, 56.4 oz (1600 g)	R134a, 63.5 oz (1800 g)
Maximum allowable operating pressure		363 psi (25 bar)	
Temperature and setting range		Basic controller - +86 to +131° F (+30 to +55° C)	
Environmental ratings		UL Type 12 (IP 54)	
Duty cycle		100%	
Type of connection		Plug-in terminal strip	
Weight lb (kg)		154.3 (70)	169.8 (77)
Air displacement of fans	External circuit	2031 cfm (3450 m³/h)	2278 cfm (3870 m³/h)
	Internal circuit	753.4 cfm (1280 m³/h)	836 cfm (1420 m³/h)
Temperature control		Basic controller (factory setting 95° F (+35° C))	
Accessories		PU	Page
Filter mats	3	3286.600	481
Metal filters	1	3286.610	482
Door-operated switch	1	4127.010	694
Master/slave cable for comfort controller	1	3124.100	477
RiDiag II including cables for comfort controller	1	3159.100	515
Interface card for comfort controller	1	3124.200	477
Air ducting system	1	3286.970	471
Shallow air ducting system	1	3286.850	472
Plugs for interior air outlet	2	3286.980	473
Condensate hose	1	3301.612	484

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Software & services Page 511 RiDiag II Page 515

Protection rating:

UL/cUL recognized, CSA
UL Type 12/IP 54
UL file #: SA8250

Configuration:

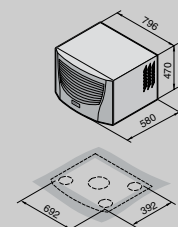
- Fully wired ready for connection
- Includes drilling template and assembly parts
- With nano-coated condenser and integrated condensate evaporator

Note:

Air conditioners with a comfort controller may be integrated into a monitoring system with an optional interface card 3124.200 (RS 232, RS 485, RS 422 and PLC interface). See page 477.

Property rights:

German registered design
no. 402 02 324, 402 02 325



Useful cooling capacity: 12632 - 18436 BTU (3700 - 5400 W)

Part No. with comfort controller, RAL 7035 (light grey)		3386.540	3387.540
Part No. with comfort controller, Type 304 stainless steel		3386.640	3387.640
Voltage V, Hz		400, 50/460, 60, 3~	400, 50/460, 60, 3~
Dimensions inches (mm)		19 x 31 x 23 (470 x 796 x 580)	
Useful cooling capacity Q_k BTU (W)	T_i 131 T_a 131	12632 (3700)	18436 (5400)
Useful cooling capacity Q_k to DIN 3168 BTU (W)	T_i 95 T_a 95	10246/11270 (3000/3300)	13661/14344 (4000/4200)
	T_i 95 T_a 122	8401/9392 (2460/2750)	11099/11919 (3250/3490)
Rated current maximum		3.4 A/3.4 A	3.9 A/3.9 A
Starting current		8.0 A/9.0 A	17.0 A/19.0 A
Pre-fuse T		Motor circuit breaker 6.3 A/10.0 A	
Power consumption P_{el} to DIN 3168	T_i 95 T_a 95	1320 W/1630 W	1760 W/2200 W
	T_i 95 T_a 122	1570 W/1910 W	2010 W/2480 W
Cooling coefficient $j = Q_k/P_{el}$		2.3	
Refrigerant		R134a, 56.4 oz (1600 g)	R134a, 63.5 oz (1800 g)
Maximum allowable operating pressure		363 psi (25 bar)	
Temperature and setting range		Comfort controller - +68 to +131° F (+20 to +55° C)	
Environmental ratings		UL Type 12 (IP 54)	
Duty cycle		100%	
Type of connection		Plug-in terminal strip	
Weight lb (kg)		154.3 (70)	169.8 (77)
Air displacement of fans	External circuit	2031 cfm (3450 m³/h)	2278 cfm (3870 m³/h)
	Internal circuit	753.4 cfm (1280 m³/h)	836 cfm (1420 m³/h)
Temperature control		Comfort controller (factory setting 95° F (+35° C))	
Accessories		PU	Page
Filter mats		3	481
Metal filters		1	482
Door-operated switch		1	694
Master/slave cable for comfort controller		1	477
RiDiag II including cables for comfort controller		1	515
Interface card for comfort controller		1	477
Air ducting system		1	471
Shallow air ducting system		1	472
Plugs for interior air outlet		2	473
Condensate hose		1	484

Special voltages available on request. We reserve the right to make technical modifications.

Modular climate control concept



Climate control accessories Page 471 TS 8 enclosures Page 90 Software & services Page 511

Protection rating:

- External circuit IP 34 to IEC 60 529
- Internal circuit IP 54 to IEC 60 529

Color:

RAL 7035

Configuration:

- Cooling module prepared for installation in section door
- Nano-coated condenser

- Integral electric condensate evaporation

Also required:

- Section door, fits TS 8 enclosures, 24", 32", 47" (600, 800, 1200 mm) widths and 71", 79" (1800, 2000 mm) heights, see page 427
- Base/plinth, 4" or 8" (100 or 200 mm) high, see page 533

Approvals:

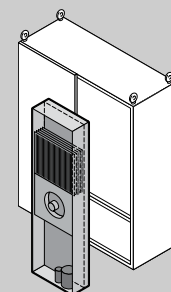
Available at www.rittal-corp.com

Detailed drawings:

Available at www.rittal-corp.com

Performance diagrams:

Available at www.rittal-corp.com



Cooling modules, 1500/2500 W useful cooling output

Part No. with Comfort controller	3307.700	3307.710	3307.740	3310.700	3310.710	3310.740
Rated operating voltage V, Hz	230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50/ 460, 3~, 60	230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50/ 460, 3~, 60
Useful cooling output Q_k to DIN 3168	L 35 L 35 L 35 L 50	1500 W/1550 W 850 W/900 W	1500 W/1550 W 930 W/950 W	2500 W/2520 W 1620 W/1730 W	2500 W/2500 W 1760 W/1800 W	2500 W/2500 W 1760 W/1800 W

Rated current max.	6.0 A/6.1 A	11.2 A/11.8 A	2.5 A/2.7 A	7.6 A/9.4 A	17.3 A/19.0 A	3.5 A/3.7 A	
Start-up current	22.0 A/24.0 A	36.0 A/39.0 A	8.5 A/9.2 A	22.0 A/24.0 A	36.0 A/39.0 A	13.0 A/14.0 A	
Pre-fuse T	16.0 A/16.0 A	11.0 A – 16.0 A ³⁾	6.3 A – 10.0 A ¹⁾	16.0 A/16.0 A	18.0 A – 25.0 A ³⁾	6.3 A – 10.0 A ¹⁾	
Power consumption P_{el} to DIN 3168	L 35 L 35 L 35 L 50	850 W/1050 W 1000 W/1150 W	870 W/1080 W 1070 W/1180 W	790 W/1000 W 900 W/1100 W	1310 W/1520 W 1480 W/1850 W	1360 W/1570 W 1530 W/1900 W	1130 W/1480 W 1400 W/1750 W
Refrigeration factor $\varepsilon = Q_k/P_{el}$	L 35 L 35	1.8	1.7	1.9	1.9	1.8	2.2
Refrigerant	R134a, 700 g			R134a, 1175 g			
Operating temperature and setting range	+68°F to +131°F (+20°C to +55°C)						
Weight ²⁾ lb (kg)	150 (68)	159 (72)	150 (68)	161 (73)	172 (78)	159 (72)	
Air throughput of fans (unimpeded air flow)	External circuit	647 cfm (1100 m ³ /h)			647 cfm (1100 m ³ /h)		
	Internal circuit	353 cfm (600 m ³ /h)			647 cfm (1100 m ³ /h)		
Temperature control	Comfort controller (factory setting +95°F/+35°C)						

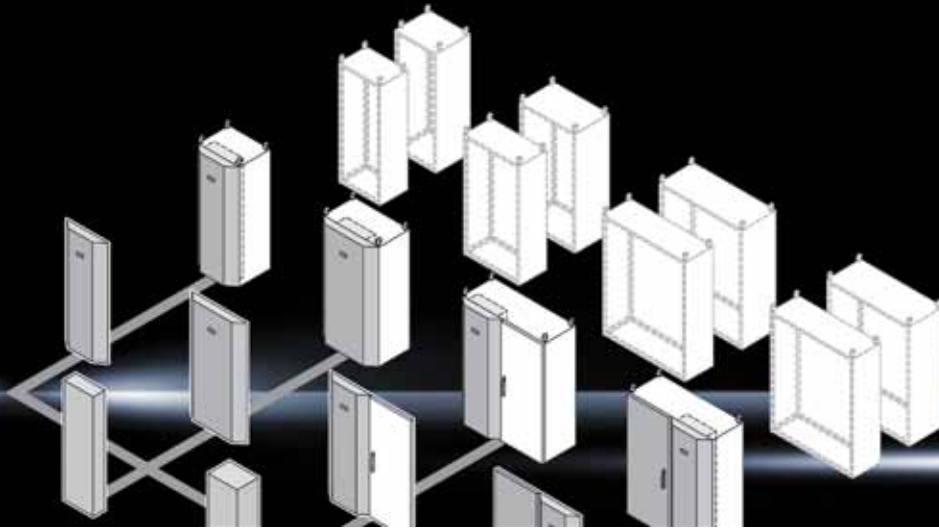
Accessories	Packs of							Page
Door-operated switch	1	4127.010	4127.010	4127.010	4127.010	4127.010	4127.010	694
Bus System	1	3124.100	3124.100	3124.100	3124.100	3124.100	3124.100	477
RiDiag II	1	3159.100	3159.100	3159.100	3159.100	3159.100	3159.100	515
Interface board	1	3124.200	3124.200	3124.200	3124.200	3124.200	3124.200	477

¹⁾ Motor circuit breaker

²⁾ Includes section door weight

³⁾ Transformer protection switch

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 TS 8 enclosures Page 90 Software & services Page 511

Color
RAL 7035

Configuration:

- Section door without preconfigured cooling module
- TS 8 hinges, door opening angle approx. 110°

Note for 47" (1200 mm wide) TS 8 enclosures:

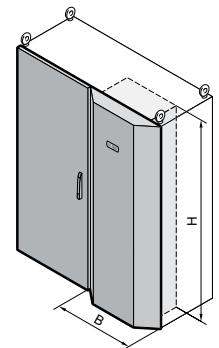
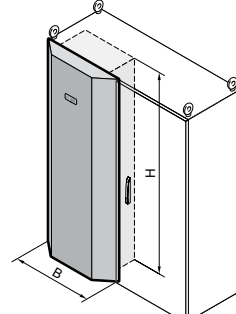
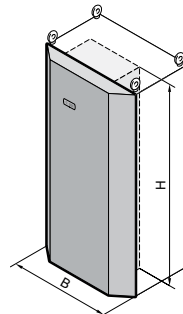
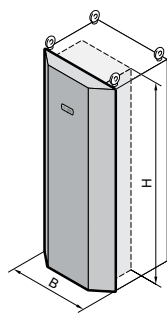
- With the unit positioned on the right, one pack consists of a section door for installing in the right-hand half of the enclosure plus a special lockable door for the left-hand half.

- With the unit positioned on the left, one pack consists of a section door for installing in the left-hand half of the enclosure. The existing lockable door on the right may be used.

Also required:

- Cooling module, see page 426
- Base/plinth, 4" or 8" (100 or 200 mm) high, see page 533

Section doors for installing cooling modules



Part No.		3300.040	3300.050	3300.060	3300.070	3300.080	3300.090	3300.100	3300.120
Dimensions to fit TS enclosures	Height inches (mm)	71 (1800)	79 (2000)	71 (1800)	79 (2000)	71 (1800)	79 (2000)	71 (1800)	79 (2000)
Dimensions to fit TS enclosures	Width (B) inches (mm)	24 (600)		32 (800)		47 (1200) unit positioned on the left		47 (1200) unit positioned on the right	
Accessories	Packs of								
Metal filters	1	3284.210		3284.210		3284.210		3284.210	

All 3307.700/.710/.740 or 3310.700/.710/.740 cooling module models, see page 426, can be integrated into one of the section doors mentioned above.



Liquid cooling

Air/water heat exchangers

Roof-mounted, basic controller, 6403-8538 BTU	430
Roof-mounted, comfort controller, 6403-8538 BTU	431
Roof-mounted, basic controller, 10246-13661 BTU	432
Roof-mounted, comfort controller, 10246-13661 BTU	433
Wall-mounted, 1025 BTU	434
Wall-mounted, 2049-4440 BTU	435
Wall-mounted, basic controller, 1280-3412 BTU	436
Wall-mounted, comfort controller, 1280-3412 BTU	437
Wall-mounted, basic controller, 5118-10236 BTU	438
Wall-mounted, comfort controller, 5118-10236 BTU	439
Wall-mounted, basic controller, 12795-17060 BTU	440
Wall-mounted, comfort controller, 12795-17060 BTU	441
Wall-mounted, 17060-23885 BTU	442

Cold Plate

Cold Plate including T channel for frequency converters	443
Cold Plate accessories	444

Chillers for water

Mini chiller, 2664 - 5669 BTU	445
Mini chiller, 9050 - 18442 BTU	446
Mini chiller, 16368 - 22506 BTU	447
Mini chiller, 2835 - 9563 BTU	448
Floor-standing, cooling output 30000 - 150000 BTU	449
Floor-standing, cooling output 5800 - 26274 BTU	450
Floor-standing, cooling output 28150 - 86986 BTU	451



Air/water heat exchanger



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12
UL file #: E117603A

Configuration:

- Fully wired ready for connection with connector
- Includes drilling template, gasket and mounting hardware

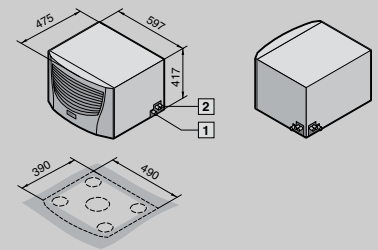
Additional parts needed:

Cooling water system such as Rittal chiller systems, see page 445

- 1 Condensate discharge (flexible)
- 2 Cooling water connection (flexible)

Property rights:

German registered designs no. 402 02 324 and no. 402 02 325
US design patent no. US D 492, 319S
Indian registered design no. 189 956
Chinese registered design no. ZL 0330 6415.6



Useful cooling capacity: 6403 - 8538 BTU (1875 - 2500 W)

Water-carrying parts				
Part No. basic controller	CuAL	3209.100	3209.110	3209.140
Useful cooling capacity BTU (W)	T ₁ 95 T _w 50, 105 gal/h (400 l/h)	8538 (2500)		
Part No. basic controller	Type 316 stainless steel	3209.104¹⁾	3209.114¹⁾	3209.144
Useful cooling capacity BTU (W)	T ₁ 95 T _w 50, 105 gal/h (400 l/h)	6403 (1875)		
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	16 x 24 x 19 (415 x 597 x 475)		
Rated current maximum		0.40 A	0.85 A	0.25 A
Pre-fuse T		4.0 A		
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)		
Water inlet temperature		> 34 to 86° F (+1 to +30° C)		
Permissible operating pressure P _{max}		14.5 to 145 psi (1 to 10 bar)		
Temperature range		34 to 158° F (+1 to +70° C)		
Environmental ratings		UL Type 12 (IP 55) ¹⁾		
Duty cycle		100%		
Type of connection		Plug-in terminal strip		
Weight lb (kg)		51.8 (23.5)	60.6 (27.5)	
Color		RAL 7035 (light grey)		
Air displacement of fans (unimpeded air flow)		606 cfm (1030 m ³ /h)		
Temperature control		Basic controller (factory setting 95° F [+35° C])		
Accessories	PU			Page
Door-operated switch	1	4127.010		609
Master/slave cable for comfort controller	1	3124.100		477
Interface card for comfort controller	1	3124.200		477
Air ducting system	1	3286.870		471
Cover stoppers for interior air outlet	1	3286.880		473
Condensate hose	1	3301.612		484
Shallow duct systems	1	3286.850		472

¹⁾ IP 65 available by request.

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12
UL file #: E117603A

Configuration:

- Fully wired ready for connection with connector
- Includes drilling template, gasket and mounting hardware

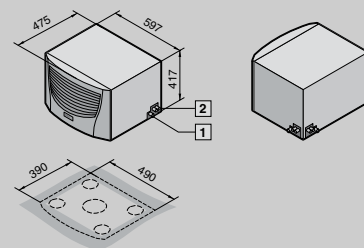
Additional parts needed:

Cooling water system such as Rittal chiller systems, see page 445

- 1 Condensate discharge (flexible)
- 2 Cooling water connection (flexible)

Property rights:

German registered designs
no. 402 02 324 and
no. 402 02 325
US design patent
no. US D 492, 319S
Indian registered design
no. 189 956
Chinese registered design
no. ZL 0330 6415.6



Useful cooling capacity: 6403 - 8538 BTU (1875 - 2500 W)

Water-carrying parts				
Part No. comfort controller	CuAL	3209.500	3209.510	3209.540
Useful cooling capacity BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	8538 (2500)		
Part No. comfort controller	Type 316 stainless steel	3209.504¹⁾	3209.514¹⁾	3209.544
Useful cooling capacity BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	6403 (1875)		
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	16 x 24 x 19 (415 x 597 x 475)		
Rated current maximum		0.40 A	0.85 A	0.25 A
Pre-fuse T		4.0 A		
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)		
Water inlet temperature		> 34 to 86° F (+1 to +30° C)		
Permissible operating pressure P _{max}		14.5 to 145 psi (1 to 10 bar)		
Temperature range		34 to 158° F (+1 to +70° C)		
Environmental ratings		UL Type 12 (IP 55) ¹⁾		
Duty cycle		100%		
Type of connection		Plug-in terminal strip		
Weight lb (kg)		51.8 (23.5)	60.6 (27.5)	
Color		RAL 7035 (light grey)		
Air displacement of fans (unimpeded air flow)		606 cfm (1030 m ³ /h)		
Temperature control		Comfort controller (factory setting 95° F [+35° C])		
Accessories	PU			Page
Door-operated switch	1	4127.010		609
Master/slave cable for comfort controller	1	3124.100		477
Interface card for comfort controller	1	3124.200		477
Air ducting system	1	3286.870		471
Cover stoppers for interior air outlet	1	3286.880		473
Condensate hose	1	3301.612		484
Shallow duct systems	1	3286.850		472

¹⁾ IP 65 available by request.

Special voltages available on request. We reserve the right to make technical modifications.

Air/water heat exchanger



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12
UL file #: E117603A

Configuration:

- Fully wired ready for connection with connector
- Includes drilling template, gasket and mounting hardware

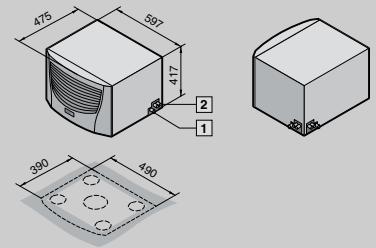
Additional parts needed:

Cooling water system such as Rittal chiller systems, see page 445

- 1 Condensate discharge (flexible)
- 2 Cooling water connection (flexible)

Property rights:

German registered designs no. 402 02 324 and no. 402 02 325
US design patent no. US D 492, 319S
Indian registered design no. 189 956
Chinese registered design no. ZL 0330 6415.6



Useful cooling capacity: 10246 - 13661 BTU (3000 - 4000 W)

Water-carrying parts				
Part No. basic controller	CuAL	3210.100	3210.110	3210.140
Useful cooling capacity BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)		13661 (4000)	
Part No. basic controller	Type 316 stainless steel	3210.104	3210.114	3210.144
Useful cooling capacity BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)		10246 (3000)	
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	16 x 24 x 19 (415 x 597 x 475)		
Rated current maximum		0.44 A	0.9 A	0.25 A
Pre-fuse T		4.0 A		
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)		
Water inlet temperature		> 34 to 86° F (+1 to +30° C)		
Permissible operating pressure P _{max}		14.5 to 145 psi (1 to 10 bar)		
Temperature range		34 to 158° F (+1 to +70° C)		
Environmental ratings		UL Type 12 (IP 55) ¹⁾		
Duty cycle		100%		
Type of connection		Plug-in terminal strip		
Weight lb (kg)		56.2 (25.5)	65 (29.5)	
Color		RAL 7035 (light grey)		
Air displacement of fans (unimpeded air flow)		544 cfm (925 m ³ /h)		
Temperature control		Basic controller (factory setting 95° F [+35° C])		
Accessories	PU			Page
Door-operated switch	1	4127.010		609
Master/slave cable for comfort controller	1	3124.100		477
Interface card for comfort controller	1	3124.200		477
Air ducting system	1	3286.870		471
Cover stoppers for interior air outlet	1	3286.880		473
Condensate hose	1	3301.612		484
Shallow duct systems	1	3286.850		472

¹⁾ IP 65 available by request.

Special voltages available by request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12
UL file #: E117603A

Configuration:

- Fully wired ready for connection with connector
- Includes drilling template, gasket and mounting hardware

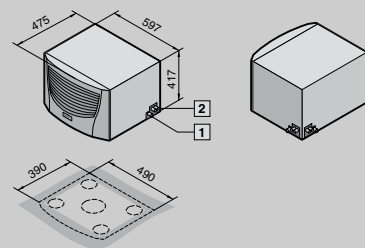
Additional parts needed:

Cooling water system such as Rittal chiller systems, see page 445

- 1 Condensate discharge (flexible)
- 2 Cooling water connection (flexible)

Property rights:

German registered designs no. 402 02 324 and no. 402 02 325
US design patent no. US D 492, 319S
Indian registered design no. 189 956
Chinese registered design no. ZL 0330 6415.6



Useful cooling capacity: 10246 - 13661 BTU (3000 - 4000 W)

Water-carrying parts				
Part No. comfort controller	CuAL	3210.500	3210.510	3210.540
Useful cooling capacity BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	13661 (4000)		
Part No. comfort controller	Type 316 stainless steel	3210.504	3210.514	3210.544
Useful cooling capacity BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	10246 (3000)		
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	16 x 24 x 19 (415 x 597 x 475)		
Rated current maximum		0.44 A	0.9 A	0.25 A
Pre-fuse T		4.0 A		
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)		
Water inlet temperature		> 34 to 86° F (+1 to +30° C)		
Permissible operating pressure P _{max}		14.5 to 145 psi (1 to 10 bar)		
Temperature range		34 to 158° F (+1 to +70° C)		
Environmental ratings		UL Type 12 (IP 55) ¹⁾		
Duty cycle		100%		
Type of connection		Plug-in terminal strip		
Weight lb (kg)		56.2 (25.5)	65 (29.5)	
Color		RAL 7035 (light grey)		
Air displacement of fans (unimpeded air flow)		544 cfm (925 m ³ /h)		
Temperature control		Comfort controller (factory setting 95° F [+35° C])		
Accessories	PU			Page
Door-operated switch	1	4127.010		609
Master/slave cable for comfort controller	1	3124.100		477
Interface card for comfort controller	1	3124.200		477
Air ducting system	1	3286.870		471
Cover stoppers for interior air outlet	1	3286.880		473
Condensate hose	1	3301.612		484
Shallow duct systems	1	3286.850		472

¹⁾ IP 65 available by request.

Special voltages available by request. We reserve the right to make technical modifications.

Air/water heat exchanger



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL Type 12/IP55

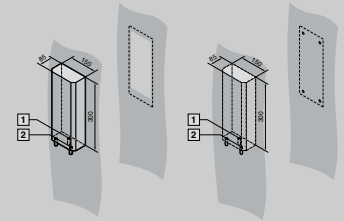
Configuration:

- Fully wired ready for connection
- includes drilling template and mounting hardware.

Additional parts needed:

Cooling water system such as Rittal chiller systems, see page 445

- 1 Condensate discharge
- 2 Cooling water connection (quick-release fastener)



Useful cooling capacity: 1025 BTU (300 W)

Part No.	3212.230	3212.115 ¹⁾	3212.024 ¹⁾
Voltage V, Hz	230, 50/60	115, 50/60	24 V DC
Dimensions inches (mm) H x W x D	12 x 6 x 3 (300 x 150 x 85)		
Useful cooling capacity BTU (W) T _i 95 T _w 50, 52.8 gal/h (200 l/h)	1025 (300)		
Rated current maximum	0.11 A/0.13 A	0.23 A/0.24 A	1.20 A
Pre-fuse T	4.0 A		
Cooling medium	Water (refer to specifications and assembly instructions at www.rittal-corp.com)		
Water inlet temperature	> 34 to 86° F (+1 to +30° C)		
Permissible operating pressure p. max.	15 to 145 psi (1 to 10 bar)		
Temperature range	34 to 158° F (+1 to +70° C)		
Environmental ratings	UL Type 12 (IP 55) ²⁾		
Duty cycle	100%		
Type of connection	Connection clamp		
Weight lb (kg)	6.6 (3)		
Color	RAL 7035 (light grey)		
Air displacement of fans (unimpeded air flow)	165 cfm (280 m ³ /h)		147 cfm (250 m ³ /h)
Accessories	PU		Page
Temperature indicator	1	3114.200	475
Door-operated switch	1	4127.010	694
Condensate hose	1	3301.612	484

¹⁾ Delivery times available upon request and UL pending.

²⁾ IP 65 available by request.

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12/IP 55
UL file #: E117603

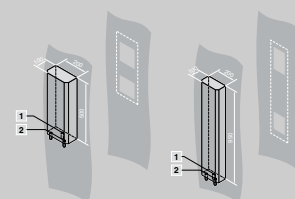
Configuration:

– Fully wired ready for connection
– With terminal strip
– includes drilling template,
gasket and mounting hardware

Additional parts needed:

Cooling water system such as
Rittal chiller systems, see page
445

- 1 Condensate discharge ½"
- 2 Cooling water connection ½"



Useful cooling capacity: 2049 - 4440 BTU (600 - 1300 W)

Part No.	3214.100	3214.115 ¹⁾	3215.100	3215.115 ¹⁾
Voltage V, Hz	230, 50/60	115, 50/60	230, 50/60	115, 50/60
Dimensions inches (mm)	H x W x D 20 x 8 x 4 (500 x 200 x 100)		37 x 8 x 4 (950 x 200 x 100)	
Useful cooling capacity BTU (W)	T ₁ 95 T _w 50, 52.8 gal/h (200 l/h)		2049 (600)	
	T ₁ 95 T _w 50, 105 gal/h (400 l/h)		2220 (650)	
Rated current maximum	0.17 A/0.18 A	0.34 A/0.36 A	0.38 A/0.4 A	0.76 A/0.8 A
Pre-fuse T	2.0 A		4.0 A	
Cooling medium	Water (refer to specifications and assembly instructions at www.rittal-corp.com)			
Water inlet temperature	> 34 to 86° F (+1 to +30° C)			
Permissible operating pressure p _{max}	14.5 to 145 psi (1 to 10 bar)			
Temperature range	34 to 158° F (+1 to +70° C)			
Environmental ratings	UL Type 12 (IP 55) ²⁾			
Duty cycle	100%			
Type of connection	Terminal strip			
Weight lb (kg)	15.4 (7)		20.9 (9.5)	
Color	RAL 7035 (light grey)			
Air displacement of fans	71 cfm (120 m ³ /h)		118 cfm (200 m ³ /h)	
Temperature control	Thermostat-controlled magnetic valve			
Temperature monitoring	Internal thermostat, with change-over contact, switching load 16 A, setting range 68 to 140° F (+20 to +60° C) (factory setting 95° F [+35° C])			
Accessories	PU			Page
Temperature indicator	1	3114.200		475
Door-operated switch	1	4127.010		694
Condensate hose	1	3301.612		484

¹⁾ UL pending.

²⁾ IP 65 available by request.

Special voltages available on request. We reserve the right to make technical modifications.

Air/water heat exchanger



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12/IP 55
UL file #: E117603

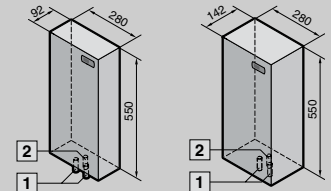
Configuration:

– Fully wired ready for connection
– With terminal strip
– includes drilling template,
gasket and mounting hardware

Additional parts needed:

Cooling water system such
as Rittal chiller systems,
see page 445

- 1 Condensate discharge ½"
- 2 Cooling water connection ½"



Useful cooling capacity: 1280 - 3412 BTU (375 - 1000 W)

Water-carrying parts							
Part No. basic controller	CuAL	3363.100	3363.110¹⁾	3363.140¹⁾	3364.100	3364.110¹⁾	3364.140¹⁾
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	1706 (500)			3412 (1000)		
Part No. basic controller	Type 316 stainless steel	3363.104	3363.114	3363.144	3364.104¹⁾	3364.114	3364.144
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	1280 (375)			2559 (750)		
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	22 x 11 x 4 (550 x 280 x 92)			22 x 11 x 6 (550 x 280 x 142)		
Rated current maximum		0.17 A/ 0.18 A	0.35 A/ 0.40 A	0.1 A/0.12 A	0.2 A/0.19 A	0.4 A/0.38 A	0.12 A/0.11 A
Pre-fuse T		4.0 A		4.0 A ²⁾	4.0 A		4.0 A ²⁾
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)					
Water inlet temperature		34 to 86° F (+1 to +30° C)					
Permissible operating pressure p. max.		14.5 to 145 psi (1 to 10 bar)					
Temperature range		34 to 158° F (+1 to +70° C)					
Environmental ratings		UL Type 12 (IP 55) ³⁾					
Duty cycle		100%					
Type of connection		Plug-in terminal strip					
Weight lb (kg)		26 (12)			33 (15)		
Color		RAL 7035 (light grey)					
Air displacement of fans		159/188 cfm (270/320 m ³ /h)					
Temperature control		Basic controller (factory setting 95° F [+35° C])					
Accessories	PU						Page
Door-operated switch	1	4127.010					694
Master/slave	1	3124.100					477
Interface card for comfort controller	1	3124.200					477
Condensate hose	1	3301.612					484

¹⁾ Units include an additional external transformer which must be mounted by the end customer.

²⁾ 2-pole miniature circuit breaker.

³⁾ IP 65 available by request.

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12/IP 55
UL file #: E117603

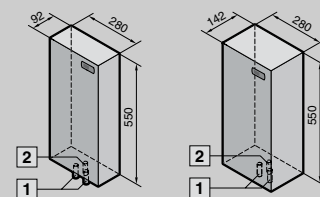
Configuration:

– Fully wired ready for connection
– With terminal strip
– includes drilling template,
gasket and mounting hardware

Additional parts needed:

Cooling water system such
as Rittal chiller systems,
see page 445

- 1 Condensate discharge 1/2"
- 2 Cooling water connection 1/2"



Useful cooling capacity: 1280 - 3412 BTU (375 - 1000 W)

Water-carrying parts							
Part No. comfort controller	CuAL	3363.500	3363.510¹⁾	3363.540¹⁾	3364.500	3364.510^{1) 2)}	3364.540¹⁾
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	1706 (500)			3412 (1000)		
Part No. comfort controller	Type 316 stainless steel	3363.504	3363.514	3363.544	3364.504¹⁾	3364.514	3364.544
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	1280 (375)			2559 (750)		
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	22 x 11 x 4 (550 x 280 x 92)			22 x 11 x 6 (550 x 280 x 142)		
Rated current maximum		0.17 A/ 0.18 A	0.35 A/ 0.40 A	0.1 A/0.12 A	0.2 A/0.19 A	0.4 A/0.38 A	0.12 A/0.11 A
Pre-fuse T		4.0 A		4.0 A ²⁾	4.0 A		4.0 A ²⁾
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)					
Water inlet temperature		34 to 86° F (+1 to +30° C)					
Permissible operating pressure p. max.		14.5 to 145 psi (1 to 10 bar)					
Temperature range		34 to 158° F (+1 to +70° C)					
Environmental ratings		UL Type 12 (IP 55) ³⁾					
Duty cycle		100%					
Type of connection		Plug-in terminal strip					
Weight lb (kg)		26 (12)			33 (15)		
Color		RAL 7035 (light grey)					
Air displacement of fans		159/188 cfm (270/320 m ³ /h)					
Temperature control		Comfort controller (factory setting 95° F [+35° C])					
Accessories	PU						Page
Door-operated switch	1	4127.010					694
Master/slave	1	3124.100					477
Interface card for comfort controller	1	3124.200					477
Condensate hose	1	3301.612					484

¹⁾ Units include an additional external transformer which must be mounted by the end customer.

²⁾ 2-pole miniature circuit breaker.

³⁾ IP 65 available by request.

Special voltages available on request. We reserve the right to make technical modifications.

Air/water heat exchanger



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12/IP 55
UL file #: E117603

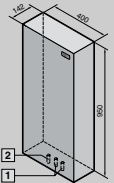
Configuration:

– Fully wired ready for connection
– With terminal strip
– includes drilling template,
gasket and mounting hardware

Additional parts needed:

Cooling water system such
as Rittal chiller systems,
see page 445

- 1 Condensate discharge ½"
- 2 Cooling water connection ½"



Useful cooling capacity: 5118 - 10236 BTU (1500 - 3000 W)

Water-carrying parts							
Part No. basic controller	CuAL	3373.100	3373.110	3373.140	3374.100	3374.110	3374.140
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	6824 (2000)			10236 (3000)		
Part No. basic controller	Type 316 stainless steel	3373.104	3373.114	3373.144	3374.104	3374.114	3374.144
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	5118 (1500)			7677 (2250)		
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	37 x 16 x 6 (950 x 400 x 142)					
Rated current maximum		0.38 A/0.43 A	0.75 A/0.85 A	0.22 A/0.25 A	0.57 A/0.78 A	1.15 A/1.55 A	0.35 A/0.45 A
Pre-fuse T		4.0 A		4.0 A ²⁾	4.0 A		4.0 A ²⁾
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)					
Water inlet temperature		34 to 86° F (+1 to +30° C)					
Permissible operating pressure p. max.		14.5 to 145 psi (1 to 10 bar)					
Temperature range		34 to 158° F (+1 to +70° C)					
Environmental ratings		UL Type 12 (IP 55) ¹⁾					
Duty cycle		100%					
Type of connection		Plug-in terminal strip					
Weight lb (kg)		44 (20)					
Color		RAL 7035 (light grey)					
Air displacement of fans		353/368 cfm (600/625 m ³ /h)			412/430 cfm (700/730 m ³ /h)		
Temperature control		Basic controller (factory setting 95° F [+35° C])					
Accessories	PU						Page
Door-operated switch	1	4127.010					694
Master/slave	1	3124.100					477
Interface card for comfort controller	1	3124.200					477
Condensate hose	1	3301.612					484

¹⁾ IP 65 available by request.

²⁾ 2-pole miniature circuit breaker.

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12/IP 55
UL file #: E117603

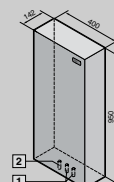
Configuration:

– Fully wired ready for connection
– With terminal strip
– includes drilling template,
gasket and mounting hardware

Additional parts needed:

Cooling water system such
as Rittal chiller systems,
see page 445

- 1 Condensate discharge ½"
- 2 Cooling water connection ½"



Useful cooling capacity: 5118 - 10236 BTU (1500 - 3000 W)

Water-carrying parts							
Part No. comfort controller	CuAL	3373.500	3373.510	3373.540	3374.500	3374.510	3374.540
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	6824 (2000)			10236 (3000)		
Part No. comfort controller	Type 316 stainless steel	3373.504	3373.514	3373.544	3374.504	3374.514	3374.544
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	5118 (1500)			7677 (2250)		
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60	230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	37 x 16 x 6 (950 x 400 x 142)					
Rated current maximum		0.38 A/ 0.43 A	0.75 A/ 0.85 A	0.22 A/0.25 A	0.57 A/0.78 A	1.15 A/1.55 A	0.35 A/0.45 A
Pre-fuse T		4.0 A		4.0 A ²⁾	4.0 A		4.0 A ²⁾
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)					
Water inlet temperature		34 to 86° F (+1 to +30° C)					
Permissible operating pressure p. max.		14.5 to 145 psi (1 to 10 bar)					
Temperature range		34 to 158° F (+1 to +70° C)					
Environmental ratings		UL Type 12 (IP 55) ¹⁾					
Duty cycle		100%					
Type of connection		Plug-in terminal strip					
Weight lb (kg)		44 (20)					
Color		RAL 7035 (light grey)					
Air displacement of fans		353/368 cfm (600/625 m ³ /h)			412/430 cfm (700/730 m ³ /h)		
Temperature control		Comfort controller (factory setting 95° F [+35° C])					
Accessories	PU						Page
Door-operated switch	1	4127.010					694
Master/slave	1	3124.100					477
Interface card for comfort controller	1	3124.200					477
Condensate hose	1	3301.612					484

¹⁾ IP 65 available by request.

²⁾ 2-pole miniature circuit breaker.

Special voltages available on request. We reserve the right to make technical modifications.

Air/water heat exchanger



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12/IP 55
UL file #: E117603

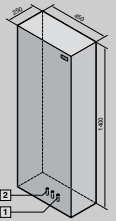
Configuration:

– Fully wired ready for connection
– With terminal strip
– includes drilling template,
gasket and mounting hardware

Additional parts needed:

Cooling water system such
as Rittal chiller systems,
see page 445

- 1 Condensate discharge ½"
- 2 Cooling water connection ½"



Useful cooling capacity: 12795 - 17060 BTU (3750 - 5000 W)

Water-carrying parts				
Part No. basic controller	CuAL	3375.100	3375.110	3375.140
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	17060 (5000)		
Part No. basic controller	Type 316 stainless steel	3375.104	3375.114	3375.144
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	12796 (3750)		
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	55 x 18 x 10 (1400 x 450 x 250)		
Rated current maximum		0.57 A/0.78 A	1.15 A/1.55 A	0.35 A/0.45 A
Pre-fuse T		4.0 A		4.0 A ¹⁾
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)		
Water inlet temperature		34 to 86° F (+1 to +30° C)		
Permissible operating pressure P _{max}		14.5 to 145 psi (1 to 10 bar)		
Temperature range		34 to 158° F (+1 to +70° C)		
Environmental ratings		UL Type 12 (IP 55) ¹⁾		
Duty cycle		100%		
Type of connection		Plug-in terminal strip		
Weight lb (kg)		123 (56)		130 (59)
Color		RAL 7035 (light grey)		
Air displacement of fans		1391/1618 cfm (2365/2750 m ³ /h)		
Temperature control		Basic controller (factory setting 95° F [+35° C])		
Accessories	PU			Page
Door-operated switch	1	4127.010		694
Master/slave	1	3124.100		477
Interface card for comfort controller	1	3124.200		477
Condensate hose	1	3301.612		484

¹⁾ IP 65 available by request.

²⁾ 2-pole miniature circuit breaker.

Special voltages available on request. We reserve the right to make technical modifications.



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

UL/cUL recognized, CE
UL Type 12/IP 55
UL file #: E117603

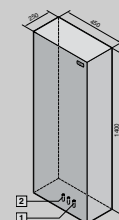
Configuration:

– Fully wired ready for connection
– With terminal strip
– includes drilling template,
gasket and mounting hardware

Additional parts needed:

Cooling water system such
as Rittal chiller systems,
see page 445

- 1 Condensate discharge ½"
- 2 Cooling water connection ½"



Useful cooling capacity: 12795 - 17060 BTU (3750 - 5000 W)

Water-carrying parts				
Part No. comfort controller	CuAL	3375.500	3375.510	3375.540
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	17060 (5000)		
Part No. comfort controller	Type 316 stainless steel	3375.504	3375.514	3375.544
Useful cooling output BTU (W)	T _i 95 T _w 50, 105 gal/h (400 l/h)	12796 (3750)		
Voltage V, Hz		230, 50/60	115, 50/60	400, 2~, 50/60
Dimensions inches (mm)	H x W x D	55 x 18 x 10 (1400 x 450 x 250)		
Rated current maximum		0.57 A/0.78 A	1.15 A/1.55 A	0.35 A/0.45 A
Pre-fuse T		4.0 A		4.0 A ¹⁾
Cooling medium		Water (refer to specifications and assembly instructions at www.rittal-corp.com)		
Water inlet temperature		34 to 86° F (+1 to +30° C)		
Permissible operating pressure P _{max}		14.5 to 145 psi (1 to 10 bar)		
Temperature range		34 to 158° F (+1 to +70° C)		
Environmental ratings		UL Type 12 (IP 55) ¹⁾		
Duty cycle		100%		
Type of connection		Plug-in terminal strip		
Weight lb (kg)		123 (56)		130 (59)
Color		RAL 7035 (light grey)		
Air displacement of fans		1391/1618 cfm (2365/2750 m ³ /h)		
Temperature control		Comfort controller (factory setting 95° F [+35° C])		
Accessories	PU			Page
Door-operated switch	1		4127.010	694
Master/slave	1		3124.100	477
Interface card for comfort controller	1		3124.200	477
Condensate hose	1		3301.612	484

¹⁾ IP 65 available by request.

²⁾ 2-pole miniature circuit breaker.

Special voltages available on request. We reserve the right to make technical modifications.

Air/water heat exchanger



Climate control accessories Page 471 Chiller systems Page 446 Software & services Page 511

Protection rating:

Type 12
CSA

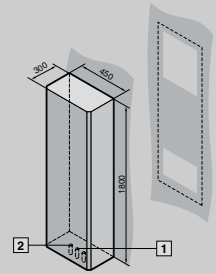
Configuration:

- Fully wired ready for connection
- With terminal strip
- includes drilling template, gasket and mounting hardware

Additional parts needed:

Cooling water system such as Rittal chiller systems, see page 445

- 1 Condensate discharge 1/2"
- 2 Cooling water connection 1/2"



Useful cooling capacity: 17060 - 23885 BTU (5000 - 7000 W)

Part No.	3216.480	
Voltage V, Hz	400, 3~, 50/60	480, 3~, 60
Dimensions inches (mm)	H x W x D 71 x 18 x 12 (1800 x 450 x 300)	
Useful cooling capacity BTU (W)	$T_i 95 T_w 50, 105 \text{ gal/h (400 l/h)}$	17060 BTU (5000 W)
	$T_i 95 T_w 50, 132 \text{ gal/h (500 l/h)}$	23885 BTU (7000 W)
Rated current maximum	1.4 A/1.6 A	1.2 A
Pre-fuse T	4.0 A, 3-pole	
Cooling medium	Water (refer to specifications and assembly instructions at www.rittal-corp.com)	
Water inlet temperature	34 to 86° F (+1 to +30° C)	
Permissible operating pressure P_{max}	14.5 to 145 psi (1 to 10 bar)	
Temperature range	34 to 158° F (+1 to +70° C)	
Environmental ratings	UL Type 12 (IP 55) ¹⁾	
Duty cycle	100%	
Type of connection	Terminal strip	
Weight lb (kg)	174.2 (79)	
Color	RAL 7035 (light grey)	
Air displacement of fans	4078 cfm (2400 m³/h)	
Temperature control	Thermostat-controlled magnetic valve	
Accessories	PU	Page
Temperature indicator	1	475
Door-operated switch	1	694
Condensate hose	1	484

¹⁾ IP 65 available by request.

UL pending, all water-carrying parts Type 316 stainless steel.

Special voltages available on request. We reserve the right to make technical modifications.



Chiller systems page 446 Accessories for climate control page 471

Liquid-cooled partial mounting plate with drilling surface and T channel

Whole surface can be used by the customer for own tapped holes (blind holes) to a maximum drilling depth of 0.5" (12 mm). Alternatively, drive units may be secured to the T channel depending on the version.

Design:

- Press-fitted copper or stainless steel tubes, dependent on the application, in closed recooling systems or existing (open) water infrastructure. – Cooling water connection: G $\frac{1}{4}$ ", anti-twist

Configuration:

Mounting accessories for system integration into TS 8

Accessories:

- Quick-action vent valve, see page 444
- Accessories for fluid distributor connection, see page 444
- TS punched section with mounting flange 0.7" x 2.9" (17 x 73 mm) for the outer mounting level, see page 651
- Chiller systems for closed cooling circuits, see from page 445

- System attachment 8616.700, see page 444

Detailed drawings:

Available at www.rittal-corp.com

Cold Plate including T channel for frequency converters

Part No.	8616.602	8616.622	8616.802	8616.822
For installation in	Enclosure width inches (mm)	24 (600)	24 (600)	32 (800)
	Enclosure depth (side) inches (mm)	24 (600)	24 (600)	32 (800)
Dimensions inches (mm)	H x W x D inches (mm)	16 x 20 x 1 (399 x 499 x 20)	16 x 20 x 1 (399 x 499 x 20)	16 x 28 x 1 (399 x 699 x 1)
Output¹⁾ BTU (W)	8538 (2500)	8538 (2500)	10246 (3000)	10246 (3000)
Material	CU	VA	CU	VA
Packs of	1	1	1	1

¹⁾ At 77°F (25°C) medium inlet temperature, Cold Plate surface temperature ≈ 122°F (50°C), medium flowrate Q = 53 g/h (200 l/h), surface roughness: 1.2 μm. Special sizes available on request.

Cold Plate

Accessories



Fluid distribution manifold

For the connection of up to 4 Cold Plate units.

Configuration:

- 2 fluid distribution manifold blocks (inlet and return)
- Screw plugs G $\frac{1}{4}$ " , G $\frac{3}{8}$ " ,
- Connector sleeves G $\frac{1}{2}$ "
- Seals

Accessories:

Flexible hose, see below

Also required:

Quick-action vent valve, see below.

Packs of	Part No.
1 set	8616.750



Flexible hose

For connection of the Cold Plate to a fluid distribution manifold or direct fluid connection.

Configuration:

- 2 flexible hoses G $\frac{1}{4}$ "
- Seals

Packs of	Length inches (mm)	Material	Part No.
1 set	20 (500)	CU	8616.772
1 set	39 (1000)	CU	8616.773
1 set	20 (500)	VA	8616.760¹⁾
1 set	39 (1000)	VA	8616.761¹⁾

¹⁾ Extended delivery times.



Quick-action vent valve

To vent the complete system.
Easily mounted on the fluid distribution manifold.

Configuration:

- Quick-action vent valve G $\frac{3}{8}$ "
- Seal

Packs of	Part No.
1 set	8616.762



System attachment for frequency converters

For mounting frequency converters on the Cold Plate.

Configuration:

- Wire clamp system
- T-slot blocks

For the attachment of frequency converters	Packs of	Part No.
with all-round clamping surface	1	8616.700
with side clamping surfaces	1	8616.710
with clamping surfaces top and bottom	1	8616.720



Air/water heat exchangers From page 430 Overflow valve Page 486 Cooling medium Page 486

Design:

- Compact and modular layout of the cooling components on a base plate which functions as a collecting tray
- Coolant transfer pump
- Precise temperature control, based on microprocessor technology
- Collective fault signal with floating contact
- Application-specific equipment available on request

- Pressure-sealed system (XXXX.600) or open system with tank (XXXX.610)
- With nano-coated condenser coil

Protection rating:

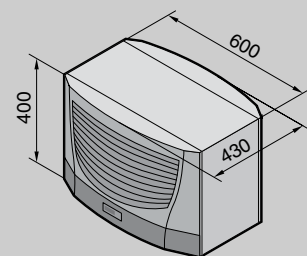
CE
UL file #: 33245

Configuration:

Chiller system wired and plumbed ready for connection, with multilingual documentation including functional diagram and wiring plans

Note:

Photo shows a configuration with equipment not included in the base part number



Cooling capacity: 2664 - 5669 BTU (780 - 1660 W)

Part No.	3318.600	3318.610	3319.600	3319.610
Part No. with UL	3318.700	3318.710	3319.700	3319.710
Voltage V, Hz	230, 50/60			
Dimensions inches (mm) H x W x D	16 x 24 x 17 (400 x 600 x 430)			
Cooling capacity at				
$T_w = 50^\circ\text{F} (10^\circ\text{C})/T_a = 90^\circ\text{F} (32^\circ\text{C})$ BTU (W)	2664/2971 (780/870)		4098/4542 (1200/1330)	
$T_w = 64^\circ\text{F} (18^\circ\text{C})/T_a = 90^\circ\text{F} (32^\circ\text{C})$ BTU (W)	3279/3654 (960/1070)		5089/5669 (1490/1660)	
Power consumption	630/780 W		845/1050 W	
Rated current maximum	4.2 A		5.4 A	
Refrigerant	R134a			
P_{max} cooling circuit	363 psi (25 bar)			
Temperature range Environment	59 to 109° F (+15 to +43° C)			
Liquid media	59 to 77° F (+15 to +25° C)			
Tank	No tank, pressure-sealed	PP plastic	Pressure-sealed	PP plastic
Tank capacity gal (l)	–	0.7 (2.5)	–	0.7 (2.5)
Water connections	2 x 1/2" BSPP Internal Thread			
Weight lb (kg)	105.8 (48)		112.4 (51)	
Color	RAL 7035 (light grey)			
Ratings (electric)	IP 44			
Air displacement of fans	530 cfm (900 m³/h)			
Temperature control	Microcontroller control, setting range 50 to 77° F (+10 to +25° C) factory setting 64° F (+18° C)			
Accessories	PU			Page
Metal filter mat	1	3286.510		482
Controller Communication Cable (RiDiag)	1	3159.000		515

Customized solutions and technical modifications available by request.

Mini chiller



Air/water heat exchangers From page 430 Overflow valve Page 486 Cooling medium Page 486

Design:

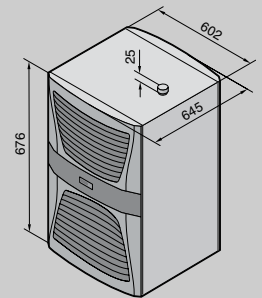
- Compact, modular configuration of the cooling components with integrated water tank. Operator display may be optionally mounted on the front or rear
- Integrated tank level display
- Coolant transfer pump
- Precise temperature control, based on microprocessor technology

- Collective fault signal with floating contact
- Application-specific equipment available on request

Protection rating:
CE

Configuration:

- Chiller system wired and plumbed ready for connection
- With multilingual documentation including functional diagram and wiring plans.



Mini, cooling capacity: 9050 - 18442 BTU (2650 - 5400 W)

Part No.	3320.600	3334.600
Part No. UL (file #: 33245)	3320.700	3334.700
Voltage V, Hz	400, 3~, 50/60/460, 3~, 60 ¹⁾	
Dimensions inches (mm)	H x W x D 27 x 24 x 25 (676 x 602 x 645)	
Cooling capacity at		
T _w = 50° F (10° C)/T _a = 90° F (32° C) BTU (W)	9050/10246 (2650/3000)	13319/16051 (3900/4700)
T _w = 64° F (18° C)/T _a = 90° F (32° C) BTU (W)	10246/11612 (3000/3400)	15368/18442 (4500/5400)
Power consumption	1716/1953 W	2001/2505 W
Rated current maximum	3.8 A/3.9 A	4.9 A/5.0 A
Refrigerant	R134a	
P _{max} cooling circuit	363 psi (25 bar)	
Temperature range	Environment	59 to 109° F (+15 to +43° C)
	Liquid media	59 to 77° F (+15 to +25° C)
Tank	PP Plastic	
Tank capacity gal (l)	7.9 (30)	
Water connections	2 x ½" BSPP Internal Thread	
Weight lb (kg)	194.0 (88)	207.2 (94)
Color	RAL 7035 (light grey)	
Ratings (electric)	IP 44	
Air displacement of fans	1051 cfm (1785 m ³ /h)	
Temperature control	Microcontroller control, setting range 50 to 77° F (+10 to +25° C) factory setting 64° F (+18° C)	
Accessories	PU	Page
Metal filter mat	1	3286.520 482
Controller Communication Cable (RiDiag)	1	3159.000 515

¹⁾ Supports multiple voltages without rewiring.
Special voltages and technical modifications available by request.



Air/water heat exchangers From page 430 Overflow valve Page 486 Cooling medium Page 486

Design:

- Compact, modular configuration of the cooling components with integrated water tank. Operator display may be optionally mounted on the front or rear
- Integrated tank level display
- Coolant transfer pump
- Precise temperature control, based on microprocessor technology

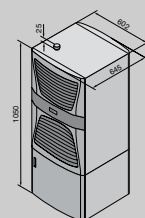
- Collective fault signal with floating contact
- Application-specific equipment available on request
- With nano-coated condenser coil

Configuration:

- Chiller system wired and plumbed ready for connection
- With multilingual documentation
- Includes functional diagram and wiring plans.

Note:

Photo shows a configuration with equipment not included in the base part number



Cooling capacity: 16368 - 22506 BTU (4800 - 6600 W)

Part No.			3334.660	
Part No. UL (file #: 33245)			3334.800	
Voltage V, Hz			400, 3~, 50/60/460, 3~, 60 ¹⁾	
Dimensions inches (mm)	H x W x D	41 x 24 x 25 (1050 x 602 x 645)		
Cooling capacity at				
$T_w = 50^\circ\text{F}$ (10° C)/ $T_a = 90^\circ\text{F}$ (32° C) BTU (W)			16368/17562/17562 (4800/5150/5150)	
$T_w = 64^\circ\text{F}$ (18° C)/ $T_a = 90^\circ\text{F}$ (32° C) BTU (W)			20460/22506/22506 (6000/6600/6600)	
Power consumption			4280/5140/5080 W	
Rated current maximum			8.09 A/9.7 A/8.04 A	
Refrigerant			R134a	
P_{max} cooling circuit			363 psi (25 bar)	
Temperature range	Environment	59 to 109° F (+15 to +43° C)		
	Liquid media	59 to 77° F (+15 to +25° C)		
Tank			PP Plastic	
Tank capacity gal (l)			7.9 (30)	
Water connections			2 x 1/2" BSPP Internal Thread	
Weight lb (kg)			264 (120)	
Color			RAL 7035 (light grey)	
Ratings (electric)			IP 44	
Air displacement of fans			1295/1471 cfm (2200/2500 m ³ /h)	
Temperature control			Microcontroller control, setting range 50 to 77° F (+10 to +25° C) factory setting 64° F (+18° C)	
Accessories			PU	
Metal filter mat	1		3286.520	482
Controller Communication Cable (RiDiag)	1		3159.000	515

¹⁾ Supports multiple voltages without rewiring.
Special voltages and technical modifications available by request.

Mini chiller



Air/water heat exchangers From page 430 Overflow valve Page 486 Cooling medium Page 486

Design:

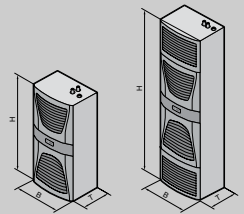
- Compact, modular configuration of the cooling components with integrated water tank
- Application-specific equipment available on request
- Open system with tank
- With nano-coated condenser coil

Configuration:

- Chiller system fully wired and plumbed ready for connection
- With multilingual documentation
- Includes functional diagram and wiring plans

Note:

Photo shows a configuration with equipment not included in the base part number



Cooling capacity: 2835 - 9563 BTU (830 - 2800 W)

Part No.	3360.100		3360.250	
Voltage V, Hz	400, 3~, 50/60/460, 3~, 60 ¹⁾			
Dimensions inches (mm)	H x B x T		62 x 16 x 11 (1580 x 400 x 290)	
Cooling capacity at				
$T_w = 50^\circ \text{F} (10^\circ \text{C})/T_a = 90^\circ \text{F} (32^\circ \text{C})$ BTU (W)	2835/3176 (830/930)		7172/8026 (2100/2350)	
$T_w = 64^\circ \text{F} (18^\circ \text{C})/T_a = 90^\circ \text{F} (32^\circ \text{C})$ BTU (W)	3415/3825 (1000/1120)		8538/9563 (2500/2800)	
Power consumption	700/760 W		1550/2000 W	
Rated current maximum	2.7 A/3.0 A		3.7 A/3.8 A	
Refrigerant	R134a			
P_{max} cooling circuit	334 psi (23 bar)			
Temperature range	Environment	59 to 109° F (+15 to +43° C)		
	Liquid media	59 to 77° F (+15 to +25° C)		
Tank	PP plastic			
Tank capacity gal (l)	1.3 (5)		2.6 (10)	
Water connections	Quick-release coupling (counterpart included in accessory bag)			
Weight lb (kg)	103.6 (47)		172.0 (78)	
Color	RAL 7035 (light grey)			
Ratings (electric)	IP 44			
Air displacement of fans	294 cfm (500 m ³ /h)		418 cfm (710 m ³ /h)	
Temperature control	Microcontroller control, setting range 50 to 77° F (+10 to +25° C) factory setting 64° F (+18° C)			
Accessories				
	PU			Page
Filter mat	1	3286.400		481
Metal filter mat	1	3286.410		482

¹⁾ Supports multiple voltages without rewiring.
Special voltages and technical modifications available by request.



Climate control accessories Page 471

Design:

- Modular design
- Small footprint, less floor space required
- High reliability due to standard water bypass
- One version for two frequencies
- Shorter lead time using pre-assembled standard modules

Configuration:

Complete unit ready for connection

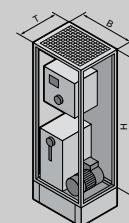
Color:

RAL 7035

Options:

- Hot gas bypass for higher temperature accuracy
- 24V DC Controls
- Reinforced pump, 3 to 5 bar

B = Width
H = Height
T = Depth



Cooling output: 30000 – 150000 BTU (9 - 44 kW)

Part No.	3335.590	3335.600	3335.610	3335.620	3335.630	3335.640	3335.650	3335.660
Rated operating voltage V, Hz	400, 3~, 50 Hz/460, 3~, 60 Hz							
Dimension inches (mm)	B	24 (1600)	79 (2000)		79 (2000)		79 (2000)	79 (2000)
	H	32 (805)	32 (805)		48 (1205)		63 (1610)	95 (2410)
	T	32 (805)	32 (805)		32 (805)		32 (805)	32 (805)
Cooling output ¹⁾ at T _{water} = 50°F (10°C)/T _{ambient} = 90°F (32°C) in BTU (kW)	22,179/25,932 (6.5/7.6 kW)	22,179/25,932 (6.5/7.6 kW)	35,145/38,557 (10.3/11.3 kW)	47,088/51,865 (13.8/15.2 kW)	58,689/64,489 (17.2/18.9 kW)	73,702/81,209 (21.6/23.8 kW)	94,175/103,729 (27.6/30.4 kW)	117,719/129,661 (34.5/38 kW)
Cooling output ¹⁾ at T _{water} = 64°F (18°C)/T _{ambient} = 90°F (32°C) in BTU (kW)	27,297/29,344 (8/8.6 kW)	27,297/29,344 (8/8.6 kW)	40,946/44,699 (12/13.1 kW)	54,594/60,054 (16/17.6 kW)	68,243/74,385 (20/21.8 kW)	85,304/94,175 (25/27.6 kW)	109,189/120,107 (32/35.2 kW)	136,486/150,134 (40/44 kW)
Power consumption max. kW	3.4/4.0	3.4/4.0	5.9/6.4	6.7/8.0	8.0/9.9	10.5/12.9	13.5/15.9	16.0/19.8
Rated current max. A	6.4/6.0	6.4/5.7	8.2/9.5	11.1/11.3	15.9/13.9	20.3/20.7	22.2/22.6	31.7/27.9
Number of cooling circuits	1						2	
Temperature range – environment/ambient	+50 to 109° F (+10 to +43° C)							
Temperature range – water	+45 to 77° F (+7 to +25° C)							
Pump capacity at 36.3 PSI (2.5 bar) in gal/min (l/min) at 50/60 Hz	9.3/18.5 (35/70)	9.3/18.5 (35/70)	9.3/22.5 (30/85)	13.2/37.0 (50/140)		15.9/10.6 (60/40) at 60 Hz 53.7 PSI or 3.7 bar		
Tank capacity gallon (liter)	21 (80)				35.5 (135)			
Water connections	1"						1¼"	
Weight (empty) lbs. (kg)	539 (245)	551 (250)	595 (270)	716.5 (325)	1,036 (470)	1,102 (500)	1,278.6 (580)	2,072 (940)
Temperature control	Microcontroller control (factory setting +64°F (+18°C), differential value control also possible)							

Accessories

Aluminum air filter (Pack of 1)	3286.550	3286.530		3286.540		3286.530 ²⁾	3286.540 ²⁾
Casters	7495.000			n/a			
Base/plinth for casters	8800.220			n/a			
Base/plinth components front/rear in inches (mm)	4 (100)				8601.805		
	8 (200)				8602.805		
Base/plinth trim panels, side in inches (mm)	4 (100)				8601.085		
	8 (200)				8602.085		
Rifrost Water/Glycol Mix gallon (liter)	Bottle	2.6 (10)				3301.960	
		66.3 (25)				3301.965	
	Drum	52.8 (200)				3301.967	

¹⁾ Without pump heat losses. ²⁾ 2 packs. We reserve the right to make technical modifications.

Chiller for water



Air/water heat exchangers from page 430 Climate control accessories Page 471 Cooling medium Page 486

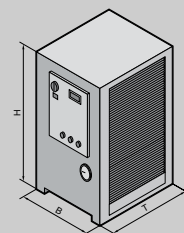
Design:

- Robust industrial standard in three enclosure sizes
- Identical basic enclosure for oil and water chiller systems
- Variable air routing is possible via the l/h or r/h side panel

- Floating contact for collective fault signal
- Anti-frost sensor
- Multi-coil evaporator in the tank

Configuration:

Chiller system wired ready for connection, with multilingual documentation including functional diagram and wiring plans



Cooling capacity: 5800 - 26274 BTU (1700 - 7700 W)

Part No.	3336.100	3336.200	3336.300	3336.500	3336.600	3336.650
Voltage V, Hz	400, 3~, 50					
Dimensions inches (mm)	H x B x T 29 x 18 x 21 (725 x 470 x 540)		38 x 19 x 26 (965 x 485 x 650)		46 x 24 x 32 (1180 x 595 x 800)	
Cooling capacity at						
T _w = 50° F (10° C)/T _l = 90° F (32° C) BTU (W)	5800 (1700)	7166 (2100)	7848 (2300)	12113 (3550)	16378 (4800)	17743 (5200)
T _w = 64° F (18° C)/T _l = 90° F (32° C) BTU (W)	7166 (2100)	8803 (2580)	1165 (3360)	17197 (5040)	21019 (6160)	26274 (7700)
Power consumption	1.5 kW	1.7 kW	2.3 kW	2.9 kW	3.7 kW	3.9 kW
Rated current maximum	3.4 A	3.0 A	4.2 A	5.5 A	6.2 A	7.3 A
Refrigerant	R134a					
P _{max.} cooling circuit	348 psi (24 bar)					
Temperature range	Environment					
	Liquid media					
Pump capacity	See characteristic curve					
Tank	Type 304 stainless steel					
Tank capacity gal (l)	4.5 (17)	8.7 (33)		15.1 (57)		
Water connections	¾" BSPP Internal Thread			1" BSPP Internal Thread		
Weight lb (kg)	165 (75)	213 (97)	218 (99)	310 (141)	314 (143)	323 (147)
Color	RAL 7035 (light grey)					
Ratings (electric)	IP 54					
Air displacement of fans	412 cfm (700 m³/h)	736 cfm (1250 m³/h)	1050 cfm (1785 m³/h)	1848 cfm (3140 m³/h)		
Temperature control	Microcontroller control, setting range 50 to 77° F (+10 to +25° C) factory setting 64° F (+18° C)					

Special voltages available by request. We reserve the right to make technical modifications.



Air/water heat exchangers from page 430 Climate control accessories Page 471 Cooling medium Page 486

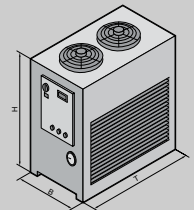
Design:

- Robust industrial standard in two enclosure sizes
- Identical basic enclosure for oil and water chiller systems
- Variable air routing is possible via the l/h or r/h side panel

- Floating contact for collective fault signal
- Anti-frost sensor
- Multi-coil evaporator in the tank

Configuration:

- Chiller system wired ready for connection
- With multilingual documentation
- Includes functional diagram and wiring plans



Cooling capacity: 28150 - 86986 BTU (8250 - 25200 W)

Part No.	3336.700	3336.710	3336.720	3336.730	3336.740	3336.750
Voltage V, Hz	400, 3~, 50					
Dimensions inches (mm)	H x B x T 46 x 24 x 46 (1178 x 615 x 1160)			46 x 28 x 54 (1178 x 715 x 1360)		
Cooling capacity at						
T _w = 50° F (10° C)/T _i = 90° F (32° C) BTU (W)	28150 (8250)	40605 (11900)	45893 (13450)	51182 (15000)	58006 (17000)	70290 (20600)
T _w = 64° F (18° C)/T _i = 90° F (32° C) BTU (W)	34121 (10000)	48964 (14350)	55618 (16300)	63124 (18500)	71313 (20900)	86986 (25200)
Power consumption	3800 W	4800 W	5300 W	6400 W	7100 W	13120 W
Rated current maximum	10.6 A	13.1 A	14.1 A	16.2 A	18.2 A	23.7 A
Refrigerant	R407C					
P _{max.} cooling circuit	392 psi (27 bar)					
Temperature range	Environment		59 to 109° F (+15 to +43° C)			
	Liquid media		59 to 77° F (+15 to +25° C)			
Pump capacity	See characteristic curve					
Tank	Type 304 stainless steel					
Tank capacity gal (l)	15.9 (60)			26.4 (100)		
Water connections	1" BSPP Internal Thread					
Weight lb (kg)	473 (215)	495 (225)	517 (235)	528 (240)	550 (250)	572 (260)
Color	RAL 7035 (light grey)					
Ratings (electric)	IP 54					
Air displacement of fans	3696 cfm (6280 m³/h)			6404 cfm (10880 m³/h)		
Temperature control	Microcontroller control, setting range 50 to 77° F (+10 to +25° C) factory setting 64° F (+18° C)					

Special voltages available upon request. We reserve the right to make technical modifications.



IT liquid cooling

Chillers for IT cooling

Floor-standing, cooling output 51216 – 423000 BTU.....	454
Floor-standing, cooling output 529236 – 1642338 BTU.....	455

Aisle containment

Aisle containment system.....	456
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Liquid Cooling Packages

TopTherm LCP Rack CW and DX.....	457
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TopTherm LCP T3+ CW.....	459
TopTherm LCP Passive CW.....	460
Liquid Cooling Package accessories.....	461



Chiller for IT cooling



Climate control accessories Page 471

Application:

Especially for cooling IT applications, such as LCP or air/water heat exchangers. Safety-relevant features such as redundant speed-controlled pumps, compressors or buffer stores are the distinguishing features of these atmospherically sealed systems.

Design:

- Compact design with control components in the front and air intake via both side panels, air outlet upwards
- Pressure-sealed system
- Digital thermostat for temperature control with setpoint and actual value display
- Monitoring interface with Rittal CMC II supported
- Flow monitor

Protection rating:

IP 54

Configuration:

- Chiller wired ready for connection
- Multi-lingual documentation
- Functional diagram and wiring plans

Options:

- Free cooling may be integrated from 63 kW.
- Buffer store for separate siting
- Emergency cooling with mains water infeed

- Integral bypass
- Special voltages

Note:

Technical deviations in terms of cooling output, dimensions or weight are possible for unit types with free cooling.

Cooling output: 51216 – 423000 BTU (15 to 124 kW)

Part No.	3232.700	3232.710	3232.720	3232.730	3232.740	3232.750	3232.760	3232.770	3232.780	3232.790	
Rated operating voltage V, Hz	400, 3~, 50										
Dimensions inches (mm)	H	61 (1542)	61 (1542)	61 (1542)	70 (1780)	63 (1606)	63 (1606)	60 (1606)	60 (1606)	74 (1875)	74 (1875)
	W	32 (810)	32 (810)	32 (810)	39 (1000)	43 (1100)	43 (1100)	43 (1100)	43 (1100)	43 (1100)	43 (1100)
	D	61 (1560)	61 (1560)	61 (1560)	79 (2000)	96 (2450)	116 (2950)	116 (2950)	116 (2950)	116 (2950)	116 (2950)
Cooling output¹⁾	BTU (kW)	51216 (15)	81946 (24)	122919 (36)	163892 (48)	228766 (67)	262910 (77)	300469 (88)	338028 (99)	399487 (117)	423388 (124)
Power consumption	6.9 kW	9.7 kW	14.6 kW	21 kW	21 kW	24 kW	26 kW	29 kW	36 kW	41 kW	
Rated current max.	23.0 A	25.0 A	37.0 A	46.5 A	52.2 A	59.2 A	64.2 A	69.2 A	84.1 A	89.1 A	
Refrigerant	R407C					R410A					
P _{max.} cooling circuit PSI (bar)	406 (28)					653 (45)					
Temperature range	Environment	–4° F to +110° F (–20° C to +43° C)									
	Liquid media	+41° F to +59° F (+5° C to +15° C)									
Pump capacity gal./min. (l./min.)	15.9 (60)		31.7 (120)		63.4 (240)			132.1 (500)			
Pump pressure PSI (bar)	36.3 (2.5)										
Number of cooling circuits	1					2					
Tank w/ 4" (10mm) condensate insulation	Steel										
Tank capacity gal (l)	13 (48)			26 (100)		79 (300)			132 (500)		
Water connections	1"		1 ¼"		2"		2 ½"				
Operating weight lb (kg)	825 (375)	858 (390)	1056 (480)	1562 (710)	1828 (831)	1971 (896)	1993 (906)	2006 (912)	2461 (1119)	2471 (1123)	
Color	RAL 7035					RAL 9002					
Air throughput of fans cfm (m³/h)	6403 (10880)		8240 (14000)		10594 (18000)		12949 (22000)		15892 (27000)		20071 (34100)
Temperature control	Electronic control with digital display (factory setting +59° F (+15° C))										

¹⁾ The performance data varies according to the option package chosen. Extended delivery times. We reserve the right to make technical modifications.

Cooling output: 529236 – 1642338 BTU (155 to 481 kW)

Part No.		3232.800	3232.810	3232.820	3232.890	3232.830	3232.840	3232.850	3232.860	3232.870	3232.880	
Rated operating voltage V, Hz		400, 3~, 50										
Dimensions inches (mm)	H	74 (1875)	74 (1875)	74 (1875)	78 (1975)	96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)	
	W	43 (1100)	43 (1100)	43 (1100)	59 (1500)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	
	D	116 (2950)	116 (2950)	156 (3950)	171 (4350)	134 (3400)	134 (3400)	134 (3400)	167 (4250)	167 (4250)	167 (4250)	
Cooling output¹⁾	BTU (kW)	529236 (155)	587281 (172)	669227 (196)	802390 (235)	894579 (262)	993597 (291)	1113102 (326)	1321382 (387)	1468203 (430)	1642338 (481)	
Power consumption		47 kW	52 kW	60 kW	70 kW	80 kW	93 kW	106 kW	121 kW	141 kW	159	
Rated current max.		108 A	120 A	127 A	149 A	181 A	203 A	225 A	293 A	307 A	336 A	
Refrigerant		R410A										
P _{max} cooling circuit PSI (bar)		653 (45)										
Temperature range	Environment	-4° F to +110° F (-20° C to +43° C)										
	Liquid media	+41° F to +59° F (+5° C to +15° C)										
Pump capacity gal/min. (l/min.)		132 (500)				214 (810)			317 (1200)			
Pump pressure PSI (bar)		36.3 (2.5)										
Number of cooling circuits		2										
Tank w/ 4" (10mm) condensate insulation		Steel										
Tank capacity gal (l)		132 (500)				185 (700)			264 (1000)			
Water connections		2 ½"				3"			4"			
Operating weight lb (kg)		2877 (1308)	2906 (1321)	3276 (1489)	4253 (1933)	5601 (2546)	5925 (2693)	6255 (2843)	6926 (3148)	7379 (3354)	7867 (3576)	
Color		RAL 9002										
Air throughput of fans	cfm (m³/h)	19187 (32600)		29429 (50000)	28840 (49000)	42848 (72800)	42083 (71500)	41318 (70200)	62506 (106200)	61271 (104100)	60035 (102000)	
Temperature control		Electronic control with digital display (factory setting +59° F (+15° C))										

¹⁾ The performance data varies according to the option package chosen.
Extended delivery times. We reserve the right to make technical modifications.

Aisle containment



TopTherm LCP Passive CW from page 460

Aisle containment

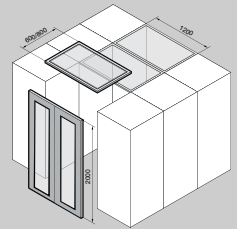
By providing a chamber to contain the air and keep cool air in front and heated air behind individual units cooling efficiency can be enhanced. Aisle containment is a combination of door and roof components to facilitate consistent separation of air in the data center. Depending upon individual applications, aisle containment may be used with CRAC systems or Rittal TopTherm LCP Inline CW and DX as hot or cold aisle containment.

Benefits:

- Relatively low-cost, easily implemented solution — can be retrofitted
- Fully compatible with existing TS 8 enclosure system
- Energy efficiency can be enhanced
- Performance of cooling system can be enhanced
- Superior output density is facilitated by a consistent cool air supply
- Can be installed within existing data center to extend the life of the facility

Configuration:

- Slimline door element with viewing window, sliding door
- Stable roof elements of composite metal
- High level of light penetration
- May be used with safety glass where required



	Roof panel	Field installation kit	Roof support rail			Door assembly			
Position	Attaches to roof support rail		Attaches to top of the enclosures			Attaches to the top of the enclosures at the end of the aisle			
Part No.	9978.497	9978.498¹⁾	9978.499	9978.500	9978.501	9978.502	9978.503	9978.504	9978.505
Width inches (mm)	32 (800)	35 (900)	–	–	–	–	–	–	–
Depth inches (mm)	48 (1219)	48 (1219)	32 (800)	47 (1200)	94 (2400)	–	–	–	–
Height of aisle inches (mm)	–	–	–	–	–	79 (2000)	87 (2200)	79 (2000)	87 (2200)
Width of aisle inches (mm)	48 (1219)	48 (1219)	48 (1219)	48 (1219)	48 (1219)	48 (1219)	48 (1219)	48 (1219)	48 (1219)
Enclosure depth inches (mm)	–	–	–	–	–	41 (1050)	41 (1050)	47 (1200)	47 (1200)
Color	Silver								

¹⁾ Polycarbonate panel, gasket, 2 end rails, 2 side rails, 2 35" (900 mm) roof support rails, jig and hardware



Accessories for climate control Page 471 Chillers for IT cooling Page 454 Server enclosures Page 134

Benefits:

- Maximum energy efficiency thanks to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Optimum adaptability thanks to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Thanks to six modular, box-type plug-in fan units,

the cooling output can be adapted to actual requirements

- The box-type plug-in fan units are configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- With redundant temperature sensor integrated at the air end as standard
- The separation of cooling and rack prevents water from penetrating the server enclosure
- Up to 60 kW cooling output on a footprint of just 0.36 m²
- The low weight means a minimal load area

- Touchscreen display may be retrofitted

Monitoring of all system-relevant parameters such as:

- Server air intake temperature
- Server waste air temperature
- Water inlet/return temperature
- Water flow
- Cooling output
- Fan speed
- Leakage
- Optional sensors
- Direct connection of the unit via SNMP/Ethernet
- Integration into RiZone

Application and mode of operation:

The LCP draws in the air at the sides at the rear of the server enclosures, cools it using high performance compact impellers, and blows the cooled air back into the front part of the server enclosure at the sides.

Protection rating:

IP 40 to IEC 60 529

Color:

RAL 7035 light grey/Sand Texture
Black

TopTherm LCP Rack CW and DX

Design		CW	CW	CW	DX	
Cooling medium		Water			Refrigerant R410a	
Part No. RAL 7035 light grey		3311.130	3311.230	3311.260	3311.110	
Sand Texture Black		3311.135	3311.235	3311.265	–	
Rated operating voltage V, Hz		230, 1~, 50/60, 400, 3~, 50/60				
Dimensions inches (mm)	H x W x D	80 x 12 x 40 (2000 x 300 x 1000)	80 x 12 x 48 (2000 x 300 x 1200)	80 x 12 x 48 (2000 x 300 x 1200)	80 x 12 x 48 (2000 x 300 x 1200)	
Usable U		42	42	42	42	
Useful cooling output BTU (kW)		Up to 102364 (30)	Up to 102364 (30)	Up to 204728 (60)	Up to 34121 (10)	
Duty cycle		100%				
Electrical connection		Connection cable				
Temperature control		Linear fan control				
		Two way control valve				–
Fans may be exchanged with the system operational		■	■	■	■	
EC fan		■	■	■	■	
Also required	Packs of					Page
Condenser unit	1	–	–	–	3311.310	461
Accessories						
Fan module, RAL 7035	1			3311.010		–
Fan module, Sand Texture Black	1			4967.527		–
Touchscreen display, colored	1			3311.030		461
Connection hose, top/bottom	1			3311.040		462

Liquid Cooling Package



Accessories for climate control Page 471 Chillers for IT cooling Page 454 Server enclosures Page 134 Aisle containment Page 456

Benefits:

- Maximum energy efficiency thanks to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which minimizes the power consumption of the fans
- Optimum adaptability from dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Thanks to six modular, box-type plug-in fan units, the cooling output can be adapted to actual

requirements

- The box-type plug-in fan units are configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- With redundant temperature sensor integrated at the air end as standard
- The separation of cooling and rack prevents water from penetrating the server enclosure
- Up to 60 kW cooling output on a footprint of just 0.36 m²
- The low weight means a minimal load area
- Touchscreen display may be retrofitted

Monitoring of all system-relevant parameters such as:

- Server air intake temperature
- Server waste air temperature
- Water inlet/return temperature
- Water flow
- Cooling output
- Fan speed
- Leakage
- Optional sensors
- Direct connection of the unit via SNMP/Ethernet
- Integration into RiZone

Color:

RAL 7035 light grey
Sand Texture Black

Protection rating:

IP 40 to IEC 60 529

Application and mode of operation:

The LCP is designed for siting within a bayed enclosure suite. The hot air is drawn in from the room or hot aisle at the rear of the device and expelled at the front into the cold aisle after cooling. The LCP achieves maximum performance and efficiency in conjunction with Rittal cold aisle containment. With this product, a raised floor is not necessary.

TopTherm LCP Inline CW and DX

Design		CW	CW	CW	DX	
Cooling medium		Water			Refrigerant R410a	
Part No. RAL 7035 light grey		3311.530	3311.560	3311.540	3311.210	
Sand Texture Black		3311.535	3311.565	3311.545	–	
Rated operating voltage V, Hz		230, 1~, 50/60, 400, 3~, 50/60				
Dimensions inches (mm)	H x W x D	80 x 12 x 48 (2000 x 300 x 1200)	80 x 12 x 48 (2000 x 300 x 1200)	80 x 12 x 48 (2000 x 300 x 1200)	80 x 12 x 48 (2000 x 300 x 1200)	
Usable U		42	42	42	42	
Useful cooling output BTU (kW)		Up to 102364 (30)	Up to 204728 (60)	Up to 102364 (30)	Up to 34121 (10)	
Front alignment		Protruding		Flush		
Duty cycle		100%				
Electrical connection		Connection cable				
Temperature control		Linear fan control				
		Two-way control valve			–	
Fans may be exchanged with the system operational		■	■	■	■	
EC fan		■	■	■	■	
Also required	Packs of					Page
Condenser unit	1	–	–	3311.310	461	
Accessories						
Front cover, RAL 7035/Sand Texture Black	1	3311.060/9967.528	3311.060/9967.528	3311.060/9967.528	3311.060/9967.528	–
Fan module, RAL 7035/Sand Texture Black	1	3311.010/9967.527	3311.010/9967.527	3311.020/9967.530	3311.010/9967.527	–
Touchscreen display, colored	1	3311.030	3311.030	3311.030	3311.030	461
Connection hose, top/bottom	1	3311.040	3311.030	3311.030	3311.030	462



Accessories for climate control Page 471 Chillers for IT cooling Page 454 Server enclosures Page 134

Benefits:

- Error-tolerant, efficient cooling of server racks with high thermal loads
- Fully redundant – Two active cooling circuits and two switchable power circuits ensure optimum fail-safeness
- The built-in controllers are capable of adapting all device parameters automatically to preserve the required climate conditions
- A separate decentralized intelligence which automatically recognizes emergency situations and responds

appropriately with the “auto load balancing” and “auto recovery” functions

- Interfaces which facilitate user-friendly operation and monitoring via the network or BSM systems

Optional:

- Fully integrated fire detection and extinguisher system
- Automatic server enclosure door opening
- Various sensors

Protection rating:
IP 40 to IEC 60 529

Color:
RAL 7035

Application and mode of operation:

The LCP draws in the air at the sides at the rear of the server enclosures, cools it using high performance compact impellers, and blows the cooled air back into the front part of the server enclosures at the sides.

TopTherm LCP T3+ CW

Cooling medium		Water	
Part No.		3311.400	
Rated operating voltage V, Hz		230, 1~, 50/60 400, 3~, 50/60	
Dimensions inches (mm)	H x W x D	80 x 12 x 48 (2000 x 300 x 1200)	
Usable U		42	
Useful cooling output, redundant BTU (kW)		Up to 85303 (25)	
Duty cycle		100%	
Electrical connection		C19/C20	
Temperature control		Linear fan control	
		Two-way control valve	
Fans may be exchanged with the system operational		■	
EC fan		■	
Auto-load balancing		■	
Auto-recovery		■	
Accessories	Packs of		Page
Fan module	1	3311.010	–
Touchscreen display, colored	1	3311.030	461
Connection hose, top	1	3311.040	462

Liquid Cooling Package



Accessories for climate control Page 471 Chillers for IT cooling Page 454 Server enclosures Page 134

Benefits:

- High cooling output of 20 kW in a minimal space
- Easily exchanged for the standard rear door of the server enclosure
- Retrofitting is not a problem
- A door opening angle of 120° allows rear access to the

server enclosure and makes assembly and configuration inside the enclosure easier

- The LCP does not require its own fan, and therefore does not need an integrated control
- Maximum energy efficiency, as there is no electrical power consumption whatsoever

Application and mode of operation:

Air/water heat exchanger mechanically integrated into a rear door for server enclosures. The 19" (482.6 mm) equipment built into the server enclosure must have suitable airflow capabilities in order to route the

heated waste air through the heat exchanger rear door. The waste air is cooled down to room temperature. The heat energy absorbed by the water is transported to the external cold water supply, where it is cooled back down to the required inlet temperature.

TopTherm LCP Passive CW

Part No. RAL 7035 light grey		3311.600
Dimensions inches (mm)	H x W x D	80 x 24 x 7 (2000 x 600 x 170)
Usable U		42
Useful cooling output BTU (kW)		Up to 68242 (20)

Touchscreen display, color for LCP rack, inline, T3+

The display offers the opportunity of directly monitoring key LCP functions and implementing settings.

Packs of	Part No.
1	3311.030



Front cover for LCP Inline CW and DX

The optional front cover ensures an even air exhaust and reduces the air outlet speed, thereby preventing draught effects.

Color	Packs of	Part No.
RAL 7035	1	3311.060
Sand Texture Black	1	9967.528

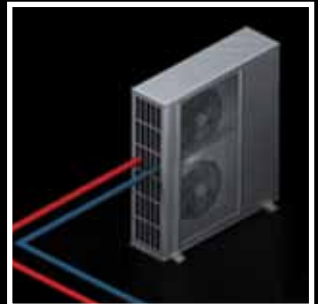


Condenser unit

The condenser unit is needed to operate the refrigerant-based LCPs, and comprises the external condenser, fan and inverter-controlled compressor.

Refrigerant:
R410a

For LCP	Packs of	Part No.
3311.110, 3311.210	1	3311.310



Vertical shielding

To block the airflow on the left and right of the 19" (482.6 mm) level, for enclosure height 79" (2000 mm).

Material:

- Cellular PU foam
- Flame-inhibiting to UL 94 (HF1)
- Length: 75" (1900 mm)
- Self-adhesive on one side

For sealing between	For enclosure width inches (mm)	Packs of	Part No.
Side panel and 19" (482.6 mm) level	24 (600)	1	3301.380
	32 (800)	1	3301.390
LCP and 19" (482.6 mm) level	24 (600)	1	3301.370
	32 (800)	1	3301.320



Liquid Cooling Package

Accessories



Connection hose, bottom and top

Flexible connection hose, may be shortened, including union nuts on both sides for connecting the LCP to existing pipework. Length: 10 ft (3 m)

For LCP	Thread	Water connection from	Packs of	Part No.
3311.130, 3311.230, 3311.260, 3311.530, 3311.560, 3311.400, 3311.110, 3311.210	1½"	Top/bottom	2	3311.040



Add-on cover

For height compensation with 88" (2200 mm) high racks in conjunction with the LCP (H = 80" (2000 mm)).

Material:

Carbon steel

Surface finish:

Spray-finished

Color:

RAL 7035 (light grey)/Sand Texture Black

Depth inches (mm)	For LCP	RAL 7035	Sand texture black	Part No.
40 (1000)	3311.130,110	■	–	3301.221
		–	■	9970.164
48 (1200)	3311.230,260, 3311.530,560, 3311.400,210	■	–	3301.421
		–	■	9970.165

Delivery times available on request.



Rear adapter

For use with protruding LCP inline units to create an even rear row.

For LCP	Color	Packs of	Part No.
3311.530 3311.560	RAL 7035	1	3311.080
3311.535 3311.565	Sand Texture Black	1	9967.529

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Heat exchanger/cooling unit for Toptec enclosure



CS Toptec Page 251 Enclosure heaters Page 469

With sealing frame for universal mounting on the Toptec enclosure in 3 positions: Internal, partial internal and external.

Material:
Enclosure: Aluminum

Surface finish:
Powder-coated, pure polyester

Color:
RAL 7035

Protection rating:
IP 55 to IEC 60 529 (internal circuit to external circuit)

Part No.	Air/air heat exchanger		Cooling unit		
	9776.102	9776.152	9776.500	9776.550	
Installation	Universal				
Rated operating voltage	DC	48 V		–	
	AC	–		230 V, 50/60 Hz	
Enclosure dimensions inches (mm) (including sealing frame and designer cover)	H	39 (41) (1000 (1050))	39 (41) (1000 (1050))	39 (41) (1000 (1050))	39 (41) (1000 (1050))
	W	20 (22) (500 (550))	20 (22) (500 (550))	20 (22) (500 (550))	20 (22) (500 (550))
	D	6 (7) (150 (175))	8 (9) (200 (225))	6 (7) (150 (175))	10 (11) 260 (285))
Min. enclosure dimensions inches (mm)	H x W	47 x 32 (1200 x 800)			
Spec. thermal output		85 W/K	105 W/K	–	–
Useful cooling output Q_k to DIN 3168 BTU (W)	L 35 L 35	–	–	3412/3924 (1000/1150)	5459/ 5971 (1600/1750)
	L 35 L 50	–	–	2218/2388 (650/700)	4094/4265 (1200/1250)
Heater		–	–	400 W	
Rated current max.	DC	4.2 A	4.5 A	–	
	AC	–	–	5.0 A/5.0 A	6.0 A/6.8 A
Start-up current max.		–	–	24.0 A/22.0 A	34.0 A/32.0 A
Power consumption P_{el} to DIN 3168	L 35 L 35	–	–	640 W/760 W	960 W/1170 W
	L 35 L 50	–	–	780 W/920 W	1125 W/1310 W
Coolant		–	–	R134a	
Permissible operating pressure p. max. PSI (bar)		–	–	406 (28)	
Temperature range		–28° F to +149° F (–33° C to +65° C)		–28° F to +131° F (–33° C to +55° C)	
Air throughput of fans – unimpeded air flow	Internal/external circuit fan	335 cfm (570 m ³ /h)	706 cfm (1200 m ³ /h)	335/368 cfm (600/625 m ³ /h)	518/559 cfm (880/950 m ³ /h)
				335/368 cfm (600/625 m ³ /h)	589/642 (1000/1090 m ³ /h)
Temperature control		Comfort controller ¹⁾	Comfort controller ¹⁾	Comfort controller	Comfort controller
Type of connection		Plug-in terminal strip			
Weight lb (kg)		48 (22)	66 (30)	77 (35)	99 (45)

¹⁾ Setpoint settings may be altered via software.

Extended delivery times. Products are manufactured to order. The units are assembled and supplied connected to the Toptec enclosure.

Heat exchanger/cooling unit for outdoor enclosure



CS modular enclosures Page 252 Enclosure heaters Page 469

For roof mounting

With Comfort controller and 400 W heater as standard¹⁾ or control via thermostat. Heat exchanger 9764.040 without Comfort controller.

Mounting frame:

Required for 9762.212

For wall mounting

With Comfort controller¹⁾ and 400 W heater as standard.

For partial installation

With Comfort controller¹⁾ and 800 W heater as standard.

Installation options:

- in the door or rear panel
- in the side panel

Surface finish:

Powder-coated, pure polyester

Color:

RAL 7035

Protection rating:

IP 55 to IEC 60 529 (internal circuit to external circuit)

¹⁾ Units with Comfort controller. The Comfort controller is installed on the inside of the cooling unit, and is not accessible from the outside.

Air/air heat exchangers and cooling units for CS modular enclosures

		Air/air heat exchanger		Cooling unit		
Part No.		9764.040	9762.212	9761.212	9768.152	
Installation		Roof-mounted		Wall-mounted	Partially internal	
Rated operating voltage	DC	48 V	–			
	AC	–	230 V, 50/60 Hz			
Unit dims. inches (mm)	H x W x D	6x19x15 (158x470x380)	15x21x16 (390x535x400)	46x20x6 (1170x515x152)	41x1612 (1050x400x310)	
Min. encl. dims. inches (mm)		WxD 24x20 (600x500)	WxD 24x20 (600x500)	WxH 24x48 (600x1200)	W/DxH 24x48 (600x1200)	
Spec. thermal output		30 W/K				
Useful cooling output Q_k to DIN 3168 BTU (W)	L 35 L 35	–	3071/ 3480 (900/1020)	3071/3583 (900/1050)	5118/ 5459 (1500/1600)	
	L 35 L 50		2457/2661 (720/780)	2559/ 2798 (750/820)	4265/4265 (1250/1250)	
Heater		–	400 W		800 W	
Rated current max.	DC	1.3 A	–			
	AC	–	3.1 A/4 A	3.2 A/4.2 A	5.8 A/6.7 A	
Start-up current max.		–	10.6 A	10.8 A	19.0 A	
Power consumption P_{el} to DIN 3168	L 35 L 35	–	460 W/570 W	605 W/790 W	940 W/1145 W	
	L 35 L 50		520 W/655 W	690 W/880 W	1045 W/1270 W	
Temperature control		via thermostat ²⁾	Comfort controller			
Coolant	R134a	–	19.4 oz (550 g)	21.2 oz (600 g)	22.9 (650 g)	
Permissible operating pressure p. max.		–	392 PSI (27 bar)	348 PSI (24 bar)	406 PSI (28 bar)	
Temperature range		–28°F to +149°F (–33°C to +65°C)	–28° to +131° F (–33° to +55° C)			
Air throughput of fans – unimpeded air flow	Internal/external circuit fan	203 cfm (345 m ³ /h)	335 cfm (570 m ³ /h) 335 cfm (570 m ³ /h)	518 cfm (880 m ³ /h) 518 cfm (880 m ³ /h)	500 cfm (850 m ³ /h) 400 cfm (680 m ³ /h)	
	Type of connection	Plug panel	Plug-in terminal strip			
Weight		15 (7)	64 (29)	99 (45)	88 (40)	
Material (enclosure)		Alum./carbon steel	■/–	–/■	■/–	
Accessories						
Mounting frame		–	9765.051	–	–	
Encl. internal thermostat		3110.000	–	–	–	

²⁾ Customers may fit their own thermostat (3110.000). Extended delivery times. The partially internally mounted 9768.152 may be inserted directly. Cooling units are manufactured to order. The units are assembled and supplied connected to the modular enclosure. Adaptations to other enclosure platforms are available on request.





Climate control accessories Page 471 Software & services Page 511

Configuration:

- PTC heater
- Quick-connection terminal
- Assembly parts

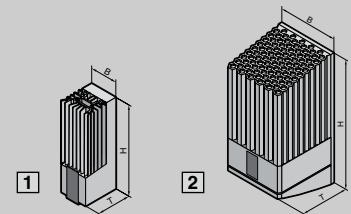
Note:

- For precise temperature control inside the enclosure,

we recommend the enclosure internal thermostat 3110.000 or the digital thermostat 3114.200 with display (see accessories).
– In order to prevent condensation on assemblies, hygrostat 3118.000 (see accessories) is recommended to regulate

heating.

- In larger enclosures, even heat distribution is best achieved by installing several low-output heaters.
- The installation of heaters is generally advisable, in order to prevent condensation.



1 Without fan, continuous thermal output 10 – 150 W

Part No.		3105.310	3105.320	3105.330	3105.340	3105.350	3105.360	3105.370	
Dimensions inches (mm)	W (B)	5 (120)	5 (120)	6 (155)	6 (155)	9 (230)	6 (165)	7 (180)	
	H	2 (45)	2 (45)	3 (64)	3 (64)	3 (64)	4 (90)	4 (90)	
	D (T)	2 (46)	2 (46)	2 (56)	2 (56)	2 (56)	3 (75)	3 (75)	
Rated operating voltage V, Hz		110 – 240 V, 50/60 Hz							
Continuous thermal output at $T_u = 50^\circ\text{F}$ (10°C) BTU (W)		27 – 34 (8 – 10)	61 – 68 (18 – 20)	78 – 102 (23 – 30)	167 – 171 (49 – 50)	215 – 256 (63 – 75)	293 – 341 (86 – 100)	444 – 512 (130 – 150)	
Pre-fuse T		2 A			4A				
Accessories		PU							Page
Encl. internal thermostat	1							3110.000	476
Hygrostat	1							3118.000	476
Digital temp. display/thermostat	1							3114.200	475

Special voltages available on request. We reserve the right to make technical modifications.

2 With fan, continuous thermal output 250 – 800 W

Part No.		3105.410	3105.380	3105.420	3105.390	3105.430	3105.400		
Dimensions inches (mm)	W (B)					8 (200)			
	H					4 (103)			
	D (T)					4 (103)			
Rated operating voltage V, Hz		110 V, 50/60 Hz	230 V, 50/60 Hz	110 V, 50/60 Hz	230 V, 50/60 Hz	110 V, 50/60 Hz	230 V, 50/60 Hz		
Continuous thermal output at $T_u = 50^\circ\text{F}$ (10°C) BTU (W)		853 (250)¹⁾		1365 (400)¹⁾		2730 (800)¹⁾			
Pre-fuse T		4 A		6 A		10 A	6 A		
Accessories		PU							Page
Encl. internal thermostat	1							3110.000	476
Hygrostat	1							3118.000	476
Digital temp. display/thermostat	1							3114.200	475

¹⁾ Thermal output with fan.

Special voltages available on request. We reserve the right to make technical modifications.



Air duct system for roof-mounted cooling units and air/water heat exchangers

It is possible to route the cold air directly to specific areas of the enclosure using the air duct system. The risk of "short circuits" in the air circulation due to self-ventilated installed devices is therefore eliminated. The shallow duct can be shortened to the required length.

Material:

Flame-resistant plastic to DIN 4102/B1

Configuration:

Shallow duct, compensating hose

H x W x D dimensions:

59 x 9 x 1 (1500 x 229 x 29 mm), can be shortened to the required length

Note:

Do not direct cold air straight at active components. When using the ducting system, the performance of the cooling unit may be reduced, depending on the application in question.

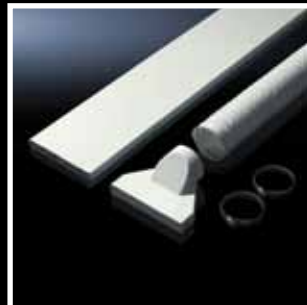
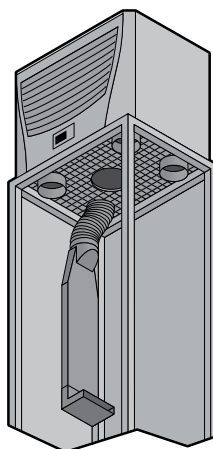
Also required:

TS support strips, see page 656

Accessories:

- Deflector 90°, see page 471
- Stopper, see page 473

For unit	Packs of	Part No.
3209.../3210.../3273.../3359.../3382.../3383.../3384.../3385...	1	3286.870
3386.../3387...	1	3286.970



Deflector, 90° for air duct system

For targeted air deflection at the end of the shallow duct.

Material:

Flame-resistant plastic to DIN 4102/B1

Packs of	Part No.
1	3286.990



Air routing



Shallow air duct system for roof-mounted cooling units and air/water heat exchangers, to fit TS 8 enclosures from a width of 32" (800 mm) and a depth of 24" (600 mm).

It is possible to route the cold air directly to specific areas of the enclosure using the air duct system. The risk of "short circuits" in the air circulation due to self-ventilated installed devices is therefore eliminated. The dimensions of the shallow duct are 59 x 9 x 1 inches H x W x D (1500 x 229 x 9 mm), and can be shortened to the required length.

Material:

Flame-resistant plastic to DIN 4102/B1

Configuration:

- Shallow duct
- Adaptor
- Compensating piece
- Deflector, 90°

Note:

Do not direct cold air straight at active components. When using the ducting system, the performance of the cooling unit may be reduced, depending on the application in question.

Also required:

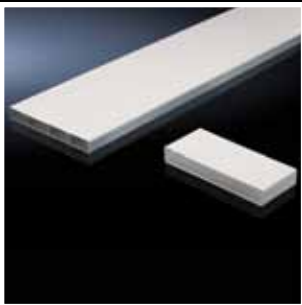
- Shallow duct extension 3286.860 to compensate for the enclosure width and height
- TS support strips, see page 656

Accessories:

- Deflector 90°, see page 471
- Stopper, see page 478



For	Packs of	Part No.
3209. . . /3210. . . . 3273. . . /3383. . . . 3384. . . /3385. . . .	1	3286.850



Shallow duct extension

Extension kit for shallow air duct system 3286.850 for width, depth or height length extensions in TS 8 enclosures.

Material:

Flame-resistant plastic to DIN 4102/B1

Configuration:

- Shallow duct 59" (1500 mm)
- Connecting piece

Packs of	Part No
1	3286.860

Chimney

Chimney design directs hot air toward ceiling ducts through the top of the roof at the rear of a cabinet. Conditioned air enters the perforated front door and is pulled through via component fans. A solid rear door directs air upward to the roof and chimney, isolating the hot air to improve efficiency. An active fan base is also available to increase air flow. Designed to remove heat and reduce energy costs by separating air paths, chimney units are adjustable. The flexible design, which can expand from 20 to 34", accommodates varying ceiling heights. Both passive and active solutions can be used on 42 U and 47 U, 24 – 32" (600 – 800 mm) wide and 41 – 47" (1050 – 1200 mm) deep enclosures. Existing installations can be retrofitted with the addition of a solid rear door, modified roof and appropriately sized chimney.

Color:

Sand Texture Black

Passive Chimney

Adjustable height range inches (mm)	Part No.
20 – 34 (508 – 864)	9979.454

Active Fan Base

Packs of	Part No.
1	9979.453

Replacement Roof

Width x Depth inches (mm)	Part No.
24 x 41 (600 x 1050)	9979.441
28 x 41 (700 x 1050)	9979.442
32 x 41 (800 x 1050)	9979.443
24 x 47 (600 x 1200)	9979.444
28 x 47 (700 x 1200)	9979.445
32 x 47 (800 x 1200)	9979.446

Replacement Solid Rear Door

Height x Width U/inches (mm)	Part No.
42 U/79 x 24 (2000 x 600)	9979.447
42 U/79 x 28 (2000 x 700)	9979.448
42 U/79 x 32 (2000 x 800)	9979.449
47 U/87 x 24 (2200 x 600)	9979.450
47 U/87 x 28 (2200 x 700)	9979.451
47 U/87 x 32 (2200 x 800)	9979.452



Stoppers

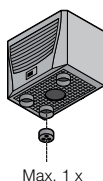
for roof-mounted cooling units

To cover unneeded cold air outlets in roofmounted cooling units.

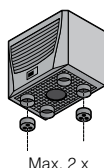
Material:

Polyurethane foam

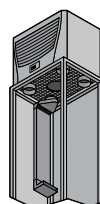
For	Max. no. of stoppers per unit	Packs of	Part No.
3359. . . /3382. . . .	1	2	3286.780
3209. . . /3210. . . /3273. . . /3383. . . /3384. . . /3385. . . .	2	2	3286.880
3386. . . /3387. . . .	1	2	3286.980



3359. . . /3382. . . .
3386. . . /3387. . . .



3209. . . /3210. . . .
3383. . . /3384. . . .
3385. . . / 3273. . . .



Air routing



Air diverter

For use with wall-mounted cooling units

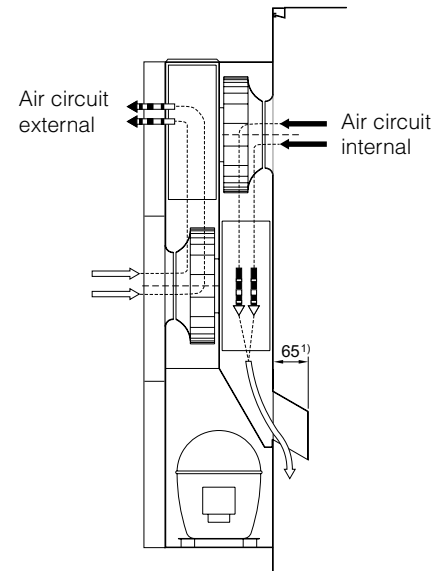
For targeted air routing of the cold air in a downward direction. Particularly well-suited for densely-packed electrical components in the lower section of the enclosure.

Material:

Carbon steel

For	Part No.
3304. . . /3305. . . .	3286.870
3328. . . /3329. . . .	3213.320
3332. . . .	3213.330¹⁾

¹⁾ 5" (115 mm) for 3213.330



Digital enclosure internal temperature display and thermostat

For installation in the enclosure door or wall.

Technical specifications:

- 2 voltage ranges for 100 – 230 V, 50/60 Hz and 24 – 60 V (DC)
- Depth: 100 mm
- Three-digit, 7-segment display
- Option of switching between °C/°F
- Temperature range: +41° to +131° F (+5° to +55° C)
- Includes 71" (1800 mm) long NTC sensor
- Two relay outputs as change-over contact and normally open contact (max. contact load 230 V, 6 A)
- Freely selectable switching difference
- The freely adjustable setpoint values can be set using the membrane keyboard at the front
Setting range: +41° to +131° F (+5° to +55° C)
- Display and switching accuracy +/- 2 K
- The minimum and maximum recorded temperatures are stored until it is next reset

Packs of	Part No.
1	3114.200

Special requirements can be accommodated on request.



Digital enclosure internal temperature display and thermostat

Integrated into 1 U panel

Including cable attachment for connection cable and label holder.

Technical specifications:

- 2 voltage ranges for 100 – 230 V, 50/60 Hz and 24 – 60 V (DC)
- Depth: 4" (100 mm)
- Three-digit, 7-segment display
- Option of switching between °F/°C
- Temperature range: +41°F to +131°F (+5° to +55° C)
- Includes 71" (1800 mm) long NTC sensor
- Two relay outputs as change-over contact and normally open contact (max. contact load 230 V, 6 A)
- Freely selectable switching difference
- The freely adjustable setpoint values can be set using the membrane keyboard at the front
Setting range: +41° to +131° F (+5° to +55° C)
- Display and switching accuracy +/- 2 K
- The minimum and maximum recorded temperatures are stored until it is next reset

Color:
RAL 7035

Packs of	Part No.
1	7109.035

Special requirements can be accommodated on request.



Control/regulation



Enclosure internal thermostat

Especially suitable for controlling fan-and-filter units, heaters and heat exchangers, this thermostat can also be used as a signal generator for monitoring the enclosure internal temperature.

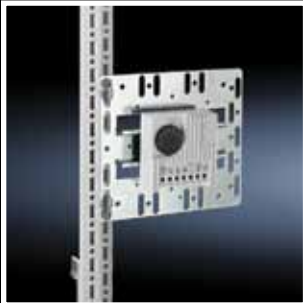
Rated operating voltage	Part No.
230/115/60/48/24 V (AC)	3110.000
60/48/24 V (DC)	

Technical specifications:

- Bi-metal controller as a temperature-sensitive element with thermal feedback.
- Contact population: Single-pole change-over contact as a quick-break contact.
- Permissible contact load:
 - Cat. 5 - 3 (heating), AC 10 (4)¹⁾ A, DC = max. 30 W
 - Cat. 5 - 4 (cooling), AC 5 (4)¹⁾ A, DC = max. 30 W
- ¹⁾ = inductive load at $\cos \varphi = 0.6$
- Setting range: +41° to +140° F (+5° to +60° C)
- Weight: approx. 3.7 oz (105 g)
- Dimensions: 3 x 3 x 1" (71 x 71 x 33.5 mm)
- Switching difference approx. 1 K ± 0.8 K.
- Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the TS/SE enclosure section or on the mounting panel using the supplied adaptor.

Accessories:

Mounting panel TS with integral top-hat rail, see page 665



Hygrostat

The hygrostat switches on the heater and/or fan when a preset relative humidity in the enclosure is exceeded. In this way, the relative humidity is raised above the dew point, and condensation on assemblies or electronic components is avoided.

Rated operating voltage	Part No.
24 - 230 V (AC), 24 - 75 V (DC)	3110.000

Technical specifications:

- Contact population: Single-pole change-over contact as a quick-break contact.
- Permissible contact load:
 - AC ~ 5 (0.2)¹⁾ A, DC = max. 20 W
- ¹⁾ = inductive load at $\cos \varphi = 0.6$
- Setting range: 50 - 100% relative humidity

- Weight: approx. 3.7 oz (105 g)
- Dimensions: 3 x 3 x 1" (71 x 71 x 33.5 mm)
- Switching hysteresis
- Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the TS/SE enclosure section or on the mounting panel using the supplied adaptor.

Accessories:

Mounting panel TS with integral top-hat rail, see page 665.



Bottom-mounted adaptor for enclosure internal thermostat 3110.000 and hygrostat 3118.000

Bottom-mounted adaptor with mounting option for screwed cable glands, for targeted cable infeed from appropriate equipment such as filter fan units and enclosure heaters. In conjunction with screwed cable glands, it is also suitable for use as strain relief.

Packs of	Part No.
1	3110.200

Control/regulation

Control unit for EC fan-and-filter unit

Temperature-dependent speed control for EC filter fans to reduce noise and save energy.

The function of the fan can also be monitored.

- Activation and monitoring of up to 4 EC fan-and-filter units (caution: EC fan-and-filter units cannot be controlled with speed control 3120.200)
- Rated operating voltage: 24 V (DC)
- Top-hat rail assembly
- Temperature setting range: 41° to 131° F (+5° to +55° C)
- External temperature sensor to record the ACTUAL temperature

For filter fan	Part No.
3245.XXX	3235.440

- Status LED to display the operating status
- Alarm relay for reporting overtemperature, fan defect, cable interruption and sensor failure

Configuration:

NTC sensor, length 71" (1800 mm)



Speed control

Temperature-dependent speed control for TopTherm filter fans and air/air heat exchangers for noise reduction and to save energy in part-load operation.

Technical specifications:

- For mounting on a 35 mm support rail DIN EN 50 022
- Dimensions (H x W x D): 4 x 4 x 2 (90.5 x 105 x 60.2 mm)
- Rated operating voltage: 100 – 230 V (AC)
- Setting range: +68° to +131° F (+20° to +55° C)
- Phase cross-over with microcontroller
- Maximum fan output 300 W or 2 A

Packs of	Part No.
1	3120.200

Configuration:

- Speed control
- NTC sensor, length 71" (1800 mm)

Note:

Only suitable for use with 1-phase AC motors and equipment.

Accessories:

Mounting panel TS with integral top-hat rail, see page 665



Interface board

for equipment with e-Comfort controller

The interface board is an extension for equipment with e-Comfort controller to monitor a master/slave combination of up to 10 cooling units in conjunction with a Rittal CMC III. Control is achieved via standardized interfaces: RS232 (DB9) or RS485, one PLC interface (DB9). RS422 (RJ 45 jack) is the connection to the Rittal CMC III. This allows remote monitoring via TCP-IP, with graphical interfaces for operation, evaluation and control, documentation, and connection to additional sensors for access control. The extension board is built into a 1 U plastic housing. A voltage supply of 24 V (DC) is required. This may be supplied from the CMC III via a wide-

Packs of	Part No.
1	3124.200

range power pack 7320.425 (100 to 240 V (AC), 50/60 Hz) or externally via a Kycon connector.

Configuration:

- Interface board integrated into a plastic box H x W x D inches/U (mm): 1 U x 5 x 5 (1 U x 136 x 129)
- Serial SUB-D cable, 59" (1500 mm)



SK bus system

The SK bus system facilitates communications between several enclosure cooling units and air/water heat exchangers .500/.510/.540/.600/.610/.640. via a master/slave construction such as that required e.g. in complex bayed enclosure systems for optimum operating conditions.

Technical specifications:

The master/slave construction facilitates common activation and deactivation via door limit switches, parallel activation and deactivation via a temperature setpoint, and common collective fault signals and temperature logging, thereby eliminating the need for intricate wiring.

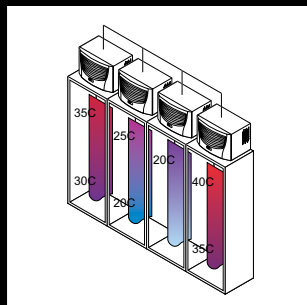
Configuration:

- 118" (3 m) shielded interface cable
- Operating instructions on programming the cooling units

Packs of	Part No.
1	3124.100

Note:

- $n_B = n_K - 1$
- n_B : Number of order units (SK bus system)
- n_K : Number of cooling units to be linked



Climate control accessories

Control/regulation/mounting accessories



Master/slave adaptor for thermoelectric cooler

Parallel operation of up to 5 thermoelectric coolers to increase cooling output or for redundant use.

Also required:

Per slave 1 x RJ 45 network cable 7320.470 or 7320.472

For units	Part No.
3201.200, 3201.300	3201.070



Roof plates TS

For mounting:

- Roof-mounted units
- Air/water heat exchangers
- Roof-mounted fan
- Vent attachment TS

The cut-outs in the roof plate are arranged in such a way that the roof-mounted cooling units are positioned centrally on the enclosure.

Material:

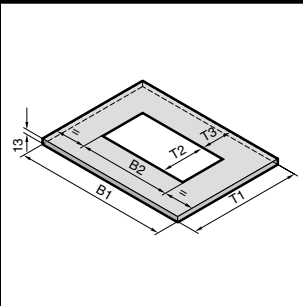
Carbon steel

Color:

RAL 7035

Configuration:

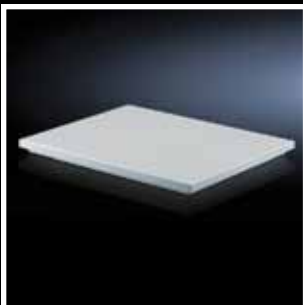
Assembly parts



For enclosures W (B) x D (T) inches (mm)	For mounting	B1 inches (mm)	B2 inches (mm)	T1 inches (mm)	T2 inches (mm)	T3 inches (mm)	Part No.
32 x 24 (800 x 600)	3382.../3359... 3149.4.../3149.8...	30 (767.5)	19 (475)	22 (567.5)	10 (260)	5 (129.3)	8801.320
24 x 24 (600 x 600)	3209.../3383... 3210.../3384... 3273.../3385... 8801.380	22 (567.5)	19 (490)	22 (567.5)	15 (390)	2 (61.3)	8801.310¹⁾
32 x 24 (800 x 600)		30 (767.5)	19 (490)	22 (567.5)	15 (390)	2 (61.3)	8801.330
47 x 24 (1200 x 600)		46 (1167.5)	19 (490)	22 (567.5)	15 (390)	2 (61.3)	8801.350
32 x 24 (800 x 600)	3386.../3387... 3387.../3388... 3388.../3389... 3389.../3390... 3390.../3391... 3391.../3392... 3392.../3393... 3393.../3394... 3394.../3395... 3395.../3396... 3396.../3397... 3397.../3398... 3398.../3399... 3399.../3400...	30 (767.5)	27 (692)	22 (567.5)	15 (392)	2 (57.8)	8801.340²⁾

¹⁾ When mounting the cooling units, there may be a collision with the eyebolts of the enclosure; for this reason, roof fastening screws are supplied loose with the roof plates.

²⁾ Attachment is from the inside using metal brackets and retaining clamps.



Vent attachment TS

For passive ventilation with labyrinthine air flow routing, to match the roofs for roof-mounted cooling units.

Color:

RAL 7035

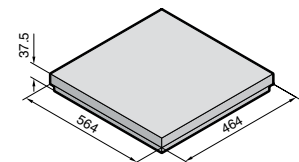
Protection rating:

IP 43

Configuration:

Assembly parts

For roof plates with cut-out inches (mm)	Part No.
19 x 15 (490 x 390)	8801.380



Mounting accessories

Vent cover

The ideal addition for incorporating sealed racks into an existing central climate control system. The stepped connection is suitable for standard pipe diameters 6" (150 mm) and 8" (200 mm), ensuring effective cooling thanks to targeted air exchange inside the rack.

Design:

Diameter of hose connection:
6 or 8 inches (150 mm or 200 mm)

Maximum cut-out on roof plate:

15 x 9 inches (380 mm x 230 mm)

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.
6 (144)	18 (450)	12 (300)	7826.750

Material:

PET-G, transparent

Configuration:

Assembly parts

Rittal service:

Mounting on the enclosure on request.



Trim frame

for slimline cooling units

Slimline cooling units can be internally or externally mounted on an enclosure door or wall. The trim frame presents a closed front for the cooling unit.

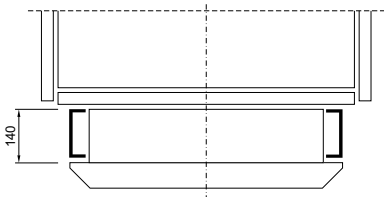
Material:

Carbon steel

Color:

RAL 7035

For units	Part No.
3366. . . .	3377.000



Quick-change frame

for roof-mounted cooling unit

The quick-change frame is more than just an alternate frame. Together with the seal, the lower part of the frame is screw-fastened to the enclosure. In this way, it is possible to install and remove the connector-ready cooling unit with the upper part of the alternate frame previously mounted on the cooling unit with quick-release fasteners. During servicing, this means shorter assembly times and minimized downtime.

The quick-change frame also offers effective protection against the ingress of oil into the enclosure in oily atmospheres, thanks to its integral drainage trough.

Material:

Carbon steel

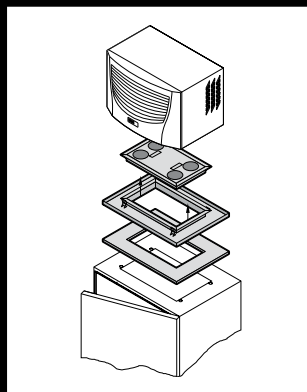
Color:

RAL 7035

Configuration:

- Quick-change frame, seal, quick-release fasteners

For roofmounted units	Part No.
3359. . . /3382. . . .	3377.000
3209. . . /3210. . . /3383. . . 3384. . . /3385. . . .	3286.800
3386. . . . /3387. . . .	3286.900



Climate control accessories

Mounting accessories



Adaptor frame for wall-mounted cooling units

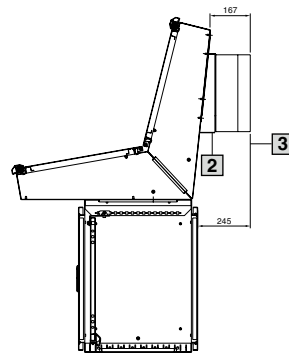
To compensate for the rear tilt of the TP consoles.

Material:
Carbon steel

Surface finish:
– Powder-coated
– Textured paint

Color:
RAL 7035

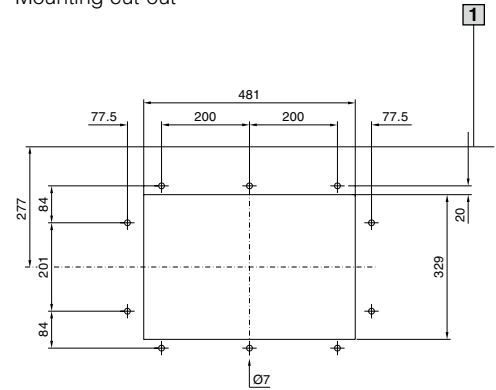
Configuration:
Assembly parts



For cooling unit 12" (300 mm) wide	Packs of	Part No.
3302.300/310	1	6730.600

Delivery times available on request.

Mounting cut-out



- 1** Top edge of console
- 2** Adaptor frame
- 3** Cooling units 3302.3X0



Integrated louvers

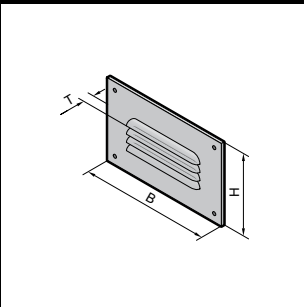
For ventilation by convection; easily retro-fitted using 4 screws.

Material:
Carbon steel

Color:
RAL 7035

Detailed drawings:
Available at www.rittal-corp.com

H x W (B) x D (T) inches (mm)	Packs of	Part No.
4 x 6 x 1 (110 x 150 x 8)	4	2541.235
4 x 8 x 1 (100 x 200 x 8)	4	2542.235
4 x 13 x 1 (110 x 330 x 8)	4	2543.235



Filter mats for tangential fans

Made of chopped-fiber mat with a progressive structure. Temperature-resistant to 212° F (100° C), self-extinguishing category F1 to DIN 53 438.

- Dust-laden air side: Open structure
- Clean-air side: Closed structure
- Reliable filtering of virtually all types of dust from a particle size of 10 µm

Material:
Chemical fibers

For tangential fans/front outlet grills 2 U	H x W x D inches (mm)	Packs of	Part No.
3144.000/3145.000/3176.000	3 x 17 x 1 (85 x 425 x 8)	5	3177.000



Filter mat

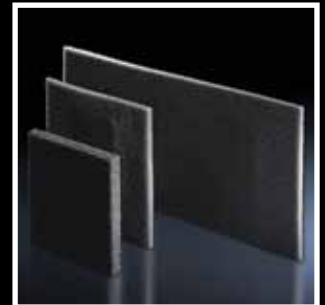
For
– Cooling units
– Air/air heat exchanger

Rittal cooling units are low-maintenance and are supplied without filter mats. Filter mats may be used for extreme conditions.

Material:

- Open-celled polyurethane foamed plastic
- Outstanding physical and mechanical properties
- Temperature resistant from –40° to +176°F (–40° to +80° C).
- Thickness: 0.3" (10 mm)

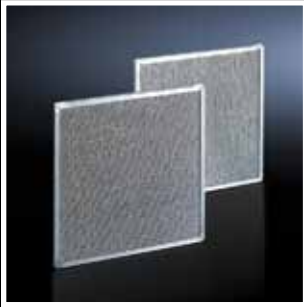
For air conditioners	H x W x D inches (mm)	Packs of	Part No.
3302.300/3302.310	7 x 4 x 0.4 (190 x 95 x 10)	3	3286.110
3302. . . /3303. . . /3361. . . .	10 x 8 x 0.4 (265 x 200 x 10)	3	3286.300
3304. . . /3305. . . /3328. . . /3329. . . /3332. . . /3366. . . .	14 x 11 x 0.4 (344 x 268 x 10)	3	3286.400
3273. . . /3382. . . /3383. . . /3384. . . /3385. . . /3359. . . .	21 x 10 x 0.4 (530 x 255 x 10)	3	3286.500
3386. . . /3387. . . .	28 x 12 x 0.4 (720 x 300 x 10)	3	3286.600
3377. . . .	8 x 8 x 0.4 (205 x 210 x 10)	3	3253.010



For discontinued air conditioners	H x W x D inches (mm)	Packs of	Part No.
3296. . . /3272.100/3290. . . /3280.100/3299. . . /3261. . . .	13 x 21 x 0.4 (332 x 539 x 10)	3	3286.100
3265.100/3266.100	13 x 11 x 0.4 (332 x 270 x 10)	3	3267.100
3256. . . .	12 x 16 x 0.4 (300 x 395 x 10)	3	3254.000
3293. . . /3281.100/3298. . . /3279.100/3260. . . /3269. . . /3262.100/3393. . . / 3381.100/3391. . . .	12 x 13 x 0.4 (313 x 334 x 10)	3	3294.100
3255. . . /3395. . . .	10 x 14 x 0.4 (245 x 350 x 10)	3	3253.000
3394. . . .	8 x 12 x 0.4 (200 x 315 x 10)	3	3285.000
3292.134/3278.134	10 x 13 x 0.4 (250 x 325 x 10)	3	3286.000

For air/air heat exchangers	H x W x D inches (mm)	Packs of	Part No.
3126.100/3126.115	8 x 10 x 0.4 (200 x 265 x 10)	3	3286.300
3127.100/3127.115/3128.100/3128.115 3129.100/3129.115/3130.100/3130.115	11 x 14 x 0.4 (268 x 344 x 10)	3	3286.400

Filter technology



Metal filter

Particularly when cooling units are used in dusty and damp environments, it is advisable to use washable metal filters. If air or steam condenses on the metal surfaces, any particles present will adhere to the metal, and can easily be washed out with water or grease-dissolving solvents.

Material:

- Aluminum
- Thickness inches (mm) 0.4 (10)

For air conditioner	H x W x D inches (mm)	Packs of	Part No.
3302.300/3302.310	4 x 7 x 0.4 (95 x 190 x 10)	1	3286.120
3302.100/3302.110/3303.../3361...	8 x 10 x 0.4 (200 x 265 x 10)	1	3286.310
3304.../3305.../3328.../3329.../3332.../3366...	11 x 14 x 0.4 (268 x 344 x 10)	1	3286.410
3273.../3382.../3383.../3384.../3385.../3359...	10 x 21 x 0.4 (255 x 530 x 10)	1	3286.510
3386.../3387...	12 x 28 x 0.4 (300 x 720 x 10)	1	3286.610
3377...	8 x 9 x 0.4 (200 x 225 x 10)	1	3253.220

For discontinued air conditioner	H x W x D inches (mm)	Packs of	Part No.
3296.../3272.100/3290.../3280.100	11 x 20 x 0.4 (290 x 520 x 10)	1	3286.210
3299.../3261...	12 x 20 x 0.4 (315 x 520 x 10)	1	3286.200
3265.100/3266.100	13 x 10 x 0.4 (320 x 265 x 10)	1	3267.200
3256...	14 x 12 x 0.4 (365 x 315 x 10)	1	3254.200
3293.../3281.100/3298.../3279.100/3260.../3269... 3262.100/3393.../3381.100/3391...	13 x 12 x 0.4 (328 x 300 x 10)	1	3294.200
3255.../3395...	8 x 14 x 0.4 (210 x 348 x 10)	1	3253.200
3394...	16 x 15 x 0.4 (415 x 375 x 10)	1	3285.200

For climate control door/section door	H x W x D inches (mm)	Packs of	Part No.
3300.040/3300.050/3300.060/3300.070/3300.080/3300.090 3300.110/3300.120	3 x 17 x 0.4 (78 x 425 x 10)	1	3284.210

For UL Type 4X stainless steel air conditioners	H x W x D inches (mm)	Packs of	Part No.
3303...	9 x 11 x 0.4 (231 x 275 x 10)	2	9961.868
	3 x 11 x 0.4 (81.5 x 280 x 10)		
3304.../3305...	12 x 16 x 0.4 (291 x 395 x 10)	2	9961.869
	3 x 16 x 0.4 (82 x 401 x 10)		
3328.../3329...	13 X 16 X 0.4 (321 X 395 x 10)	2	9961.870
	3 x 16 x 0.4 (82 x 401 x 10)		

For air/air heat exchanger	H x W x D inches (mm)	Packs of	Part No.
3126.100/3126.115	8 x 10 x 0.4 (200 x 265 x 10)	1	3286.310
3127.100/3127.115/3128.100/3128.115/ 3129.100/3129.115 3130.100/3130.115	11 x 14 x 0.4 (268 x 344 x 10)	1	3286.410

For mini chiller	H x W x D inches (mm)	Packs of	Part No.
3318.600/3318.610/3319.600/3319.610	10 x 21 x 0.4 (255 x 530 x 10)	1	3286.510
3320.600/3334.600	22 x 20 x 0.3 (558 x 500 x 8)	1	3286.520
3360...	11 x 14 x 0.4 (268 x 344 x 10)	1	3286.410

For chiller	H x W x D inches (mm)	Packs of	Part No.
3335.590/3335.600	32 x 24 x 0.8 (800 x 600 x 20)	1	3286.550
3335.610/3335.620/3335.650	41 x 24 x 0.8 (1050 x 600 x 20)	1	3286.530
3335.630/3335.640/3335.660	41 x 39 x 0.8 (1035 x 1000 x 20)	1	3286.540

Note: each UL Type 4X air conditioner require 2 filters, a top and a bottom. Each part number is a complete set.

Filter technology

Lint screen

Especially for the use of cooling units and air/air heat exchangers where there is a high proportion of lint in the ambient air.

Material:

Stainless steel mesh

Also required:

Louvered grill for lint screen

For	Packs of	Part No.
3304. . . /3305. . . / 3328. . . /3329. . . / 3332. . . /3360. . . / 3126. . . /3127. . . / 3128. . . /3129. . . / 3130. . . .	1	3329.904

Delivery times available on request.



Louvered grille for lint screen

Material:

ABS

For lint screen	Packs of	Part No.
3324.904	1	3329.903

Delivery times available on request.



Spare filter mat

Made of chopped-fiber mat with a progressive structure. Temp. resistant to +212° F (+100° C), self-extinguishing category F1 to DIN 53 438.

- Dust-laden air side: Open structure
- Clean-air side: Closed structure
- Reliable filtering of virtually all types of dust from a particle size of 10 µm

For thermoelectric cooler	Material	Filter class to DIN EN 779	Packs of	Part No.
3201.200/3201.300	Chemical fibers	G2	5	3201.050
For fan-and-filter unit	Material	Filter class to DIN EN 779	Packs of	Part No.
3237. . . .	Chemical fibers	G2	5	3321.700
3238. . . .		G2	5	3322.700
3239. . . .		G3	5	3171.100
3240. . . /3241. . . .		G3	5	3172.100
3243. . . /3244. . . .		G3	5	3173.100
For discontinued filter fans/outlet filter	Material	Filter class to DIN EN 779	Packs of	Part No.
3321. . . .	Chemical fibers	G2	5	3321.700
3322. . . .		G2	5	3322.700
3323. . . .		G3	5	3171.100
3324. . . /3325. . . .		G3	5	3172.100
3326. . . .		G3	5	3173.100
3327. . . .		G3	5	3327.700
For filter holder	Material	Filter class to DIN EN 779	Packs of	Part No.
3175.000	Chemical fibers	G2	3	3174.000
For EMC fan-and-filter unit	Material	Filter class to DIN EN 779	Packs of	Part No.
3237. . . .	Copper-nickel coated chemical fibers	G2	5	3237.066¹⁾
3238. . . .		G2	5	3238.066¹⁾
3239. . . .		G3	5	3239.066¹⁾
3240. . . /3241. . . .		G3	5	3240.066¹⁾
3243. . . /3244. . . /3245. . . .		G3	5	3243.066¹⁾

¹⁾ To achieve the shielding/dampening properties of EMC fan-and-filter unit.



Climate Control Accessories

Accessories



Fine filter mats for fan-and-filter units

Made of chopped-fiber mat with a progressive structure. Temperature-resistant to +212° F (+100° C), self-extinguishing category F1 to DIN 53 438.

- Dust-laden air side: open structure
- Clean-air side: closed structure
- Reliable filtering of virtually all types of dust from a particle size of 10 µm

Material:
Chemical fibers

For filter fan units	Filter class to DIN EN 779	PU	Part No.
3238. . . .	F5	5	3238.055
3239. . . .	F5	5	3181.100
3240. . . ./3241. . . .	F5	5	3182.100
3243. . . ./3244. . . . 3245. . . .	F5	5	3183.100
For discontinued filter fan units	Filter class to DIN EN 779	PU	Part No.
3323. . . .	F5	5	3181.100
3324. . . ./3325. . . .	F5	5	3182.100
3326. . . ./3327. . . .	F5	5	3183.100



Electric condensate evaporator

For external mounting on enclosures.
For use with all enclosure cooling units and air/water heat exchangers.

Color:
RAL 7035

Configuration:
Electric condensate evaporator, ready to connect

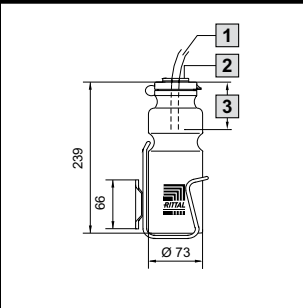
Detailed drawings:
Available at www.rittal-corp.com

For cooling units	Rated operating voltage	Part No.
3302. . . ./ 3303. . . .	230 V, 50/60 Hz	3301.560¹⁾
	115 V, 50/60 Hz	3301.580¹⁾
16" (400 mm) wide	230 V, 50/60 Hz	3301.570²⁾
	115 V, 50/60 Hz	3301.590²⁾

Evaporation performance:

¹⁾ .63 g/d (2.4 l/d)

²⁾ 1.1 g/d (4.2 l/d)



Condensate collecting bottle

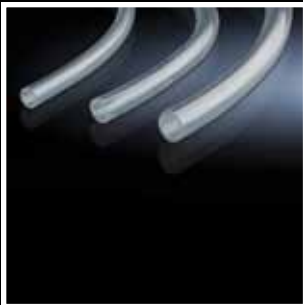
For mounting on the enclosure.
– For use with all enclosure cooling units and air/water heat exchangers
– Safety overflow at the side
– Capacity approximately 0.2 g (0.75 l)

- 1** Condensate discharge tube
- 2** Membrane grommet
- 3** Max. 2.8" (70 mm)

Packs of	Part No.
1	3301.600

Configuration:

- Condensate collecting bottle
- Bottle holder
- Mounting accessories



Condensate hose

For removing and directing condensate.
For connecting to enclosure cooling units.

Material:
PVC, transparent

For	Hose length inches (mm)	Material thickness Ø inches (mm)	Part No.
3201. . . .	196 (5000)	.24 x .04 (6 x 1)	3301.606
3302. . . ./320. . . .	394 (10 m)	.31 x .06 (8 x 1.5)	3301.608
3303. . . ./3361. . . .	394 (10 m)	.39 x .06 (10 x 1.5)	3301.610
3273. . . ./3304. . . ./3305. . . ./3328. . . . 3329. . . ./3332. . . ./3359. . . ./3366. . . . 3377. . . ./3382. . . ./3383. . . ./3384. . . . 3385. . . ./3386. . . ./3387. . . .	394 (10 m)	.47 x .08 (12 x 2)	3301.612

Outlet filter

For ventilation by convection, an outlet filter can be installed in the upper and lower sections of the enclosure.

Material:

ABS, material resistance to UL 94-V0

Color:

RAL 7035

Configuration:

- Outlet filter
- Filter mat

Dimensions H x W x D inches (mm)	Part No.	
	Standard	EMC
5 x 5 x .6 (116.5 x 116.5 x 16)	3237.200	3237.060
6 x 6 x .9 (148.5 x 148.5 x 24)	3238.200	3238.060
8 x 8 x .9 (204 x 204 x 24)	3239.200	3239.060
10 x 10 x .9 (255 x 255 x 25)	3240.200	3240.060
13 x 13 x .9 (323 x 323 x 25)	3243.200	3243.060

Accessories:

- Spare filter mats, see page 483
- Fine filter mats, see page 484



Blanking cover

If existing mounting cut-outs for filter fan/outlet filters need to be closed to achieve a higher protection category, the filter mat can simply be replaced with a blanking cover; welding or other mechanical modification of the enclosure is not necessary.

Material:

Plastic

Protection rating:

IP 54

For	Packs of	Part No.
3237. . . .	2	3237.080
3238. . . .	2	3238.080
3239. . . .	2	3239.080
3240. . . . 3241. . . .	2	3240.080
3243. . . . 3244. . . .	2	3243.080



Front outlet grill 2 U for tangential fans

This front outlet grill is required if a 19" (482.6 mm) cross-flow blower (3144.000/3145.000) is used in the lower section of the electronic enclosure and the hot air is to be expelled to the outside from the upper section of the enclosure. The design of the grill matches that of the intake grill in the cross-flow blower. These grills can also be used as simple inflow and outflow grills with natural convection.

Accessories:

Filter mat, see page 481

Packs of	Part No.
1	3176.000



Filter holder for roof ventilation

The use of a filter mat is required in order to increase the protection category of the roof vent (3148.007). Protection rating IP 44 to IEC 60 529 is achieved.

Material:

Carbon steel

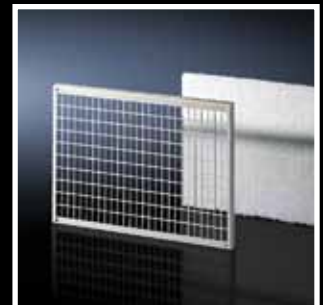
Configuration:

Filter holder including filter mat

Accessories:

Spare filter mat, see page 483

H x W x D inches (mm)	Part No.
10 x 13 x 1 (244 x 340 x 15)	3175.000



Climate control accessories

General



Overflow valve

Pressostat for use in the water cycle between the recooling system and the air/water heat exchanger. It prevents an increase in pump pressure in the recooling system against the closed magnetic valve of the air/water heat exchanger outside of the cooling cycle.

Setting range:
29 – 174 psi (2 – 12 bar)

Presetting:
43 psi (3 bar)

Design	Packs of	Part No.
1/2" bypass valve	1	3301.900
3/4" bypass valve	1	3301.910
1" bypass valve	1	3301.920

Material:
Brass

Note:
Can only be set by bar, not psi.



Flow regulator valve

For use with air/water heat exchangers, especially if more than one heat exchanger ($n > 1$) is used in the water cooling circuit. The correctly set valve then ensures the same quantity of cooling medium for all equipment. The valve is used for hydraulic balancing.

Setting range:
0.8 – 3.2 gal/min (3 – 12 l/min)

Material:
Brass

Design	Packs of	Part No.
3/4" x 1/2" for volumetric flow control	1	3301.900
3/4" x 3/4" for volumetric flow control	1	3301.910

Threading:
BSPP

Note:
Can only be set by l/min, not gal/min.



Thread adaptor for quick-release fastener

For use with air/water heat exchangers with quick release fastener. This thread adaptor enables simple adaptation to fixed and flexible pipework.

Material:
Brass

For	Design	Packs of	Part No.
3363.../ 3364.../ 3373.../	3/8" internal thread	2	3201.900
3374.../ 3375....	3/8" external thread	2	3201.910

Stainless steel V4A version available on request.



Cooling medium For recooling system

Ready mix

Apart from the recooling systems for oil and emulsion, all other recooling systems are only suitable for the cooling of water or a water/glycol mixture. As well as protecting against frost, this cooling medium also serves to inhibit bacterial growth and provide optimum corrosion protection.

Configuration:
– 2.64 g (10 l) canister
– 6.6 g (25 l) canister
– 53 g (200 l) barrel

Cooling medium	Antifreeze/water mixture	Container gallons (liters)	Part No.
Outdoor	1 : 2	2.64 (10)	3301.950
		6.6 (25)	3301.955
		53 (200)	3301.957¹⁾
Standard	1 : 4	2.64 (10)	3301.960
		6.6 (25)	3301.965
		53 (200)	3301.967¹⁾

¹⁾ Extended delivery times.

Hose-proof hoods

For filter fan units/outlet filters

When the hose-proof hood is mounted above the filter fan unit and outlet filter a rating of IP 56 (UL 3R) to EN 60 529/10.91 is achieved. Particularly suitable for use in the food industry.

Material:

Stainless steel
Painted steel RAL 7035 (light grey)

Protection rating:

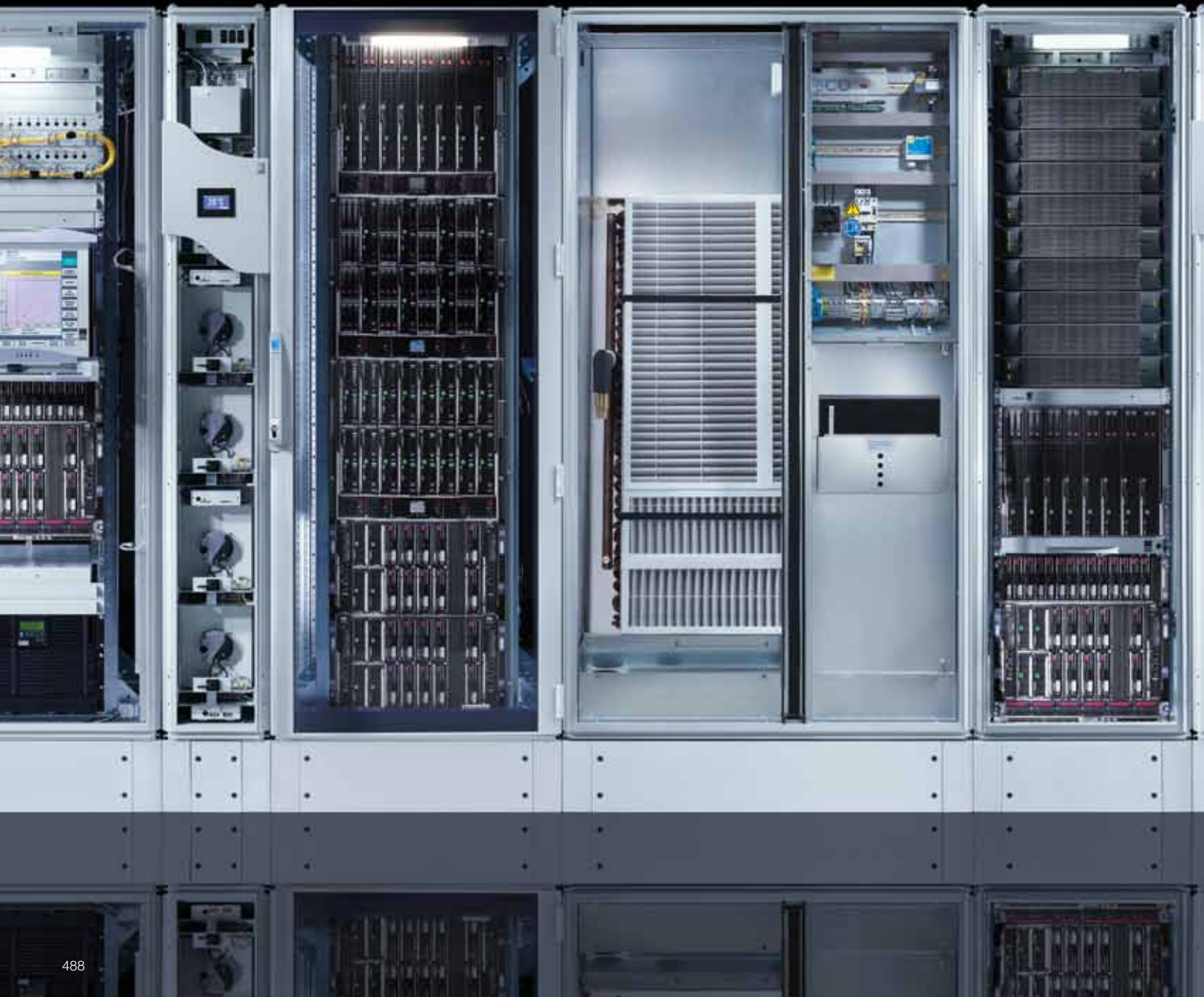
In conjunction with the filter fan units/outlet filters, UL Type 3R + 12 is met.
UL and cUL recognized
UL file #: E76083

For	Dimensions inches (mm)	Part No. Stain- less	Part No. RAL 7035
3237...	9 x 6 x 2 (230 x 150 x 40)	3237.080 ¹⁾	3237.085 ²⁾
3238...	10 x 7 x 2 (245 x 176 x 55)	3238.080 ¹⁾	3238.085 ²⁾
3239...	13 x 9 x 2 (33 x 233 x 55)	3239.080 ¹⁾	3239.085 ²⁾
3240, 3241...	15 x 11 x 3 (390 x 282 x 85)	3240.080 ¹⁾	3240.085 ²⁾
3243, 3244...	19 x 14 x 4 (480 x 350 x 110)	3243.080	3243.085
3321. . .	10 x 6 x 2 (260 x 150 x 40)	3321.800	3321.835
3322. . .	11 x 7 x 2 (270 x 176 x 55)	3322.800	3322.835
3323. . .	16 x 9 x 2 (410 x 233 x 55)	3323.800	3323.835
3324. . .	20 x 11 x 3 (500 x 282 x 85)	3324.800	3324.835
3326. . .	22 x 14 x 4 (560 x 350 x 110)	3326.800	3326.835

¹⁾UL Type 4X

²⁾UL Type 4





IT competence

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Wall-mounted/floor-standing network enclosures

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Security solutions

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Software

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Your benefits

- Standardized server racks and network enclosures
- Modular power distribution and back-up
- Scalable IT cooling concepts
- High-MTBF IT security rooms, including certificates
- Complete system accessories for IT environments and data centers
- Software-based IT and infrastructure management system

Examples of uses

- 1 Wall-mounted network enclosures, see page 74
- 2 Freestanding network enclosures, see page 128
- 3 Server enclosures, bayed in combination with LCP, see page 134/140
- 4 UPS systems, see page 362
- 5 Chillers for IT cooling, see page 454
- 6 Monitoring system CMC III, see page 784
- 7 Compact data center, see page 504
- 8 Data Center Container, see page 507





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Wall-mounted/floor-standing network enclosures



Wall-mounted network enclosures

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Floor-standing network enclosure

TS 8 network enclosures

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Your benefits

Network enclosures

- Network enclosures for stand-alone installation and data centers
- Complete system solutions for small to large networks
- Maximum configuration diversity and protection for installed equipment
- Investment protection and flexibility thanks to simple conversions and use of the comprehensive modular system

Wall-mounted enclosures

- The right enclosure to suit all applications – up to protection category IP 55
- Sizes available from 3 U to 21 U
- Wide choice of accessories with "Rittal – The System."
- Fast assembly, conversion and simple installation based on the modular principle

Examples of uses

- 1 EL 3-part enclosures, see page 74
- 2 FlatBox, see page 75
- 3 QuickBox wall-mounted enclosure with vertical 19" (482.6 mm) level, see page 77
- 4 QuickBox wall-mounted enclosure with glazed door, see page 78
- 5 TS 8 network enclosures, bayed with base/plinth, roof-mounted fan and installation accessories, see page 128



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Server enclosures

Server enclosures

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Your benefits

- Broad spectrum of sizes
- Integrated system, from small server racks to bayed rack suites in the data center
- First-class finish for maximum protection
- High-quality lock systems for optimum access protection
- Comprehensive, system-compatible complete range for cooling, power distribution/power backup and monitoring



Examples of uses

- 1 TS 8 server enclosures in combination with aisle containment and LCP, see page 456
- 2 TS 8 server enclosures, colocation, see page 139
- 3 TS 8 server enclosures in combination with LCP, see page 140



Busbar systems

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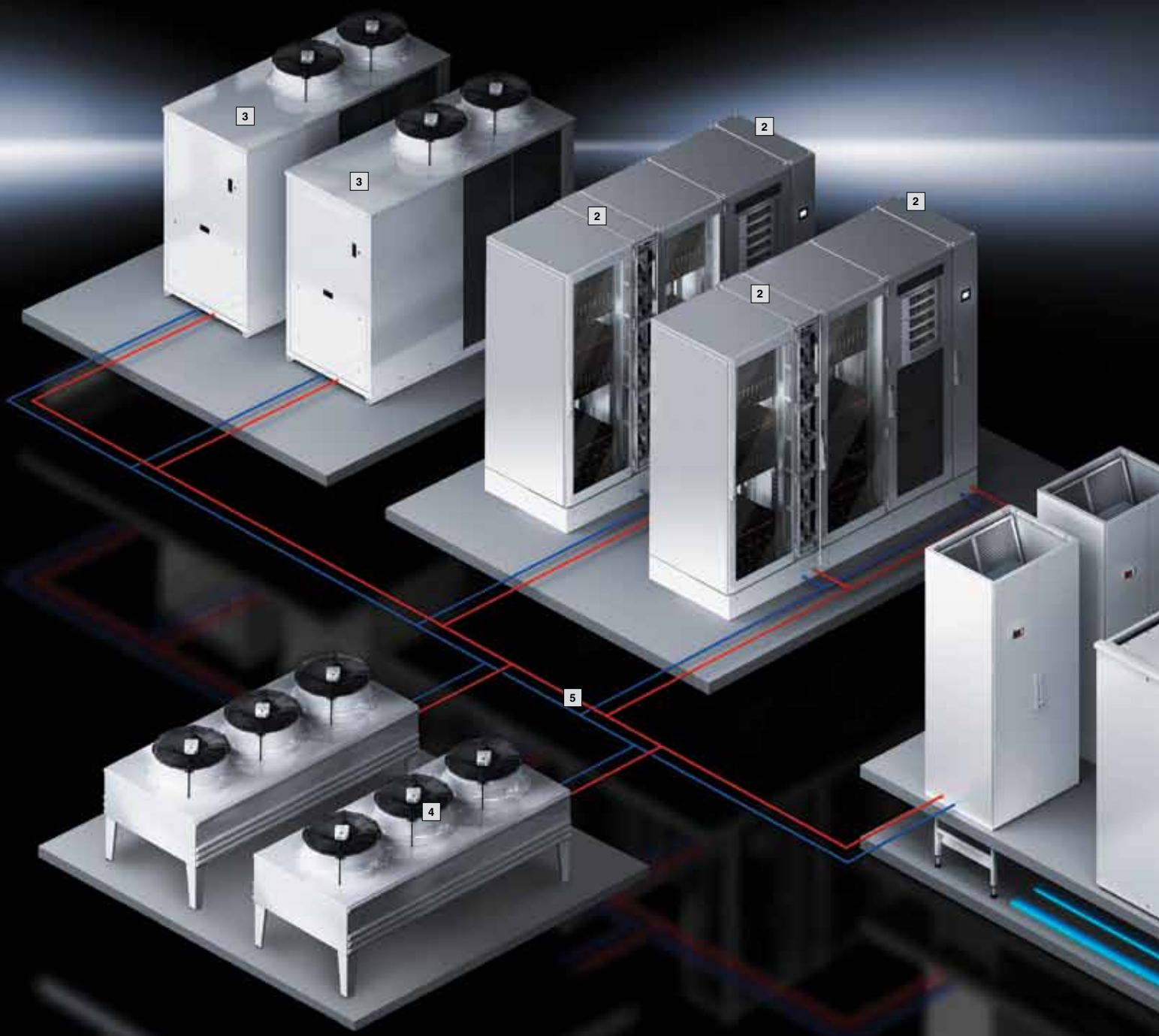
Power

UPS — Power Modular Concept	362
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Your benefits

- Holistic, systematic energy management concepts
- Comprehensive, complete solutions for power distribution and back-up, consistently modular, and flexibly extendible at any time
- Optimum energy and cost efficiency with maximum availability of the entire system
- Reduced costs for installation, administration and manpower
- High level of investment certainty
- All from a single source!





Cooling

Chillers for IT cooling

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Aisle containment

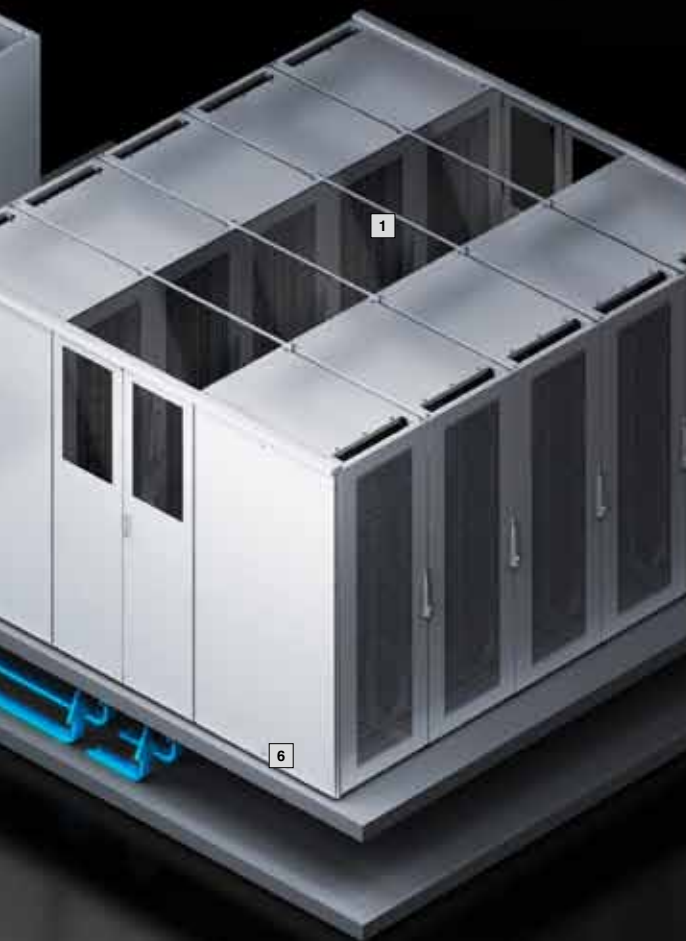
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Liquid Cooling Package accessories.....	461

Your benefits

- State-of-the-art climate control technology, from cooling a single rack through to entire data centers
- Individual climate control concepts for rack, suite and room cooling
- Enhanced security plus superior energy and cost efficiency
- Optimization with aisle containment and cross-system control concepts
- Energy-efficient cooling with IT chillers
- Minimizes operating costs with free cooling
- Environmentally friendly thanks to resource and CO₂ savings
- Planning, assembly, commissioning and servicing – all from a single supplier!



Examples of uses

- 1 Aisle containment, see page 456
- 2 Liquid Cooling Package LCP, see page 457
- 3 IT chiller, see page 454
- 4 Free cooling
- 5 Pipework
- 6 Raised floor for cold air supply



Monitoring

Monitoring system CMC III

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Door Control System

Door control system	796
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Monitor/keyboard unit

Monitor/keyboard unit, 1 U	798
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KVM switch

SSC view 8 USB, SSC view 32 Cat, SSC view 32 compact 32 Cat	799
SSC premium 2/16, 4/32, 8/32	801
SSC Duo 16	803
KVM switches, consoles, converters, cables	804

Dynamic Rack Control

RFID mounting frame, tags, controller	808
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Software

RiZone	519
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Your benefits

- Overview of your IT infrastructure
- Enhanced security
- Automated processes
- High cost efficiency
- Enormous energy savings
- Simple project management
- Fast installation
- Flexible, individual solutions with standard products from Rittal
- High standard of quality with coordinated standard products

Sample applications:

- 1 CMC III, see page 784
- 2 Liquid Cooling Package LCP, see page 457
- 3 Connection of up to 10 cooling units with Comfort control via one unit
- 4 Sensors/actuators, see page 790
 - Temperature sensor
 - Humidity sensor
 - Access and vandalism sensors
 - Motion detectors
 - Airflow monitors
 - Smoke detectors
 - Voltage monitor
 - Power supply
 - Leaks
- 5 Monitor/keyboard unit, see page 798
- 6 Fire alarm and extinguisher system DET-AC XL, see page 508





Security solutions

Compact data center

Basic Safe	504
Modular Safe	505
Modular Safe Extend	506

Data center container

Data Center Container DCC	507
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Fire alarm and extinguisher system

DET-AC Plus	508
DET-AC XL	511

Security rooms

Data centers	509
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Sample applications

- 1 Modular Safe with climate control, see page 505
- 2 Basic Safe with CMC and extinguisher system, see page 504
- 3 Modular Safe Extend as compact data center, see page 506

Basic Safe



System accessories Page 529

Applications:

- Micro data center for small businesses
- Protection for servers and storage applications
- Protection for business-critical data
- Storage of personal data

Benefits:

- Complete system with built-in climate control
- High level of operational and service-friendliness thanks to the two-door system
- Compatibility with other infrastructure elements

Protection standards:

- Fire protection F90 based on DIN 4102
- Compliance with limit values $\Delta T < 50$ K, relative humidity $< 85\%$ for 10 minutes
- Tested burglary protection WK II EN 1627
- Protection against dust and water jets IP 55 to IEC 60 529

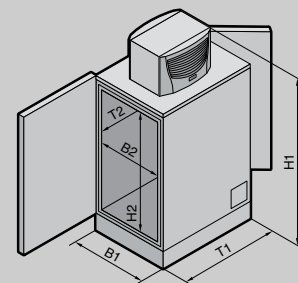
The tests were performed as system tests and confirmed by way of test reports.

Color:

Enclosure: RAL 7035

Configuration:

- Security enclosure with operating and service doors (three-point locking)
- Cable entry in both side elements
- Climate control 2.4 kW



Detailed drawings:

Available at www.rittal-corp.com

Photo shows a configuration with equipment not included in the base part number

U	15
Cooling capacity BTU (kW)	8195 (2.4)
Height (H1) inches (mm)	67 (1699)
Width (B1) inches (mm)	32 (806)
Depth (T1) inches (mm)	50 (1270)
Clearance height (H2) inches (mm)	33 (827)
Clearance width (B2) inches (mm)	24 (620)
Clearance depth (T2) inches (mm)	40 (1024)
Weight excluding internal installation approx. lb (kg)	792 (360)
Part No. Basic Safe with built-in 19" (482.6 mm) rack	7999.999
Part No. Basic Safe without built-in 19" (482.6 mm) rack	7999.898
Accessories	
19" (482.6 mm) rack, 15 U, depth 39" (1000 mm)	7995.992
Early fire detection system EFD Plus	see page 508
Fire alarm and extinguisher system DET-AC Plus	see page 508
CMC monitoring system	see page 783

Standard protection from:



Fire



Extinguishing
water



Vandalism



Unauthorised
access



Dust



Theft/
burglary



System accessories Page 529

Applications:

- Solid protection against potential physical threats for IT components
- Targeted configuration components transform the safe into a complete, compact data center

Benefits:

- Modular assembly
- Prepared for the installation of various IT climate control solutions
- Low weight
- User-friendly, thanks to operator and service door

Protection standards:

- Fire protection F90 based on DIN 4102
- Burglary protection resistance class II to EN 1627
- Protection against dust and water jets IP 56 to IEC 60 529
- Protection from acrid gases to DIN 18 095

Color:

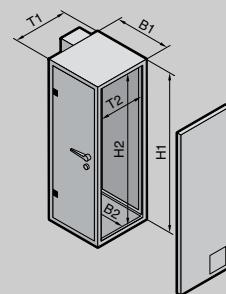
Enclosure: RAL 7035

Configuration:

- Security safe as a two-door system
- Cable duct in both side elements
- Both doors with semi-cylinder and two locks
- Optional cable routing in the top element, selectable positioning

Detailed drawings:

Available at www.rittal-corp.com



		Two-door-system	
U		33	47
External dimensions inches (mm)	Height (H1)	76 (1942)	91 (2321)
	Width (B1)	59 (1500)	59 (1500)
	Depth (T1)	49 (1238)	49 (1238)
Internal dimensions inches (mm)	Height (H2)	72 (1840)	87 (2219)
	Width (B2)	39 (979) ¹⁾	39 (979) ¹⁾
	Depth (T2)	40 (1010)	40 (1010)
Clearance height of door opening inches (mm)		66 (1678)	81 (2057)
Part No.		7999.892	7999.893
Accessories			
19" (482.6 mm) rack, based on TS 8, 19" (482.6 mm) level front and rear, 6 support strips for mounting on the 19" (482.6 mm) level, 2 punched sections with mounting flanges	H 63 (1600) x W 32 (800) x D 39 (1000)	7831.429	–
	H 79 (2000) x W 32 (800) x D 39 (1000)	–	7995.969
	H 87 (2200) x W 32 (800) x D 39 (1000)	–	7999.970
Early fire detection system EFD Plus		see page 508	
Fire alarm and extinguisher system DET-AC Plus		see page 508	
CMC monitoring system		see page 783	

¹⁾With built-in heat exchanger.

Standard protection from:



Fire



Extinguishing water



Vandalism



Unauthorised access



Dust



Theft/ burglary

Modular Safe Extend



System accessories Page 529

Applications:

- A high level of protection against potential physical threats for IT
- Targeted configuration components transform the safe into a complete, compact data center.

Benefits:

- Modular assembly
- Expandability for graduated investment in line with IT growth
- Prepared for the installation of various IT climate control solutions
- Systems may be dismantled and reassembled, for maximum investment security

Protection standards:

- Fire protection F90 based on DIN 4102
- Compliance with limit values $\Delta T < 50$ K, relative humidity $< 85\%$ for 30 minutes
- Theft protection optionally resistance class II, III or IV EN 1627
- Protection against dust and water jets IP 56 to IEC 60 529
- Protection from acrid gases to DIN 18 095

The tests were performed as system tests and confirmed by way of test reports.

Color:

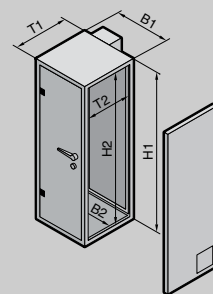
Enclosure: RAL 7035

Configuration:

- Security safe with operator door and servicing door
- Cable entry in both side elements
- Both doors with key lock

Optional:

- Electronic combination lock
- Electronic lock pre-equipped for activation by an external access control system
- Cable entry in the top and base unit
- Twin-walled doors
- Choice of door hinges



Detailed drawings:

Available at www.rittal-corp.com

U		42	47	42	47	
External dimensions inches (mm)	Height (H1)	87 (2210)	95 (2410)	87 (2210)	95 (2410)	
	Width (B1)	43 (1100)	43 (1100)	43 (1100)	43 (1100)	
	Depth (T1)	47 (1200)	47 (1200)	55 (1400)	55 (1400)	
Internal dimensions inches (mm)	Height (H2)	80 (2030)	88 (2230)	80 (2030)	88 (2230)	
	Width (B2)	36 (920)	36 (920)	36 (920)	36 (920)	
	Depth (T2)	39 (1000)	39 (1000)	47 (1200)	47 (1200)	
Part No.	Individual solution	7999.896	7999.897	7999.983	7999.987	
	Left	7999.977	7999.980	7999.984	7999.988	
	Suite creation	Center	7999.978	7999.981	7999.985	7999.989
	Right	7999.979	7999.982	7999.986	7999.990	

Accessories

19" (482.6 mm) rack, based on TS 8, 19" (482.6 mm) level front and rear, 6 support strips for mounting on the 19" (482.6 mm) level, 2 punched sections with mounting flanges	H 79 (2000) x W 32 (800) x D 39 (1000)	7995.969
	H 87 (2200) x W 32 (800) x D 39 (1000)	7999.970
Early fire detection system EFD Plus		see page 508
Fire alarm and extinguisher system DET-AC Plus		see page 508
CMC monitoring system		see page 783

Standard protection from:



Fire



Extinguishing water



Vandalism



Unauthorised access



Dust



Theft/burglary



Fire protection:

- Fire protection, internal panels: F30, optionally F90 based on DIN 4102/EN1363, component-tested

Duct system:

- Type: Hard duct DN200
- Dimensions of packing space: 5 x 5 inches (120 x 120 mm)

Raised floor:

- Structure type: Control room
- Number of slotted plates dependent on number of racks
- Total raised height: 12 inches (300 mm)

Climate control – direct free cooling:

- Available with 23900 and 34144 BTU (7 and 10 kW) units. Up to 3 units can be integrated
- Targeted cooling via aisle containment

Power distribution:

- Infeed: CEE connector 125 A, 3-phase/N/PE, 400 V/50 Hz
- Enclosure dimensions, H x W x D inches (mm) 80 x 32 x 24 (2000 x 600 x 400)

Note on standard and customized versions:

There is a standard range of models available with 12

preconfigured data center types. Ask for the Rittal Data Center Container project planning form. Within just a few days, you will receive an initial quote. Bayed containers, higher cooling outputs e.g. using LCP technology or more than seven racks – we would be happy to design your own individual data center container. Additional container sizes, including ISO compliant dimensions, are available.

Optional:

- Up to seven 19" (482.6 mm) IT racks with power supply
- UPS, with up to 15 minutes autonomy

- Fire alarm/gas extinguisher system (Novec 1230)
- Access systems, access door (keyboard, code card)
- Monitoring and management (CMC, RiZone)

Detailed drawings:

Available at www.rittal-corp.com

Sizes:

- ISO shipping container available.
- Additional dimensions available.

Photo shows a configuration with equipment not included in the base part number

Version	R7A	R7B	R7C	R7D	R14A	R14B	R14C	R14D	R20A	R20B	R20C	R20D
Height x Width x Depth inches (mm)	128 x 118 x 238 (3250 x 3000 x 6055)											
Usable area ft² (m²)	163 (15.2)											
Part No.	Project planning on request											
Cooling capacity BTU (kW)	23900 (7)	23900 (7)	23900 (7)	23900 (7)	47800 (14)	47800 (14)	47800 (14)	47800 (14)	68288 (20)	68288 (20)	68288 (20)	68288 (20)
Redundancy cooling	1+1	1+1	1+1	1+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1
Available area inches (mm) (racks, UPS, DET-AC)	177 (4500)	177 (4500)	177 (4500)	177 (4500)	157 (4000)	157 (4000)	157 (4000)	157 (4000)	157 (4000)	157 (4000)	157 (4000)	157 (4000)
Heavy-duty raised floor	■	■	■	■	■	■	■	■	■	■	■	■
Plug-and-play power distribution	■	■	■	■	■	■	■	■	■	■	■	■
Hard ducts 2 x DN200	■	■	■	■	■	■	■	■	■	■	■	■
Security door WK2	■	■	■	■	■	■	■	■	■	■	■	■
Optional items												
UPS (uninterruptible power supply)	□	■	□	■	□	■	□	■	□	■	□	■
DET-AC XL fire alarm/extinguisher system	□	□	■	■	□	□	■	■	□	□	■	■
Max. no. of racks 42 U (24 inches (600 mm) wide)	7	6	7	6	7	6	6	5	7	6	6	5
Max. no. of racks 42 U (32 inches (800 mm) wide)	5	4	5	4	5	4	4	4	5	4	4	4
Higher racks (47 U)	□	□	□	□	□	□	□	□	□	□	□	□
Rack power supply (PSM, PDM)	□	□	□	□	□	□	□	□	□	□	□	□
Monitoring package (CMC)	□	□	□	□	□	□	□	□	□	□	□	□
Security door WK3	□	□	□	□	□	□	□	□	□	□	□	□
Additional hard ducts	□	□	□	□	□	□	□	□	□	□	□	□
Metal sun shade	□	□	□	□	□	□	□	□	□	□	□	□

Fire alarm and extinguisher system DET-AC/EFD Plus



System accessories Page 529 Server enclosures Page 133

EFD Plus

The EFD Plus system is a compact early fire detection system with active smoke extraction system. The integral fan system continuously extracts the air from the enclosure, and passes it over two smoke detectors. The first smoke detector is extremely sensitive and triggers a prealarm. The second smoke detector triggers the main alarm.

DET-AC Plus

The DET-AC Plus is a compact fire alarm and active extinguisher system with smoke extraction system, built into one height unit. The detection system is identical to that used in the EFD Plus system. Fire extinguishing with the extinguisher gas NOVEC 1230 is automatically activated when a main alarm is triggered. With the extinguisher gas supply provided, a volume of up to 32 ft³ (3 m³) can be extinguished.

DET-AC Plus Slave

In conjunction with the DET-AC Plus slave system, up to five bayed enclosures may be extinguished. In addition to the DET-AC Plus unit, a DET-AC Plus Slave unit is used for each additional enclosure and contains the extinguisher gas for one enclosure. For detection purposes, the pipework from the DET-AC Plus system is laid in all enclosures.

Benefits:

- Early fire detection
- Automatic extinguishing
- Innovative extinguisher gas NOVEC 1230
 - Eco-friendly
 - Uncritical for IT components
- 19" (482.6 mm) rack mount with just 1 U

	Fire alarm and extinguisher system DET-AC Plus	Add-on unit DET-AC Plus Slave	Early fire detection system EFD Plus
Height inches (mm)	44 (1 U)		
Width inches (mm)	19" (482.6 mm) rack mount		
Depth inches (mm)	25 (640)	22 (570)	20 (500)
Weight lb (kg)	Approx. 33 (15)	Approx. 26 (12)	Approx. 18 (8)
Part No.	7338.120	7338.320	7338.220
Protection rating	IP 20		
Ambient temperature (operation)	+ 50 °F to +95°F (+10°C to +35°C)		
Battery storage	+ 14°F to +95°F (– 10°C to +50°C)		
Operating voltage	100/240 V AC 50/60 Hz	24 V DC	100/240 V AC 50/60 Hz
Uninterruptible mains electricity operation	2 x 12 V; 2.2 A/approx. 4 h		
Connections	3 RJ 12 connectors for connecting to the CMC, alternatively 3 relay outputs, max. contact load 24 V DC/0.5 A		
Sensors	2 different scattered-light sensors	–	2 different scattered-light sensors
Display	LCD display with plain text info.	–	LCD display with plain text info.
No. of slave modules	Max. 4	–	Max. 5
No. of monitored enclosures	Max. 5	–	Max. 5
Extinguisher gas	NOVEC 1230		–
Fill volume of extinguisher gas	32		–
Admissible max. protection volume ft ³ (m ³)	106 (3) m ³		–

Also required

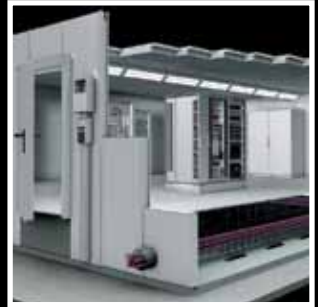
Pipe kit	7338.130		Page
RJ 12 cable for alarm relaying to CMC, packs of 2	7320.814 ¹⁾		793
Access sensors	7320.530		– 790
Depth-variable slide rails	–	–	7063.883 763

¹⁾ 2 packs are required.

We plan and implement data centers

Whether you are planning a new build, an extension or an optimization to your data center, we are at your side as a trustworthy partner and leading provider with decades of experience.

- Basic protection or high-MBTB protection for data centers
- Extendible
- Dismantling and reassembly = investment protection
- Dust- and noise-reduced installation
- System-tested
- Multi-functional risk coverage



Criteria	Standards	Conventional design ²⁾	Basic protection		High-MBTB
			LER Extend	LER Basic	LSR Extend
System testing	Testing of the following standards as complete system or structure ¹⁾	-	■	■	■
Fire protection Testing at temperatures of up to 1000°C and above	ECB-S certifications to EN 1047-2, 50 K temperature increase and 85% rel. humidity up to 24 hours (reheating period), 60 minutes flame impingement time	-	-	-	■
	50 K temperature rise and 85% rel. humidity over 30 minutes, without reheat period	-	■	-	■
	F120 as system test, according to the limits of EN 1363 (DIN 4102), for the cellular structure and its built-in modules	-	-	-	■
	F90 as system test, according to the limits of EN 1363 (DIN 4102), for the cellular structure and its built-in modules	-	■	■	■
	F180 only as component testing to EN 1363 (DIN 4102), wall system only	-	-	-	■
	F120 only as component testing to EN 1363 (DIN 4102), wall system only	■	■	■	■
	F90 only as component testing to EN 1363 (DIN 4102), wall system only	■	■	■	■
Explosion	Detonation test as system testing of 200 kg TNT from 40 m	-	-	-	■
Water	Standing water, 72 hours, 40 cm, maximum 20 drops	-	-	-	■
	Extinguisher water, IP x 6 as system testing to IEC 60 529, for the cellular structure and its built-in modules	-	■	■	■
	Relative humidity, 85%, over 24 hours (reheat period), 60 minutes flame impingement time, to EN 1047-2	-	-	-	■
	Relative humidity, 85%, over 30 minutes	-	■	-	■
Dust-tightness	IP 5x as system testing to IEC 60 529, for the cellular structure and its built-in modules	-	■	■	■
Corrosive fire gases	Acrid gas-tightness, based on EN 1634-3 (DIN 18095)	-	■	■	■
Unauthorized access	WK 3 as system test to EN 1627/1630, for the cellular structure and its built-in modules, such as doors	-	■	■	■
	WK 2 as system test to EN 1627/1630, for the cellular structure and its built-in modules, such as doors	-	■	■	■
	WK 4 only as component testing to EN 1627/ DIN 1630, door system only	-	-	-	■
Falling debris	Shock test as system test, 3 shocks of 200 kg from 1.5 m after 45 minutes flame impingement time	-	-	-	■
	Shock test as system test, 1 shock of 200 kg from 1.5 m after 30 minutes flame impingement time	-	■	■	■
EMC protection	Protection against high-frequency irradiation and radiation, verified by tests on comparable components by TU Aachen	-	■	■	■
EMC optional package	Extended high-frequency shielding in accordance with BSI TL-03304	-	-	-	■

¹⁾ System-tested products are tested as a complete construction. This comprises the cellular structure and installation modules such as doors, cable shields or ventilation units. By contrast, component testing only refers to individual parts.

²⁾ The conventional design refers to room structures of plasterboard, concrete and other standard construction materials which do not offer sufficient protection for data center applications. Conventional designs are generally tested for use as fire walls.



Power
Engineering

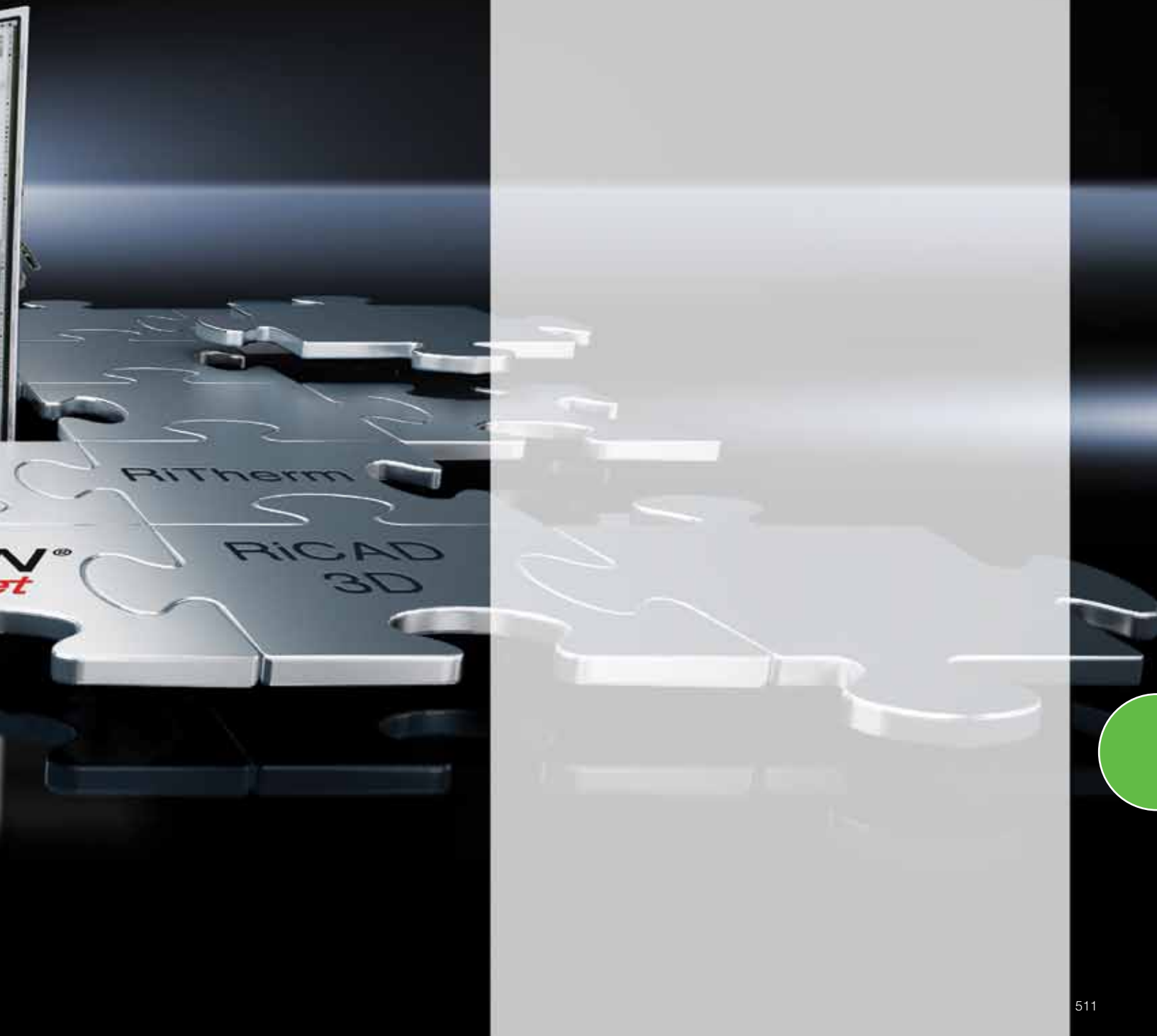
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electric 8

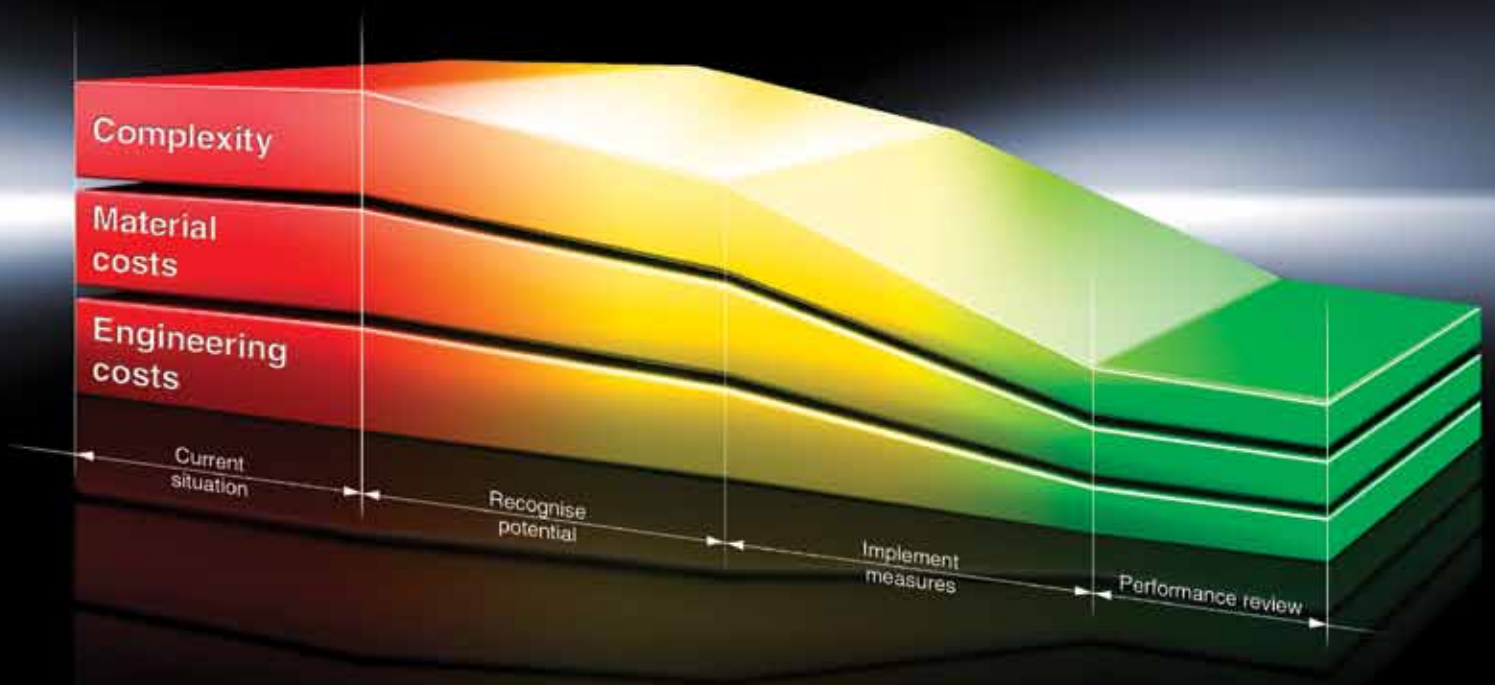
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Software & services

Expertise.....	512
Planning.....	515
Monitoring.....	519
RittalXpress.....	521
Service.....	523
Quality management.....	527

Training courses, seminars and workshops
See our website at www.rittal-corp.com





Rittal system consulting

Rittal represents more than just efficient products.

Tapping its decades of experience and track record of success, Rittal can uncover potential for increased efficiency and reduced costs at every step in the creative, development and installation process. With a cadre of experts at every level, Rittal can team with a customer's specialists to identify high-efficiency options and optimize each installation to its maximum potential.

Rittal has the products and the people to provide you with the highest quality, most innovative solutions in the industry.

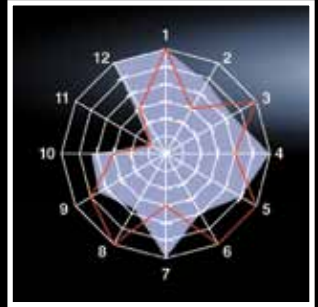
From concept to installation, Rittal is here for you. We invite you to put our knowledge, experience and expertise to the test.



Step 1: Situation analysis

A systematic review and evaluation of each customer's requirements, including a detailed look at:

- Products, tools and current software usage
- Existing processes and procedures
- Overall efficiency



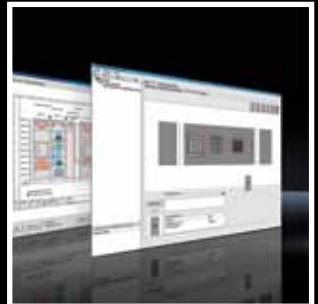
Step 2: Identify potential

A detailed evaluation reviewing data consistency, technological efficiency and available options can uncover both time and cost saving opportunities. In many cases, immediate savings may be recognized here.



Step 3: Take action

Once each situation has been reviewed and evaluated, working with Rittal specialists a customer can begin to translate potential into reality by implementing any number of efficiency-enhancing tools and systems from Rittal.



Step 4: Performance review

Rittal offers a complete package of products, planning and software, service and support to insure a customer's requirements are met. Once a Rittal system solution is in place, periodic reviews to further optimize performance underline the company's commitment to exceptional results.





RiCAD 3D

The download platform for seamless integration of Rittal CAD data into your plant designs – 3D data for efficient planning

Regardless of which CAD system you use, RiCAD 3D effectively supports the efficiency and productivity of your plant design work.

It includes both 2D and 3D drawings for virtually all Rittal products, together with an extensive range of system accessories.

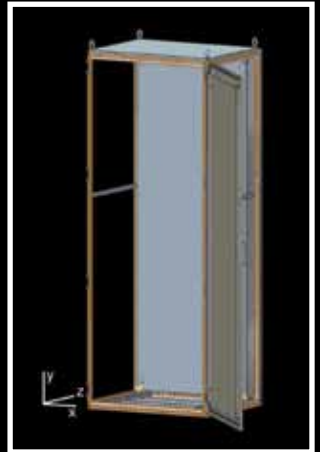
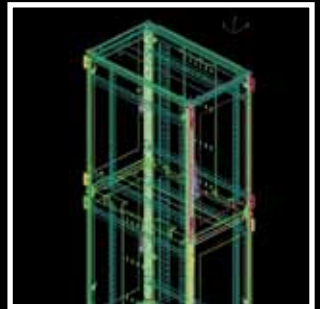
Benefits:

- Precisely detailed CAD product data
- Export in all standard CAD formats
- Simple integration into the most varied CAD systems
- Considerable reduction of engineering and design work
- Error-free, detailed Rittal data
- Generic original data in 3D and 2D format
- No conversion of neutral formats

CAD data in the following formats:

- DWG.3D
- ProE 2001
- ProE Wildfire
- SolidWorks 3D
- Neutral Step format

Fast online access to original data in many other CAD formats with direct downloading facility available at: www.rittal.com



Therm 6.1 software

Rittal Therm 6.1 is a calculation program for enclosure climate control.

The Therm 6.1 software package takes care of the complex calculation of climate control requirements. A user-friendly interface guides the operator to the most suitable, correctly dimensioned climate control component. All evaluations are closely based on the requirements of IEC/TR 60 890 AMD 1/02.95 and DIN 3168 for enclosure cooling units.

- Improved user guidance via tabs and simple selection menus
- Express and expert versions
- Configurator for recooling systems

- Heat loss calculator for busbars
- Key calculation data is visible at all times
- Internet updates
- Fast and thorough determination of the required climate control measures
- Determining the correct climate control measures leads to cost savings
- Easy calculation of the required actual cooling output, as well as any upgrades or enhancements to the switchgear
- Detailed documentation is supplied with the calculation

Note: Available for download at www.rittal-corp.com/software



RiDiag II

For the diagnosis, maintenance and long-term data capture of TopTherm units with Comfort controller. RiDiag logs equipment data and prepares an error list. RiDiag also offers the option of displaying and setting the device's operating parameters. The logging of measurement data can be tracked in real time in the form of a diagram.

Supply includes:

- CD-ROM
 - Languages: German/English/Italian/French/Spanish/Portuguese
- Connection cable

Packs of	Part No.
1	3159.100





EPLAN platform

- EPLAN platform
- EPLAN electric P8
- EPLAN pro panel
- EPLAN fluid
- EPLAN ppe
- EPLAN cabinet
- EPLAN data portal
- EPLAN engineering center

All applications on the same, consistent platform technology

- Uniform project planning environment for electrical, fluid, EI&C engineering and 3D assembly design
- Consistent project data and component management
- Modularisation for individual system configuration
- Open system architecture for seamless system integration
- Cross-platform basic functions

www.eplanusa.com



EPLAN electric P8

The new dimension in engineering.

- Professional project planning, documentation and administration of electrical engineering automation projects
- Optimization of the engineering process through standardisation, reuse and automated circuit diagram generation
- Variant technology – unique, powerful, convincing
- High-end electrical project planning – process-oriented and automated
- Transfer and processing of data from upstream processes

- Qualified master data ready to use “out-of-the-box”
- Consistent support in circuit diagram generation



EPLAN pro panel

- High-end 3D assembly layouts for electrical and fluid design
- Description of the assembly layout with virtual 3D prototypes
- EPLAN eTouch technology for the simplest handling
- Positioning aids for optimum dimensioning and utilisation of the available space
- Planning confidence by taking manufacturer data into account
- 50% or more time savings with layout
- Early availability of precise production documents

- Precise-fit components for greater assembly efficiency
- Complete consistency with participating engineering disciplines
- Improved communications thanks to high-quality documentation



EPLAN fluid

From drawing to engineering.

- Clear project structures instead of a single drawing
- The latest symbol data based on the current standard ISO 1219
- Consistency in electro-hydraulic system documentation
- Direct connection of parts lists and hydraulic diagrams
- Automatic documentation of revisions

EPLAN ppe

For consistent engineering with process technology in mechanical and plant engineering

- Professional planning and project management of EI&C technology in process-related machinery and plant
- Generation of plant overviews, P&I diagrams, administration of PIC points, and documentation
- Smooth-running interdisciplinary cooperation thanks to deep platform integration
- Optimum support for both preplanning and detailed planning



ePLAN[®]
ppe

EPLAN cabinet

Efficient enclosure production in the product development process

- Transfer of equipment and wiring information from the upstream electrical design
- 3D configuration of mounting panels and enclosures
- Automatic calculation of optimum wiring routes and wire lengths
- Transfer of production data to NC machines
- Transfer of assembly data to wire assembly machines
- High-quality product data thanks to links with RiCAD 3D



ePLAN[®]
cabinet

EPLAN data portal

Web-based supply of high-quality equipment data.

- Seamless integration into the EPLAN platform
- Fast project planning with no media interruptions
- Minimal effort required for master data maintenance
- Enhanced quality, thanks to high-quality templates
- Extensive additional information
- Multi-lingualism at no extra cost
- Uniform layout and complete documentation



ePLAN[®]
data portal

EPLAN engineering center

Functional engineering for unimaginable productivity benefits.

- Functional engineering is the crucial link between sales, design and service
- Existing projects indicate potential savings of up to 80%
- EEC guarantees rapid commissioning on the basis of tested, standardised machine functions
- Cross-disciplinary engineering minimises the need for coordination and speeds up the time to market
- EEC proves that: module-based engineering cuts costs and permanently improves quality

- The EPLAN EC automatism prevents the usual last minute changes from becoming a project cost trap
- A central database ensures engineering expertise and allows rapid induction during peak project times



ePLAN[®]
engineering center

RiZone Appliance Standard

RiZone is supplied as an appliance or a software appliance.

As an appliance, RiZone is supplied with global support, installed on a powerful server. The software appliance is available as a virtual server which can easily be used on existing hardware in the data center.

The RiZone operating manual and registration for RiZone Light are available at www.rittal-corp.com/software.

Also required:

RiZone Appliance IP node license according to the number of IP nodes available.

Standard version	Part No.		
	Hardware appliance ¹⁾	Server with Windows 7990.101	RiZone software 7990.201
Software appliance ¹⁾	Server with Windows 7990.103	RiZone software 7990.203	RiZone graphics tool 7990.303

¹⁾ All part numbers on the same line belong together, and must always be ordered together.

RiZone Appliance High-MTBF

In addition to the standard version, the high-MTBF version scales up to Tier IV availability as per the Uptime Institute's definition.

RiZone is supplied as an appliance or a software appliance.

As an appliance, RiZone is supplied with global support, installed on a powerful server. The software appliance is available as a virtual server which can easily be used on existing hardware in the data center.

Also required:

RiZone Appliance IP node license according to the number of IP nodes available.

High-MTBF version	Part No.		
	Hardware appliance ¹⁾	Server with Windows 7990.102	RiZone software 7990.202
Software appliance ¹⁾	Server with Windows 7990.104	RiZone software 7990.204	RiZone graphics tool 7990.304

¹⁾ All part numbers on the same line belong together, and must always be ordered together.

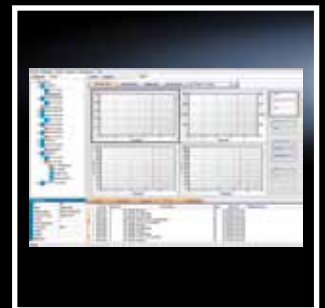
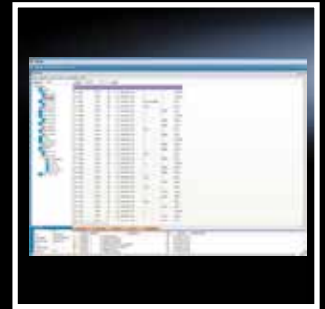
RiZone Appliance IP node license

The flexible RiZone license model allows optimum adaptation to any project size, while at the same time allowing the opportunity to grow with the data center.

The volume licenses for the IP nodes are graduated from 10 to 1000 nodes and may be adapted precisely to the size of the data center. For each active component or other SNMP-compatible component to be covered, one node license is required.

For no. of IP nodes ¹⁾	Console licenses included	Part No.	
		RiZone software	RiZone graphics tool
10	2	7990.205	7990.305
25	4	7990.206	7990.306
50	4	7990.207	7990.307
100	8	7990.208	7990.308
250	10	7990.209	7990.309
500	15	7990.210	7990.310
1000	20	7990.211	7990.311

¹⁾ All part numbers on the same line belong together, and must always be ordered together.



Client Access license

Additional license for operation of another RiZone console.

	Part No.	
For 10 IP nodes ¹⁾	RiZone software	RiZone graphics tool
	7990.213	7990.313

¹⁾ All part numbers on the same line belong together, and must always be ordered together.

RiZone module SNMP support for units from other manufacturers

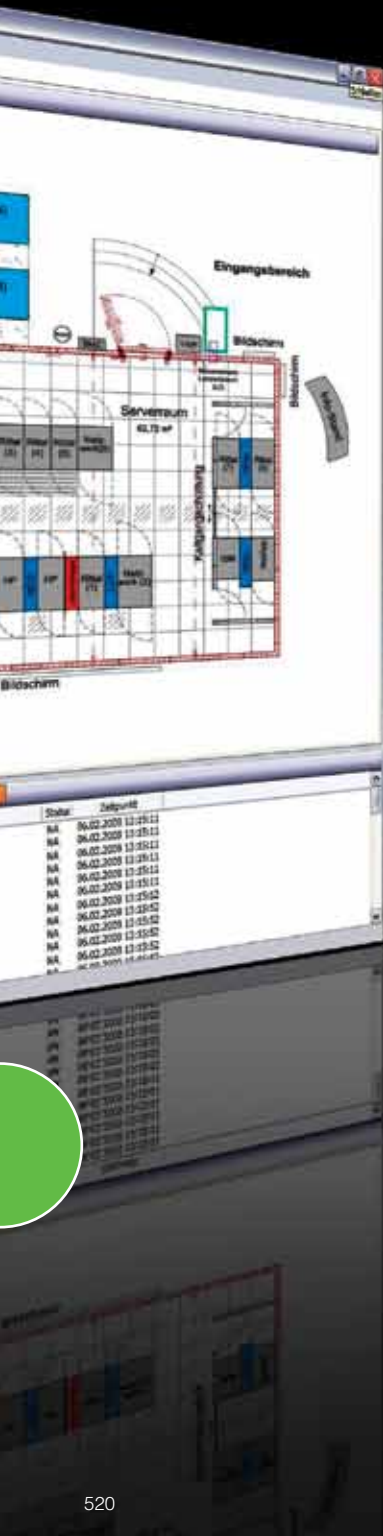
For the incorporation of SNMP-compatible units from other manufacturers into RiZone. With MIB browser.

Extension	Part No.
RiZone SNMP support for units from other manufacturers	7990.014

Microsoft Operations Manager Management Pack

For integrating RiZone into the Microsoft Operations Manager.

Extension	Part No.
Microsoft SCOM Management Pack	7990.012



RittalXpress – Stock > Mod > Ship One Program — Three Advantages

The industry's best, most sought-after enclosures and accessories are now available as part of the industry's best support program. RittalXpress features an extensive stocking program, a custom modification program and fast and efficient shipping.

STOCK: The vital enclosures and related accessories you need most often are in our warehouse or available through your local distributor and ready for quick access and on-time delivery. The RittalXpress stocking program includes more than 2,220 part numbers, continuously in stock and ready for shipping when you need them.

MOD: Your way, is our way! Now products and accessories in Rittal's exclusive Xpress Stocking Program are eligible for the modifications you need. Your project will be quoted fast and your finished order can be on site within days. If one of Rittal's dozens of enclosures or hundreds of accessories doesn't do exactly what you need, we've a team of modification specialists standing by to make the custom changes and enhancements you require.

SHIP: RittalXpress shipping ensures that order processing and shipping of your off-the-shelf enclosures and accessories gets the ultimate priority attention so your order leaves the warehouse enroute to your site on the next business day.

What RittalXpress can mean to you...

- Quick turn-around — delivered to your site
- Thousands of part numbers in stock and ready to ship
- Quick, accurate quotes
- Pricing that won't break the bank

For specific details on putting each phase of RittalXpress to work for you, go to www.rittal-corp.com/rittalxpress





Rittal Global Service: Always on hand, whenever you need us!

Reliable, timely service matching your individual requirements from a single supplier; that defines Rittal Global Service. Wherever in the world you use our products, we ensure that every aspect of “Rittal – The System” is exactly as it should be. Every minute and every mile counts when it comes to service, and Rittal has set up five strategic service hubs to ensure proximity to its customers: In Germany, the USA, Brazil, China and India. Every hub is the heart of our regional service organization and ensures rapid response times, on-site service engineers and efficient service handling.

Faster

- Short paths and fast communications thanks to regional service support points
- A perfect interplay between sales, project management and service

Worldwide

- 5 strategic service support points
- Service representation in more than 60 subsidiaries
- More than 250 service partners and over 1,000 service technicians

Better

- Individual service solutions from a single source
- Highly trained, qualified Rittal service technicians worldwide
- A uniform global service ticket system



Around the globe, we can be contacted 365 days a year on the following numbers:

Rittal Europe (Herborn)

✉ service@rittal.de
☎ +49(0)2772 505 1855

Rittal Asia-Pacific (Shanghai)

✉ service@rittal.cn
☎ +86 800 820 0866

Rittal North America (Urbana)

✉ service@rittal.us
☎ +1 (800) 477 4000 Option 3

Rittal Middle East (Bangalore)

✉ service@rittal-india.com
☎ +91 80 22 890 78

Rittal South America (São Paulo)

✉ service@rittal.com.br
☎ +55 11 36 22 23 77

Service from a single partner

- 24/7/365 service availability
- Highly qualified service specialists
- Service engineers on site within 8 hours
- Automated incident and emergency management
- Individual availability of spare parts
- Global service ticket system



Individual service throughout the entire product lifecycle

Rittal's added value begins with the design, engineering and built-in quality of our products, and extends from planning and commissioning, right through to support and servicing once the system is up and running.

A service commitment adds more to the Rittal system:

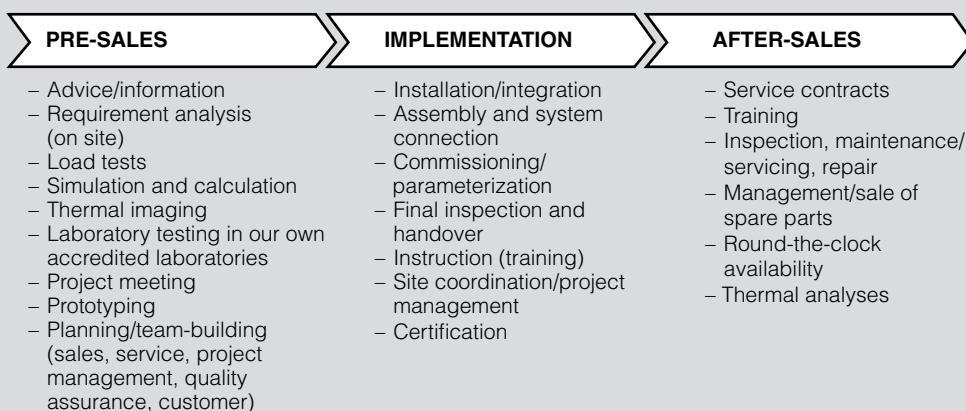
- A comprehensive global service network complements a long line of high quality, and reliable products.
- We offer an extended guarantee above and beyond the statutory warranty for defects, thereby ensuring maximum availability during operation.

Rittal has developed a range of individual service offerings for its customers, covering all potential requirement profiles. Thus, we permanently ensure the systems' productivity on behalf of our customers.

Service plays a decisive role in Rittal's lifecycle management approach. Customers may decide which service they need.



We are committed to perfection at every phase



Flexible service contracts: The right solution to suit every requirement.

Rittal Global Service is just as flexible and individual as your requirements. An overview of the features of the various Rittal service packages includes:

	Availability	Response time	Spare parts availability	Repair	Warranty extension
BASIC	Business hours	Next working day	Standard	1 x per annum	Optional
COMFORT	Business hours	Next day	Standard	2 x per annum	Optional
ADVANCED	24 hours 365 days a year	Next day	24 hours	2 x per annum	Yes
FULL	24 hours 365 days a year	8 hours	Individual concept	Individual (at least 2 x/annum)	Yes
CUSTOMIZED	Individual by arrangement				

Warranty extension

Rittal products are always an excellent choice. Day after day, around the globe, they prove their high quality and reliability in tough industrial production environments. With regular preventive maintenance, you can help to further extend the product's service life and the cost-effectiveness of your plant.

Anyone purchasing an "Advanced" or "Full" contract will be rewarded with a 1-year to 3-year warranty extension, up to a maximum of 5 years. With "Basic", "Comfort" and "Customized" contracts, warranty extensions are optional.



Quality management is a must. Quality philosophy is an attitude.

“Rittal – The System.” stands for consistent quality management and on-going refinements to products, services and internal processes.

Rittal quality management ensures that regulations and standards are observed, and individual customer requirements are met. In addition to this, we also define our exacting product quality demands in supplementary Rittal standards. The consistent Rittal quality philosophy guarantees perpetually high standards and ensures the global usability of all products with countless international approvals and licenses.

Alongside product quality, we also focus on process and service quality.

All internal processes are continuously refined by quality control groups, and reviewed during in-house audits. Each year, our improvements and high standards are verified by countless successful external system and customer audits.



Rittal offers support from day one

- Project planning of technical specifications
- Prototype assembly, testing and simulations
- Manufacturing and assembly
- Warehousing service and on-time delivery
- Your own personal point of contact throughout the entire project

Accredited Rittal test laboratory in Germany

- Simulation of climatic conditions
- Dynamic and static load tests
- 3D measurement
- Particle density testing
- Hosed water tests
- Salt spray tests
- Electrical safety and function tests
- Performance testing of all active products
- Various material tests





System accessories

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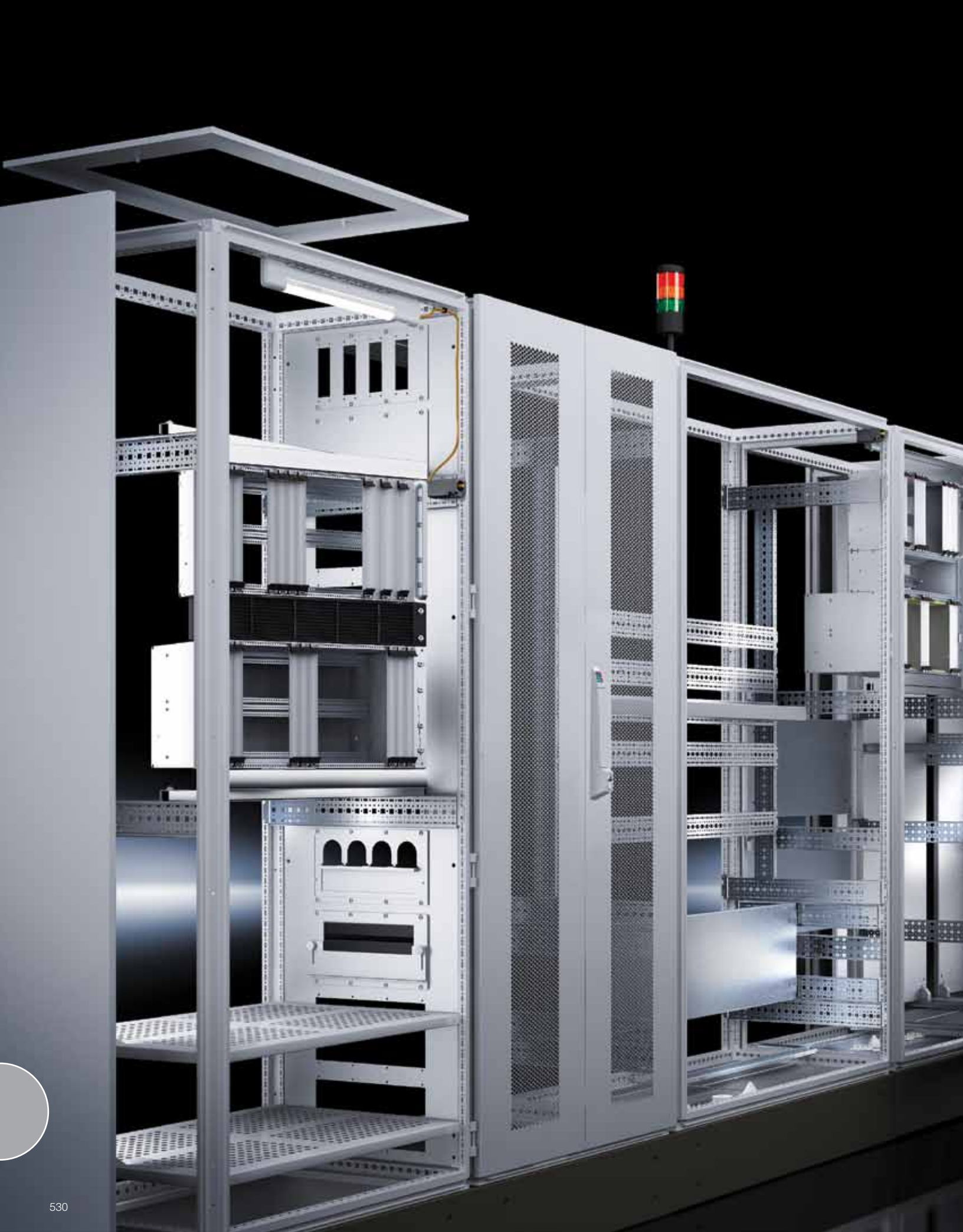
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System accessories for enclosures

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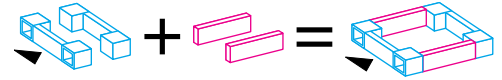
Base

TS base/plinth

Modular base/plinth diversity

Regardless of the enclosure depth:
The base/plinth components at the front and rear, pre-configured with corner pieces, are always the same for the chosen width. Only the side trim panels are selected according to the enclosure depth and the required base/plinth configuration. The modular concept produces exceptional advantages in terms of cost and function.

Mounting on the enclosure is conveniently carried out from the outside. The base/plinth interior offers diverse opportunities for mounting levels for cable management.



One part number for the **base/plinth components** front and rear One part number for the **base/plinth trim, side** A complete **base/plinth**

Base/plinth height inches (mm)	Basic form	Cable gland options				Stabilization of bayed base/plinth	
4 (100)							
8 (200)							

Function and cost benefits

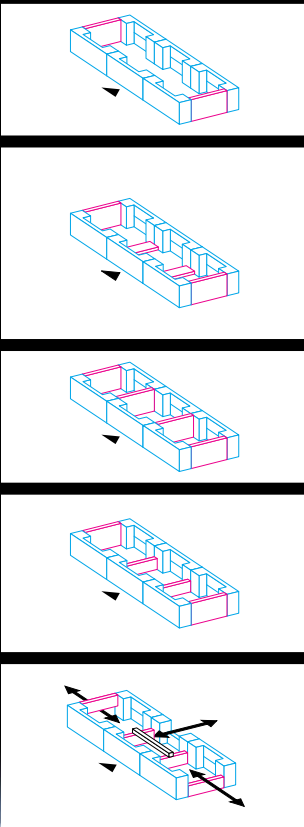
Fewer parts, more opportunities, lower purchasing, storage and assembly costs – this is the formula behind the new modular base/plinth system.

The following table shows three bayed base/plinths in 8" (200 mm) height illustrating a wide range of possible solutions and the potential savings with trim panels compared with the previous 8" (200 mm) base/plinth system each with two trim panels of 4" (100 mm) height at the sides.

New supply includes	Functional benefits	Savings potential compared with twelve 4" (100 mm) trim panels
3 Packs of base/plinth components 1 Packs of base/plinth trim panel 8" (200 mm) high	Continuous cable chamber	2 trim panels 8" (200 mm)
3 packs of base/plinth components 1 pack of base/plinth trim panels 8" (200 mm) high 1 pack of base/plinth trim panels 4" (100 mm) high 1 pack of base/plinth baying brackets 8601.100 (packs of 20) 4 are required for this solution	Additional stabilization for transportation purposes with base/plinth trim rotated through 90°	2 trim panels 8" (200 mm) 2 trim panels 4" (100 mm)
3 Packs of base/plinth components 2 Packs of base/plinth trim panel 8" (200 mm) high	Shielding of the base/plinths in relation to one another	4 trim panels 8" (200 mm)
1 pack of base/plinth trim panels 8" (200 mm) high 1 pack of base/plinth trim panels 4" (100 mm) high	Additional connection of the base/plinths	2 trim panels 8" (200 mm) 2 trim panels 4" (100 mm)

Other options:

- Cable entry at the side by mounting a 4" (100 mm) base/plinth trim panel (top or bottom).
- Cable entry from the rear by dismantling one or more trim panels of the base/plinth components.
- Cable clamp rail fitted on the 4" (100 mm) high trim panel.



TS base/plinth

Base/plinth components front and rear

Carbon steel for TS, CM, TP, PC, IW

Base/plinth component consisting of one trim panel and two pre-configured corner pieces.

In 8" (200 mm) high base/plinth components, one trim panel is divided into two for cable entry.

Material:

- Base/plinth components: Carbon steel
- Cover caps: Plastic

Surface finish:

Spray-finished

Color:

Cover caps: RAL 9005/7035

Configuration:

1 set = 2 base/plinth components, 4 cover caps, 4 screws and captive nuts M12 for mounting on the enclosure.

Accessories:

- Base mounting panel 2817.000, see page 536
- Filter mat for vented versions, see page 538

Detailed drawings:

Available at www.rittal-corp.com

4" (100 mm) high, RAL 7022

For enclosure width inches (mm)	Design	Part No.
12 (300)	Solid	8601.915
16 (400)	Solid	8601.400
20 (500)	Solid	8601.500
24 (600)	Solid	8601.600
32 (800)	Solid	8601.800
33 (850)	Solid	8601.850
39 (1000)	Solid	8601.000
43 (1100)	Solid	8601.300
47 (1200)	Solid	8601.200
63 (1600)	Solid	8601.920
71 (1800)	Solid	8901.930

4" (100 mm) high, RAL 7035

For enclosure width inches (mm)	Design	Part No.
12 (300)	Solid	8601.905
24 (600)	Solid	8601.605
	Vented	7825.601
	Vented with designer cover	7825.603
32 (800)	Solid	8601.805
	Vented	7825.801
	Vented with designer cover	7825.803

4" (100 mm) high, RAL 9005

For enclosure width inches (mm)	Design	Part No.
24 (600)	Solid	8601.602
	Vented with designer cover	7825.605
32 (800)	Solid	8601.802
	Vented with designer cover	7825.805

4" (100 mm) high, Sand Texture Black

For enclosure width inches (mm)	Design	Part No.
12 (300)	Solid	9978.362
24 (600)	Solid	9978.363
32 (800)	Solid	9978.364

8" (200 mm) high, RAL 7022

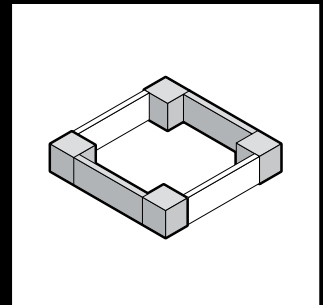
For enclosure width inches (mm)	Design	Part No.
12 (300)	Solid	8602.915
16 (400)	Solid	8602.400
20 (500)	Solid	8602.500
24 (600)	Solid	8602.600
32 (800)	Solid	8602.800
33 (850)	Solid	8602.850
39 (1000)	Solid	8602.000
43 (1100)	Solid	8602.100
47 (1200)	Solid	8602.200
63 (1600)	Solid	8602.920
71 (1800)	Solid	8902.930

8" (200 mm) high, RAL 7035

For enclosure width inches (mm)	Design	Part No.
12 (300)	Solid	8602.905
24 (600)	Solid	8602.605
32 (800)	Solid	8602.805

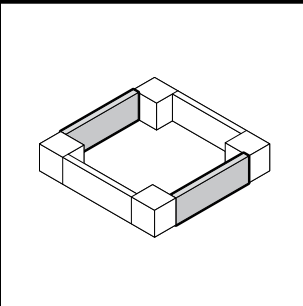
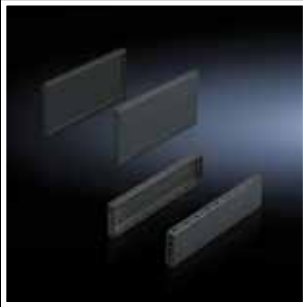
8" (200 mm) high, Sand Texture Black

For enclosure width inches (mm)	Design	Part No.
12 (300)	Solid	9967.490
24 (600)	Solid	9967.491
32 (800)	Solid	9967.492



Bases

TS base/plinth



Base/plinth trim panels, side Carbon steel for TS, CM, TP, PC, IW

For mounting between the base/plinth components. At 8" (200 mm) height, two 4" (100 mm) base/plinth trims may be used. Base/plinth trim (4" (100 mm) high) may be installed rotated through 90° in order to stabilize bayed base/plinth components.

Material: Carbon steel

Surface finish: Spray-finished

4" (100 mm) high, RAL 7022

For enclosure width inches (mm)	Part No.
12 (300)	8601.030
16 (400)	8601.040
20 (500)	8601.050
24 (600)	8601.060
32 (800)	8601.080

4" (100 mm) high, RAL 7035

For enclosure width inches (mm)	Part No.
24 (600)	8601.065
32 (800)	8601.085
39 (1000)	8601.015
47 (1200)	8601.025

4" (100 mm) high, RAL 9005

For enclosure width inches (mm)	Part No.
32 (800)	8601.086
39 (1000)	8601.010
47 (1200)	8601.026

4" (100 mm) high, Sand Texture Black

For enclosure width inches (mm)	Part No.
39 (1000)	9978.365
41 (1050)	9978.366
47 (1200)	9978.367

Configuration:

1 set = 2 base/plinth trim panels, including parts for attaching to the base/plinth components.

Also required: Base/plinth baying brackets 8601.100, see below, when mounting base/plinth trim panels rotated through 90°

Accessories: Assembly bolts for base/plinth, see page 536

Detailed drawings:

Available at www.rittal-corp.com

8" (200 mm) high, RAL 7022

For enclosure width inches (mm)	Part No.
12 (300)	8602.030
16 (400)	8602.040
20 (500)	8602.050
24 (600)	8602.060
32 (800)	8602.080

8" (200 mm) high, RAL 7035

For enclosure width inches (mm)	Part No.
24 (600)	8602.065
32 (800)	8602.085
39 (1000)	8602.015
47 (1200)	8602.025

8" (200 mm) high, Sand Texture Black

For enclosure width inches (mm)	Part No.
39 (1000)	9967.493
41 (1050)	9967.494
47 (1200)	9967.495

Base/plinth baying brackets for TS base/plinth

Essential if the trim panels are mounted rotated through 90° for additional stabilization during the transportation of bayed enclosures. Additionally required for each trim panel: 2 units.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Screws M8 x 16 mm

Packs of	Part No.
20	8601.100

TS base/plinth

Cable chamber**for TS**

With integral system punchings for individual system accessories.

Material:

Carbon steel

Color:

RAL 7035

Configuration:

- Carbon steel trim panels front and rear
- Assembly parts for mounting on the enclosure.

Accessories:

Side panels for cable chamber, see below

Detailed drawings:

Available at www.rittal-corp.com

For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
16 (400)	20 (500)	8600.455
16 (400)	24 (600)	8600.465
24 (600)	20 (500)	8600.655
24 (600)	24 (600)	8600.665
32 (800)	20 (500)	8600.855
32 (800)	24 (600)	8600.865
47 (1200)	20 (500)	8600.255
47 (1200)	24 (600)	8600.265

**Side panels for cable chamber****Material:**

Carbon steel

Color:

RAL 7035

Configuration:

Assembly parts

For enclosure depth inches (mm)	Packs of	Part No.
20 (500)	2	8600.510
24 (600)	2	8600.520

**Transport caster for TS base/plinth****for TS base/plinth**

For locating onto the base/plinth corner piece 4" (100 mm) or 8" (200 mm) high.

Load capacity:

Maximum permissible load per twin caster:
Static 220 lb (100 kg)

Configuration:

- 1 set =
- 4 twin casters
- 2 x with, 2 x without locks

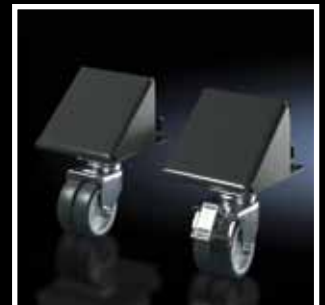
Color:

RAL 7022

Also required:

Base/plinth trim, side, see page 534

Floor clearance inches (mm)	Part No.
4 (100)	8800.390



Base

TS base/plinth



Base mounting plate

- for
 – TS base/plinth
 – base/plinth, complete

For fastening the base/plinth to the floor without moving the enclosure or the bayed enclosure suite. For assembly screws up to 12 mm Ø.

Material:
Carbon steel

Surface finish:
Zinc-plated

Packs of	Part No.
10	2817.000



Fastening bolt

- for
 – TS base/plinth
 – Base/plinth, complete
 – Base/plinth, stationary

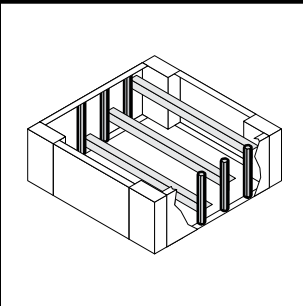
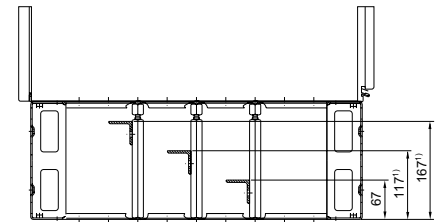
For mounting on base/plinth trim panels, side. The lockable assembly bolt allows the installation of cable clamp rails. Tighten with hex spanner, width across flats 19 mm

Material:
Hexagon steel

Surface finish:
Zinc-plated

Accessories:
Cable clamp rail, see page 723

Base/plinth trim panel inches (mm) high	Packs of	Part No.
4" (100)	10	2819.000
8" (200)	10	2819.200



Levelling component

for TS base/plinth
 For retrospective levelling of floor unevenness at the installation site up to a maximum of 15 mm. Installed through the corner piece of the base/plinth component. Adjusted using a SW 19 hex spanner.

- Benefits:**
- A door offset caused by uneven flooring can be corrected
 - Installed on the assembled enclosure i.e. no need to plan levelling in advance

Max. admissible static load:
562 lb (2500 N) per levelling component (check the load capacity of the floor)

Configuration:
Assembly parts

For base/plinth height inches (mm)	Packs of	Part No.
4" (100)	4	2891.000
8" (200)	4	2892.000

TS base/plinth

Cover cap**for TS base/plinth components**

As a replacement.

Material:

Plastic ABS

Color:

RAL 9005

For base/plinth height inches (mm)	Packs of	Part No.
4 (100)	4	8601.130
8 (200)	4	8601.140

**Base/plinth trim****with brush strip
for TS base/plinth**

To supplement the modular base/plinth concept. May also be exchanged retrospectively for the front or rear trim panel of the base/plinth components 4" (100 mm) or 8" (200 mm) high. Open on one side for retrospective mounting if cables have already been inserted.

Material:

Carbon steel

Surface finish:

Spray-finished

For base/plinth width inches (mm)	Height inches (mm)	RAL color	Part No.
24 (600)	4 (100)	7035	7825.607
32 (800)	4 (100)	7035	7825.807
24 (600)	4 (100)	9005	7825.608
32 (800)	4 (100)	9005	7825.808

**Connecting plinth trim****for TS base/plinth**

For covering gaps in bayed back-to-back or corner enclosure suites. Simply push in between the trim panel and the corner piece before tightening the screws.

Material:

Carbon steel

Note:

For a base/plinth height of 8" (200 mm), 2 trim panels must be fitted one above the other.

For base/plinth height inches (mm)	RAL color	Packs of	Part No.
4 (100)	7022	2	8601.110



Base

TS base/plinth



Base/plinth trim for TS base/plinth

To continue the design of the
 – lower front door of PC enclosures
 – door of the IW enclosure.

The base/plinth trim is screw-fastened to the corner pieces of the TS base/plinth components from the outside.

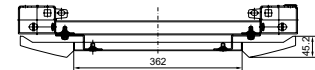
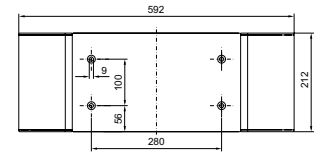
Material:

Carbon steel, spray-finished
 Designer trim panels: Extruded aluminum section

Color:

RAL 7015
 Designer trim panels: RAL 7035

For base/plinth width inches (mm)	Height inches (mm)	Part No.
24 (600)	8 (200)	8360.920



Base/plinth, static for PC-TS, IW

Design-coordinated with the enclosures, height 4" (100 mm), with front projection.

Material:

Carbon steel, 14 ga (2.0 mm)

Color:

RAL 7035
 Design component, front: RAL 7015

Configuration:

- 1 design component, front
- 1 base/plinth component, rear
- 2 base/plinth trims, side

For depth inches (mm)	Part No.
24 (600)	8800.920

Accessories:

Attachment opportunities for:

- Twin casters 7495.000, see page 549,
- Levelling feet 4612.000, see page 547.
- Fastening bolt for cable clamp rails 2819.000, see page 536,
- Support bracket 4183.000, see page 669.



Filter mat

for

- Base/plinth component, vented
- Base/plinth component, vented, with designer trim panel

To cover the trim panel in the base/plinth component. The mounting frame slides into position behind the filter mat in the base/plinth trim panel. Filter class G3 to DIN EN 779.

Configuration:

Mounting frame.

For enclosure width inches (mm)	Packs of	Part No.
24 (600)	1	7561.500
32 (800)	1	7581.500

Spare filter mat

Spare filter mat for base/plinth trim panels up to 32" (800 mm) wide.

	Packs of	Part No.
Spare filter mats	5	7582.500

TS base/plinth

Base/plinth component front and rear

Stainless steel for TS, CM

Material: Stainless steel Type 304

Surface finish: Brushed, grain 400

Configuration: Mounting accessories for mounting on the enclosure

4" (100 mm high): 2 trim panels front/rear

8" (200 mm high):

- 2 corner pieces with removable trim panel
- 1 trim panel front/rear

Base/plinth trim panel, side

Stainless steel for TS, CM

For mounting between the base/plinth components. At 8" (200 mm) height, two 4" (100 mm) base/plinth trims may be used. Base/plinth trim (4" (100 mm high)) may be installed rotated through 90° in order to stabilize bayed base/plinth components.

Material:

Stainless steel Type 304

Surface finish:

Brushed, grain 400

Configuration:

2 base/plinth trim panels, including parts for attaching to the base/plinth components

Also required:

Base/plinth baying brackets 8601.100, see page 534, when mounting base/plinth trim panels rotated through 90°

For enclosure width inches (mm)	Height inches (mm)	Part No.
24 (600)	4 (100)	8701.600
32 (800)	4 (100)	8701.800
47 (1200)	4 (100)	8701.200
24 (600)	8 (200)	8702.600
32 (800)	8 (200)	8702.800
47 (1200)	8 (200)	8702.200

Accessories: Base/plinth trim, modular (perforated plate), see below

For enclosure depth inches (mm)	Height inches (mm)	Part No.
16 (400)	4 (100)	8701.040
20 (500)	4 (100)	8701.050
24 (600)	4 (100)	8701.060
32 (800)	4 (100)	8701.080
16 (400)	8 (200)	8702.040
20 (500)	8 (200)	8702.050
24 (600)	8 (200)	8702.060

Accessories:

- Assembly bolts for base/plinth, see page 536
- Levelling feet 4612.000, see page 547

Detailed drawings:

Available at www.rittal-corp.com



Base/plinth trim, modular

for

- TS base/plinth

- base/plinth, complete, stainless steel

For cable routing in the stainless steel base/plinth, e.g. if levelling feet 2890.000 or 2890.000, see page 545, are used. Width: 7" (175 mm).

Material:

Stainless steel Type 304

Configuration:

4 base/plinth trim panels.

Note:

One base/plinth trim panel is needed per 8" (200 mm) base/plinth width.

For enclosure depth inches (mm)	Packs of	Part No.
16 (400)	4	2907.000
20 (500)	4	2908.000
24 (600)	4	2913.000

Accessories:

Cable tie 2597.000, see page 726



Base

TS Base/plinth



Floor stand kits

For TS

For mounting wallmount enclosures to the floor, in accordance with floormount standards. Easy installation - just drill holes in the bottom of enclosure and bolt to the enclosure. Includes sealing washers.

Configuration:

2 stands
Mounting hardware

Material:

Carbon Steel: 12 ga, RAL 7035 (light grey)
Stainless Steel: 12 ga
Type 304, 316L

Height inches (mm)	Depth inches (mm)	Part No. Carbon steel	Part No. Stainless 304	Part No. Stainless 316L
12 (305)	16 (400)	9963.522	9963.525	9963.528
12 (305)	20 (500)	9963.523	9963.526	9963.529
12 (305)	24 (600)	9963.524	9963.527	9963.530
12 (305)	32 (800)	-	-	9970.435



Transport plinth

for TS

For the transportation of heavy, bayed enclosure suites. Available in 8" (200 mm) increments from 79" to 197" (2 to 5 m). Transport plinths can have 2 tubes welded to receive cross-bars for transportation. Variable punchings to suit all enclosure widths of 24" (600 mm) and above.

Surface finish:

Primed in reddish-brown rust-inhibiting paint, optionally spray-finished.

Configuration:

With transport tubes

Note:

Please state the required width and depth of the enclosure suite when ordering.

For mounting on the TS base frame

Transport plinth depth = enclosure depth - 1.22" (31 mm)		
Color	Packs of	Part No.
Primed, reddish-brown rust-inhibiting paint	1	1228.010
Similar to RAL 7022	1	1228.110
Similar to RAL 7035	1	1228.310

Delivery times available on request.



TS base/plinth

Solid base pan

For TS

Solid base pan replaces gland plates while maintaining NEMA 12 environmental rating. Can also be used as a replacement for standard NEMA 4/4X base. Used as a standalone item or in combination with floor stand kits with no drilling required. Assembly hardware included.

Material:

Carbon Steel: 14 ga, RAL 7035 (light grey)
Stainless Steel: 14 ga
Type 304, 316L

Width inches (mm)	Depth inches (mm)	Part No. Carbon Steel	Part No. Stainless 304	Part No. Stainless 316L
47 (1200)	16 (400)	9963.531	9963.540	9963.543
47 (1200)	20 (500)	9963.532	9963.541	9963.544
47 (1200)	24 (600)	9963.533	9963.542	9963.545
63 (1600)	16 (400)	9963.534	-	-
63 (1600)	20 (500)	9963.535	-	-
63 (1600)	24 (600)	9963.536	-	-
71 (1800)	16 (400)	9963.537	-	-
71 (1800)	20 (500)	9963.538	-	-
71 (1800)	24 (600)	9963.539	-	-



Concrete base/plinth

for CS Toptec, CS modular and basic enclosures

The base/plinth is made from pre-cast concrete sections which are easily fitted in situ. Front/rear base/plinth plate screw-fastened from the inside may be removed for servicing purposes. Overall height: approx. 39" (1000 mm), excavation depth: approx. 28" (700 mm).

Material:

Light-weight concrete

Surface finish:

Untreated

Configuration:

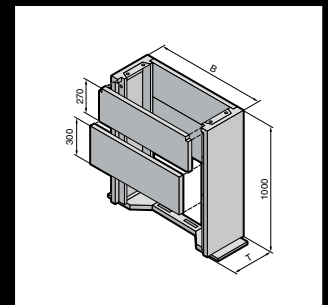
- 1 base plate
- 2 side parts
- 2 divided base/plinth plates
- Assembly parts and fastening screws for mounting the enclosure

for CS modular and basic enclosures		Part No.
Width (B) inches (mm)	Depth (T) inches (mm)	
24 (600)	16 (400)	9765.182
24 (600)	20 (500)	9765.082
24 (600)	24 (600)	9765.083
32 (800)	16 (400)	9765.088
32 (800)	20 (500)	9765.084
32 (800)	24 (600)	9765.085
47 (1200)	16 (400)	9765.089
47 (1200)	20 (500)	9765.086
47 (1200)	24 (600)	9765.087

Delivery times available on request.

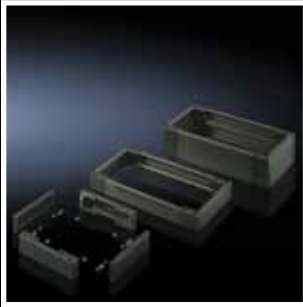
For CS Toptec		Part No.
Width (B) inches (mm)	Depth (T) inches (mm)	
24 (600)	24 (600)	9765.166
32 (800)	24 (600)	9765.186

Delivery times available on request.



Base

Base/plinth



Base/plinth, complete

Carbon steel for AE, TP, ES

Trim panels at the front and rear with fitted corner pieces and side trim panels.

Material:

Carbon steel

Surface finish:

Spray-finished

Color:

RAL 7022

Configuration:

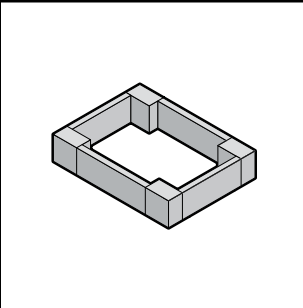
Mounting accessories for mounting on the enclosure

4" (100 mm) high:

- 4 corner pieces
- 2 trim panels front/rear
- 2 trim panels, side

8" (200 mm) high:

- 4 corner pieces
- 1 trim panel front/rear x 8" (200 mm)
- 2 trim panels front/rear x 4" (100 mm)
- 4 trim panels, side



Base/plinth for ES, TP universal console, 4" (100 mm) high

For enclosures/consoles		Base/plinth depth inches (mm)	Part No.
Width (B) inches (mm)	Depth (T) inches (mm)		
24 (600)	16 (400)	14 (350)	2804.200
24 (600)	20 (500)	18 (450)	2807.200
32 (800)	16 (400)	14 (350)	2823.200
32 (800)	20 (500)	18 (450)	2829.200
39 (1000)	16 (400)	14 (350)	2909.200
47 (1200)	16 (400)	14 (350)	2836.200
47 (1200)	20 (500)	18 (450)	2839.200
63 (1600)	16 (400)	14 (350)	2905.200
71 (1800)	20 (500)	18 (450)	2903.200

Base/plinth for ES, TP universal console, 8" (200 mm) high

For enclosures/consoles		Base/plinth depth inches (mm)	Part No.
Width (B) inches (mm)	Depth (T) inches (mm)		
24 (600)	16 (400)	14 (350)	2805.200
24 (600)	20 (500)	18 (450)	2808.200
32 (800)	16 (400)	14 (350)	2824.200
32 (800)	20 (500)	18 (450)	2830.200
39 (1000)	16 (400)	14 (350)	2910.200
47 (1200)	16 (400)	14 (350)	2837.200
47 (1200)	20 (500)	18 (450)	2840.200
63 (1600)	16 (400)	14 (350)	2906.200
71 (1800)	20 (500)	18 (450)	2904.200

Base/plinth for AE, 4" (100 mm) high

For enclosures/consoles		Base/plinth depth inches (mm)	Part No.
Width (B) inches (mm)	Depth (T) inches (mm)		
24 (600)	12 (300)	11 (279)	2816.200
32 (800)	12 (300)	11 (279)	2818.200
39 (1000)	12 (300)	11 (279)	2801.200

Base/plinth for AE, 8" (200 mm) high

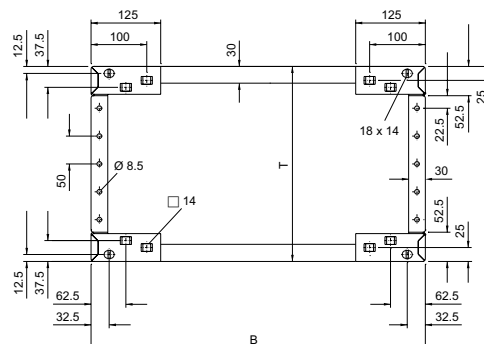
For enclosures/consoles		Base/plinth depth inches (mm)	Part No.
Width (B) inches (mm)	Depth (T) inches (mm)		
24 (600)	12 (300)	11 (279)	2826.200
32 (800)	12 (300)	11 (279)	2828.200
39 (1000)	12 (300)	11 (279)	2802.200

Accessories:

- Fastening bolt, see page 536
- Base assembly plate, see page 536

Detailed drawings:

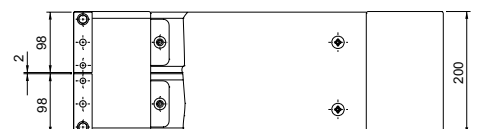
Available at www.rittal-corp.com



Base/plinth, 4" (100 mm) high



Base/plinth, 8" (200 mm) high



Base/plinth

Base/plinth, complete

Stainless steel for ES, PC-ES stainless steel, AP stainless steel

Material:

Stainless steel Type 304

Surface finish:

Brushed

Configuration:

Mounting accessories for mounting on the enclosure

4" (100 mm) high:

- 2 trim panels front/rear
- 2 trim panels, side

8" (200 mm) high:

- 2 corner pieces with removable trim panel
- 1 trim panel front/rear
- 4 trim panels, side

Accessories:

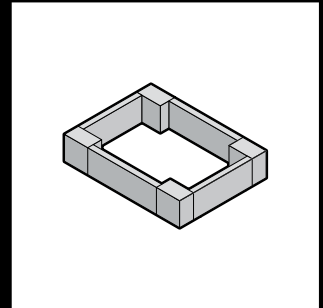
- Levelling feet, see page 545
- Base/plinth trim, modular (perforated plate), see page 539

4" (100 mm) high

For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	16 (400)	2865.000
24 (600)	20 (500)	2868.000
24 (600)	24 (600)	2855.000
32 (800)	16 (400)	2869.000
32 (800)	20 (500)	2866.000
32 (800)	24 (600)	2856.000
39 (1000)	16 (400)	2867.000
47 (1200)	16 (400)	2870.000
47 (1200)	20 (500)	2860.000

8" (200 mm) high

For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	16 (400)	2875.000
24 (600)	20 (500)	2876.000
32 (800)	16 (400)	2878.000
32 (800)	20 (500)	2879.000
32 (800)	24 (600)	2880.000
39 (1000)	16 (400)	2885.000
47 (1200)	16 (400)	2886.000
47 (1200)	20 (500)	2887.000



Floor stand kits

For AE (stainless steel only), WM

For mounting wallmount enclosures to the floor, in accordance with floormount standards. Easy installation - just drill holes in the bottom of enclosure and bolt to the enclosure. Includes sealing washers.

Material:

Carbon Steel: 12 ga, RAL 7035 (light grey)
Stainless Steel: 12 ga
Type 304, 316L

Configuration:

2 stands
Mounting hardware

Height inches (mm)	Depth inches (mm)	Part No. Carbon steel	Part No. Stainless 304	Part No. Stainless 316L
12 (305)	6 (152)	FSK1206C	FSK12064	FSK12066
18 (457)	6 (152)	FSK1806C	FSK18064	FSK18066
24 (610)	6 (152)	FSK2406C	FSK24064	FSK24066
12 (305)	8 (203)	FSK1208C	FSK12084	FSK12086
18 (457)	8 (203)	FSK1808C	FSK18084	FSK18086
24 (610)	8 (203)	FSK2408C	FSK24084	FSK24086
12 (305)	10 (254)	FSK1210C	FSK12104	FSK12106
18 (457)	10 (254)	FSK1810C	FSK18104	FSK18106
24 (610)	10 (254)	FSK2410C	FSK24104	FSK24106
12 (305)	12 (305)	FSK1212C	FSK12124	FSK12126
18 (457)	12 (305)	FSK1812C	FSK18124	FSK18126
24 (610)	12 (305)	FSK2412C	FSK24124	FSK24126
12 (305)	16 (406)	FSK1216C	FSK12164	FSK12166
18 (457)	16 (406)	FSK1816C	FSK18164	FSK18166
24 (610)	16 (406)	FSK2416C	FSK24164	FSK24166
12 (305)	20 (508)	FSK1220C	FSK12204	FSK12206
18 (457)	20 (508)	FSK1820C	FSK18204	FSK18206
24 (610)	20 (508)	FSK2420C	FSK24204	FSK24206



Base

Base/plinth



Transport caster

for base/plinth, complete, carbon steel

For locating onto the base/plinth corner piece 4" (100 mm) or 8" (200 mm) high by raising or tilting.

Load capacity:

Max. admissible static load:
220 lb (100 kg) per twin caster

Color:

RAL 7022

Floor clearance inches (mm)	Part No.
2 (60)	4570.000

Configuration:

1 set =
4 twin casters
2 x with, 2 x without locks



Cross member

for TS, CM, TP, PC, IW, ES adjustable

- To increase stability
- Height 3" (70 mm)
- Adjustable from the enclosure depth

To increase stability, the cross member is positioned 5" (138 mm) above the base frame of the enclosure at the front and rear. For deeper enclosures, the rear part may be extended and screwfastened again. For screw-fastening to the floor and enclosure with mounting hole at the sides, front and rear. The casters and levelling feet may be secured to the welded nuts M12.

Material:

Carbon steel

Surface finish:

Spray-finished

Color:

RAL 7015

Accessories:

Attachment opportunities for
– Twin casters, 7495.000, see page 549
– Levelling feet, 4612.000, see page 547

Detailed drawings:

Available at www.rittal-corp.com

For enclosure depth inches (mm)	Packs of	Part No.
16 (400)	2	8601.450
20 (500)		
24 (600)	2	8601.680
32 (800)		



Cast feet

For secure siting of
– enclosure for tower PC or
– other own assemblies
Depth 28" (700 mm)

Material:

Cast aluminum

Color:

RAL 7035

Configuration:

Assembly parts

Accessories:

– Base mount 6147.000, see page 203
– Twin casters, see page 549

Packs of	Part No.
2	6902.920

Base/plinth

Levelling feet

For direct mounting underneath the base/plinth TS and the base/plinth, complete. For unhindered access e.g. when cleaning the floor, and to compensate for floor irregularities.

Load capacity:

Max. admissible static load:
880 lb (400 kg) per levelling foot

Adjustment range:

M12: 2 – 5" (55 – 125 mm)
M16: 2 – 5" (45 – 120 mm)

Thread	Packs of	Part No.
M12	4	2889.000
M16	4	2890.000

Material:

Stainless steel Type 304

Possible alternative:

Hygienic Design levelling feet, see page 208

**Base/plinths****for FlatBox**

The base/plinth may be mounted on any FlatBox with a base area of 24" x 24" (600 x 600 mm) or 28" x 28" (700 x 700 mm). For attachment purposes, the base/plinth may be mounted on the pre-existing thread in the base area of the FlatBox. There is a rear recess provided for cable entry.

Material:

Carbon steel

Surface finish:

Powder-coated

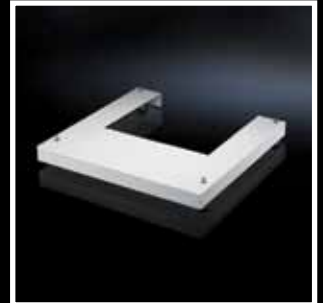
For base area		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
24 (600)	24 (600)	1	7507.750
28 (700)	28 (700)	1	7507.755

Color:

RAL 7035

Configuration:

4 levelling feet and assembly parts

**Under-floor frame****for TS**

For siting the enclosure on a false floor when heavy equipment is installed.

Material:

Carbon steel

Color:

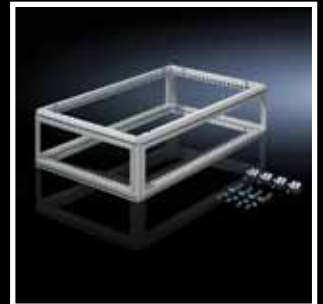
RAL 7035

Configuration:

Mounting accessories for mounting on the enclosure.

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.
16 (400)	24 (600)	39 (1000)	7855.340
16 (400)	32 (800)	39 (1000)	7855.342

Delivery times available on request.

**Stabilizer bracket****for base/plinth TS**

The stabilizer bracket may be retrospectively screw-fastened to the outside of the base/plinth corner pieces.

Load capacity:

Up to a maximum of 176 lb (80 kg) static load.

Material:

Carbon steel

Surface finish:

Spray-finished

Packs of	Part No.
2	7825.150

Color:

RAL 7035, warning markings RAL 2002

Configuration:

Assembly parts



Base

Base/plinth



Stabilizer for TS 8 server enclosures

The pull-out stabilizer is quickly and easily retrofitted to the lower frame of the server racks and only extended when necessary.

Load capacity:

Up to a maximum of 330 lb (150 kg) static load.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

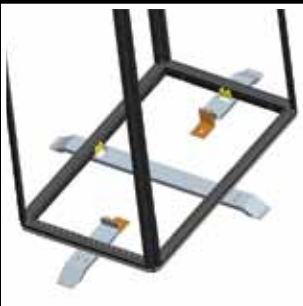
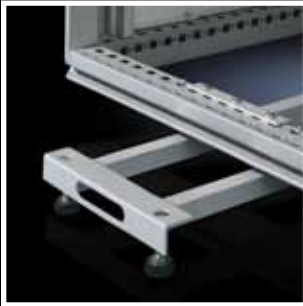
Assembly parts

Note:

- The stabilizer cannot be used together with base plates, base frames or base/plinths.
- Combined use with the divided base frame (7825.342), see page 553, is supported.

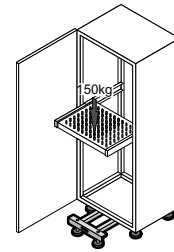
Accessories:

- Levelling feet, see page 545 and/or
- Transport kit for TS, see page 550



Enclosure depth inches (mm)	Part No.
39 (1000)	7825.250
47 (1200)	7825.260 ¹⁾

¹⁾ Extended delivery times.



Stabilizer for TS 8 server enclosures

Can be used with stand-alone or bayed enclosures and is easily installed in the field. May be bolted to the floor for added stability. Should be used with the appropriate complete casters (see page 551).

Material:

Carbon steel, painted

Configuration:

Assembly parts

Note:

- The stabilizer cannot be used with base plates, base frames or base/plinths.
- When installing in 24" (600 mm) wide stand alone enclosures you must order both width and depth components. For bayed cabinets you only need to order depth components.
- For clarity the image shown does not reflect the color of the finished product.

Width installation – only for stand alone 24" (600 mm) wide enclosures

Color	Part No.
RAL 9017 Black	9978.510
RAL 7035	9978.511

Depth installation

Color	Part No.
RAL 9017 Black	9978.512
RAL 7035	9978.513

Levelling feet

0.7 – 1.7" (18 – 43 mm) high

To compensate for height differences with floor irregularities. Thread length 40 mm. Assembly thread M12.

Max. admissible static load:

approx. 661 lb (300 kg) per levelling foot

For:

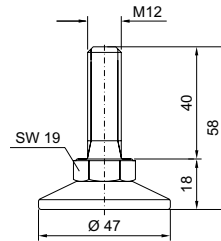
- TS 8 enclosures
- PC enclosure system
- Pedestal base plate 6137.035 – 6137.535
- Pedestal 6141.XXX
- Industrial workstations

Also required:

For mounting on the TS base/plinth:

Base/plinth adaptor 8800.220, see page 551

Packs of	Part No.
4	4612.000



Levelling feet

.7 – 2.5" (18 – 63 mm) high, with hex socket for TS

To compensate for floor irregularities.

Particularly in confined spaces, adjustments can be made quickly and easily from the enclosure interior.

Max. admissible static load:

661 lb (300 kg) per levelling foot

Mounting thread: M12

Hex socket: .24" (6 mm)

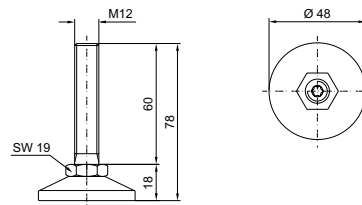
Thread length: 2.4" (60 mm)

Packs of	Part No.
4	7493.100

Also required:

For mounting on the TS base/plinth:

Base/plinth adaptor 8800.220, see page 551



Levelling feet

with vibration dampening

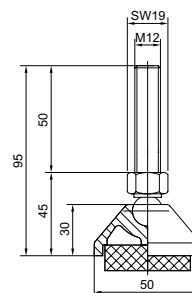
For vibration insulation of enclosures and to compensate for floor irregularities. The levelling foot is comprised of a disc of reinforced polyamide and an M12 screw, zinc plated, with ball joint pendulum plus anti-slip and insulating plate for buffering. The insulating plate is resistant to water, mineral oils, gasoline, alkaline and acid solutions, salts, soap lye and detergents. Also suitable for special applications such as chemical and laboratory environments.

Max. admissible static load:

661 lb (300 kg) per levelling foot

Thread length: 2" (50 mm)

Packs of	Part No.
4	7493.230



Base

Base



Levelling feet for Data Rack

To compensate for height differences with floor irregularities. The levelling feet are attached to the die-cast zinc feet of the base/plinth.

Configuration:

4 levelling feet M12, levelling range 1.6" (40 mm)

Packs of	Part No.
4	7493.000



Levelling feet for FlatBox, M10 x .4" (20 mm)

For screw-fastening onto the enclosure base when used as a floor-standing or desktop enclosure.

Packs of	Part No.
4	7507.740



Leveling feet

Compensate for uneven floors and can be mounted on enclosure or on base.

Length of thread:

2" (51 mm)

Load capacity:

800 lb (363 kg) each

Type of thread:

M12

Packs of	Part No.
4	9961.504



Levelling feet 3" – 5" (85 – 115 mm) high

For mounting on TS, ES and PC enclosures, for easier floor cleaning and to compensate for floor irregularities $\pm .6"$ (15 mm).

Height 4" (100 mm).

Max. admissible static load:
772 lb (350 kg) per levelling foot

Material:

- Feet: Brass, nickel-plated
- Threaded bolts and mounting plates: Stainless steel Type 304

Packs of	Part No.
4	2859.000

Configuration:

Assembly parts to the enclosure

Possible alternative:

Levelling feet Hygienic Design, see page 208

Twin casters

Mounting thread M12 .4" (20 mm)

For:

- Baying system TS 8
- PC enclosure system
- Pedestal base plate 6137.035 – 6137.535
- Pedestal 6141.XXX
- TopConsole pedestals
- Industrial workstations
- Data Rack

Also required:

For mounting on the TS base/plinth:
 Base/plinth adaptor for twin casters 8800.290,
 see page 551

1	Maximum permissible static load (per caster)	88 lb (40 kg)
	Ground clearance	2" (50 mm)
	Lock	4 without
	Packs of	1 set
	Color	Black
	Part No.	4611.000

2	Maximum permissible static load (per caster)	165 (75 kg)
	Ground clearance	3" (85 mm)
	Lock	2 with, 2 without
	Packs of	1 set
	Color	Black with grey running surface
	Part No.	6148.000

3	Maximum permissible static load (per caster)	265 lb (120 kg)
	Ground clearance	5" (125 mm)
	Lock	2 with, 2 without
	Packs of	1 set
	Color	Black
	Part No.	7495.000



Bolt down kits

For anchoring the enclosure even if it is on casters, at any position of the base frame. Has a vertical slot to account for different vertical positions.

Material:

Carbon steel, E-coated

Note:

Additional holes in the base are required for mounting. Cannot be used with leveling feet or casters.

Description	Packs of	Part No.
Standard bolt down kit	4	9970.989
Pre-Approved OSHPD bolt down kit	4	9978.415¹⁾

¹⁾ Rittal has obtained Pre-Approval (OPA) number OPA-2672-10 bolt down brackets for use when OSHPD is required. Cannot be used with casters or leveling feet.

Base

Base



Transport kit

for TS

Ground clearance: approx. 1.6" (40 mm).

Permissible static load:

1653 lb (750 kg per enclosure)

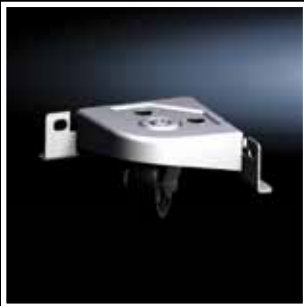
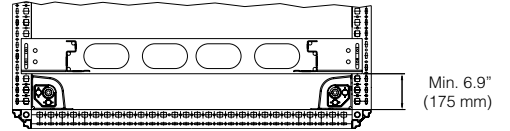
Configuration:

1 set =
4 casters (2 steerable) including assembly parts

Note:

Only for enclosures without gland plates or gland plate frames. For 32" (800 mm) wide enclosures with 19" (482.6 mm) mounting frame, special installation dimensions must be observed (see drawing).

Packs of	Part No.
4	7825.900



Caster kit

Castors help simple movement on even floors. Easy to install. Kit includes hardware, left and right rigid casters and two swivel casters.

Load capacity:

Supports dynamic load rating of 2250 lb (1020 kg) per cabinet

Kit includes	Part No.
4 casters /1 wrench	9968.751

Complete caster

Complete casters have 2 casters per piece. Cable entry holes included.

Configuration:

1 set = 2 caster plates with 2 casters per plate
1 caster plate with swivel casters

Load Capacity:

Supports dynamic load rating of 2250 lb
(1020 kg) per cabinet

Width inches (mm)	Color	Part No.
24 (600)	RAL 9017 black	9967.480
24 (600)	RAL 7035 light grey	9967.483
28 (700)	RAL 9017 black	9967.481
28 (700)	RAL 7035 light grey	9967.484
32 (800)	RAL 9017 black	9967.482
32 (800)	RAL 7035 light grey	9967.485

**Base/plinth adaptor
for levelling feet**

Connection component for fastening M12 levelling feet 4612.000 to the TS base/plinth.

Material:

Carbon steel

Surface finish:

Zinc-plated

Also required:

Levelling feet, 4612.000, see page 547

Packs of	Part No.
4	8800.220

**Base/plinth adaptor
for twin casters**

Connection component for mounting twin casters to the TS base/plinth.

Material:

Carbon steel

Surface finish:

Zinc-plated

Also required:

Base/plinth trim panels, side,
see page 534, wherever a twin caster is fitted

Packs of	Part No.
4	8800.290



Base



Width divider

Divides 47" (1200 mm) wide TS enclosures into two halves.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

1 set =
1 bracket for right/left,
2 compensating plates for the top, mounting accessories.

1. Mounting position:

Two mounting plates side by side.

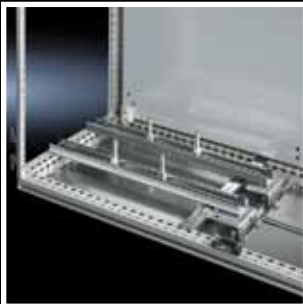
Two mounting plates (from 24" (600 mm) wide enclosures) in a 47" (1200 mm) wide enclosure permit independent positioning and easy handling.



2. Mounting position:

System support rails, fitted on the left.

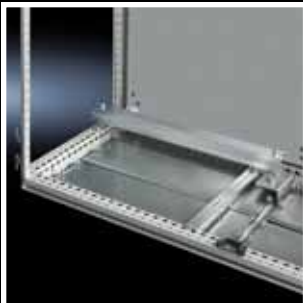
When heavy installed equipment rests on the system support rails, the remaining floor space is free, e.g. for unhindered cable entry.



3. Mounting position:

Cable clamp rail, installed on the left.

With 47" (1200 mm) wide enclosures, the width divider allows cable entry and cable clamping to be arranged differently on the left and right of the enclosure.



Packs of	Part No.
1 set	8800.200

Also required:

Depending on the installation situation:

- TS punched rail 0.7" x 1.5" (18 x 38 mm), see page 655
- PS punched section without mounting flange, 0.9" x 2.9" (23 x 73 mm), see page 658

Also required:

In accordance with the enclosure depth:

- 4 TS punched rails 0.7" x 1.5" (18 x 38 mm), bottom, see page 665
- 1 PS punched section without mounting flange 0.9" x 2.9" (23 x 73 mm), top, see page 658

Also required:

- 2 system support rails 4361.000, see page 660
- 1 TS punched rail 0.7" x 1.5" (18 x 38 mm) in accordance with the enclosure depth (included with the supply of the standard enclosure)

Also required:

- 1 cable clamp rail 4191.000, see page 723
- 1 TS punched rail 0.7" x 1.5" (18 x 38 mm) in accordance with the enclosure depth (included with the supply of the standard enclosure)

Base mounting bracket

For TS, ES, TP universal console

For anchoring the enclosure at any position of the base frame, particularly in cases where the existing holes in the frame or base tray cannot be used due to the installed equipment or because the substructure prevents them from being used.

Material:

Carbon steel

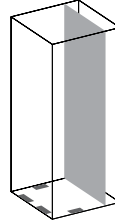
Surface finish:

Zinc-plated

Packs of	Part No.
4	8800.210

Note:

Additional holes in the base are required for mounting.



Reinforcement bracket

for TS, ES, TP universal console

For use as an additional stabilizer to the clamping straps when populated enclosures are screw-fastened via the base tray to the base/plinth or pallet for transportation purposes.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Packs of	Part No.
4	8800.830



Base frame, divided

for TS 8 server enclosures

For retro-fitting gland plates or base modules. Suitable for combining with the pull-out stabilizer.

Material:

Carbon steel

Surface finish:

Zinc-plated

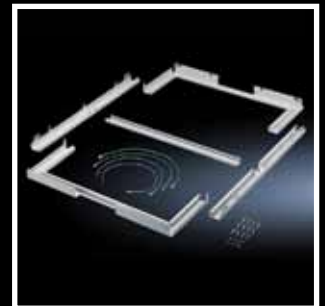
Configuration:

Packs of 1 set
Frame elements, assembly parts

For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	39 (1000)	7825.342

Accessories:

- Multi-piece gland plate, see page 557.
- Stabilizer, see page 546.



Clips

for gland plates

As replacement and for additional gland plate attachments in TS, CM, TP.

Material:

Carbon steel

Surface finish:

Zinc-plated

Packs of	Part No.
50	8800.075



Base

Base



Gland plate for CM, TP TopConsole and TP one-piece console

Select suitable gland plates depending on the application. The following examples illustrate the individual options for cable entry structuring. Potential equalization is provided via assembly components and grounding points.

Material:
Carbon steel

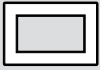
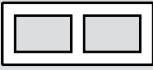
Surface finish:
Zinc-plated

Protection rating:
IP 55 to IEC 60 529, subject to correct mounting

Configuration:
1 piece, including assembly parts

Note:
For greater stability and universal cable entry, the base opening is divided in the width for 39" (1000 mm), 47" (1200 mm) and 63" (1600 mm) wide enclosures, and is suitable for various configurations.

For enclosure depth 12" (300 mm), complete module groups

	For enclosure/console depth inches (mm)								
	One-piece base opening				Two-piece base opening				
									
For enclosure width inches (mm)			24 (600)	32 (800)			39 (1000)	47 (1200)	63 (1600)
Cable entry module groups	Packs of	Requires packs of	Part No.		Packs of	Requires packs of			

Cable clamp strip, center

Gland plate, depth 4" (100 mm)	1	2	5001.210	5001.211	1	4	5001.212	5001.213	5001.233
Section for cable entry, rear	1 set	1	8802.060	8802.080	2 sets	1	8802.100	8802.120	8802.160

Cable clamp strip, rear

Gland plate, depth 4" (100 mm)	1	1	5001.214	5001.215	1	2	5001.216	5001.217	5001.234
Section for cable entry, rear	1 set	1	8802.065	8802.085	2 sets	1	8802.105	8802.125	8802.165

Grommets, 1 x

Gland plate, depth 2" (50 mm)	1	1	5001.210	5001.211	1	2	5001.212	5001.213	5001.233
Cable entry plates for grommets	1	1	5001.226	5001.227	1	1	5001.228	5001.229	5001.237

Cable entry and connector grommets, see page 708.

For cable glands

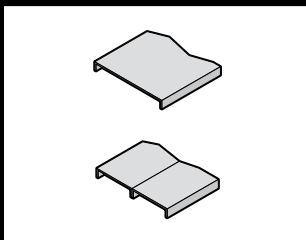
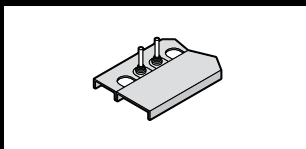
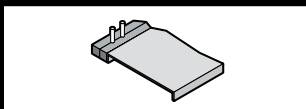
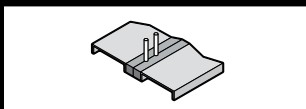
One-piece

Gland plate, depth 6" (150 mm)	1	1	5001.218	5001.219	1	2	5001.220	5001.221	5001.235
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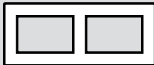
Two-piece

Gland plate, depth 2" (50 mm)	1	1	5001.210	5001.211	1	2	5001.212	5001.213	5001.233
Gland plate, depth 4" (100 mm)	1	1	5001.214	5001.215	1	2	5001.216	5001.217	5001.234

Cable glands, see page 715.



For enclosure depth 16" (400 mm), complete module groups

	For enclosure/console depth inches (mm)								
	One-piece base opening				Two-piece base opening				
									
For enclosure width inches (mm)	Packs of	Requires packs of	24 (600)	32 (800)	Packs of	Requires packs of	39 (1000)	47 (1200)	63 (1600)
Cable entry module groups			Part No.						

Cable clamp strip, center

Gland plate, depth 2" (50 mm)	1	1	5001.210	5001.211	1	2	5001.212	5001.213	5001.233
Gland plate, depth 6" (150 mm)	1	1	5001.218	5001.219	1	2	5001.220	5001.221	5001.235
Section for cable entry, center	1 set	1	8802.060	8802.080	2 sets	1	8802.100	8802.120	8802.160

Cable clamp strip, rear

Gland plate, depth 4" (100 mm)	1	2	5001.214	5001.215	1	4	5001.216	5001.217	5001.234
Section for cable entry, rear	1 set	1	8802.065	8802.085	2 sets	1	8802.105	8802.125	8802.165

Cable clamp strip, center and rear

Gland plate, depth 2" (50 mm)	1	1	5001.210	5001.211	1	2	5001.212	5001.213	5001.233
Gland plate, depth 4" (100 mm)	1	1	5001.214	5001.215	1	2	5001.216	5001.217	5001.234
Section for cable entry, center	1 set	1	8802.060	8802.080	2 sets	1	8802.100	8802.120	8802.160
Section for cable entry, rear	1 set	1	8802.065	8802.085	2 sets	1	8802.105	8802.125	8802.165

Grommets, 1 x

Gland plate, depth 6" (150 mm)	1	1	5001.218	5001.219	1	2	5001.220	5001.221	5001.235
Cable entry plates for grommets	1	1	5001.226	5001.227	1	2	5001.228	5001.229	5001.237

Cable entry and connector grommets, see page 708.

Grommets, 2 x

Gland plate, depth 2" (50 mm)	1	1	5001.210	5001.211	1	2	5001.212	5001.213	5001.233
Cable entry plates for grommets	1	2	5001.226	5001.227	1	4	5001.228	5001.229	5001.237

Cable entry and connector grommets, see page 708.

EMC

EMC gland plate	1 set	1	8800.660	8800.680	1 set	2	8800.600	8800.620	-
Gland plate, depth 4" (100 mm)	1	1	5001.214	5001.215	1	2	5001.216	5001.217	-

Cable entry and connector grommets, see page 708.

For cable glands

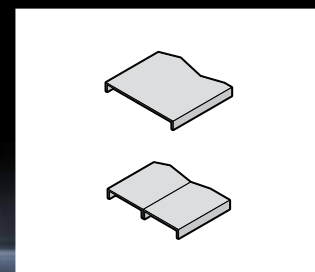
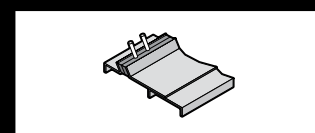
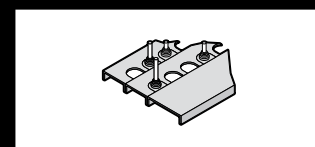
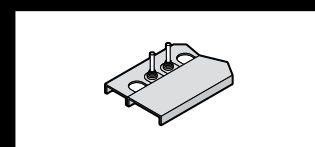
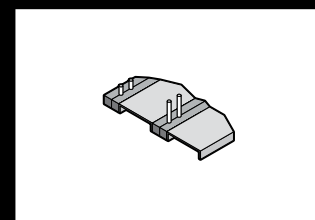
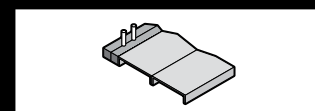
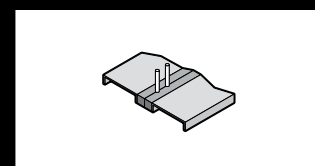
One-piece

Gland plate, depth 10" (250 mm)	1	1	5001.222	5001.223	1	2	5001.224	5001.225	5001.236
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Two-piece

Gland plate, depth 6" (150 mm)	1	1	5001.218	5001.219	1	2	5001.220	5001.221	5001.235
Gland plate, depth 4" (100 mm)	1	1	5001.214	5001.215	1	2	5001.216	5001.217	5001.234

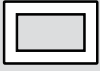
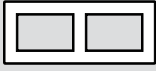
Cable glands, see page 715.



Base

Base

For enclosure depth 20" (500 mm), complete module groups

	For enclosure/console depth inches (mm)								
	One-piece base opening				Two-piece base opening				
									
For enclosure width inches (mm)	Packs of	Requires packs of	24 (600)	32 (800)	Packs of	Requires packs of	39 (1000)	47 (1200)	63 (1600)
Cable entry module groups			Part No.						

Cable clamp strip, center

Gland plate, depth 2" (50 mm)	1	1	5001.210	5001.211	1	2	5001.212	5001.213	5001.233
Gland plate, depth 10" (250 mm)	1	1	5001.222	5001.223	1	2	5001.224	5001.225	5001.236
Section for cable entry, center	1 set	1	8802.060	8802.080	2 sets	1	8802.100	8802.120	8802.160

Cable clamp strip, rear

Gland plate, depth 6" (150 mm)	1	2	5001.218	5001.219	1	4	5001.220	5001.221	5001.235
Section for cable entry, rear	1 set	1	8802.065	8802.085	2 sets	1	8802.105	8802.125	8802.165

Cable clamp strip, center and rear

Gland plate, depth 2" (50 mm)	1	1	5001.210	5001.211	1	2	5001.212	5001.213	5001.233
Gland plate, depth 4" (100 mm)	1	1	5001.214	5001.215	1	4	5001.216	5001.217	5001.234
Section for cable entry, center	1 set	1	8802.060	8802.080	2 sets	1	8802.100	8802.120	8802.160
Section for cable entry, rear	1 set	1	8802.065	8802.085	2 sets	1	8802.105	8802.125	8802.165

Grommets, 1 x

Gland plate, depth 10" (250 mm)	1	1	5001.222	5001.223	1	2	5001.224	5001.225	5001.236
Cable entry plates for grommets	1	1	5001.226	5001.227	1	2	5001.228	5001.229	5001.237

Cable entry and connector grommets, see page 708.

Grommets, 2 x

Gland plate, depth 6" (150 mm)	1	1	5001.218	5001.219	1	2	5001.220	5001.221	5001.235
Cable entry plates for grommets	1	2	5001.226	5001.227	1	4	5001.228	5001.229	5001.237

Cable entry and connector grommets, see page 708.

EMC

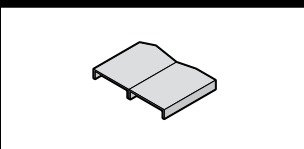
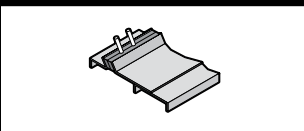
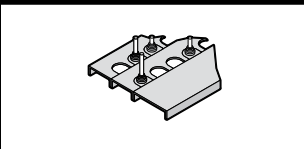
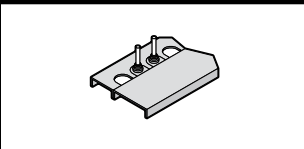
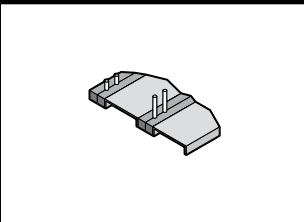
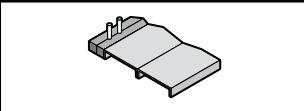
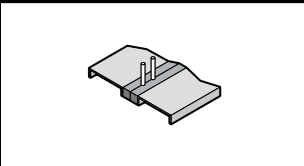
EMC gland plate	1 set	1	8800.660	8800.680	1 set	2	8800.600	8800.620	–
Gland plate, depth 4" (100 mm)	1	2	5001.214	5001.215	1	4	5001.216	5001.217	–

Cable entry and connector grommets, see page 708.

For cable glands, two-piece

Gland plate, depth 4" (100 mm)	1	1	5001.214	5001.215	1	2	5001.216	5001.217	5001.234
Gland plate, depth 10" (250 mm)	1	1	5001.222	5001.223	1	2	5001.224	5001.225	5001.236

Cable glands, see page 715.



**Trim panel
for CM**

To conceal the entire base opening.

Material:

Carbon steel

Surface finish:

Textured paint

Color:

RAL 7035

For enclosure		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	16 (400)	5001.130
32 (800)	16 (400)	5001.140
39 (1000)	16 (400)	5001.150
47 (1200)	16 (400)	5001.160

Protection rating:

UL Type 12 (IP 55 to IEC 60 529)

Configuration:

Assembly parts

**Gland plate, multi-piece
for TS**

Any combination possible

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Packs of 1 set

Gland plates including sliding plate for cable entry, sealing tape and assembly parts

Note:

For the size 32" x 32" (800 x 800 mm), the gland plate included with the supply of pre-configured network enclosures should be additionally used.

Also required:

For integration of the gland plates, there must be a base frame inside the enclosure. Base frame, divided, for retro-fitting, see page 553.

For enclosure		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	39 (1000)	7825.364
24 (600)	47 (1200)	7825.365
32 (800)	32 (800)	7825.382
32 (800)	39 (1000)	7825.384
32 (800)	47 (1200)	7825.385

Accessories:

All gland plates with a depth of 9" (237.5 mm) may be exchanged for gland plate modules on request.

- Base plate modules, see page 558
- Base plate modules, vented with airflow regulator, see page 558
- Base module for cable entry, see page 559
- Section for cable entry, see pages 708, 709

**One-piece gland plate
vented, for TS**

- With ventilation holes
- Cut-out for cable entry at the rear, covered with brush strip.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

For enclosure		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	24 (600)	7825.660
24 (600)	32 (800)	7825.680
24 (600)	39 (1000)	7825.610
32 (800)	24 (600)	7825.860
32 (800)	32 (800)	7825.880
32 (800)	39 (1000)	7825.810
24 (600)	47 (1200)	7825.612
32 (800)	47 (1200)	7825.812

Accessories:

Filter mat for gland plate, see pages 558, 559



Base

Base



Filter mat for one-piece gland plate

The filter mat may be cut to size according to the required cut-out.

Material:
PPI 35-5/polyamide

Packs of	Part No.
1	7825.620



Gland plate modules for TS

For use in the base frame of the network enclosure. Used in exchange for an existing gland plate of the same depth or in conjunction with a multi-piece gland plate for pre-configured TS 8 enclosures, see page 557.

Gland plate depth:
9" (237.5 mm)

Version for cable entry, rear:
With brush strip

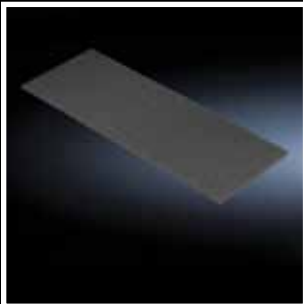
Version for cable entry, side:
With rubber cable clamp strip

For enclosure width inches (mm)	Design	Part No.
24 (600)	For cable entry, rear	7825.361
32 (800)		7825.381
32 (800)	For cable entry, side	7825.388
24 (600)	Vented	7825.360
32 (800)		7825.380

Vented version: With filter mat for concealing holes, nylon tape for securing from inside/outside.

Material: Carbon steel

Surface finish: Zinc-plated



Spare filter mat for gland plate modules, vented

To be used in exchange for the existing filter mat.

Material:
PPI 35-5/polyamide

Configuration:
Assembly parts

Packs of	Part No.
2	7825.350



Gland plate modules, vented with airflow regulator for TS

Allows controlled air routing from the twin base to the installed components. Individually adjustable membranes allow control of the air inlet opening between 10% and 80% free space. If the rear area of the enclosure is partitioned by base/gland plates, the required volumetric airflow may be individually regulated, and distribution of the airflow inside the twin base adapted to suit the requirements of each enclosure. The gland plate module may be combined with all gland plates as required. Gland plate module including contacting assembly screws; the additional installation of PE conductors is not required.

Material:
Carbon steel

For enclosure width inches (mm)	Part No.
24 (600)	7825.366
32 (800)	7825.386

Configuration:

- Packs of 1
- Gland plate module, vented
- Filter mat
- Assembly parts

Also required:

For integration of the gland plates, there must be a base frame inside the enclosure. Base frame, divided, for retro-fitting, see page 553.

Accessories:

Spare filter mat, see page 559

Spare filter mat for gland plate modules, vented, with airflow regulator

To be used in exchange for the existing filter mat.

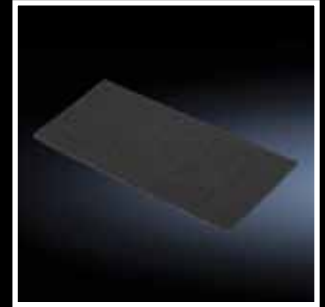
Material:

PPI 35-5/polyamide

Configuration:

Assembly parts

Packs of	Part No.
1	7825.622



Base module for cable entry super-airtight for TS

The two-part base module has a special cable entry with alternate offset brush strips which guarantee an excellent seal even with large cable quantities.

Material:

- Module plate: Carbon steel
- Brush strip: Plastic, UL 94-V0

Surface finish:

Module plate: Zinc-plated

Configuration:

Brush strip and assembly parts

For enclosure width inches (mm)	Packs of	Part No.
24 (600)	1	7825.367
32 (800)	1	7825.387



Pressure relief stoppers

Especially when enclosures are exposed to changing climatic conditions condensation may form in sealed enclosures due to pressure differences. The integral sealing membrane largely prevents such pressure differences and hence condensation; additionally, it also prevents the ingress of moisture from the outside. Installed in vertical surfaces to protect against dirt.

Technical specifications:

- Air permeability up to 32 gallons/hour (120 litres/hour) with a pressure difference of 1 PSI (70 mbar)
- Connection thread M12 x 1.5
- For fitting in wall thicknesses up to 6 ga (4 mm)

Material:

Polyamide

Color:

Similar to RAL 9005

Protection rating:

- IP 66, 68 to IEC 60 529
- IP 69K to DIN 40 050-9

Configuration:

Lock nut

Packs of	Part No.
5	2459.500



Base

Base



Condensate discharge

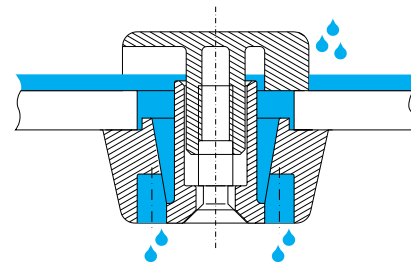
For reliable discharge from the inside and protection against splashes from the outside (labyrinth effect). A hole diameter of .63" (16 mm) is required. (With AE carbon steel, the holes are already provided in the base.)

Material:
Polyamide

Color:
Similar to RAL 7035

Protection rating:
IP 55 to IEC 60 529, subject to correct mounting at the bottom

Packs of	Part No.
6	2459.000



Gland plates

for CS New Basic enclosures

For sealing the base opening and for cable entry.

Material:
Carbon steel

Surface finish:
Powder-coated, zinc-plated

Color:
RAL 7035

Configuration:
Assembly parts

For enclosure dimensions		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
24 (600)	16 (400)	1 set	9785.511
24 (600)	20 (500)	1 set	9785.514
32 (800)	16 (400)	1 set	9785.512
32 (800)	20 (500)	1 set	9785.513
47 (1200)	16 (400)	1 set	2 x 9785.511
47 (1200)	20 (500)	1 set	2 x 9785.514



Oiltight hole seals

Oiltight hole seals are used to seal unused or empty pushbutton holes, conduit openings, and knockout

Material:
Carbon Steel:
RAL 7035 (light grey)
Type 304 stainless steel

Hole Seals:

- 12 sizes
- Covers holes with a 0.19" diameter
- Can be used on material thickness up to 0.31"
- Oil-resistant gasket
- UL/cUL Type 12, 4/4X and 13

Oiltight Hole Seals - Carbon Steel	
Description	Part No.
Miniature Oiltight Pushbutton Hole 22.5 mm (IEC)	OHSMPBC
0.50" Conduit Hole	OHS050C
0.75" Conduit Hole	OHS075C
Standard Oiltight Pushbutton Hole 30.5 mm (NEMA)	OHSPPBC
1.00" Conduit Hole	OHS100C
1.25" Conduit Hole	OHS125C
1.50" Conduit Hole	OHS150C
2.00" Conduit Hole	OHS200C
2.50" Conduit Hole	OHS250C
3.00" Conduit Hole	OHS300C
3.50" Conduit Hole	OHS350C
4.00" Conduit Hole	OHS400C

Oiltight Hole Seals - Stainless Steel 304	
Description	Part No.
Miniature Oiltight Pushbutton Hole 22.5 mm (IEC)	OHSMPB6
0.50" Conduit Hole	OHS0506
0.75" Conduit Hole	OHS0756
Standard Oiltight Pushbutton Hole 30.5 mm (NEMA)	OHSPPB6
1.00" Conduit Hole	OHS1006
1.25" Conduit Hole	OHS1256
1.50" Conduit Hole	OHS1506
2.00" Conduit Hole	OHS2006
2.50" Conduit Hole	OHS2506
3.00" Conduit Hole	OHS3006
3.50" Conduit Hole	OHS3506
4.00" Conduit Hole	OHS4006

Side panels

Side panels, screw-fastened, Carbon steel

for TS

- Automatic potential equalization and higher EMC protection thanks to enclosure panel holders with grounding insert
- Easy positioning with the location aid
- Grounding bolt with contact surface

Material:

Carbon steel 16 ga (1.5 mm), textured

Surface finish:

Dipcoat primed, powder-coated on the outside

Color:

RAL 7035/Sand Texture Black

Protection rating:

IP 55 to IEC 60 529

Configuration:

2 side panels, assembly parts

Note:

Enclosure panel holders may optionally be fitted from the inside or outside of the enclosure.

Area available for population:

External dimension – 4" (100 mm).

Accessories:

- Ground straps, see page 669
- Enclosure panel holders, internal, see page 563, for heavy installed equipment and high dynamic pressures

1 Automatic potential equalization

For enclosures		Color		Part No.
Height inches (mm)	Depth inches (mm)	RAL 7035	Sand Texture Black	
32 (800)	24 (600)	■	–	8173.235
39 (1000)	24 (600)	■	–	8174.235
47 (1200)	20 (500)	■	–	8115.235
47 (1200)	24 (600)	■	–	8170.235
47 (1200)	24 (600)	–	■	9969.948
47 (1200)	32 (800)	■	–	8175.235
47 (1200)	32 (800)	–	■	9969.949
47 (1200)	39 (1000)	■	–	8176.235
55 (1400)	20 (500)	■	–	8145.235
55 (1400)	24 (600)	■	–	8146.235
55 (1400)	32 (800)	■	–	8148.235
63 (1600)	20 (500)	■	–	8165.235
63 (1600)	24 (600)	■	–	8166.235
63 (1600)	32 (800)	■	–	8168.235
71 (1800)	16 (400)	■	–	8184.235
71 (1800)	20 (500)	■	–	8185.235
71 (1800)	24 (600)	■	–	8186.235
71 (1800)	32 (800)	■	–	8188.235
71 (1800)	39 (1000)	■	–	8180.235
79 (2000)	16 (400)	■	–	8104.235
79 (2000)	20 (500)	■	–	8105.235
79 (2000)	24 (600)	■	–	8106.235
79 (2000)	24 (600)	–	■	9969.920
79 (2000)	32 (800)	■	–	8108.235
79 (2000)	32 (800)	–	■	9969.916
79 (2000)	35 (900)	■	–	8109.235
79 (2000)	35 (900)	–	■	9968.597
79 (2000)	39 (1000)	■	–	8100.235
79 (2000)	39 (1000)	–	■	9968.596
79 (2000)	41 (1050)	■	–	9969.309
79 (2000)	41 (1050)	–	■	9969.351
79 (2000)	47 (1200)	■	–	9969.955
79 (2000)	47 (1200)	–	■	9969.956
87 (2200)	24 (600)	■	–	8126.235
87 (2200)	24 (600)	–	■	9969.917
87 (2200)	32 (800)	■	–	8128.235
87 (2200)	32 (800)	–	■	9969.352
87 (2200)	35 (900)	■	–	9969.311
87 (2200)	35 (900)	–	■	9968.595
87 (2200)	39 (1000)	■	–	9968.593
87 (2200)	39 (1000)	–	■	9968.594
87 (2200)	41 (1050)	■	–	9969.312
87 (2200)	41 (1050)	–	■	9969.355
87 (2200)	47 (1200)	■	–	9969.957
87 (2200)	47 (1200)	–	■	9969.958



Walls

Side panels



Side panels, screw-fastened, stainless steel for TS

- Automatic potential equalization and higher EMC protection thanks to enclosure panel holders
- Easy positioning with the location aid
- Grounding bolt with contact surface

Material:

Stainless steel Type 304, 16 ga (1.5 mm)

Surface finish:

Brushed, grain 400

Protection rating:

Type 4X, IP 55 to IEC 60 529

Configuration:

Assembly parts

Accessories:

Enclosure panel holders, internal, see page 563, for heavy installed equipment and high dynamic pressures

Detailed drawings:

Available at www.rittal-corp.com

For enclosures		Packs of	Part No.
Height inches (mm)	Depth inches (mm)		
63 (1600)	16 (400)	2	9976.424
71 (1800)	16 (400)	2	8700.840
71 (1800)	20 (500)	2	8700.850
79 (2000)	16 (400)	2	9976.425
79 (2000)	20 (500)	2	8700.060
79 (2000)	24 (600)	2	8700.680
79 (2000)	32 (800)	2	9976.426



Side panels, asymmetrical for TS

The alternative to the standard side panel for improved visual appearance in the event of back-to-back, back-to-side or corner baying. The gap (A) which occurs with standard side panels is reduced to a standard dimension (B), see technical drawing. In the case of the TS 8 corner enclosure, an asymmetrical side panel is included in the supply. The number of additional asymmetrical side panels required depends on the chosen baying version.

Material: Carbon steel, 16 ga (1.5 mm)

Color: RAL 7035

Protection rating: IP 55 to IEC 60 529

Configuration: Assembly parts

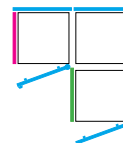
Asymmetrical side panel



Side panel



Corner baying



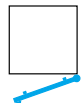
Back-to-back baying



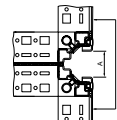
Rear panel



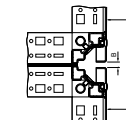
Door



Standard side panel



Asymmetrical side panel



For enclosures		Packs of	Part No.
Height inches (mm)	Depth inches (mm)		
71 (1800)	16 (400)	2	8184.500
71 (1800)	20 (500)	2	8185.500
71 (1800)	24 (600)	2	8186.500
79 (2000)	16 (400)	2	8104.500
79 (2000)	20 (500)	2	8105.500
79 (2000)	24 (600)	2	8106.500
79 (2000)	32 (800)	2	8108.500
87 (2200)	24 (600)	2	8126.500

Accessories: Enclosure panel holders, internal, see page 563, for heavy installed equipment and high dynamic pressures



Side panels

Enclosure panel holders, internal for TS

for additional fixing of the side or rear panel with heavy installed equipment and high dynamic pressures.

Packs of	Part No.
10	8800.071



Hinges

for
TS side panel, screw-fastened, Carbon steel
TS side panel, asymmetrical

The 180° opening angle allows unhindered access. May be installed optionally from the inside or outside of the enclosure: Simply replace 3 enclosure panel fasteners with hinges. Despite the hinge, the protection category of the enclosure is retained.

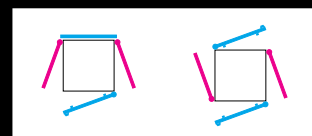
Material: Die-cast zinc

Configuration: Assembly screws

Color	Packs of	Part No.
RAL 7035	6	8800.110

Note:

- Side panel and door hinges may only be installed on the same enclosure section when using a 180° door hinge (see page 611).
- Please note: Red areas (side panels), hinged and unhinged, must always be opposite one another. Blue areas (doors/rear panels) must always be opposite one another. Only one surface on each vertical enclosure section may be hinged.



Side panel, lockable for TS

- Simply locate from above
- Lock via security lock no. 3524 E
- Grounding bolt with contact lug.

Material:

Carbon steel, powder-coated

Protection rating:

IP 20/NEMA 1 to IEC 60 529

Configuration:

2 side panels each with 4 security locks no. 3524 E.

Note:

Side panels 47" (1200 mm) deep as divided variants, see page 564

Accessories:

Internal latch 7824.510, see page 564

For enclosures		Color RAL		Part No.
Height inches (mm)	Depth inches (mm)	7035	9005	
32 (800)	24 (600)	■	–	7824.086
39 (1000)	24 (600)	■	–	7824.106
47 (1200)	24 (600)	■	–	7824.126
47 (1200)	32 (800)	■	–	7824.128
47 (1200)	39 (1000)	■	–	7824.120
47 (1200)	39 (1000)	–	■	7816.120
55 (1400)	24 (600)	■	–	7824.146¹⁾
55 (1400)	32 (800)	■	–	7824.148
63 (1600)	24 (600)	■	–	7824.166
63 (1600)	32 (800)	■	–	7824.168
71 (1800)	24 (600)	■	–	7824.186
71 (1800)	32 (800)	■	–	7824.188
71 (1800)	39 (1000)	■	–	7824.180¹⁾
79 (2000)	24 (600)	■	–	7824.206
79 (2000)	32 (800)	■	–	7824.208
79 (2000)	39 (1000)	■	–	7824.200
79 (2000)	39 (1000)	–	■	7816.200¹⁾
87 (2200)	24 (600)	■	–	7824.226
87 (2200)	32 (800)	■	–	7824.228
87 (2200)	39 (1000)	■	–	7824.220

¹⁾ Extended delivery times.



Walls

Side panels



Internal latch for side panel, lockable

Additional security is achieved via the option of latching the side panel from the inside. The side panels on the frame section are screw fastened from the inside with latching brackets.

Configuration:

Assembly parts

For	Packs of	Part No.
TS enclosures	4	7824.510



Primer/paint

For touching up and repairing powder-coated and wet-painted surfaces, air-drying.

Color RAL	Part No.		
	0.6 oz touch-up pen	Spray Can	Quart can
7022 (umbra grey)	9095.008	9093.008	9094.008
7032 (pebble grey)	9095.002	9093.002	9094.002
7035 (light grey)	9095.006	9093.006	9094.006



Side panel, plug-type, divided for TS

The horizontally divided side panel offers clear advantages for storage, transportation and assembly, thanks to the reduced weight and smaller dimensions of its individual parts. The lower side panel part is inserted into the base frame and secured in the center of the enclosure via a punched section with mounting flange. After attaching, the complete side panel is locked at the top with 2 locks.

Material:

Carbon steel

Color:

RAL 7035

Configuration:

- Side panel with security lock 3524 E
- Punched sections with mounting flanges
- Ground conductor
- Assembly parts

For enclosures		Packs of	Part No.
Height inches (mm)	Depth inches (mm)		
79 (2000)	47 (1200)	1	7824.310
87 (2200)	47 (1200)	1	7824.312

Side panels

Split sidewall

Easy to install, high-tech look. Lockable with door key.

Material:

Carbon steel, electrophoretic dipcoat primed, powder-coated

Color:

Sand Texture Black

Configuration:

1 top and 1 bottom panel

For enclosures		Color		Part No.
Height inches (mm)	Depth inches (mm)	RAL 7035	Sand Texture Black	
79 (2000)	32 (800)	■	–	9967.470
79 (2000)	32 (800)	–	■	9967.460
79 (2000)	36 (900)	■	–	9967.471
79 (2000)	36 (900)	–	■	9967.461
79 (2000)	40 (1000)	■	–	9967.472
79 (2000)	40 (1000)	–	■	9967.462
79 (2000)	42 (1050)	■	–	9967.473
79 (2000)	42 (1050)	–	■	9967.463
79 (2000)	48 (1200)	■	–	9967.474
79 (2000)	48 (1200)	–	■	9967.464
88 (2200)	32 (800)	■	–	9967.475
88 (2200)	32 (800)	–	■	9967.465
88 (2200)	36 (900)	■	–	9967.476
88 (2200)	36 (900)	–	■	9967.466
88 (2200)	40 (1000)	■	–	9967.477
88 (2200)	40 (1000)	–	■	9967.467
88 (2200)	42 (1050)	■	–	9967.478
88 (2200)	42 (1050)	–	■	9967.468
88 (2200)	48 (1200)	■	–	9967.479
88 (2200)	48 (1200)	–	■	9967.469



Walls

Divider panels/partitions



Cable pass through partition wall

For side partitioning of bayed TS server enclosures. Installs without the need for additional hardware or tools. Has 4 4.41" (112 mm) cable pass through holes, grommet covers included.

Color:

Sand Texture Black

Note:

Use baying connector 8800.490. Not for use in conjunction with a baying seal. Can be installed and removed without moving the cabinet.

Height inches (mm)	Depth inches (mm)	Part No.
80 (2000)	35 (900)	9971.041
80 (2000)	39 (1000)	9971.042
80 (2000)	41 (1050)	9971.043
80 (2000)	47 (1200)	9971.044
87 (2200)	35 (900)	9971.045
87 (2200)	39 (1000)	9971.046
87 (2200)	41 (1050)	9971.047
87 (2200)	47 (1200)	9971.048



Solid partition wall

For side partitioning of bayed TS server enclosures. Installs without the need for additional hardware or tools.

Color:

Sand Texture Black

Note:

Use baying connector 8800.490. Not for use in conjunction with a baying seal. Can be installed and removed without moving the cabinet.

Height inches (mm)	Depth inches (mm)	Part No.
79 (2000)	35 (900)	9978.377
79 (2000)	39 (1000)	9978.378
79 (2000)	41 (1050)	9978.379
79 (2000)	47 (1200)	9978.380
87 (2200)	35 (900)	9978.381
87 (2200)	39 (1000)	9978.382
87 (2200)	41 (1050)	9978.383
87 (2200)	47 (1200)	9978.384



Partition for TS

For rack mounting, suspended between two TS 8 enclosures. Three Ø 1.6" (40 mm) holes in all 4 corner areas for the insertion of cables, conduits etc. Drilled holes may be sealed with the enclosed stepped collars. For cable entry cut off at a suitable level to match the required cross-section.

Material:

- Partition: Carbon steel
- Stepped collar: Plastic to UL 94-HB

Surface finish:

Partition: Zinc-plated

Configuration:

12 stepped collars Ø 1.6" (40 mm)

Note:

Use baying connector 8800.490. Not suitable for use with a baying seal. Any seals present must be removed prior to installation.

Accessories:

Baying clamp 8800.490, see page 575

For enclosures		Part No.
Height in. (mm)	Depth in. (mm)	
79 (2000)	39 (1000)	7831.723
79 (2000)	47 (1200)	7831.724
87 (2200)	47 (1200)	7831.726

Divider panels/partitions

Cable management panel for TS

The universal routing aid for network enclosures where large quantities of cables and lines are managed. Can also be used as a partition with cable management option. By attaching to the inner level, cables may be routed inside and out, also in conjunction with a side panel.

Mounting options:

- Directly onto the inner mounting level of TS 8 enclosures
- On the outer mounting level on punched sections with mounting flanges

Material:

Carbon steel

Surface finish:

Powder-coated

Color:

RAL 7035

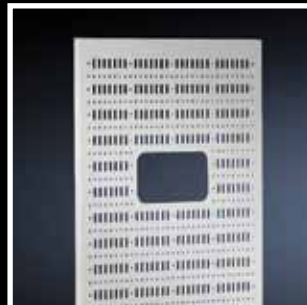
Configuration:

Assembly parts

For enclosures		Packs of	Part No.
Width/depth inches (mm)	Depth inches (mm)		
24 (600)	79 (2000)	1	7824.310
32 (800)	79 (2000)	1	7824.312

Accessories:

- Nylon loop fasteners, see page 726
- Cable route, see pages 734, 735
- Cable ties, see page 726
- Cable shunting rings, see page 732
- Cable manager, see page 729



Divider panel for TS

For shielding individual enclosure cells. Thanks to the symmetry of the frame system, the divider panel can also be used at the rear. All-round, double fold for stability and to hold the seal. Notches in the corners and half-way up the sides permit the use of angular baying brackets and baying brackets, even with a divider panel fitted. For mounting on the outer mounting level. This leaves the inner level free for further population.

Material:

Carbon steel, 16 ga (1.5 mm), zinc-plated

Protection rating:

IP 54 to IEC 60 529, subject to the correct use of module plates.

Configuration:

Assembly parts

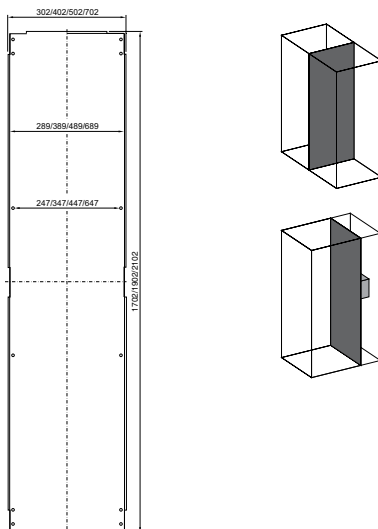
Note:

The divider panel may also be fitted at the rear. This allows, e.g. frequency converters for heat dissipation to be installed in a divider panel with the cooling units facing outwards and protected/finished off with a cover (see page 570).

Accessories:

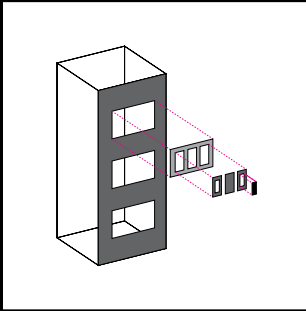
- Cover with door, see page 570
- Baying attachment, vertical (8800.470) for enclosures with fitted divider panel, see page 577

For enclosures		Part No.
Height inches (mm)	Depth inches (mm)	
71 (1800)	16 (400)	8609.840
71 (1800)	20 (500)	8609.850
71 (1800)	24 (600)	8609.860
79 (2000)	16 (400)	8609.040
79 (2000)	20 (500)	8609.050
79 (2000)	24 (600)	8609.060
79 (2000)	32 (800)	8609.080
79 (2000)	24 (600)	8609.260



Walls

Divider panels/partitions



The divider panel and module plate system

More options:

The cut-outs of a divider panel are individually equipped with module plates for 16-pole or 24-pole connectors, with module plates for cable entry and with solid module plates.

Faster assembly:

Usually only some of the total number of connector cut-outs are used. Thanks to the new divider panel technique, the cut-outs do not need to be covered individually. The solid module plate is used instead. The benefit—fewer plates, fewer screws, less assembly work.



Divider panel for module plates TS

With cut-outs for the installation of module plates for connectors or for cable entry, and also for the entry of busbar systems and other installed equipment. All-round, double fold for stability and to hold the seal. Thanks to the symmetry of the enclosure frame, divider panels may also be fitted at the rear, dimensions permitting. For mounting on the outer mounting level. This leaves the inner level free for further population.

Material:

Carbon steel, 14 ga (2.0 mm)

Surface finish:

Zinc-plated

Configuration:

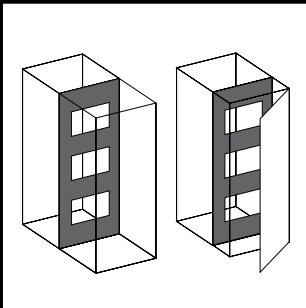
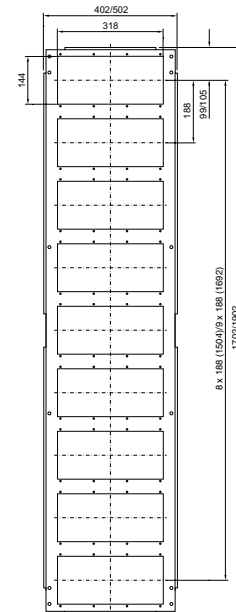
Assembly parts and multi-tooth screws M5 x 12 mm for mounting the module plates

Note:

Notches in the corners and half-way up the sides permit the use of angular baying brackets and baying brackets, even with a divider panel fitted.

Accessories:

- Module plates, see page 569
- Cover with door, see page 570
- Baying attachment (8800.470) for enclosures with fitted divider panel, see page 577



For enclosures		Number of cut-outs	Part No.
Height inches (mm)	Depth inches (mm)		
71 (1800)	20 (500)	9	8609.100
71 (1800)	24 (600)	9	8609.110
79 (2000)	20 (500)	10	8609.120
79 (2000)	24 (600)	10	8609.130

Divider panels/partitions

Module plate

Material:

Carbon steel, 14 ga (2.0 mm)

Surface finish:

Zinc-plated

Configuration:

Seal

Design	Cut-outs	Packs of	Part No.
Solid	–	1	8609.160
For 16-pole connectors	4	1	8609.150
For 24-pole connectors	4	1	8609.140
For cable entry	1	1	8609.170
For cable entry grommets	4	1	8609.190
With cable sleeve	1	1	8609.390

Solid

For sealing unused cut-outs. Easily machined for individual cut-outs.

for 16/24-pole connectors

With cut-outs to accommodate connectors. In addition to mounting on divider panels, module plates may also be attached to the 25 mm pitch pattern of the enclosure and to the rails of the TS/PS system.

For cable entry

For the entry of pre-assembled cables. Sealed, secure routing is achieved via adjustable angle brackets with inserted foam cable clamp strip. Attachment bracket, punched, for cable clamping.

For cable entry grommets

For mounting on the divider panel for module plates TS. Slide the grommets into the cut-outs, slide the clamp plate with seal down over them, and screw-fasten.

With cable sleeve

For 0.4" – 2.6" (10 – 65 mm) cable diameters. The flexible grommet adapts to the cable's bending radius.

Accessories:

- Adaptor, cover plate, see page 570
- Connector gland for connector cut-outs, see page 718
- Connector gland sealing frame and sealing module, see page 720

Accessories:

Cable tie for fast assembly 2597.000, see page 726

Also required:

- Cable entry grommets, see page 708 or
- Connector grommets, see page 708



Walls

Divider panels/partitions



Adaptor for connector cut-outs

For using connectors with varying numbers of poles.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Seal for adaptor and mounting accessories

For reduction	Packs of	Part No.
From 24 to 16 poles	5	2479.000
From 24 to 10 poles	5	2480.000
From 24 to 6 poles	5	2481.000
From 16 to 10 poles	5	2401.000
From 16 to 6 poles	5	2402.000



Cover plate for connector cut-outs

For unused cut-outs.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Seal and mounting accessories

For	Packs of	Part No.
24-pole cutouts	20	2477.000
16-pole cutouts	20	2478.000



Cover with door for TS

- To protect and finish off connectors or other installed equipment.
- Optional cable entry from above or below.

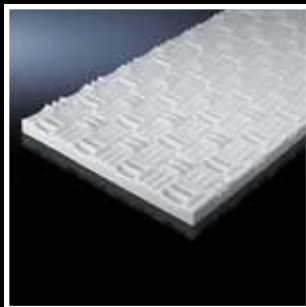
Material:
- Cover: Carbon steel, 16 ga (1.5 mm)
- Door: Carbon steel, 14 ga (2.0 mm)

Color:
RAL 7035

For enclosures		Part No.
Height inches (mm)	Depth inches (mm)	
79 (2000)	20 (500)	8609.020
79 (2000)	24 (600)	8609.030

Configuration:
- Cover
- Door with locking rod and double-bit lock insert
- 1 cover plate for top or bottom.

Accessories:
- Lock inserts, version F, see page 607.
- Comfort handle, see page 601.
- 180° hinge, see page 611.



Noise protection kit for TS

Noise insulating mats for equipping or retrofitting enclosures. Using self-adhesive back, the noise insulating mats are easily attached to existing surfaces. The kit is designed to reduce noise from the roof, sides and rear of an enclosure with dimensions HWD 79" x 32" x 32" (2000 x 800 x 800 mm). Other dimensions can be accommodated by cutting to size.

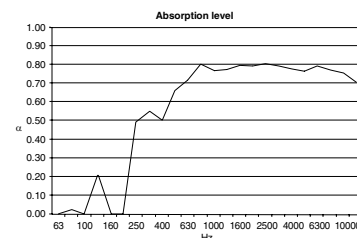
Material: Soft foam based on melamine resin, 0.8" (20 mm)

Color: Pale grey

Configuration: Spacer bolts for sound insulation of the roof plate

Material category: B1 to DIN 4102

For encl. W x H x D inches (mm)	Packs of	Part No.
32 x 79 x 32 800 x 2000 x 800 mm)	1 set	7824.650



Absorption level α : share of absorbed output, 1 = 100% (averaged).
Averaged noise reduction (comparison source, 50 Hz – 20 kHz): 39" (1 m) standard distance, averaged level

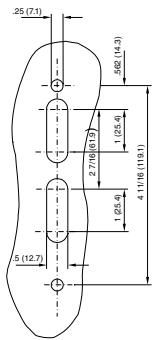
Isolator door locking

Flange mount disconnect locking

For safety locking of enclosures and bayed suites in conjunction with up to 200A disconnect switches and up to 400A circuit breaker operating mechanisms.¹⁾

- Allen Bradley 1494 F-M1/P1/S1 and 140 U-K-FCX04
- Square D 9422 A1
- ITE Siemens Max-Flex series/FHOH (only available in the USA)
- General Electric TDA Type 1 and 2
- Moeller NZM-XSHGVR 12-NA

To complete the assembly you must order 4911.000 (see below) and the required interconnecting rods for bayed suites.



Cut-out for main switch

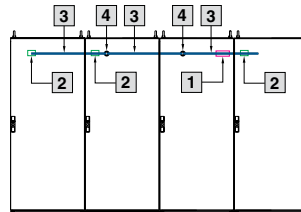
Main door locking	Part No.
For TS	8611.310

Note:

8611.310 includes interlock activator (4912.000 [see below]). Included with master flange mount disconnect cabinet.

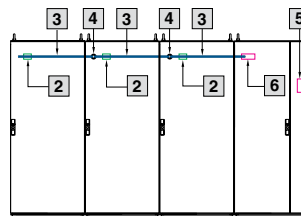
¹⁾ May work with some circuit breaker operating mechanisms greater than 400A.

Non-FMD door locking



- 1** Interlock activator, installation in enclosure with main switch
- 2** Adjacent door locking, installation in adjacent enclosure
- 3** Interconnecting rod
- 4** Connection component (included in the supply of interconnecting rod)

FMD door locking



- 5** FMD main door lock
- 6** Interlock activator, installation in the main enclosure (included in the supply of the FMD main door lock position 5).



Door interlocking for bayed suites

For extending the door lock of **commercially available main switches** to TS bayed suites. Adjacent door cannot be opened until the main door has been opened.

The main switch can be positioned anywhere in the suite; its function is independent from the door hinge position. Subsequent locking of the adjacent doors in the suite is possible: They are thus automatically included in locking operation.

- 1** Interlock activator
(Fitted in the enclosure with main switch and additionally in every fourth adjacent enclosure)

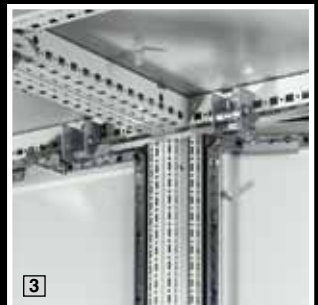
- 2** Adjacent door locking
(Installation in adjacent enclosure)

- 3** Interconnecting rods
To extend locking from the main enclosure to the adjacent enclosures of a bayed suite. An interconnecting rod corresponding to the width of the enclosure is required for each adjacent enclosure.

	Part No.
Interlock activator	4912.000

Adjacent door locking	Part No.
1 Door	4911.000
2 Door	4911.100

For enclosure width inches (mm)	PU	Part No.
24 (600)	10	4916.000
32 (800)	10	4918.000
47 (1200)	10	4920.000



Isolator door locking



TS disconnect module

The TS disconnect module easily converts a single door standard TS modular enclosure into a flange-mount disconnect enclosure. Compatible with the following disconnects:

- Allen Bradley 1494 F-M1/P1/S1 and 140 U-K-FCX04
- Square D 9422 A1
- ITE Siemens Max-Flex series/FHOH (only available in the USA)
- General Electric TDA Type 1 and 2
- Moeller NZM-XSHGVR 12-NA

Benefits:

- Compact design width of 3.9" (100 mm)
- Mounted in place of a standard side wall on a single door TS enclosure
- May be mounted on the left or right side of a TS enclosure
- The TS mounting panel infill (part number 4590.700/ 4591.700) may be used to increase the internal mounting panel surface by approximately 14%

Material:

Carbon steel

- | | |
|--|---|
| 1 Interlock activator | 4 Connection component |
| 2 Adjacent door locking (single door) | 5 Main door latch |
| 3 Interlocking rod | 6 Adjacent door locking (two door) |

Width inches (mm)	Height inches (mm)	Depth inches (mm)	Part No.
4 (100)	71 (1800)	16 (400)	8900.840
4 (100)	71 (1800)	20 (500)	8900.850
4 (100)	79 (2000)	20 (500)	8900.050
4 (100)	79 (2000)	24 (600)	8900.060

Surface finish:

Powder-coated, RAL 7035

Protection rating:

UL Type 12 / IP 55 to EN 60 529

Configuration:

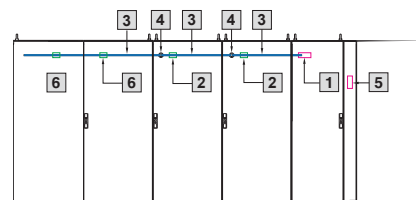
Disconnect module with assembly hardware, main door interlock hardware

Accessories:

Mounting panel infill

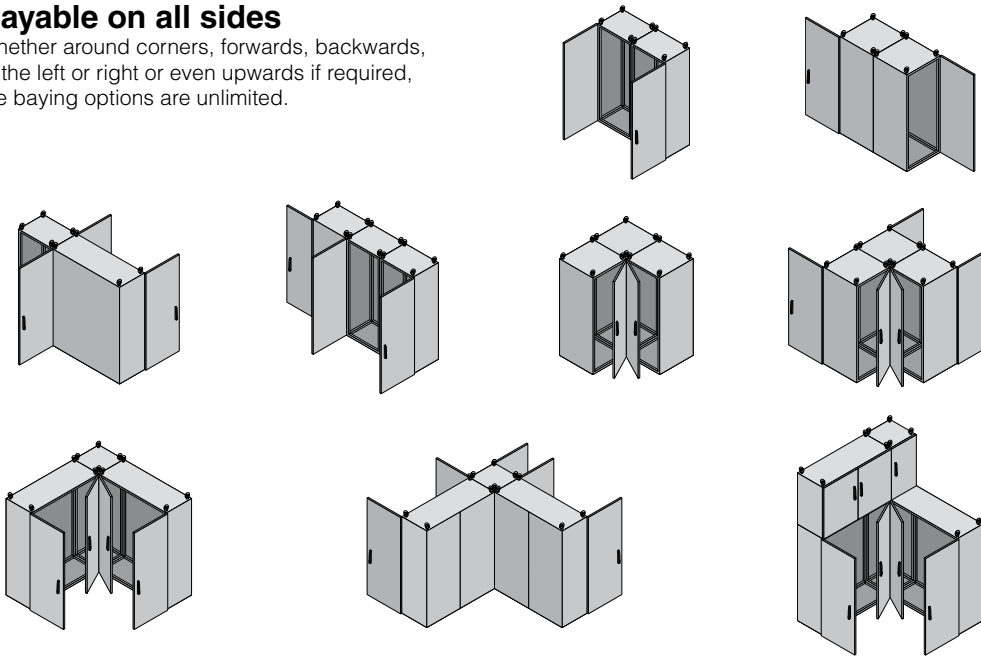
Also required:

Interlock activator, 4912.000, for enclosure with TS disconnect module and additionally every fourth adjacent enclosure. Adjacent door locking, 4911.000, 4911.100, for every adjacent enclosure. Interconnecting rods, for every adjacent enclosure in the appropriate enclosure width.



Bayable on all sides

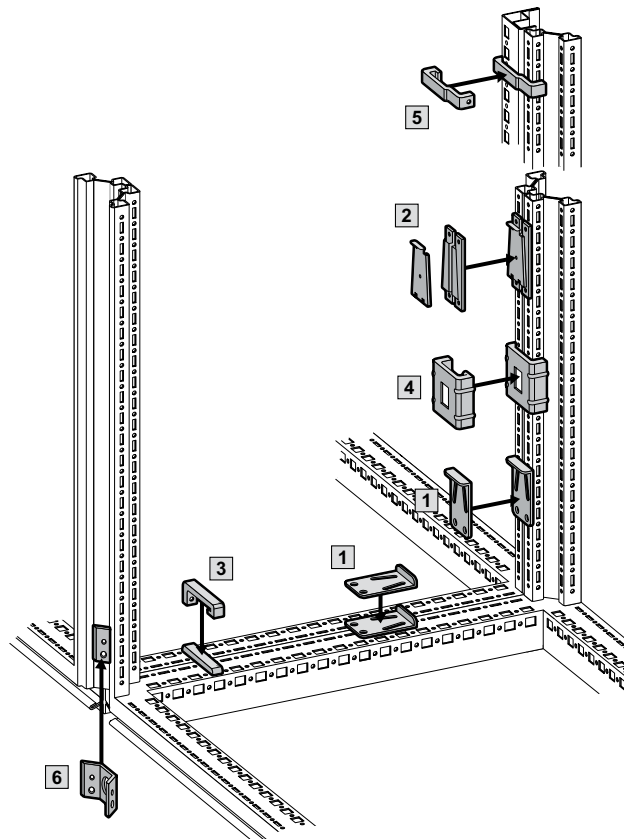
Whether around corners, forwards, backwards, to the left or right or even upwards if required, the baying options are unlimited.



For baying at the installation site or for provisional siting in the workshop

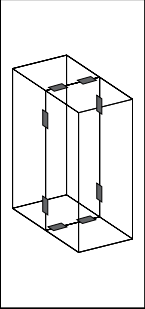
- 1 Quick-fit baying clamps, one-piece
- 2 Quick-fit baying clamps, three-piece
- 3 Baying clamp, horizontal
- 4 Baying clamp, vertical for TS/TS
- 5 Baying clamp, vertical for TS/PS
- 6 Baying connectors, external

Notes on the transportation of bayed enclosures, see page 575.



Baying system

Enclosure suites



Quick-fit baying clamp, one-piece for TS/TS

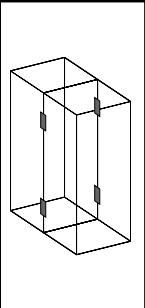
Simply attach the screws, insert the quick-fit baying clamp, tap in with a hammer and lock.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Packs of	Part No.
6	8800.500



Quick-fit baying clamp, three-piece for TS/TS

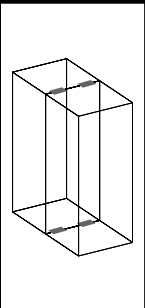
Simply locate, connect with the lock plate, and secure.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Packs of	Part No.
6	8800.590



Baying clamp, horizontal for TS/TS, TS/PS

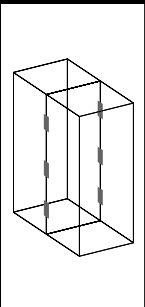
For mounting on the horizontal enclosure sections.

Material:
Cast steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Packs of	Part No.
6	8800.400



Baying clamp, vertical for TS/TS

For mounting on the vertical enclosure sections.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Packs of	Part No.
6	8800.410

Baying clamp, vertical for TS/PS

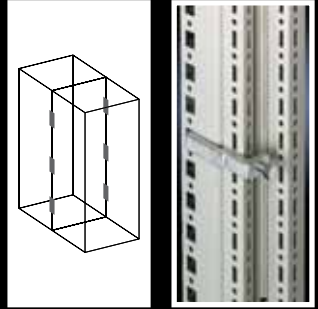
For mounting on the vertical enclosure sections.

Material:
Cast steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Packs of	Part No.
6	8800.420

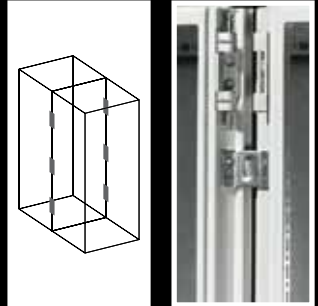


Baying connectors, external for TS/TS

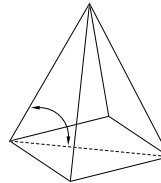
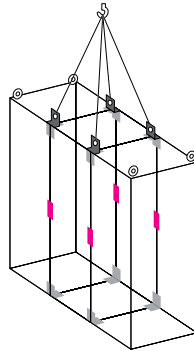
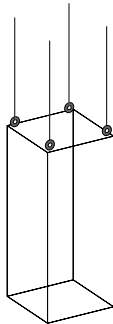
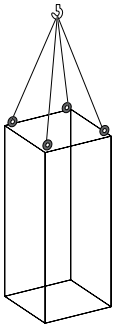
For mounting on the vertical enclosure sections.
Simply position on the outside and screw-fasten either from the inside or outside.

Configuration:
Assembly parts

Material/surface finish	Packs of	Part No.
Carbon steel, zinc-plated	6	8800.490
Stainless steel Type 304	6	8700.000



Note on the transportation of bayed enclosures



Individual enclosures may be safely transported using the eyebolts included with the supply. For symmetrical loads, the following maximum permissible loads apply:
for 45° cable pull angle 1079 lbf (4,800 N),
for 60° cable pull angle 1439 lbf (6,400 N),
for 90° cable pull angle 3057 lbf (13,600 N).

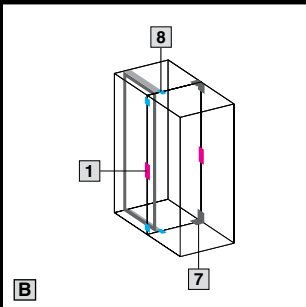
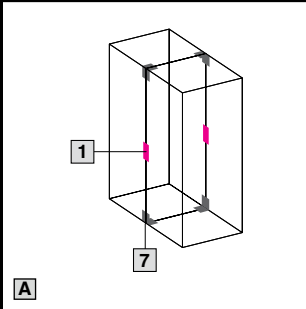
Note:
The eyebolts must be aligned in the direction of the cable pull. For larger baying combinations, we recommend the use of a transport base/plinth, see page 540.

For the enclosure combination with angular baying brackets, quick-fit baying clamps and combination angles shown here, the load capacity with a cable pull angle of 60° is as follows: for the left-hand enclosure 1574 lbf (7,000 N), for the central enclosure 3147 lbf (14,000 N), for the right hand enclosure 1574 lbf (7,000 N).

The cable pull angle between the roof plate and the cable has a significant influence on the total permissible load. The cable pull angle must not be less than 45°, and where possible, should be less than 60°.

Baying system

Enclosure suites



When transporting bayed enclosures

Note:

- In addition, the outer baying connector (see page 575), can be used.
- When transporting large, heavy enclosure combinations by crane, we additionally recommend the use of combination angles 4540.000, see page 577.

Also required:

For protection rating IP 55:
One connector/clamp is required half-way up the enclosure height, see page 574
Baying clamp, see pages 574/575

Notes on the transportation of bayed enclosures, see page 575

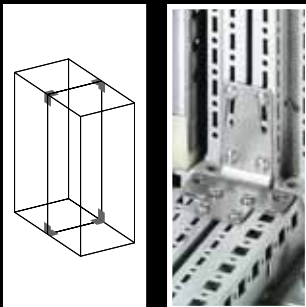
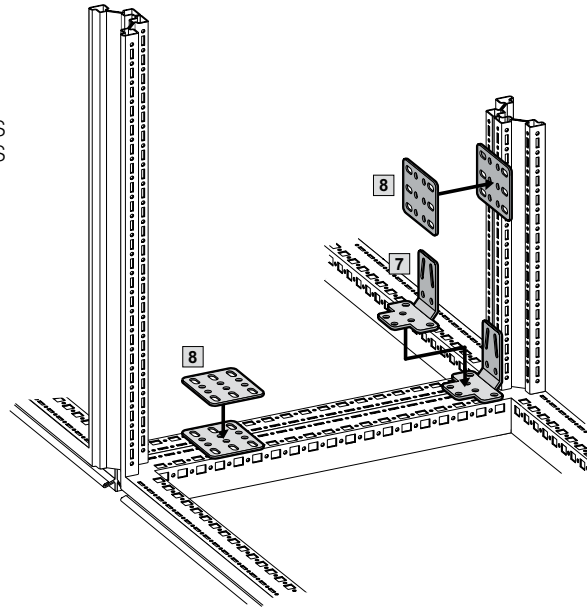
A

- 1 2 quick-fit baying clamps **8800.500** (see page 574)
- 7 4 angular baying brackets **8800.430** (see page 576)

B

- 1 2 quick-fit baying clamps **8800.500** (see page 574)
- 7 2 angular baying brackets **8800.430** (see page 576)
- 8 4 baying brackets **4582.500** (see page 577) if the angular baying brackets cannot be fitted in the foremost installation position due to installed equipment such as large swing frames.

- 7 Baying bracket for TS/TS
- 8 Baying bracket for TS/TS and TS/PS



Angular baying bracket for TS/TS

For a stable connection when transporting bayed enclosure suites.

Screw-fastening either

- Horizontally and vertically with 8 screws
- Horizontally with 2 screws and M8 threaded blocks, vertically with 4 screws is supported.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Packs of	Part No.
4	8800.430

Baying bracket for TS/TS and TS/PS

For additional stabilization, or in cases where mounting panel brackets, swing frame or busbar supports prevent the installation of angular baying brackets.

Material:

Carbon steel

Surface finish:

Zinc-plated

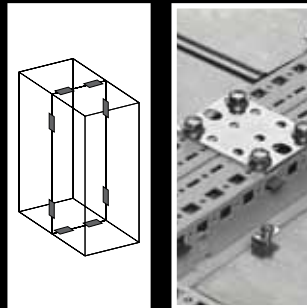
Configuration:

Assembly parts

Packs of	Part No.
4	4582.500

Accessories:

For mounting on the vertical TS enclosure section: Snap-on nut M8, 8800.808, see page 666



Angular baying bracket

The alternative to baying bracket 4582.500 and for individual interior installations.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

24 hex screws M8 x 16 mm

Packs of	Part No.
4	4582.000

Also required:

For mounting on:

- Horizontal TS enclosure section, captive nuts/ threaded blocks M8, see page 673
- Vertical TS enclosure section, snap-on nut M8, 8800.808, see page 666



Combination angle

For optimum distribution of tensile forces during transportation of bayed enclosures by crane.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Packs of	Part No.
4	4540.000

Accessories:

Top baying cover, see page 578
Notes on the transportation of bayed enclosures, see page 575



Baying attachment, vertical for TS/TS with divider panel

Only suitable for mounting in conjunction with the angle brackets of the divider panel (included with the supply).

Material:

Carbon steel

Surface finish:

Zinc-plated

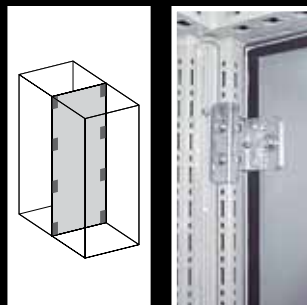
Configuration:

Assembly parts

Packs of	Part No.
8	8800.470

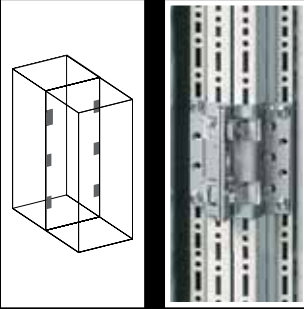
Note:

May also be used for side or rear wall attachment/ fastening of enclosures. In such cases, additional holes must be drilled in the side or rear panel.



Baying system

Enclosure suites



Baying attachment, vertical for TS/TS

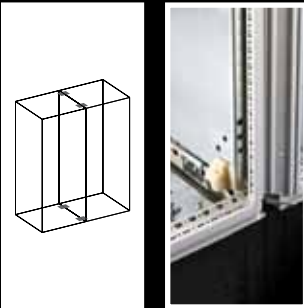
For baying two populated enclosures on the vertical enclosure section. Simply locate into the vertical TS punchings, secure and connect both brackets by using the hex screws (supplied loose). Using the fastening bolts, the enclosure is pulled into a defined end position, with a height or side offset of up to ± 0.08 " (2 mm).

Packs of	Part No.
4	8800.670

Material:
Carbon steel, 11 ga (3.0 mm)

Surface finish:
Zinc-plated

Configuration:
Assembly parts



Baying clamp, horizontal for back-to-back mounting

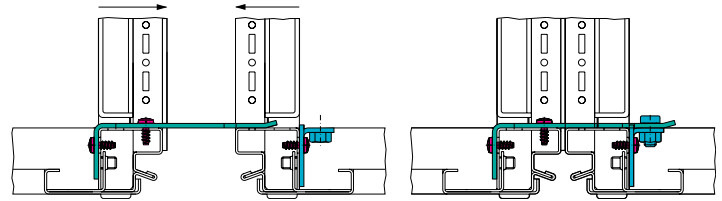
Two-piece, for assembly of enclosures with mounting panel in the rearmost installation position.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Packs of	Part No.
4	8800.170



Baying cover, top

A cover with two end caps may additionally be clipped over the seal between the two enclosures. This prevents dirt and liquid from collecting on the baying seal.

Material:
– Cover section: Carbon steel or stainless steel
– End caps: Plastic

Surface finish:
Spray-finished

Configuration:
– Cover section
– 2 end caps

For enclosure depth inches (mm)	Packs of	RAL 7035	Stainless steel Type 304	Part No.
16 (400)	1	■	–	8800.840
20 (500)	1	■	–	8800.850
24 (600)	1	■	–	8800.860
32 (800)	1	■	–	8800.880
39 (1000)	1	■	–	8800.892
16 (400)	1	–	■	8700.140
20 (500)	1	–	■	8700.150
24 (600)	1	–	■	8700.160

Note:
May be fitted in the width with enclosure suites bayed back-to-back. Can be used in conjunction with dust guard trim, see page 620. Cannot be used in conjunction with Type 4/4X baying kits.



Baying connectors, external for TS/TS with side panels

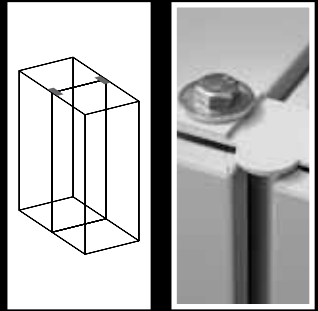
For retrospective baying of enclosures with screw fastened or lockable side panels.

Material:
Carbon steel

Color:
RAL 7035

Configuration:
Assembly parts

Packs of	Part No.
4	7824.540



Compensating panel for TS

The panel is screw-fastened to the outside of the enclosure frame and serves as an infill panel when baying 79" (2000 mm) high enclosures of varying depths. No seal between the enclosures.

Material:
Carbon steel

Color:
RAL 7035

Configuration:
Assembly parts

Depth difference inches (mm)	Part No.
4 (100)	7067.100 ¹⁾
8 (200)	7067.200

¹⁾ Extended delivery times.



Baying kit for KL, AE

Special screws and nuts

- For fast, simple assembly without thread-tapping
- Compression of the seal is limited to a predefined level, to ensure a long-lasting, permanent seal between enclosures

Seal, self-adhesive

- Comprised of bayable sealing elements and corner pieces, for individual adaptation to various enclosure sizes

One pack is sufficient for a baying point up to H x D = 32" x 14" (800 x 350 mm)

Configuration:
– Sealing elements
– Assembly parts

Packs of	Part No.
4	1199.100



Baying system

TS 8 corner enclosures



TS 8 corner enclosure

The corner enclosure and the supplied components will accommodate the various baying options of the TS 8 frame on all outer surfaces. Fitted with a rear panel and an asymmetrical side panel (see page 562, mounted on the l/h side), the corner enclosure also permits the option of baying in both the width and depth. The gland plates are aligned parallel to the rear panel. In TS 8 enclosures with a square footprint, the gland plates may also be rotated through 90°. The baying system is identical to all other TS 8 enclosures.

Material:

Carbon steel, 16 ga (1.5 mm)

Surface finish:

- Enclosure frame, roof, rear wall and side panel: Dipcoat primed, powder-coated on the outside, textured paint
- Gland plates: Zinc-plated

Color:

RAL 7035

Configuration:

- Enclosure frame
- Roof
- Rear wall (on the longest side)
- Side panel, asymmetrical
- Gland plates (divided in a longitudinal direction)

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.
71 (1800)	16 (400)	16 (400)	8484.300
71 (1800)	20 (500)	16 (400)	8584.300
71 (1800)	24 (600)	16 (400)	8684.300
71 (1800)	20 (500)	20 (500)	8585.300
71 (1800)	24 (600)	20 (500)	8685.300
71 (1800)	24 (600)	24 (600)	8686.300
79 (2000)	16 (400)	16 (400)	8404.300
79 (2000)	20 (500)	16 (400)	8504.300
79 (2000)	24 (600)	16 (400)	8604.300
79 (2000)	20 (500)	20 (500)	8505.300
79 (2000)	24 (600)	20 (500)	8605.300
79 (2000)	32 (800)	20 (500)	8805.300
79 (2000)	24 (600)	24 (600)	8606.300
79 (2000)	32 (800)	24 (600)	8806.300
87 (2200)	24 (600)	24 (600)	8626.300

Delivery times available on request.

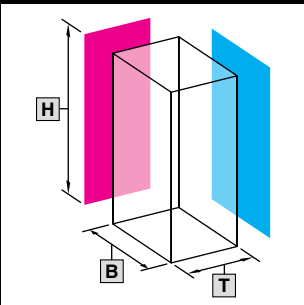
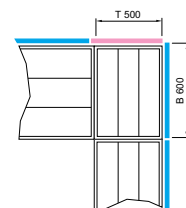
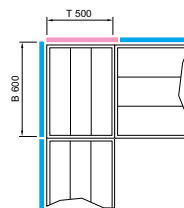
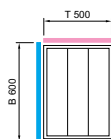
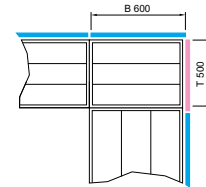
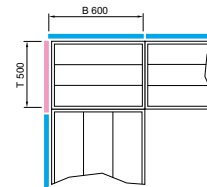
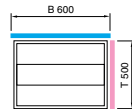
Accessories:

- TS base/plinth, see page 532
- Base/plinth infill panel, see page 537

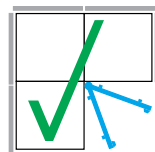


Baying examples TS 8 corner enclosure

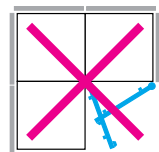
B = Width
T = Depth



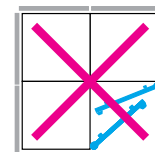
Note:



Correct



Incorrect



Incorrect

Door variants

Glazed door

for TS

Instead of a carbon steel door or rear panel.

Material:

- Front panel: Extruded aluminum section
- Corner pieces: Die-cast zinc
- Viewing window: Single-pane safety glass, 3 mm

Surface finish:

Powder-coated

Color:

- Frame and corner pieces: RAL 7035
- Viewing window (printed mask on the inside): RAL 7015

Protection rating:

IP 55 to IEC 60 529

Configuration:

- Viewing door frame with safety glass
- Locking rod with double-bit insert
- 180° hinges (4)
- Visible area: W – 5.5" (140 mm), H – 6.3" (160 mm).

For enclosures		Part No.
Height inches (mm)	Width inches (mm)	
71 (1800)	24 (600)	8610.680
71 (1800)	32 (800)	8610.880
79 (2000)	24 (600)	8610.600
79 (2000)	32 (800)	8610.800
87 (2200)	24 (600)	8610.620
87 (2200)	32 (800)	8610.820

Also required:

When mounting instead of the rear panel:
Lock components for frame 8800.040, see below

Accessories:

- Lock inserts, version F, see page 607
- Comfort handle, see page 601



Handle adaptor

The handle adaptor compensates for the design chamfer in the door profile to enable installation of the comfort handle.

Material:

Plastic

Configuration:

- 1 adaptor plate
- 1 extension for drive
- 2 assembly screws

For glazed door TS

Color	Part No.
RAL 7035	8611.080

For designer door IW and PC-TS, bottom door

Color	Part No.
RAL 7035	8611.300



Lock component

for frame TS

For retrofitting a glazed door or carbon steel door in place of a rear panel.

Material:

Die-cast zinc

Configuration:

Assembly screws

Packs of	Part No.
4	8800.040



Door/lock

Door variants



Carbon steel door for TS

To replace existing doors. With 180° hinges and swivel handle with security lock no. 3524 E, in exchange for comfort handle.

Material:

Carbon steel

Color:

RAL 7035

Protection rating:

IP 55 to IEC 60 529

Configuration:

Assembly parts

Accessories:

- Comfort handle, see page 601
- 180° hinge for bayed TS enclosure suites with comfort handle, see page 611

For enclosures		Part No.
Height inches (mm)	Width inches (mm)	
79 (2000)	24 (600)	7824.205
47 (1200)	32 (800)	7824.127
79 (2000)	32 (800)	7824.207
87 (2200)	24 (600)	7824.225
87 (2200)	32 (800)	7824.227



Carbon steel door, vented for TS

With 180° hinges and swivel handle with security lock no. 3524 E, in exchange for comfort handle. For optimum air throughput in network enclosures with a high proportion of active components. Slotted surface with air inlet opening > 78%.

Material:

Carbon steel

Color:

RAL 7035

Configuration:

Assembly parts

For enclosures		Part No.
Height inches (mm)	Width inches (mm)	
71 (1800)	24 (600)	7824.183
79 (2000)	32 (800)	7824.203
79 (2000)	32 (800)	7824.204
87 (2200)	24 (600)	7824.223
87 (2200)	32 (800)	7824.224

Accessories:

- Comfort handle, see page 601
- 180° hinge for bayed TS enclosure suites with comfort handle, see page 611



Glazed door, vented for TS

With 180° hinges and comfort handle with security lock no. 3524 E. For optimum air throughput in network enclosures with a low proportion of active components.

Material:

- Front panel: Carbon steel
- Viewing window: Single-pane safety glass 3 mm
- Slotted surfaces (SWG-6.7 hexagon) at the sides for air inlet

Surface finish:

Spray-finished

Color:

RAL 7035

For enclosures		Part No.
Height inches (mm)	Width inches (mm)	
79 (2000)	24 (600)	7824.201
79 (2000)	32 (800)	7824.202
87 (2200)	32 (800)	7824.222

Configuration:

Assembly parts

Accessories:

180° hinge for bayed TS enclosure suites with comfort handle, see page 611

Carbon steel door, vertically divided

for TS

With 130° hinges and locking rod, including comfort handle for semi-cylinder with security lock no. 3524 E. Thanks to the minimal rotation radius of the individual doors, the distance between individual bayed enclosure suites may be reduced. The extensive door perforations additionally support climate control of the installed equipment. Slotted surface with air inlet opening > 78%.

Material:

Carbon steel

Protection rating:

- IP 55 to IEC 60 529 (unvented)
- IP 20 to IEC 60 529 (vented)

Color:

RAL 7035

Configuration:

Assembly parts

Accessories:

180° hinge 8800.190, see page 611

Vented

For enclosures		Part No.
Height inches (mm)	Width inches (mm)	
79 (2000)	24 (600)	7824.360
87 (2200)	24 (600)	7824.362
79 (2000)	32 (800)	7824.380
87 (2200)	32 (800)	7824.382

Unvented¹⁾

For enclosures		Part No.
Height inches (mm)	Width inches (mm)	
79 (2000)	24 (600)	7816.360
87 (2200)	24 (600)	7816.362
79 (2000)	32 (800)	7816.380
87 (2200)	32 (800)	7816.382

¹⁾ Without tubular door frame
Tubular door frame available on request.



Carbon steel glazed door, vertically divided

for TS

With underlaid viewing panel, 4-point locking rod and comfort handle for semi-cylinder with security lock 3524 E. The divided design allows room-optimized siting of the enclosures coupled with the best possible access, thanks to a reduced distance between the individual bayed enclosure suites. Max. door opening angle thanks to pre-integrated 180° hinges.

Material:

- Front panel: Carbon steel
- Viewing window: Single-pane safety glass, 3 mm

Surface finish:

Powder-coated

Color:

RAL 7035

Protection rating:

IP 55

Configuration:

Assembly parts

Note:

Height 87" (2200 mm) cannot be combined with swing frame 45 U.

For enclosures		Part No.
Height inches (mm)	Width inches (mm)	
79 (2000)	32 (800)	7824.280
87 (2200)	32 (800)	7824.282



Door/locks

Door variants



All-glass door, vertically divided for TS

With 180° hinges and locking rod including comfort handle for semi-cylinder with security lock no. 3524 E. Thanks to the minimal rotation radius of the individual doors, the distance between individual bayed enclosure suites may be reduced.

Material:

- Frame elements: Aluminum
- Viewing window: Single-pane safety glass, 3 mm

For enclosures		Part No.
Height inches (mm)	Width inches (mm)	
79 (2000)	32 (800)	7824.490

Color:

- Frame elements: RAL 7035
- Viewing windows: Tinted

Configuration:

Assembly parts

Note:

Not to be used in conjunction with a swing frame.



Lockable and adjacent door for TS

For example, if two 16" (400 mm) doors instead of one 32" (800 mm) wide door are used to comply with escape routes.

Material:

Carbon steel

Surface finish:

Dipcoat primed, powder-coated on the outside

Configuration:

2 doors, including hinges and lock parts

For enclosures		Color RAL	Part No.
Height inches (mm)	Width inches (mm)		
79 (2000)	32 (800)	7035	8801.450

Note:

Enclosure without door (8806.512), see page 99

Accessories:

Lock system, see page 601



Protective bar for TS

As an alternative to a door, e.g. in sealed switch rooms. Prevents people from falling into the open enclosure frame. Easily removable for maintenance purposes. For 47" (1200 mm) enclosure width; may be shortened or divided for other sizes.

Material:

Wood, spray-finished, RAL 3000

For encl. width inches (mm)	Length inches (mm)	Packs of	Part No.
47 (1200)	43 (1090)	1	8801.010

Encl. width inches (mm)	Clearance between encl. frame (B3) inches (mm)	Length protective bar (L) inches (mm)
16 (400)	12 (312)	11 (290) ¹⁾
24 (600)	20 (512)	19 (490) ¹⁾
32 (800)	28 (712)	27 (690) ¹⁾
39 (1000)	36 (912)	35 (890) ¹⁾
47 (1200)	44 (1112)	47 (1090)

¹⁾ Protective bar 8801.010, 47" (1090 mm) needs to be shortened



Holder for protective bars

For location into the vertical TS section. The protective bar is simply inserted.

Material:

Carbon steel

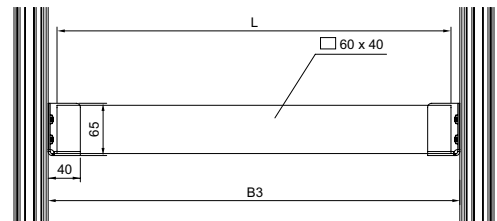
Surface finish:

Zinc-plated

Configuration:

Assembly screws

Packs of	Part No.
2	8801.000



Door variants

Trim frame

for TS

To conceal the TS 8 front frame in enclosures without a door. Can be combined with large swing frames. Possible application areas include:

- Studio technology
- Electronic configuration

Material:

Carbon steel

Color:

RAL 7035

Configuration:

Assembly parts

For enclosures		Part No.
Height inches (mm)	Width inches (mm)	
79 (2000)	24 (600)	7824.130
79 (2000)	32 (800)	7824.132

Note:

The trim frame conceals the side system punchings in the inner mounting level. The TS punched sections with mounting flange 0.9" x 2.9" (23 x 73 mm) may be used for installation (see page 653).



Interior door

with mounting frame for AE IP 69K

For the installation of control and display components. Mounting frame, depth-adjustable for a distance between the outer surface and the inside of the outer door of 1.4" to 3.3" (35 to 85 mm), 3.1" (80 mm) with 1101.010/.110.

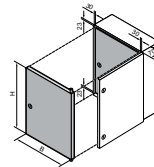
Material: Carbon steel, 16 ga (1.5 mm)

Color: RAL 7035

Configuration:

- Mounting frame
- Door with cam lock and screwdriver insert
- Assembly parts

For AE enclosure	H inches (mm)	W (B) inches (mm)	Part No.
1101.010/.110	10 (260)	6 (160)	1101.910
1101.020/.120	13 (330)	13 (330)	1101.920
1101.030/.130	23 (580)	13 (330)	1101.930
1101.040/.140	23 (580)	23 (580)	1101.940



Dead front kits

for WM

Provides a UL 1 safety barrier and mounting surface towards the front of WM wallmount enclosures. Easy installation and can be retrofitted to existing enclosures.

Material:

Carbon Steel, RAL 7035 (light grey)

Configuration:

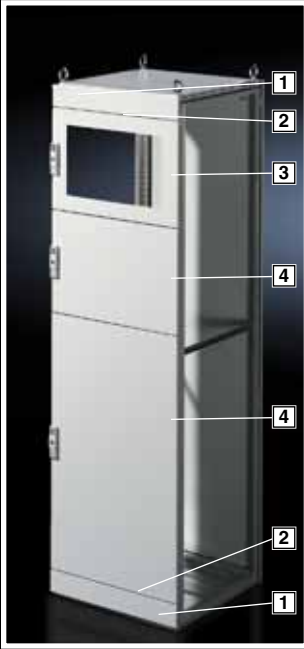
Mounting brackets, panel, and hardware

Enclosure Height inches (mm)	Enclosure Width inches (mm)	Part No. Carbon Steel
12 (305)	12 (305)	DFK1212C
16 (406)	12 (305)	DFK1612C
16 (406)	16 (406)	DFK1616C
16 (406)	20 (508)	DFK1620C
20 (508)	16 (406)	DFK2016C
20 (508)	20 (508)	DFK2020C
20 (508)	24 (610)	DFK2024C
24 (610)	16 (406)	DFK2416C
24 (610)	20 (508)	DFK2420C
24 (610)	24 (610)	DFK2424C
24 (610)	30 (762)	DFK2430C
30 (762)	20 (508)	DFK3020C
30 (762)	24 (610)	DFK3024C
30 (762)	30 (762)	DFK3030C
36 (914)	24 (610)	DFK3624C
36 (914)	30 (762)	DFK3630C
36 (914)	36 (914)	DFK3636C
42 (1067)	30 (762)	DFK4230C
42 (1067)	36 (914)	DFK4236C
48 (1219)	36 (914)	DFK4836C
60 (1524)	36 (914)	DFK6036C



Door/locks

Modular front design for TS 8



Modular front design

for 8606.512:

HWD 79" x 24" x 24" (2000 x 600 x 600 mm),

for 8806.512:

HWD 79" x 32" x 32" (800 x 2000 x 600 mm), see page 99, and all other 24" and 32" (600 and 800 mm) wide TS 8 enclosures instead of a door or rear panel, provided the modular front is positioned in a suite between two enclosures with normal doors. If positioned as a free-standing enclosure or at the end of an enclosure suite, special side panels such as 8106.512 (see page 588) are required. The partial doors with and without viewing panels can be combined with cross members as required. A trim panel and a cross member are each required at the top and bottom. The requirements for your individual front design and the considerations which must be taken into account are illustrated on the sample configuration.

Protection rating:

With a completed enclosure IP 55 to IEC 60 529, complies with NEMA 12

Also required:

- 1 Trim panels, see page 587 or top-hinged trim panel, see page 586
- 2 Cross member, see page 587

Accessories:

- 3 Partial door with viewing window, see page 587
- 4 Partial door without viewing window, see page 587



1 Trim piece, hinged at the top for TS

For the installation of control and display components, in conjunction with
 – Modular front design
 – Protective bar TS

Material:

Carbon steel, 14 ga (2.0 mm)

Color:

RAL 7035

Configuration:

Hinges, cam locks with double-bit insert and assembly parts

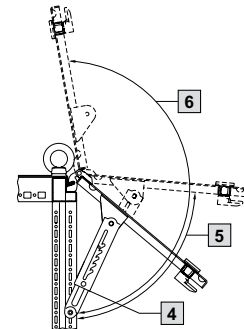
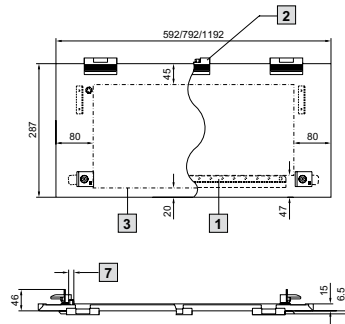
Height inches (mm)	Width inches (mm)	Part No.
12 (300)	26 (600)	8801.230
12 (300)	32 (800)	8801.240
12 (300)	47 (1200)	8801.250

Note:

Not in combination with top-mounted module for TS (see page 621)

Accessories:

- Stay for trim panel, hinged at the top, see page 588.
- Lock inserts, type A, see page 607
- Protective bar for TS, see page 584



- 1 Only for width 32" (800 mm) and 47" (1200 mm)
- 2 Only for width 47" (1200 mm)
- 3 Usable interior area
- 4 Optional: Stay 8801.260

- 5 Maximum opening with stay approx. 85°
- 6 Maximum opening without stay approx. 190°
- 7 Grounding bolt M8

Modular front design for TS 8

1 Trim panel for TS

Required as upper and lower height trim.

Material:
Carbon steel, 14 ga (2.0 mm)

Color:
RAL 7035

Configuration:
2 trim panels, assembly parts

Also required:
Cross member for TS, see below

Height inches (mm)	Width inches (mm)	Part No.
4 (100)	24 (600)	8801.510
4 (100)	32 (800)	8801.110

2 Cross member for TS

For use as sealing member between:
– Trim panels
– Partial doors
– Trim piece, hinged at the top

Material:
Carbon steel

Color:
RAL 7035

Configuration:
Assembly parts

Width inches (mm)	Packs of	Part No.
24 (600)	5	8801.630
32 (800)	5	8801.830

3 4 Partial door for TS

Door may be hinged on the right or left. In the case of doors without viewing panel, 24" – 39" (600 – 1000 mm) high, monitor frame 2305.000 may be installed. Standard double-bit lock insert may be exchanged for lock inserts, type F, and from 24" (600 mm) height, for comfort handle.

Material:
Carbon steel, 14 ga (2.0 mm)

Color:
RAL 7035

Configuration:
Hinges and lock

Also required:
Cross member for TS, see above

Accessories:
– Monitor frame 2305.000, see page 595
– Lock inserts, version F, see page 607
– Comfort handle, see page 601

Solid

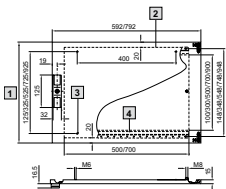
Height inches (mm)	Width inches (mm)	Part No.
8 (200)	24 (600)	8801.520
8 (200)	32 (800)	8801.120
16 (400)	24 (600)	8801.540
16 (400)	32 (800)	8801.140
24 (600)	24 (600)	8801.560
24 (600)	32 (800)	8801.160
32 (800)	24 (600)	8801.580
32 (800)	32 (800)	8801.180
39 (1000)	24 (600)	8801.500
39 (1000)	32 (800)	8801.100

With single-pane safety glass, 3 mm

Height inches (mm)	Width inches (mm)	Part No.
24 (600)	24 (600)	8801.570
24 (600)	32 (800)	8801.170
32 (800)	24 (600)	8801.590

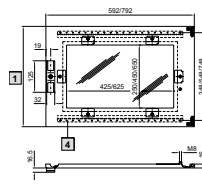
1 Height – 0.08" (2 mm)

2 Usable interior area



3 M6 bolt only for width 24" (600 mm)

4 Perforated strip only for width 32" (800 mm)



Door/locks

Modular front design for TS 8



Drawer for TS

For mouse and keyboard with a maximum width of 20"/28" (500/700 mm). A high level of protection is retained, even with the flap open. Standard double-bit lock insert may be exchanged for 27 mm lock inserts, type A, plastic handles, type B and T handles, type B.

Material:
Carbon steel

Color:
RAL 7035

Height inches (mm)	Depth inches (mm)	Part No.
8 (200)	24 (600)	8801.715
8 (200)	32 (800)	8801.915

Configuration:

Flap and assembly parts

Also required:

Cross member for TS, see page 587

Accessories:

- Lock inserts, 27 mm, version A, see page 607
- Plastic handle, type B, see page 606
- T handles, type B, see page 606



Side panels for modular front design

for TS

Attachment on the inside vertical enclosure frame section The 8106.235 side panel retainers (page 561) could conflict with the partial door fasteners.

Material:
Carbon steel, 16 ga (1.5 mm)

Surface finish:
Dipcoat primed, powder-coated on the outside, textured paint

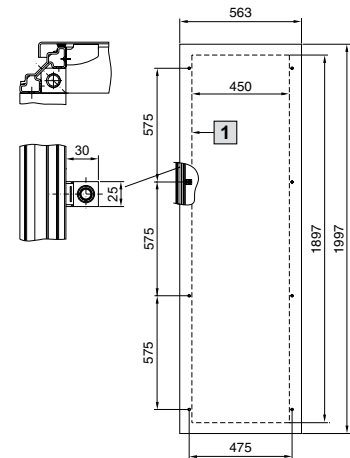
Color:
RAL 7035

Protection rating:
IP 55 to IEC 60 529

Configuration:
2 side panels, 16 retainers with automatic potential equalization

Note:
Can also be used in enclosures without modular front design.

For enclosure		Part No.
Height inches (mm)	Depth inches (mm)	
79 (2000)	24 (600)	8106.512



1 Usable interior area



Stay for trim panel, hinged at the top

5 pitch pattern positions up to a maximum opening of approx. 85°.

Material:
Carbon steel

Surface finish:
Zinc-plated

Packs of	Part No.
2	8801.260

Modular front design for Form 2-4

Partial doors for SV-TS

Door hinges with non-drilled internal fastening.
Door may be optionally hinged on the right or left.

Material:

Carbon steel, 14 ga (2.0 mm)

Surface finish:

Textured

For enclosure width 16" (400 mm)

Height inches (mm)	No. of locks required	Packs of	Part No.
6 (150)	1	1	9671.141
8 (200)	1	1	9671.142
10 (250)	1	1	9671.147
12 (300)	1	1	9671.143
16 (400)	1	1	9671.144
24 (600)	2	1	9671.146
32 (800)	2	1	9671.148
39 (1000)	3	1	9671.140
63 (1600)	3	1	9671.156
71 (1800)	3	1	9671.158
79 (2000)	3	1	9671.150

For enclosure width 24" (600 mm)

Height inches (mm)	No. of locks required	Packs of	Part No.
6 (150)	1	1	9671.161
8 (200)	1	1	9671.162
10 (250)	1	1	9671.167
12 (300)	1	1	9671.163
16 (400)	1	1	9671.164
24 (600)	2	1	9671.166
32 (800)	2	1	9671.168
39 (1000)	3	1	9671.160
63 (1600)	3	1	9671.176
71 (1800)	3	1	9671.178
79 (2000)	3	1	9671.170

Color:

RAL 7035

Configuration:

Hinges and assembly parts

Also required:

- Twist locks, see below
- Cross members for SV-TS, see page 591

For enclosure width 32" (800 mm)

Height inches (mm)	No. of locks required	Packs of	Part No.
6 (150)	1	1	9671.181
8 (200)	1	1	9671.182
10 (250)	1	1	9671.187
12 (300)	1	1	9671.183
16 (400)	1	1	9671.184
24 (600)	2	1	9671.186
32 (800)	2	1	9671.188
39 (1000)	3	1	9671.180
63 (1600)	3	1	9671.196
71 (1800)	3	1	9671.198
79 (2000)	3	1	9671.190



Twist lock

For installation in partial doors for SV-TS or in exchange for AE cam locks.

Material:

- Housing of fiberglass-reinforced plastic
- Bar made from PA

Color:

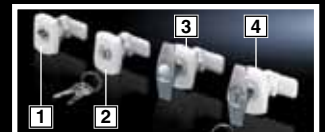
RAL 7035

Configuration:

- Enclosure
- Lock insert
- Bar
- Assembly parts

Design	Packs of	Part No.
1 With double-bit insert	1	9671.130
2 With cylinder insert, lock no. 3524 E	1	9671.132
3 With T handle	1	9671.134
4 With T handle and lock insert, lock no. 3524 E	1	9671.135
5 Fastener lug with end stop ¹⁾	2	9671.138

¹⁾ Must be used if the twist lock cannot be locked on the TS 8 frame



Door/lock

Modular front design for Form 2-4



Perforated mounting strip for partial doors SV-TS

For retrospective external mounting on SV-TS partial doors. The perforated mounting strips have a 25 mm pitch pattern of holes and may be used for individual mountings on the rear of the door, e.g. cable ducts, hose holders etc.

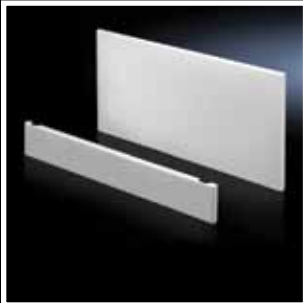
Hole diameter of perforated mounting strip: 0.18" (4.5 mm)

Material:
Carbon steel, 18 ga (1.0 mm)

Surface finish:
Zinc-plated

For incl. length inches (mm)	16 (400)	24 (600)	32 (800)
Length inches (mm)	12 (298)	20 (498)	27 (698)
For partial door height inches (mm)	6 – 32 (150 – 800)	6 – 32 (150 – 800)	6 – 32 (150 – 800)
Packs of	10	10	10
Part No.	9671.204	9671.206	9671.208

Configuration:
Assembly parts



Front trim panels for SV-TS (busbar compartment)

Required to conceal a 12" (300 mm) high busbar compartment and for using partial doors as an upper and lower height filler.

- Height of busbar compartment cover: 12" (300 mm).
- Height of front trim panel opposite: 4" (100 mm).

Material:
Carbon steel, 14 ga (2.0 mm)

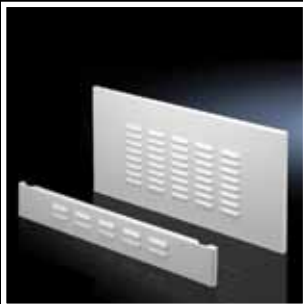
Surface finish:
Textured

Color:
RAL 7035

Configuration:
2 front trim panels, including Assembly parts

- Also required:**
- Roof frame bars, see page 591
 - Cross members for SV-TS, see page 591

Accessories:
Upgrade kit IP 43 for front trim panels IP 2X, see below



IP 54, sealed

For incl. width inches (mm)	Height of front trim panels		Packs of	Part No.
	top inches (mm)	bottom inches (mm)		
16 (400)	12 (300)	4 (100)	1 set	9672.014
16 (400)	4 (100)	12 (300)	1 set	9672.024
24 (600)	12 (300)	4 (100)	1 set	9672.016
24 (600)	4 (100)	12 (300)	1 set	9672.026
32 (800)	12 (300)	4 (100)	1 set	9672.018
32 (800)	4 (100)	12 (300)	1 set	9672.028
39 (1000)	12 (300)	4 (100)	1 set	9672.010¹⁾
39 (1000)	4 (100)	12 (300)	1 set	9672.020¹⁾
47 (1200)	12 (300)	4 (100)	1 set	9672.012¹⁾
47 (1200)	4 (100)	12 (300)	1 set	9672.022¹⁾

¹⁾ Extended delivery times.

IP 2X, with ventilation hole

For incl. width inches (mm)	Height of front trim panels		Packs of	Part No.
	top inches (mm)	bottom inches (mm)		
16 (400)	12 (300)	4 (100)	1 set	9672.034
16 (400)	4 (100)	12 (300)	1 set	9672.044
24 (600)	12 (300)	4 (100)	1 set	9672.036
24 (600)	4 (100)	12 (300)	1 set	9672.046
32 (800)	12 (300)	4 (100)	1 set	9672.038
32 (800)	4 (100)	12 (300)	1 set	9672.048
39 (1000)	12 (300)	4 (100)	1 set	9672.030¹⁾
39 (1000)	4 (100)	12 (300)	1 set	9672.040¹⁾
47 (1200)	12 (300)	4 (100)	1 set	9672.032¹⁾
47 (1200)	4 (100)	12 (300)	1 set	9672.042¹⁾

¹⁾ Extended delivery times.

Upgrade kit IP 43 for front trim panels IP 2X

For incl. width inches (mm)	Packs of	Part No.
16 (400)	1 set	9672.054
24 (600)	1 set	9672.056
32 (800)	1 set	9672.058
39 (1000)	1 set	9672.050¹⁾
47 (1200)	1 set	9672.052¹⁾

¹⁾ Extended delivery times.

Modular front design for Form 2-4

Front trim panels

for SV-TS

Required as an upper and lower height filler when partial doors are used. Height: 4" (100 mm).

Material:

Carbon steel, 14 ga (2.0 mm)

Surface finish:

Textured

Color:

RAL 7035

IP 54, sealed

For enclosure width inches (mm)	Packs of	Part No.
16 (400)	1 set	9671.014
24 (600)	1 set	9671.016
32 (800)	1 set	9671.018

Configuration:

2 front trim panels, assembly parts

Also required:

Cross members for SV-TS, see below

Accessories:

Upgrade kit IP 43 for front trim panels IP 2X, see page 590

IP 2X, with ventilation hole

For enclosure width inches (mm)	Packs of	Part No.
16 (400)	1 set	9671.034
24 (600)	1 set	9671.036
32 (800)	1 set	9671.038

Upgrade kit IP 43

for front trim panels IP 2X

For enclosure width inches (mm)	Packs of	Part No.
16 (400)	1 set	9671.044
24 (600)	1 set	9671.046
32 (800)	1 set	9671.048

Cross member

for SV-TS

For use as sealing member between:

- Front trim panels
- Trim panels
- Partial doors

Material:

Carbon steel, 18 ga (1.0 mm)

Color:

RAL 7035

Configuration:

Assembly parts and sealing material

For enclosure width inches (mm)	Packs of	Part No.
16 (400)	5	9671.004
24 (600)	5	9671.006
32 (800)	5	9671.008

Roof frame bars, horizontal

for SV-TS

Required as sealing bar between 300 mm high front trim panels and partial doors.

Material:

Carbon steel, 16 ga (1.5 mm)

Color:

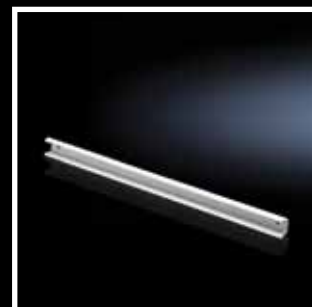
RAL 7035

Configuration:

Assembly parts and sealing material

For enclosure width inches (mm)	Width inches (mm)	Packs of	Part No.
16 (400)	12 (308)	2	9672.004
24 (600)	20 (508)	2	9672.006
32 (800)	28 (708)	2	9672.008
39 (1000)	36 (908)	2	9672.000¹⁾
47 (1200)	44 (1108)	2	9672.002¹⁾

¹⁾ Extended delivery times.



Doors/locks

Viewing panels/operating panels



System window

To conceal display and operating instruments or cut-outs, and to protect against dirt and liquids as well as unauthorised access.

Consisting of the following 2 components:

1. Base frame:

- Easily screw-fastened to the door thanks to modified dimensions (tubular door frame may be used as a drilling template)
- Readily height-adjustable
- Stabilizes the door cut-out
- Conceals the cut edge
- The rain canopy
 - prevents dirt from landing on the seal,
 - protects the glass from being lifted out,
 - prevents the ingress of dirt and moisture when opening the window
- Frame section height 1.2" or 2.4" (30 or 60 mm)

2. Viewing window:

- Made from single-pane safety glass:
 - high level of resistance to solvents and scratches
 - anti-static
 - reduced risk of injury if broken
- Cam lock with double-bit insert, easily exchanged for lock inserts, type A, and semicylinders in the Ergoform-S lock system (not with 2735.500 and .560)
- Hinge with 180° opening angle, easily inserted

Material:

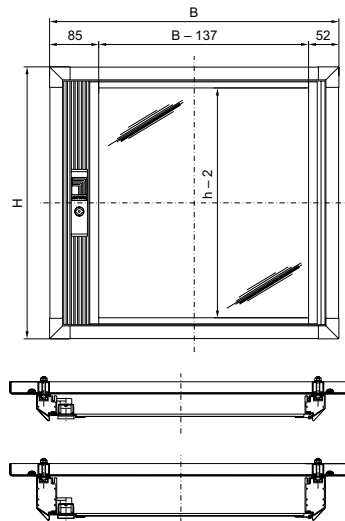
Extruded aluminum sections with die-cast zinc corner pieces and single-pane safety glass

Surface finish:

- Base frame: Powder-coated on the outside in RAL 7035,
- Hinge and lock section: Natural-anodized

Protection rating:

IP 54 to IEC 60 529



Viewing area (W (B) - 5.4" (137 mm) offset by 0.65" (16.5 mm) towards the hinge side.

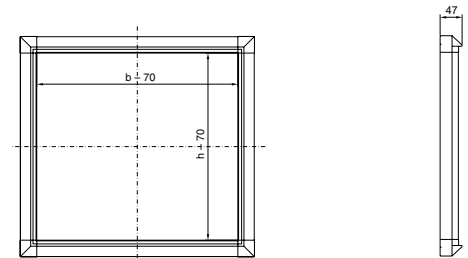
1.2" (30 mm) section

To fit TS, ES with width inches (mm)	Window size, exterior, inches (mm)		Part No.
	W (B)	H	
24 (600)	20 (500)	11 (270)	2735.500
		15 (370)	2735.510
		19 (470)	2735.520
		22 (570)	2735.530
32 (800)	28 (700)	26 (670)	2735.540
		11 (270)	2735.560
		15 (370)	2735.570
		19 (470)	2735.580
		22 (570)	2735.590
		26 (670)	2735.250

2.4" (60 mm) section

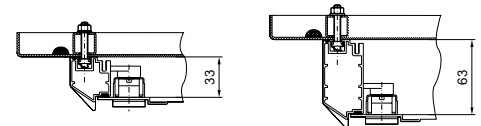
To fit TS, ES with width inches (mm)	Window size, exterior, inches (mm)		Part No.
	W (B)	H	
24 (600)	20 (500)	15 (370)	2736.510
		19 (470)	2736.520
		22 (570)	2736.530
		26 (670)	2736.540
32 (800)	28 (700)	26 (670)	2736.500

Standard double-bit lock insert may be exchanged for lock inserts 27 mm, type A, see page 607 and for lock system Ergoform-S (except H = 11" (270 mm)), see page 605



View X for profile height 1.2" (30 mm)

View Y for profile height 2.4" (60 mm)



Viewing panels/operating panels

Viewing window

For mounting on
 – AE instead of door
 – Surfaces

Material:

– Front panel: Aluminum, natural-anodized
 – Glass panel: Acrylic

Protection rating:

IP 54 to IEC 60 529

Configuration:

Plastic handle with lock insert no. 3524 E
 Max. installation depth: (depth – 0.2 (4 mm))
 Visible area:
 (width – 2.4" (60 mm)) x (height – 2.4" (60 mm))

Note:

Other sizes available on request

Depth = 1.3" (34 mm)

For use as door variant with	Width inches (mm)	Height inches (mm)	Part No.
1050.500, 1350.500 1007.600	20 (497)	20 (497)	2733.000
1039.500, 1339.500 1009.600, 7641.000	24 (597)	15 (377)	2730.000
1010.500, 1054.500 1060.500, 1360.500 7643.000	24 (597)	24 (597)	2731.000
1012.500, 1076.500 1376.500, 7645.000	24 (597)	30 (757)	2732.000
for 3 U subrack	24 (597)	8 (197)	2734.000

Depth = 2.4" (60 mm)

For use as door variant with	Width inches (mm)	Height inches (mm)	Part No.
1050.500, 1350.500 1007.600	20 (497)	20 (497)	2763.000
1039.500, 1339.500 1009.600, 7641.000	24 (597)	15 (377)	2760.000
1010.500, 1054.500 1060.500, 1360.500 7643.000	24 (597)	24 (597)	2761.000
1012.500, 1076.500 1376.500, 7645.000	24 (597)	30 (757)	2762.000

Packs of	Part No.
2	2772.000

Horizontally hinged window stay

A gas pressurized spring holds the viewing window securely open (top or side). When the viewing window is closed, the gas pressurized spring disappears into the frame section.

Acrylic glazed cover

With security lock, lock no. 3524 E

Protection rating:

IP 54 to IEC 60 529

Material:

– Frame: Extruded aluminum sections with die-cast corner pieces
 – Glass panel: Smoked acrylic

Metric acrylic glazed covers

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.
8 (200)	16 (400)	2 (47.5)	2784.000
16 (400)	16 (400)	2 (47.5)	2785.000
8 (200)	20 (500)	2 (47.5)	2786.000
16 (400)	20 (500)	2 (47.5)	2787.000
8 (200)	24 (600)	2 (47.5)	2788.000
16 (400)	24 (600)	2 (47.5)	2789.000

Max. installation depth: 2" (43 mm)
 Visible area: (width – 2" (40 mm)) x (height – 1" (20.5 mm))

Acrylic glazed covers, 19" (482.6 mm)

U	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.
3	6 (158)	13 (320)	2 (47.5)	2780.000
3	6 (158)	21 (534)	2 (47.5)	2781.000
6	11 (291.5)	21 (534)	2 (47.5)	2782.000
9	17 (425)	21 (534)	2 (47.5)	2796.000

Max. installation depth: 2" (43 mm)
 Visible area: (width – 2" (40 mm)) x (height – 1" (20.5 mm))



Doors/locks

Viewing panels/operating panels



Viewing window stainless steel

Fitted as standard with internal 130° hinges and all-round seal. The double-bit lock insert may be exchanged for 27 mm lock inserts, type A, and Ergoform-S handle 2452.000.

Material:

Stainless steel Type 304,
Single-pane safety glass

Protection rating:

IP 54 to IEC 60 529

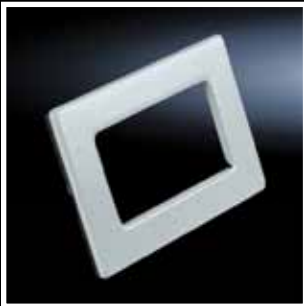
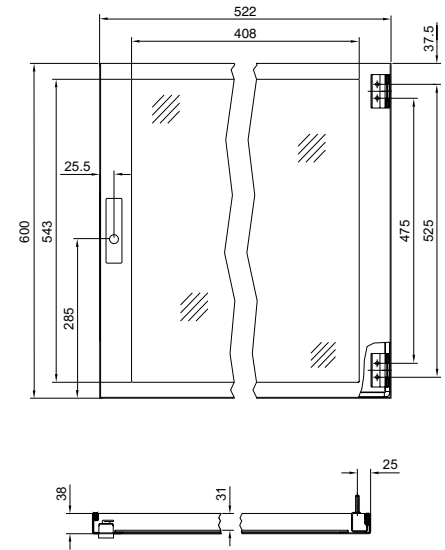
Configuration:

Assembly parts

Accessories:

- Lock inserts, 27 mm, version A, see page 607
- Ergoform-S handle 2452.000, see page 605

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.
24 (600)	21 (522)	2 (38)	2793.560



Window kits

Rittal window kits can be installed in most Rittal enclosures of suitable size. Window kits include all necessary hardware. Oil-resistant gaskets ensure a tight seal around the entire window.

Material/surface finish:

Carbon Steel: 14 ga, painted
RAL 7035 (light grey)
Stainless Steel 304: 14 ga
Stainless Steel 316L: 14 ga

Protection rating:

Carbon steel complies with NEMA 4
Stainless steel complies with NEMA 4X

Note:

Allow for clearance of gaskets, gasket retainers, door stiffeners, print pockets, door handles, lock rods, and other parts attached to the door or cover when you determine the size of the window kit you require.

Window Height inches (mm)	Window Width inches (mm)	Frame Height inches (mm)	Frame Width inches (mm)	Carbon Steel Part No.	Type 304 Stainless Steel Part No.	Type 316L Stain- less Steel Part No.
5 (127)	3 (76)	8 (191)	6 (140)	WK0503C	WK05034	WK05036
9 (229)	6 (140)	12 (292)	8 (203)	WK0905C	WK09054	WK09056
13 (330)	3 (76)	16 (394)	6 (140)	WK1303C	WK13034	WK13036
13 (330)	8 (203)	16 (394)	11 (267)	WK1308C	WK13084	WK13086
17 (432)	6 (140)	20 (495)	8 (203)	WK1705C	WK17054	WK17056
17 (432)	11 (279)	20 (495)	14 (343)	WK1711C	WK17114	WK17116
23 (584)	15 (381)	26 (648)	18 (445)	WK2315C	WK23154	WK23156
29 (737)	19 (483)	32 (800)	22 (546)	WK2919C	WK29194	WK29196
35 (889)	23 (584)	38 (953)	26 (648)	WK3523C	WK35234	WK35236

Viewing panels/operating panels

Monitor frame

for door width 24" (600 mm) and 32" (800 mm)

For covering a door cut-out, for all standard monitors up to 19" (482.6 mm).

Protection rating:

IP 54 to IEC 60 529

Configuration:

Security glass panel

Dimensions	Height inches (mm)	Width inches (mm)	Part No.
External	17 (430)	19 (470)	2305.000
Viewing area	13 (325)	15 (375)	
Cut-out required	15 (375)	16 (415)	



Viewing window for operating panel

For the protection of display and control components. With a build height of max. 35 mm.

Material:

Front panel: Aluminum, natural-anodized

Glazed panel: Smoked acrylic

Configuration:

Lock insert no. 3524 E

For operating panel	Part No
2741.000	2791.000
2742.000	2792.000



Identification strip

For individual field identifiers on the door, including transparent cover and assembly parts.

For labels:

Width: Enclosure width – 6" (150 mm)

Height: 1" (29 mm)

Thickness: 0.03" (0.75 mm)

Color:

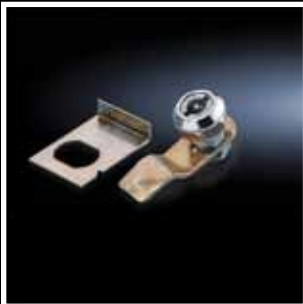
RAL 7033

For enc. width inches (mm)	Part No.
24 (600)	2403.000
32 (800)	2404.000



Doors/locks

Viewing panels/operating panels



Operating panel

For mounting on:

- AE instead of door
- surfaces

Frame construction with corner connectors on the inside, 11 ga (3.0 mm) aluminum plate secured from the inside and sealed against the frame

Material:

Aluminum, natural-anodized

Protection rating:

IP 54 to IEC 60 529

Configuration:

Aluminum frame, display panel, hinges, brackets.

Accessories:

Cam lock 2749.000, see below.

Area available for population:

width - 2.8" (70 mm) x height - 2.8" (70 mm)

Dimensions of aluminum plate:

width - 2.1" (54 mm) x height - 2.1" (54 mm)

For use as door variant for AE	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.
1001.600 1002.500 1002.600 1032.500 1035.500	12 (297)	8 (197)	1 (34)	2740.000¹⁾
1004.600 1011.600 1030.500 1031.500	12 (297)	15 (377)	1 (34)	2741.000
1006.500 1006.600 1380.500	15 (377)	15 (377)	1 (34)	2742.000
1008.600 1038.500 1338.500	24 (597)	15 (377)	1 (34)	2743.000
1007.600 1013.600 1050.500 1350.500	20 (497)	20 (497)	1 (34)	2745.000
1009.600 1039.500 1339.500	15 (377)	24 (597)	1 (34)	2744.000
1010.500 1010.600 1060.500 1360.500	24 (597)	24 (597)	1 (34)	2746.000

¹⁾ With AE, only for use on the rear panel

Cam lock

May be retrofitted to the operating area or enclosure panel of operating panels. Standard double-bit lock insert may be exchanged for type C lock inserts and type C plastic handle.

Accessories:

- Lock inserts, type C, see page 607
- Plastic handle, type C, see page 606

Packs of	Part No
1	2749.000

Compact enclosures, carbon steel

		Enclosure series											
		EB	BG	AE		WM		JB	CM	KS		EL 3-part	
Condition	from page	-	With cam	With cam	With 3-point lock	With cam	With 2 or 3-point lock	-	-	With cam	With 3-point lock	3 - 15 U	18 - 21 U
		43	45	58	58	52	56	41	61	63	53	80	81

Handle systems for enclosures

Comfort handle

For lock inserts	601	-	-	-	-	-	-	-	-	-	-	-	■
For padlock and lock inserts	601	-	-	-	-	-	-	-	-	-	-	-	■
With security lock insert E1	601	-	-	-	-	-	-	-	-	-	-	-	■
For semi-cylinder	601	-	-	-	-	-	-	-	-	-	-	-	■
Prepared for ASSA lock system	601	-	-	-	-	-	-	-	-	-	-	-	■

Mini-comfort handle (from AE enclosure height 380 mm, from AE enclosure width 300 mm)

For lock inserts	604	-	-	■	-	■	-	-	-	-	-	■	-
For semi-cylinder	604	-	-	■	-	■	-	-	-	-	-	■	-

Ergoform-S handle

Standard	605	-	-	-	■	-	-	-	-	-	-	-	-
Special with with lock insert, lock E1	605	-	-	-	■	-	-	-	-	-	-	-	-
Specially prepared for ASSA lock system	605	-	-	-	■	-	-	-	-	-	-	-	-
Standard for KS plastic enclosures	605	-	-	-	-	-	-	-	-	■	-	-	-

Folding lever handle

For lock inserts	602	-	-	-	-	-	-	■	-	-	-	-	-
For padlock and lock inserts	602	-	-	-	-	-	-	■	-	-	-	-	-
With security lock insert E1	602	-	-	-	-	-	-	■	-	-	-	-	-

Semi-cylinder lock

For AE/WM	608	-	-	■	-	■	-	-	-	-	-	-	-
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Plastic handles

Version B	606	■	■	■	-	■	-	■	-	-	-	-	-
Version E	606	-	-	-	-	-	-	-	■	-	-	-	-

T handles

Version B	606	■	■	■	-	■	-	■	-	-	-	-	-
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L handles

Standard	606	-	-	-	-	-	■	-	-	-	-	-	-
Pad locking	606	-	-	-	-	-	■	-	-	-	-	-	-
Key locking	606	-	-	-	-	-	■	-	-	-	-	-	-

Lock inserts/padlock lockouts for enclosures

Lock inserts

Version A	607	■	■	■	■	■	-	■	-	-	-	-	-
Version E	607	-	-	-	-	-	-	-	■	■	-	-	-
Version F	607	-	-	-	-	-	-	-	■	-	-	■	■

Lock cylinder inserts

Version B	608	■	■	■	-	■	-	■	-	-	-	-	-
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Padlock Lockouts

Two piece	609	■	■	-	-	■	-	■	-	-	-	-	-
One piece	609	■	■	-	-	■	-	■	-	-	-	-	-

Lock inserts for handle systems				
Semi-cylinder		Lock inserts		
Lock and push-button inserts	DIN 18 252	Version A	Version F	Lock and push-button inserts
602	602	607	607	602

-	-	-	■	■
-	-	-	■	■
-	-	-	-	-
■	■	-	-	-
-	-	-	-	-
■	■	■	-	-
-	-	-	-	-
■	■	-	■	-
■	■	-	■	-
-	-	-	-	-
-	■	-	-	-

Allocation of lock systems

Large enclosures, carbon steel

		Enclosure series			
		TS 8, SE 8	ES 5000	PC enclosure TS 8	
Condition				Door	For keyboard drawer or fold-out tray
	from page	90,122	-	156	156

Handle systems for enclosures

Comfort handle

For lock inserts	601	■	-	■	-
For padlock and lock inserts	601	■	-	■	-
For semi-cylinder	601	■	-	■	-
With security lock insert E1	601	■	-	■	-
Prepared for ASSA lock system	601	■	-	■	-
Security handle with code	603	■	-	■ ¹⁾	-

Ergoform-S handle

Standard	605	-	■	-	-
Security handle with code	603	-	-	-	-
Special with with lock insert, lock E1	605	-	■	-	-
Special, prepared for ASSA lock system	605	-	■	-	-

Lock inserts for enclosures

Lock inserts

Version A	607	-	■	-	■
Version F	607	■	-	■	-

¹⁾Only suitable for use with rear door

Lock inserts for handle systems				
Semi-cylinder		Lock inserts		
Lock and push-button inserts	DIN 18 252	Version A	Version F	Lock and push-button inserts
602	602	607	607	602

-	-	-	■	■
-	-	-	■	■
■	■	-	-	-
-	-	-	-	-
-	-	-	-	-
■	■	-	-	-
■	■	■	-	-
■	■	-	-	-
-	-	-	-	-
-	-	-	-	-

Console systems and industrial workstation, carbon steel

		Enclosure series						
		TopConsole TP		One-piece console TP		Universal consoler TP	IW	IW enclosure for tower PC
Condition	from page	Desk section and console	Pedestal	Console cover	Console door			
		149	149	154	154	155	158	157

Handle systems for enclosures

Comfort handle

For lock inserts	601	-	-	-	-	-	■	-
For padlock and lock inserts	601	-	-	-	-	-	■	-
For semi-cylinder	601	-	-	-	-	-	■	-
With security lock insert E1	601	-	-	-	-	-	■	-
Prepared for ASSA lock system	601	-	-	-	-	-	■	-
Security handle with code	603	-	-	-	-	-	■	-

Ergoform-S handle

Standard	605	-	■	-	■	■	-	-
Special with with lock insert, lock E1	605	-	■	-	■	■	-	-
Special, prepared for ASSA lock system	605	-	■	-	■	■	-	-

T handles

Version B	606	■	-	■	-	-	-	-
-----------	-----	---	---	---	---	---	---	---

Lock inserts for enclosures

Lock inserts

Version A	607	■	■	■	■	■	-	-
Version D	607	-	-	-	-	-	-	■
Version F	607	-	-	-	-	-	■	-

Lock cylinder inserts

Version B	608	-	-	-	-	-	■	-
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Lock inserts for handle systems				
Semi-cylinder		Lock inserts		
Lock and push-button inserts	DIN 18 252	Version A	Version F	Lock and push-button inserts
602	602	607	607	602

-	-	-	■	■
-	-	-	■	■
■	■	-	-	-
-	-	-	-	-
-	-	-	-	-
■	■	-	-	-
■	■	■	-	-
-	-	-	-	-
-	-	-	-	-

Allocation of lock systems

Enclosures and cases, stainless steel

		Enclosure series								TS 8, SE 8	ES 5000, PC
		AE		WM		JB	One-piece console AP				
Condition		With cam	With 3-point lock	With cam	With 3-point lock	-	Console cover	Console door			
	from page	221	221	215	215	213	231	231	224	-/232	

Handle systems for enclosures

Comfort handle

For lock inserts	601	-	-	-	-	-	-	-	■	-
For padlock and lock inserts	601	-	-	-	-	-	-	-	■	-
For semi-cylinder	601	-	-	-	-	-	-	-	■	-
With security lock insert E1	601	-	-	-	-	-	-	-	■	-
Prepared for ASSA lock system	601	-	-	-	-	-	-	-	■	-

Ergoform-S handle

Standard	605	-	■	-	-	-	-	■	-	■
Special with with lock insert, lock E1	605	-	■	-	-	-	-	■	-	■
Special, prepared for ASSA lock system	605	-	■	-	-	-	-	■	-	■

Plastic handles

Version C	606	■ ¹⁾	-	-	-	-	-	■	-	-
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T handles

Version C	606	■ ¹⁾	-	-	-	-	-	■	-	-
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Semi-cylinder lock

for AE	608	■ ²⁾	-	-	-	-	-	-	-	-
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L handles

Standard	606	-	-	-	■	-	-	-	-	-
Pad locking	606	-	-	-	■	-	-	-	-	-
Key locking	606	-	-	-	■	-	-	-	-	-

Thumbturns

Pad locking	606	-	-	■	-	■	-	-	-	-
Key locking	606	-	-	■	-	■	-	-	-	-

Lock inserts/padlock lockout for enclosures

Lock inserts

Version A	607	-	■	-	-	-	-	-	-	■
Version C	607	■	-	-	-	-	■	-	-	-
Version F	607	-	-	-	-	-	-	-	■	-

Lock cylinder inserts

Version C	608	■	-	-	-	-	-	■	-	-
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Padlock lockouts

One piece	609	-	-	■	-	■	-	-	-	-
Two piece	609	-	-	■	-	■	-	-	-	-

¹⁾ Not with 1018.600.

²⁾ Not with enclosures from stainless steel 1.4401 (AISI 316L) and use of cam lock 2304.000.

Lock inserts for handle systems				
Semi-cylinder		Lock inserts		
Lock and push-button inserts	DIN 18 252	Version A	Version F	Lock and push-button inserts
602	602	607	607	604

-	-	-	■	■
-	-	-	■	■
■	■	-	-	-
-	-	-	-	-
-	-	-	-	-
■	■	■	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	■	-	-	-

Comfort handle

for TS, PC, IW

As the handle does not take up any swing space, due to its folding mechanism, the door surface area may be maximized for installed equipment.

Material:

Die-cast zinc






Surface finish:

Powder-coated

Also required:

Handle adaptor for mounting on a
 – Glazed door TS
 – Bottom door PC-TS
 – Designer door IW, see page 581



	For lock inserts	For padlock and lock inserts	With lock insert E ¹⁾	For semi-cylinder ²⁾	Prepared for ASSA lock system
					
	Part No.				
RAL 7032	8611.010	8611.030	8611.040	8611.060	8611.050
RAL 7035	8611.020	8611.290	8611.045	8611.070	8611.280
RAL 8019	8611.250	8611.260	–	8611.270	–
RAL 9005	8611.350	–	–	8611.360	–
Matt nickel-plated	8611.330	–	–	8611.340	–
Lock inserts, type F					
7 mm square	8611.100	8611.100	–	–	–
8 mm square	8611.110	8611.110	–	–	–
7 mm triangular	8611.120	8611.120	–	–	–
8 mm triangular	8611.130	8611.130	–	–	–
Screwdriver	8611.140	8611.140	–	–	–
Daimler insert	8611.150	8611.150	–	–	–
3 mm double-bit	8611.160	8611.160	–	–	–
Fiat	8611.170	8611.170	–	–	–
6.5 mm triangular (CNOMO)	8611.220	8611.220	–	–	–
Lock and push-button inserts					
Security lock insert no. 3524 E ³⁾	8611.180	8611.180	–	2467.000	–
Push-button insert	8611.190	8611.190	–	2468.000	–
Push-button and lock insert ³⁾	8611.200 ⁴⁾	8611.200 ⁴⁾	–	2469.000 ⁵⁾	–
Semi-cylinder					
to DIN 18 252 ⁶⁾	–	–	–	9785.04	–
	–	–	–	9785.042 ⁷⁾	–

¹⁾ Only for use with VW, Audi, SEAT, SkodaAuto. Supplied without key. Other VW locks available on request.

²⁾ Comfort handle for lock cylinder KESO/KABA with Part No. 8611.240 available on request.

³⁾ With 2 keys

⁴⁾ Lock no. 12321, no other lock is possible.

⁵⁾ Lock no. 2123, no other lock is possible.

⁶⁾ With 3 keys for each lock insert




⁷⁾ Packs of 2. Simultaneous locking within the same pack, no simultaneous locking for different packs.

Lock systems



Lock insert

for installation in comfort handle, mini-comfort handle, Ergoform-S standard, folding lever handle

			
	Lock and push-button inserts		Semi-cylinder
Installation in	Comfort handle ⁶⁾ , mini-comfort handle ⁶⁾	Comfort handle ⁷⁾ , mini-comfort handle ⁷⁾ , Ergoform-S standard, folding lever handle for CM	Comfort handle, mini-comfort handle, Ergoform-S standard, folding lever handle for CM
	Part No.	Part No.	Part No.
Security lock insert no. 3524 E ¹⁾	8611.180	2467.000	–
Push-button insert	8611.190	2468.000	–
Push-button and lock insert ¹⁾	8611.200²⁾	2469.000³⁾	–
to DIN 18 252 ⁴⁾	–	–	9785.040
	–	–	9785.042⁵⁾

¹⁾ With 2 keys

²⁾ Lock no. 12321, no other lock is possible.

³⁾ Lock no. 2123, no other lock is possible.

⁴⁾ With 3 keys for each lock insert.

⁵⁾ Packs of 2. Simultaneous locking within the same pack, no simultaneous locking for different packs.

⁶⁾ For lock inserts.

⁷⁾ For semi-cylinder.



Folding lever handle for CM

As the handle does not take up any swing space, due to its folding mechanism, the door surface area may be maximized for installed equipment.

Color:

- Housing: Similar to RAL 9005
- Handle: Similar to RAL 9006

Size:

- Length (with inserted trim panel): 10" (242 mm)
- Width: 2" (50 mm), Depth: 0.6" (17.5 mm)

Part No.	For lock inserts	For padlock and lock inserts	With lock insert E1 ¹⁾
	5001.060	5001.062	5001.061

Lock inserts, type F

	For lock inserts	For padlock and lock inserts	With lock insert E1 ¹⁾
7 mm square	8611.100	8611.100	–
8 mm square	8611.110	8611.110	–
7 mm triangular	8611.120	8611.120	–
8 mm triangular	8611.130	8611.130	–
Screwdriver	8611.140	8611.140	–
Daimler insert	8611.150	8611.150	–
3 mm double-bit	8611.160	8611.160	–
Fiat	8611.170	8611.170	–
6,5 mm triangular (CNOMO)	8611.220	8611.220	–

Lock and push-button inserts

	For lock inserts	For padlock and lock inserts	With lock insert E1 ¹⁾
Security lock insert no. 3524 E ²⁾	2467.000	2467.000	–
Push-button insert	2468.000	2468.000	–
Push-button and lock insert ²⁾	2469.000 ³⁾	2469.000 ³⁾	–

Semi-cylinder

	For lock inserts	For padlock and lock inserts	With lock insert E1 ¹⁾
to DIN 18 252 ⁴⁾	9785.040	9785.040	–
	9785.042 ⁵⁾	9785.042 ⁵⁾	–

¹⁾ Only for use with VW, Audi, SEAT, SkodaAuto. Supplied without key. Other VW locks available on request.

²⁾ With 2 keys ³⁾ Lock no. 2123; no other lock is possible. ⁴⁾ With 3 keys for each lock insert ⁵⁾ Packs of 2. Simultaneous locking within the same pack, no simultaneous locking for different packs.

Lock systems

Security handle with code

Flexible access opportunities with

- individual 3-digit code without key or
- with the master key function via an additional semi-cylinder of 40 or 45 mm to DIN 18 252, irrespective of the code.

Accessories:

- Lock and push-button inserts, see page 602, 607
- Semi-cylinder, see page 602

Design with	Part No.
RAL 7035 comfort handle for TS	7200.800
RAL 9005 comfort handle for TS	9963.601



Adjacent door latch for TS

For optimum operation of the adjacent door from the outside if the handle on the inside is difficult to access due to swing frames or 19" (482.6 mm) installed equipment. Retrospective conversion of the adjacent door is easily achieved using the supplied drilling template. The handle on the inside is no longer required.

Color:

RAL 7035

Configuration:

Assembly parts

Accessories:

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, version A, see page 607

Packs of	Part No.
1	8611.370



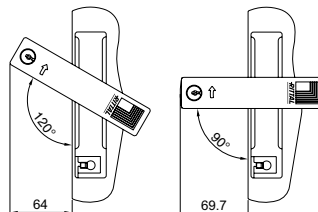
Swivel handle for carbon steel door TS

With lock insert, lock no. 3524 E. The use of semi-cylinders is not supported.
Length: 6" (150 mm)

Note:

The swivel handle cannot be used in conjunction with 180° hinges (7824.520).

Color	Part No.
RAL 7035	7829.300



- 1 Position for door opening
- 2 Max. projection of the upper handle part



Doors/locks

Lock systems



Locking bar latch to CNOMO¹⁾

To fit all locking bars in TS doors and glazed doors with standard lock or comfort handle.

The latch prevents the locking bars from moving when the door is open. For mounting on the bolt of the bar guide.

Also required:

CNOMO¹⁾ lock inserts, version F, 6.5 mm triangular insert 8611.220, see page 601

¹⁾CNOMO is a specification by the French automobile industry. For safety reasons, it must not be possible to lock the handle while the door is open.

Packs of	Part No.
10	8611.210



Spring washer

Upon dismantling the TS locking rods, the spring washers cannot be reused.

Material:

Spring steel

Surface finish:

Zinc-plated

Packs of	Part No.
100	8800.070



Mini comfort handle for AE with cam, EL 3-part

Prepared for the installation of lock inserts and commercially available 40 or 45 mm semi-cylinders, and of lock and pushbutton inserts.

Material:

Die-cast zinc

Color:

RAL 7035

	For lock inserts		For semi-cylinder	
	EL	AE	EL	AE
For enclosure system				
Part No.	7705.110	2537.010	7705.120	2537.000

Lock inserts, type F

7 mm square	8611.100	8611.100	–	–
8 mm square	8611.110	8611.110	–	–
7 mm triangular	8611.120	8611.120	–	–
8 mm triangular	8611.130	8611.130	–	–
Screwdriver	8611.140	8611.140	–	–
Daimler insert	8611.150	8611.150	–	–
3 mm double-bit	8611.160	8611.160	–	–
Fiat	8611.170	8611.170	–	–
6.5 mm triangular (CNOMO)	8611.220	8611.220	–	–

Lock and push-button inserts

Lock insert, lock no. 3524 E ¹⁾	8611.180	8611.180	2467.000	2467.000
Push-button insert	8611.190	8611.190	2468.000	2468.000
Push-button and lock insert ¹⁾	8611.200 ²⁾	8611.200 ²⁾	2469.000 ³⁾	2469.000 ³⁾

Semi-cylinder

to DIN 18 252 ⁴⁾	–	–	9785.040	9785.040
	–	–	9785.042 ⁵⁾	9785.042 ⁵⁾

¹⁾With 2 keys. ²⁾Lock no. 12321; no other lock is possible. ³⁾Lock no. 2123; no other lock is possible. ⁴⁾With 3 keys for each lock insert.

⁵⁾Packs of 2. Simultaneous locking within the same pack, no simultaneous locking for different packs.

Metric measurements for are exact, imperial measurements are rounded





Rittal Catalog 33/System accessories

Ergoform S lock system

The unlocked handle folds down forwards, and the lock is opened by swivelling.

Material:
Die-cast zinc

Surface finish:
Powder-coated

				
	Standard	Standard for KS plastic enclosures	Special with lock insert E1 ¹⁾	Specially prepared for ASSA lock system
	Part No.			
RAL 7032 with brown handle	2450.000	–	–	–
RAL 7035 with brown handle	2450.010	–	2456.500	–
Brown	2451.000	–	–	2453.000
Matt nickel-plated	2452.000	–	–	–
RAL 7032	2454.000	–	–	–
RAL 7035	2435.000	1490.010	–	–
RAL 7032 with brown handle and bracket	2455.000	–	–	–
RAL 7035 with brown handle and bracket	2455.010	–	–	–
Lock inserts, version A				
7 mm square	2460.000	2460.000	–	–
8 mm square	2461.000	2461.000	–	–
7 mm triangular	2462.000	2462.000	–	–
8 mm triangular	2463.000	2463.000	–	–
Screwdriver	2464.000	2464.000	–	–
Daimler insert	2465.000	2465.000	–	–
3 mm double-bit	2466.000	2466.000	–	–
Fiat	2307.000	2307.000	–	–
6.5 mm triangular (CNOMO)	2460.650	2460.650	–	–
Lock and push-button inserts				
Lock insert, lock no. 3524 E ²⁾	2467.000	2467.000	–	–
Push-button insert	2468.000	2468.000	–	–
Push-button and lock insert ²⁾	2469.000 ³⁾	2469.000 ³⁾	–	–
Semi-cylinder				
to DIN 18 252 ⁴⁾	9785.040	9785.040	–	–
	9785.042 ⁵⁾	9785.042 ⁵⁾	–	–

¹⁾ Only for use with VW, Audi, SEAT, SkodaAuto. Supplied without key. Other locks available on request.

²⁾ With 2 keys.

³⁾ Lock no. 2123; no other lock is possible.

⁴⁾ With 3 keys for each lock insert.

⁵⁾ Packs of 2. Simultaneous locking within the same pack, no simultaneous locking for different packs.



Doors/locks

Lock systems



Plastic handle

With or without lock cylinder insert.

Configuration:

Assembly parts and seals

Design	B		C		E		G
	With lock cylinder insert, lock no. 3524 E ¹⁾	Without lock insert	With lock cylinder insert, lock no. 3524 E ¹⁾	Without lock insert	With lock cylinder insert, lock no. 3524 E ¹⁾	Without lock insert	With lock cylinder insert, lock no. 3524 E ¹⁾
	Part No.						
RAL 9011	2576.000	2533.000	2485.000	2485.100	–	–	2599.000
RAL 7030	2439.000	–	–	–	–	–	–
RAL 8019	–	–	–	–	1484.000	1484.001	–

¹⁾With 2 keys



T handle

With or without lock cylinder insert.

Configuration:

Seal

Design	B		C		For SS JB/WM	
	With lock cylinder insert ¹⁾	Without lock insert	With lock cylinder insert ¹⁾	Without lock insert	Pad locking, 316 SS	Key locking, 316 SS
	Part No.					
	2575.000²⁾	2572.000	2535.000¹⁾	2536.000	WMQTPLS6	WMQTKLS6

¹⁾With 2 keys ²⁾Lock no. 3524 E






L handle

For WM

Design			
	Non-locking	Pad locking	Key locking
	Part No.		
RAL 9011	WMLHNL	WMLHPL	WMLHKL
316 SS	WMLHNLS6	WMLHPLS6	WMLHPLS6

Cam lock

						
	With double-bit insert	With lock cylinder insert ³⁾	With double-bit insert	With lock cylinder insert ³⁾	With lock insert, lock E1 ¹⁾ RAL 7035	With double-bit insert
Material: Enclosure	Die-cast zinc, nickel-plated		Fiberglass-reinforced polyamide			Made entirely from Type 316L stainless steel
Part No.	2520.000	2530.000	2420.000	2430.000	2540.500	2304.000



Lock inserts






7 mm square	2523.000	–	2460.000	–	–	–
8 mm square	2526.000	–	2461.000	–	–	–
7 mm triangular	2527.000	–	2462.000	–	–	–
8 mm triangular	2528.000	–	2463.000	–	–	–
Screwdriver	–	–	2464.000	–	–	–
Daimler insert	2522.000	–	2465.000	–	–	–
3 mm double-bit	2483.000	–	2466.000	–	–	–
Fiat	–	–	2307.000	–	–	–
6.5 mm triangular (CNOMO)	–	–	2460.650	–	–	–

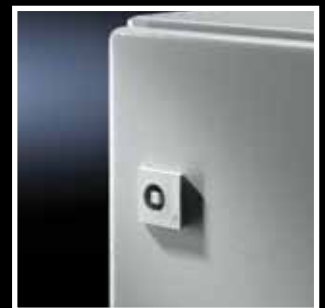
Lock cylinder inserts

With lock no. 3524 E ²⁾	–	–	2571.000	–	–	–
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¹⁾ Only for use with VW, Audi, SEAT, SkodaAuto. Supplied without key. Other locks available on request. ²⁾ With 2 keys ³⁾ Lock no. 3524 E

Lock insert

Design	A	C	D	E	F
					
Material	Die-cast zinc	Die-cast zinc	Die-cast zinc	Plastic	Die-cast zinc
Length	27 mm	41 mm	47 mm		
	Part No.				
7 mm square	2460.000	2523.000	–	1487.000	8611.100
8 mm square	2461.000	2526.000	–	1488.000	8611.110
7 mm triangular	2462.000	2527.000	–	1485.000	8611.120
8 mm triangular	2463.000	2528.000	–	1486.000	8611.130
Screwdriver	2464.000	–	–	1489.000	8611.140
Daimler insert	2465.000	2522.000	–	–	8611.150
3 mm double-bit	2466.000	2483.000	2484.000	1492.000	8611.160
Fiat	2307.000	–	–	–	8611.170
6.5 mm triangular (CNOMO)	2460.650	–	–	–	8611.220



Lock systems



Lock cylinder insert

Design	B	C
		
	With lock no. 3524 E ¹⁾	With lock no. 3524 E ¹⁾
Material	Die-cast zinc	Die-cast zinc
Part No.	2571.000	2525.000

¹⁾With 2 keys



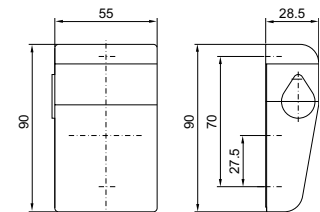
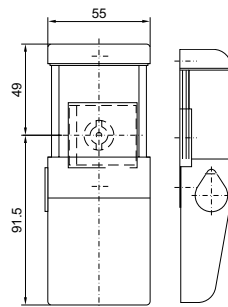
Semi-cylinder lock for compact enclosures AE/WM

For retro-fitting to single-door enclosures with cam lock. The cover plate is locked by semi-cylinders with a total length of 40/45 mm (to DIN 18 252). An additional cover protects the cylinder against dirt. The protection category of the enclosure is not impaired. Supplied without semi-cylinder.

Material:
Die-cast zinc

Accessories:
Semi-cylinder, see page 602

Surface finish	Part No.
RAL 7035	2534.100
Nickel-plated (matte)	2534.500



Lock cover For padlocks or multiple locks

For retrospective mounting on all compact enclosures AE/WM, of carbon steel and with cam lock.

Material:
Die-cast zinc

Surface finish:
Nickel-plated

Packs of	Part No.
1	2493.000

Lock systems

Multiple lock for 6 cam locks

The ideal solution in cases where individual access for several persons is required for maintenance and repair purposes.

Material:

Carbon steel

Surface finish:

Zinc-plated

Packs of	Part No.
2	2493.500



Lock cover

Prepared for lead seal

For all enclosure types with Rittal-specific locks.

Material:

Polyamide

Color:

RAL 7035

Packs of	Part No.
2	2476.000



Security lock

Fitted to doors, to protect against contact with live electrical equipment when master switch is on.

Function:

- Locks the door when the master switch is ON.
- Mains power (voltage) is only enabled when the door is closed
- Monitoring of the lock magnet via an additional closing contact

Configuration:

- Lock
- Actuator
- Angle bracket
- Assembly parts

Connection voltage for lock magnet	Part No.
230 V AC 11 VA	2416.000
24 V DC 8 W	2418.000
120 V AC 8 VA	2419.000

Also required:

For twin-door enclosures (for the overlapping door, to indicate "enclosure door closed"), Rittal door-operated switch 4127.010, see page 694



Pad lock lockout

For EB, JB, AE, WM

Material:

- Two-piece powder-coated carbon steel or Type 316 stainless steel
- One-piece Type 316 stainless steel

For Enclosure type	Part No.	
	Two-piece	One-piece
Carbon steel	WMPADCS	WMPADRCS
Stainless steel	WMPADS6	WMPADRS6







Lock systems



Enclosure key

For lock inserts (one double-bit key is supplied with every enclosure).

				
	Part No.			
	-	-	2549.000	2549.500²⁾³⁾
Double-bit key no. 5	2531.000	-	■	■
Security key no. 3524 E	-	2532.000¹⁾	-	-
7 mm triangular	2545.000	-	-	■
8 mm triangular	2546.000	-	■	■
7 mm square	2547.000	-	-	■
8 mm square	2548.000	-	■	■
For HD locks	2549.600	-	-	-
For Daimler	2521.000	-	-	-
For Fiat	2308.000	-	-	-
Lock 12321	-	7526.050¹⁾	-	-

¹⁾ Packs of 2

²⁾ With bit adaptor and reversible bit for multi-tooth size 25 and Phillips-head (Ph 2)

³⁾ Bit for HD lock insert (Part No. 2549.510), see page 208.



Quick-release fastener for QuickBox

The quick-release fastener is ideal for use in inaccessible areas. To facilitate locking, the quick-release fastener is screw-fastened to the mounting bracket at the front. This enables the QuickBox to be locked even when the fasteners of the sides are opened, allowing the enclosure cover to be attached and removed easily.

Material:

Carbon steel

Surface finish:

Spray-finished

Color:

RAL 7035

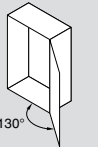
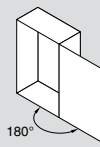
Configuration:

2 mounting brackets, assembly parts and quick release fasteners

Packs of	Part No.
2	7502.220

130°/180° hinges

Configuration:
Assembly parts

Enclosure type	Door version	Material	Color	Packs of		
					Part No.	
ES 5000	Carbon steel door	Die-cast zinc	–	6	4190.000	–
TS 8	Carbon steel door	Die-cast zinc	–	4	8800.020¹⁾	–
TS 8	Carbon steel door	Die-cast zinc	RAL 7035		–	8800.190
			RAL 7032		–	8800.030
			RAL 8019		–	8800.230
			RAL 9005		–	8800.950
			Matte nickel-plated		–	8701.180
TS 8	Doors with high dynamic loads, door installations up to 900 N	Precision casting/ die-cast zinc	RAL 7035	4	–	8800.710
TS 8 bayed enclosure suites with comfort handle	Carbon steel door	Die-cast zinc	RAL 7035	4	–	7824.520
	Glazed door	Die-cast zinc	RAL 7035			7824.525²⁾
	Carbon steel door	Die-cast zinc	RAL 9005			7824.522
ES 5000, TP universal console, TP pedestals	Standard door	Aluminum	Powder-coated in RAL 8019	6	–	4189.000
ES 5000	Standard door	Type 304 stainless steel	–	6	–	4156.000
AE/WM	Standard door	Die-cast zinc	–	2	–	2449.000
CM	Standard door	Die-cast zinc	RAL 9011/9006	3	–	5001.000

¹⁾ Also requires lock components for frame 8800.040, see page 581.

²⁾ Max. 140°

**Hinge pin remover**

For safe and easy removal of hinge pins.

For enclosure	Part No.
AE/CM/WM	2432.000



Doors/locks

Hinges



Cover hinge for KL

The cover hinge is simply screwed to the enclosure protection channel and to the edge fold.

Configuration:

Assembly parts

Material	Packs of	Part No.
Die-cast zinc	6	1592.000
Type 316L stainless steel	2	1592.010



Cover retainer for KL

The cover retainer is easily fitted without drilling, and allows the covers to be opened upwards, even when the terminal box below is bayed.

Packs of	Part No.
3 pairs	1591.000

Door, external

Fold-down shelf

Collapsible shelf designed to support programming and monitoring equipment. Locks in raised position and folds down when not in use.

Material:

Carbon steel, 14 ga (2.0 mm)

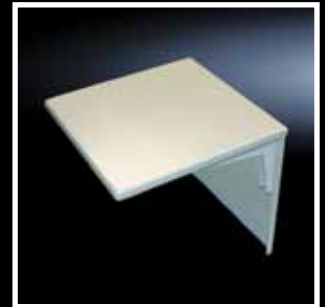
Surface finish:

Dipcoat primed, powder-coated in textured RAL 7035 (light grey)

Configuration:

Continuous hinge
Mounting hardware included

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Weight lb (kg)	PU	Part No.
12 (305)	12 (305)	2 (51)	7.5 (16.5)	1	FDS1212C
18 (457)	18 (457)	2 (51)	14 (30.8)	1	FDS1818C



External data pocket

Based on the popular AE wallmount enclosure, this data pocket is designed to hold system-related documents.

Material:

Carbon steel, 16 ga (1.5 mm)

Surface finish:

Pocket and cover: Dipcoat primed, powder-coated in textured RAL 7035 (light grey)

Configuration:

Slotted head insert
Foamed in place gasket
Mounting hardware included

Protection Rating:

NEMA 4

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Weight lb (kg)	PU	Part No.
16 (409)	14 (356)	3 (76)	14 (29.7)	1	EDP1614C
14 (356)	19 (487)	3 (76)	15 (33.0)	1	EDP1419C



Doors/locks

Door, internal

Support strip

- For attachment of
- Cable ducts
 - Cable conduit holders
 - Contact hazard protection covers
 - Equipment installed on the door
 - Cable clamping and attachment
 - 4.5 mm diameter hole on a 25 mm DIN pitch pattern

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Packs of 20 (screws included)

Accessories:

Screws and self-tapping screws M5, see page 674



For TS, CM, ES, TP

For door width inches (mm)	Length inches (mm)	Part No.
16 (400)	12 (290)	4594.000
20 (500)	15 (390)	4309.000
24 (600)	19 (490)	4596.000
32 (800)	27 (690)	4598.000
35 (900)	31 (790)	4579.000
39 (1000)	35 (890)	4599.000



For AE

For AE Enclosure	Part No.
1018.600 ²⁾ , 1019.500 ²⁾ , 1050.500 ¹⁾ , 1057.500, 1100.500, 1110.500, 1114.500 ¹⁾ , 1130.500, 1213.500 ¹⁾ , 1350.500 ¹⁾	2325.000
1009.600 ²⁾ , 1012.500 ²⁾ , 1039.500, 1054.500, 1058.500, 1060.500, 1076.500, 1090.500, 1260.500 ¹⁾ , 1339.500, 1360.500, 1376.500	2326.000
1014.500 ²⁾ , 1073.500, 1077.500	2327.000
1016.500 ²⁾ , 1017.500 ²⁾ , 1055.500, 1180.500, 1280.500 ¹⁾	2328.000

¹⁾ For these AE models, the support strips should be cut to length at the knockout.

²⁾ Only in conjunction with perforated mounting strips (see page 615).



Spacers

- The universal assembly component for all cases where a distance from the mounting level is required. With self-tapping thread for diameter 4.5 mm. The following components may be attached to the rear using 5.5 x 13 mm screws:
- Top-hat/cross rails
 - Contact hazard protection covers
 - Master switch trim panels
 - Cable clamp rails, etc.

Material:

Hexagonal steel (SW8)

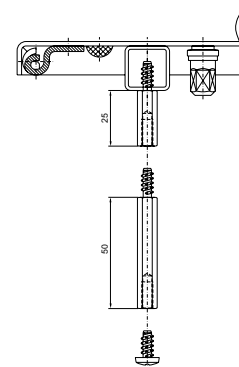
Surface finish:

Zinc-plated

Accessories:

Screws 5.5 x 13 mm, see page 674

Length inches (mm)	Packs of	Part No.
1 (25)	12	2311.225
2 (50)	12	2311.250



Door, internal

Perforated mounting strip

for AE stainless steel, TP universal console¹⁾

For vertical mounting on the threaded bolts of the door, for attaching

– Support strips for AE, see page 614.

– Door stay SZ 2519.000, see page 617.

3.7 mm diameter hole on a 25 mm DIN pitch pattern.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Packs of 20 (nuts and serrated washers included)

To match AE	Length inches (mm)	Part No.
1005.500, 1005.600, 1006.500, 1006.600, 1009.600	13 (318)	2310.038¹⁾
1012.600, 1014.600	27 (698)	2310.076
1016.600, 1018.600	37 (938)	2310.100
1017.600, 1019.500, 1019.600	45 (1138)	2310.120

¹⁾For door at top

Accessories:

Screws, see page 674



Utility lectern

For programming units etc. Prepared for mounting on the tubular door frame of TS, CM, ES, PC or on any sufficiently large surface. When required for servicing, it folds down quickly with a

maximum support area, and after use is stowed between the tubular door frames in a space-

saving design. Load capacity: max. 33 lb (30 kg).

saving design. Load capacity: max. 33 lb (30 kg).

Material:

Carbon steel

Color:

RAL 7035

Support area		For door width inches (mm)	Part No.
Width inches (mm)	Depth inches (mm)		
16 (413)	16 (400)	24 (600)	4638.600
24 (613)	16 (400)	32 (800)	4638.800



Wiring plan lectern

Holds wiring plans during fault finding and maintenance work. The wiring plan lecterns can be bayed according to the door width. For mounting on the tubular door frame.

can be bayed according to the door width. For mounting on the tubular door frame.

Material:

- Utility lectern: Polypropylene
- Mounting bracket: Die-cast zinc

Color:

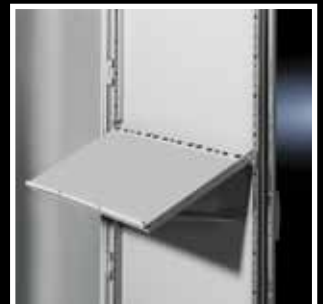
Similar to RAL 7035

Configuration:

- Wiring plan lectern, width 8" (210 mm)
- Assembly parts

For enclosures	Packs of	Part No.
TS, CM, ES, PC, TP	1	4120.000

For door width inches (mm)	Required/possible number of wiring plan lecterns	
	min.	max.
16 (400)	1	1
20 (500)	1	1
24 (600)	2	2
32 (800)	2	3
39 (1000)	3	3



CD/disk box

For attachment to all flat, clean surfaces with double sided adhesive tape.

Capacity:

Max. 10 CDs/DVDs or 18 (3 1/2") disks.

Material:

Polyamide

Color:

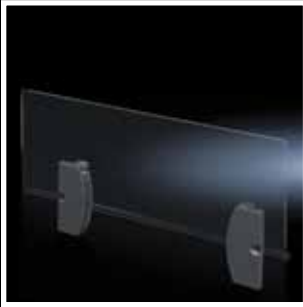
RAL 7033

Packs of	Part No.
1	2446.000



Doors/locks

Door, internal



Plastic wiring plan pocket for AE

For installation options, refer to table
 – B = Screw-fastened to the perforated door strip on both sides
 – E = Screw-fastened on one side, other side stuck with adhesive or stuck entirely with adhesive

Configuration:

- 2 holders with double-sided adhesive tape
- Acrylic glazed pane
- Assembly parts

Note:

The acrylic glazed pane may be shortened to any required size for shorter doors.

Part No.	2514.500	2514.600	2514.800
Usable width inches (mm)	13 (340)	16 (415)	24 (615)
Usable depth inches (mm)	0.7 (18)	0.7 (18)	0.7 (18)
Height of acrylic glazed pane inches (mm)	7 (167)	7 (167)	7 (167)

Installation options:

For AE Part No.	Width inches (mm)			
1050.500	20 (500)	B	–	–
1054.500	24 (600)	E	E	–
1055.500	32 (800)	E	E	E
1057.500	20 (500)	B	–	–
1058.500	24 (600)	E	E	–
1060.500	24 (600)	E	E	–
1073.500	30 (760)	E	E	–
1076.500	24 (600)	E	E	–
1077.500	30 (760)	E	E	–
1090.500	24 (600)	E	E	–
1100.500	39 (1000)	B	–	–
1110.500	39 (1000)	B	–	–
1114.500	39 (1000)	B ¹⁾	–	–
1130.500	39 (1000)	B	–	–
1180.500	32 (800)	E	E	E
1213.500	39 (1000)	B ¹⁾	–	–
1260.500	24 (600)	E	B	–
1280.500	32 (800)	E	E	B
1350.500	20 (500)	B	–	–
1360.500	24 (600)	E	E	–
1376.500	24 (600)	E	E	–

¹⁾Prepared for mounting on the l/h side door; for mounting on the r/h side door, the acrylic glazed pane can be shortened.



Plastic wiring plan pocket

For affixing to the inside surfaces of doors.

Material:

Polystyrene with self-adhesive fastening strips.

Color:

Similar to RAL 7035

For format	Clearance opening inches (mm)			Part No.
	H	W	D	
A3 landscape	11 (286)	17 (438)	2 (45)	2513.000
A4 portrait	10 (254)	9 (228)	0.7 (17)	2514.000
A5 landscape	7 (174)	9 (228)	0.7 (17)	2515.000

Door, internal

Wiring plan pocket with transparent pouch

With welded-on transparent pouch and self-adhesive backing.

For format	Part No.
DIN A4	2510.000
DIN A3	2512.000



Carbon steel wiring plan pocket for TS, CM, ES, PC, TP pedestal

Color: RAL 7035

Depth = 1" (35 mm)

To fit door width inches (mm)	Clearance opening inches (mm)		Part No.
	W	H	
20 (500)	14 (355)	10 (260)	4115.500
24 (600)	18 (455)	10 (260)	4116.500
32 (800)	26 (655)	10 (260)	4118.500

Depth = 4" (90 mm)

To fit door width inches (mm)	Clearance opening inches (mm)		Part No.
	W	H	
16 (400)	10 (255)	8 (210)	4114.000
20 (500)	14 (355)	8 (210)	4115.000
24 (600)	18 (455)	8 (210)	4116.000
32 (800)	26 (655)	8 (210)	4118.000
35 (900)	30 (755)	8 (210)	4123.000
39 (1000)	34 (855)	8 (210)	4124.000



Door stay

To secure the door in the open position.

For	Assembly	PU	Part No.
TS, ES, PC, TP universal console	Bottom	5	4583.000
AP one-piece console	Top	5	2518.000
CM, TP	Top	2	2519.200
AE (except 032.500 and 1035.500) and all AE stainless steel enclosures ¹⁾ , WM ²⁾	Top	5	2519.000
AE IP 69K	Top	1	1101.800

¹⁾ With AE stainless steel, only in conjunction with perforated mounting strips, see page 615.

²⁾ Single door WM, 35" x 35" (900 x 900 mm), double door ≤ 35" (900 mm); no stainless.



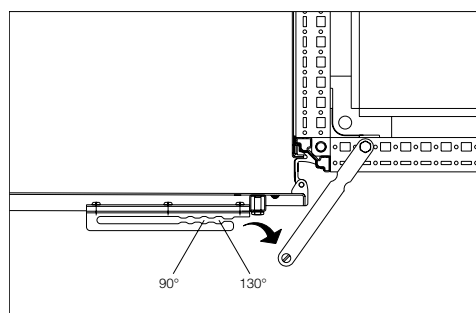
Door stay for escape routes TS carbon steel/stainless steel doors with tubular door frames

In case of an emergency, conventional door stays can block the escape route. The new stay is actuated automatically in the event of pressure, releasing the door in both directions. In conjunction with 180° hinges, this ensures that no escape routes are blocked by locked doors in the event of an emergency.

Configuration:
Assembly parts

Accessories:
180° hinge, see page 611

Packs of	Part No.
1	4583.500



Doors/locks

Door, internal



Ride-up roller for TS, ES, PC

Lifts the door with heavy installed equipment (e.g. cooling unit) as a closing aid. For attaching to the tubular door frame.

Packs of	Part No.
10	4538.000



Transport and mounting handle for doors TS, ES

For safe installation and removal of the door and during relocation in the workshop. The matching hinge pin removal tool for 130° hinges is pre-integrated, and supplied loose for 180° hinges.

Packs of	Part No.
2	2415.100



Document clip, magnetic

For simple attachment of installation documentation as a reminder or for flexible accommodation of a wide range of documents, measurement records, test reports etc. May be attached to any magnet compatible surface via a permanent magnet.

Packs of	Part No.
2	7950.200

Material:

- Plastic: Transparent
- Handle pieces: Black

Configuration:

- 2 mounting clamps
- Permanent magnet



Alternate frame, magnetic

For individual marking or labelling of the existing network infrastructure. The magnetic surface facilitates flexible mounting on all magnet compatible surfaces. Adhesive strips are supplied for non-magnetic compatible surfaces. The maximum size of the labels is 5" x 2" (130 x 50 mm).

Packs of	Part No.
10	7950.150

Material:

Plastic

Configuration:

- Alternate frame, magnetic
- Labels
- Double-sided adhesive tape

Rain canopy

for AE, CM

Reliable protection for outdoor siting – with water run-off to the rear. Easily retro-fitted.

Configuration:

Assembly parts

Accessories:

- Condensate discharge, see page 560
- Pressure relief stopper, see page 559
- Wall mounting brackets 2503.200 and 2508.200 may be used, see page 629

for AE, carbon steel version

Material:

Carbon steel

Surface finish:

Powder-coated, textured paint

Color:

RAL 7035

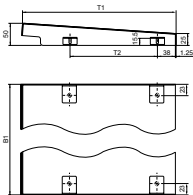
for AE, stainless steel version

Material:

Type 304 stainless steel

Surface finish:

Brushed, grain 240



B1 = Enclosure width + 0.4" (11 mm)

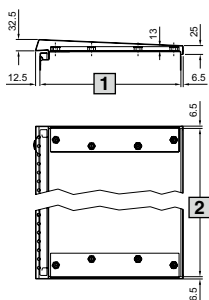
T1 = Enclosure depth + 1" (25 mm)

T2 = Enclosure depth – 3.5" (90 mm), from encl. width 24" (600 mm): Enclosure depth – 4.5" (115 mm)

for CM, carbon steel version

Benefits:

- Mounting via the two holes in the top of the CM
- At the front, with integrated ventilation holes at the top



1 Enclosure depth

2 Enclosure width

Note:

For outdoor siting, we generally recommend a rain canopy above the enclosure or the gap between the door or screw-fastened rear panel and the enclosure, in order to protect against water and UV radiation. Testing of IP protection categories for water protection (2nd code number to IEC 60 529) cannot be compared with an enclosure sited outdoors or under similar conditions. Upon request, rain canopies of carbon steel, stainless steel or aluminum can also be produced for other enclosures.

Enclosure width inches (mm)	Enclosure depth inches (mm)	Part No.
15 (380)	8 (210)	2501.500
24 (600)	8 (210)	2502.500
24 (600)	14 (350)	2511.500

Width inches (mm)	Depth inches (mm)	Part No.
8 (200)	6 (155)	2470.000
12 (300)	8 (210)	2361.000
15 (380)	6 (155)	2471.000
15 (380)	8 (210)	2472.000
20 (500)	8 (210)	2362.000
24 (600)	8 (210)	2473.000
30 (760)	12 (300)	2474.000
32 (800)	12 (300)	2475.000
39 (1000)	12 (300)	2363.000

Possible alternative:

Compact HD enclosures, see page 205

Enclosure width inches (mm)	Enclosure depth inches (mm)	Part No.
24 (600)	16 (400)	5001.310
32 (800)	16 (400)	5001.330
39 (1000)	16 (400)	5001.350
47 (1200)	16 (400)	5001.360

Material:

Carbon steel

Surface finish:

Powder-coated, textured paint

Color:

RAL 7035



Roof/wall mounting

Roof



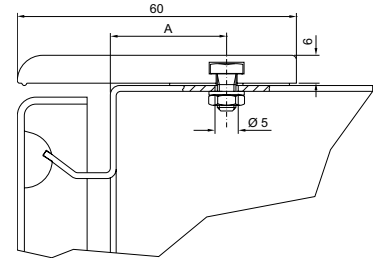
Dust guard trim for AE, CM, EB, KL and BG

To protect against deposits on the upper edge of the door and between the enclosure and the door/lid. Cut the door protection strip to length according to the enclosure width. Drill the enclosure and mount the strip using the adhesive strips and screws.

Material:
Plastic, resistant to UV

Color:
Similar to RAL 7024

For enclosure	Length inches (mm)	A inches (mm)	Part No.
AE	47 (1200)	1" (25)	2426.500
CM		0.8" (20)	
KL, EB, BG		0.8" (20.5)	



Dust guard trim for TS, ES

To protect against dust deposits on the upper edge of the door and between the door and upper horizontal enclosure section. The dust guard trim also provides space for texts or company logos.

Color:
RAL 7035

Configuration:
Clear plastic strip for text labels, height 1" (29.5 mm)

Note:
Also suitable for use in conjunction with top baying cover, see page 578.

Length inches (mm)	Part No.
24 (600)	2424.100
32 (800)	2425.100
39 (1000)	2427.100
47 (1200)	2426.100

Top module for TS

As a cable chamber for cable infeed from above or for power distribution with busbar systems across bayed enclosures. The TS cover plate is used as standard to finish off at the top. The enclosure height is increased by 4" (200 mm) with the top mounting module fitted. The top baying cover cannot be fitted. Installation accessories for top and bottom, see diagram and explanations below.

Material:

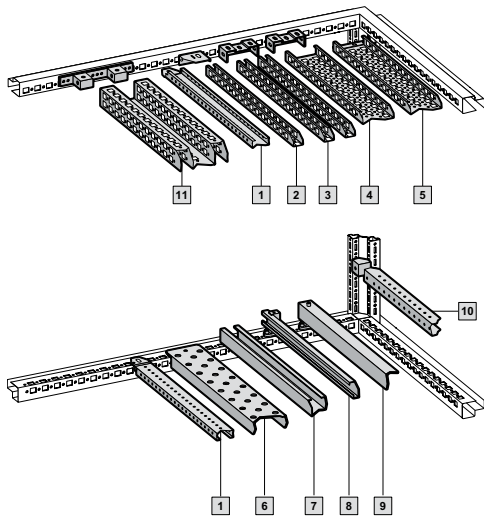
Carbon steel, 16 ga (1.5 mm)

Surface finish:

Spray-finished, textured paint

Color:

RAL 7035



For enclosures		Part No.
Width (B) inches (mm)	Depth inches (mm)	
24 (600)	24 (600)	8801.735
32 (800)	24 (600)	8801.745
39 (1000)	24 (600)	8801.755
47 (1200)	24 (600)	8801.765

Protection rating:

IP 55 to IEC 60 529, compliant with NEMA 12 (in conjunction with side panel for top mounting module, see page 614)

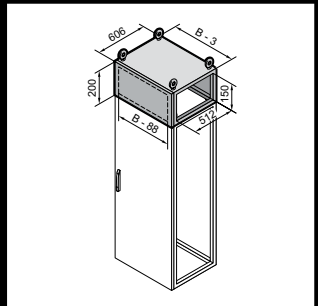
Configuration:

- 1 frame module
- 2 trim panels (front and rear)
- 8 retainers with automatic potential equalization
- 4 tapped rods with eyebolts



Accessories:

Designation	Page
1 Designation	Page
2 TS punched rail 0.7" x 1.5" (18 x 38 mm)	655
3 PS punched rail 0.7" x 0.7" (23 x 23 mm) with angle bracket	657
4 PS punched rail 0.7" x 0.7" (23 x 23 mm) with support bracket PS	657
5 PS punched section without mounting flange 0.7" x 2.9" (23 x 73 mm), with support bracket PS	658
6 PS punched section with mounting flange 0.7" x 2.9" (23 x 73 mm)	658
7 Support rail	661
8 System support rails	660
9 C rail 30/15 with support bracket or spacer	659
10 Cable clamp rail	723
11 TS punched rail 1" x 1.5" (25 x 38 mm)	654
TS punched sections without mounting flanges, 1.7" x 45 x 3.5" (88 mm)	654



Side panel for top-mounting module

To finish off the side of a top-mounting module or bayed suite.

Material:

Carbon steel, 16 ga (1.5 mm)

Surface finish:

Spray-finished, textured paint

Color:

RAL 7035

Configuration:

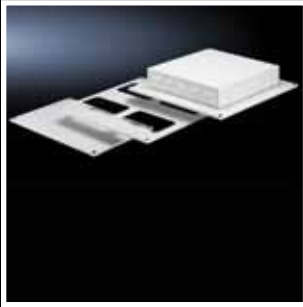
- 2 side panels
- 8 retainers with automatic potential equalization

Packs of	Part No.
2	8801.775



Roof/wall mounting

Roof



Roof plates for SV-TS

For SV-TS 8 enclosures without roof plate and in exchange for the standard roof plate for other TS enclosures.

Material:

Carbon steel, 16 ga (1.5 mm)

Surface finish:

Textured paint

Color:

RAL 7035

Configuration:

Mounting accessories

IP 55, solid

For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
12 (300)	24 (600)	1	9671.636
16 (400)	24 (600)	1	9671.646
24 (600)	24 (600)	1	9671.666
32 (800)	24 (600)	1	9671.686
12 (300)	32 (800)	1	9671.638
16 (400)	32 (800)	1	9671.648
24 (600)	32 (800)	1	9671.668
32 (800)	32 (800)	1	9671.688

IP 43 with vent hole, build height: 3.7" (93 mm)

For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
12 (300)	24 (600)	1	9671.736
16 (400)	24 (600)	1	9671.746
24 (600)	24 (600)	1	9671.766
32 (800)	24 (600)	1	9671.786
12 (300)	32 (800)	1	9671.738
16 (400)	32 (800)	1	9671.748
24 (600)	32 (800)	1	9671.768
32 (800)	32 (800)	1	9671.788

For cable entry glands

For enclosure		Required number of glands	Packs of	Part No.
Width inches (mm)	Depth inches (mm)			
24 (600)	16 (400)	2	1	9665.943
33 (850)	16 (400)	3	1	9665.953
43 (1100)	16 (400)	4	1	9665.963
12 (300)	24 (600)	2	1	9671.536
16 (400)	24 (600)	3	1	9671.546
24 (600)	24 (600)	4	1	9665.903
32 (800)	24 (600)	8	1	9671.586
33 (850)	24 (600)	6	1	9665.913
43 (1100)	24 (600)	8	1	9665.923
12 (300)	32 (800)	2	1	9671.538
16 (400)	32 (800)	4	1	9671.548
24 (600)	32 (800)	8	1	9671.568
32 (800)	32 (800)	8	1	9671.588

Also required:

Cable entry gland, see page 623

IP 2X with vent hole, build height: 2.8" (72 mm)

For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
16 (400)	24 (600)	1	9671.846
24 (600)	24 (600)	1	9660.235
32 (800)	24 (600)	1	9660.245
39 (1000)	24 (600)	1	9660.255
47 (1200)	24 (600)	1	9660.265
16 (400)	32 (800)	1	9671.848
24 (600)	32 (800)	1	9659.525
32 (800)	32 (800)	1	9659.535
39 (1000)	32 (800)	1	9659.545
47 (1200)	32 (800)	1	9659.555

With pressure relief valve, build height: 1" (25 mm)

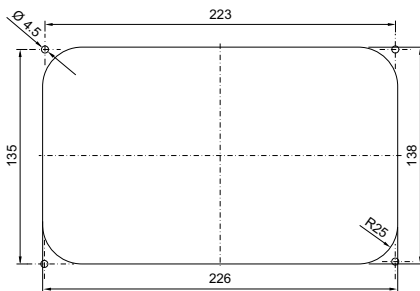
For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
16 (400)	24 (600)	1	9671.446
24 (600)	24 (600)	1	9660.935
32 (800)	24 (600)	1	9660.945
39 (1000)	24 (600)	1	9660.955
47 (1200)	24 (600)	1	9660.965
16 (400)	32 (800)	1	9671.448
24 (600)	32 (800)	1	9671.468
32 (800)	32 (800)	1	9671.488

Extended delivery times.

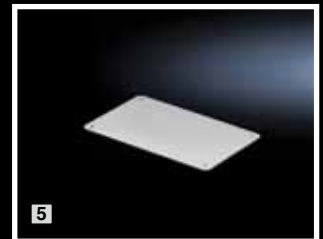
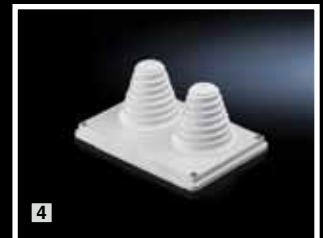
Cable entry gland

- Including seal
- External dimensions, inches (mm):
10 x 6 (250 x 160)
- Protection rating IP 55

Design	Material	Color	Packs of	Part No.
1 14 x M25/32	Insulating material	RAL 7032	1	9665.750
2 2 x M25/32/40, 1 x M32/40/50, 2 x M40/50/63	Insulating material	RAL 7032	1	9665.760
3 With sealing membranes 32 x Ø 7 – 16 mm, 4 x Ø 10 – 20 mm, 3 x Ø 14 – 26 mm	Insulating material	RAL 7032	1	9665.770
4 With entry glands up to 66 mm diameter	Insulating material	RAL 7032	1	9665.780
5 Solid	Carbon steel, spray-finished	RAL 7035	1	9665.785

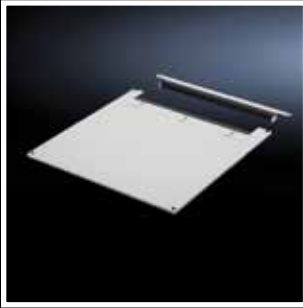


Cut-out dimensions for
9665.750 to 9665.785



Roof/wall mounting

Roof



Roof plate for cable entry, two-piece for TS

In exchange for the standard roof. Equipped with a sliding angular bracket in the rear section. Rubber cable clamp strip on both sides for attaching cable bundles and bunched cables. Thanks to the symmetrical design of the TS 8 frame, side cable entry can also be achieved by rotating the roof plate. The two-piece design additionally allows easy retro-fitting, by simply removing the front part of the plate for retrospective cable entry. For active ventilation, a fan mounting panel may be fitted in the front section of the enclosure (not in conjunction with 19" (482.6 mm) mounting frames). To this end, the roof plate must be raised by at least 0.8" (20 mm) using spacers.

Material:

Carbon steel

Color:

RAL 7035

Accessories:

- Fan mounting panel, see page 388
- Spacers, see page 626

Detailed drawings:

Available at www.rittal-corp.com



For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	16 (400)	7826.645¹⁾
24 (600)	24 (600)	7826.665
24 (600)	32 (800)	7826.685
24 (600)	39 (1000)	7826.605
24 (600)	47 (1200)	7826.625
32 (800)	16 (400)	7826.845
32 (800)	24 (600)	7826.865
32 (800)	32 (800)	7826.885
32 (800)	39 (1000)	7826.805
47 (1200)	16 (400)	7826.245
32 (800)	47 (1200)	7826.825

¹⁾ Extended delivery times.



Roof plate, multi-piece for side cable entry in TS

The roof plate allows side cable entry on both sides across the entire enclosure depth. Sliding brackets at the sides allow variable adaptation of the entry opening. Additional rubber cable clamp strips secure the inserted cable bundles and cable sections. The multi-piece design allows convenient retrofitting, as the roof plate is removable even with the cables already inserted. Passive ventilation is supported by raising the roof with spacers.

Material:

Carbon steel

Surface finish:

Spray-finished

Color:

RAL 7035

Configuration:

Assembly parts

Accessories:

Spacers, see page 626



For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
32 (800)	39 (1000)	7526.807
32 (800)	47 (1200)	7526.827¹⁾

¹⁾ Extended delivery times.

Roof plate

for cable entry on all sides for TS

The roof plate has sliding plates for cable entry on all four sides, and therefore allows individual selection of cable routing tailored to the specific requirements. After cable entry, the sliding plate is closed again as far as possible, and the rubber cable clamp strips supplied loose then seal the cable entry area.

Material:
Carbon steel

Color:
RAL 7035

For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
32 (800)	32 (800)	7826.588

Configuration:
Assembly parts

Detailed drawings:
Available at www.rittal-corp.com



Roof plate, vented for TS

In exchange for the standard roof.

Version 1:

2.8" (72 mm) high roof plate, all-round vent slots, optionally with clamp strip for cable entry. The two-piece design with cable entry allows easy retro-fitting, by simply removing the front part of the plate. The cables are held in position via a guide at the side.

Material:
Carbon steel

Color:
RAL 7035

Accessories:
Fan mounting panel, see page 388

Detailed drawings:
Available at www.rittal-corp.com

One-piece without cable entry

For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	24 (600)	7826.766
24 (600)	32 (800)	7826.768
24 (600)	39 (1000)	7826.760¹⁾
32 (800)	24 (600)	7826.786
32 (800)	32 (800)	7826.788
32 (800)	39 (1000)	7826.780

¹⁾ Extended delivery times.

Two-piece with cable entry

For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	24 (600)	7826.669
24 (600)	32 (800)	7826.689
32 (800)	24 (600)	7826.869
32 (800)	32 (800)	7826.889
32 (800)	39 (1000)	7826.809



Version 2:

Ventilation holes (Ø 5 mm) are incorporated all round into the 3.8" (97 mm) high roof plate. In conjunction with the vented glazed and carbon steel door, the roof plate matches the door design.

Material:
Carbon steel

Color:
RAL 7035

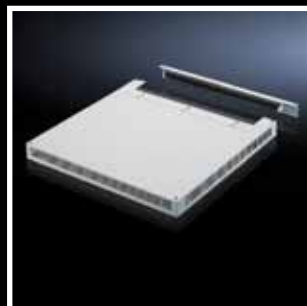
Accessories:
Fan mounting panel, see page 388

Detailed drawings:
Available at www.rittal-corp.com

Two-piece with cable entry

For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
32 (800)	24 (600)	7826.866
32 (800)	32 (800)	7826.886
32 (800)	39 (1000)	7826.806¹⁾

¹⁾ Extended delivery times.



Roof/wall mounting

Roof



Roof mounting screw

For screw-fastening the roof plate instead of eyebolts. With the TS 8, the contact washers for potential equalization may be taken from the eyebolts included with the supply of the enclosures.

Material:
Steel

Surface finish:
Zinc-plated

Packs of	Part No.
20	4198.000



Spacer for roof plate TS

To raise the TS 8 roof for ventilation purposes, in three different heights. Not suitable for crane transportation.

Material:
Hexagonal sectional steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Height inches (mm)	Packs of	Part No.
0.4 (10)	4	2422.000
0.8 (20)	4	2423.000
2 (50)	4	7967.000



Eyebolt for TS, ES

For crane transportation of enclosures, where not already included in the supply.
Thread: M12

Packs of	Part No.
4	4568.000

Eyebolt for CM

For crane transportation of enclosures, with reinforcement plate to be inserted underneath. Mounting via the two holes in the top of the CM. Thread: M12

Configuration:

- Eyebolts
- Reinforcement plates

Packs of	Part No.
2	2509.500



Eyebolt for AE

For crane transportation of enclosures, with reinforcement plate to be inserted underneath. Thread: M12

Configuration:

- Eyebolts
- Reinforcement plates

Packs of	Part No.
2	2509.000



Roof/wall mounting

Wall mounting



Universal wallmounting bracket

For AE, WM, EB, JB

Used to install wallmounted enclosures using traditional NEMA hole patterns.

Material:

Carbon steel, zinc-plated, passivated
Type 316L stainless steel

Material	PU	Part No.
Zinc-plated	4	WMUMB
Stainless Steel	4	WMUMB6



Slotted wallmount bracket

For AE, WM

Designed to mimic a standard NEMA style flange where the slots on the lower brackets accommodate drop-on and lift-off mounting.

Material:

Carbon steel, zinc-plated, passivated
Type 316L stainless steel

Material	PU	Part No.
Zinc-plated	1 set	WMSMB
Stainless Steel	1 set	WMSMB6



Wall mounting bracket

For the attachment of KL, EB, BG, EL and JB enclosures as well as wall-mounted distributors.

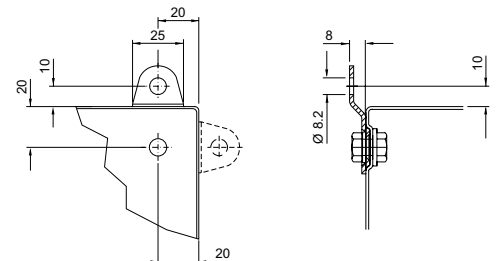
Configuration:

Assembly parts for mounting on the enclosure

Note:

For hygiene reasons, and in view of the protection category, the stainless steel enclosures do not have any drilled holes for the wall mounting brackets.

Material	Wall distance inches (mm)	Packs of	Part No.
Brass, nickel-plated	0.3 (8)	4	1580.000
Carbon steel, zinc-plated, passivated	0.3 (8)	4	1590.000
Type 304 stainless steel	0.3 (8)	4	1594.000



Wall mounting

Wall mounting bracket

for AE, WM

For attaching to the enclosure from the outside. Simply insert the expandable dowel into the enclosure hole from the outside, and screw-fasten the wall bracket from the outside.

Material:

Carbon steel

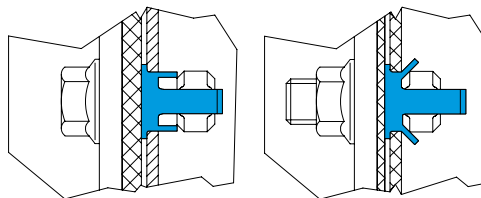
Surface finish:

Zinc-plated

Configuration:

Wall bracket pre-fitted with seal and expandable dowel

Wall distance inches (mm)	Packs of	Part No.
0.6 (15)	4	2508.100



Wall mounting bracket

For the attachment of KL, EB, BG, AE, CM and EL enclosures, TP consoles as well as wall-mounted distributors and small fiber-optic distributors.

Configuration:

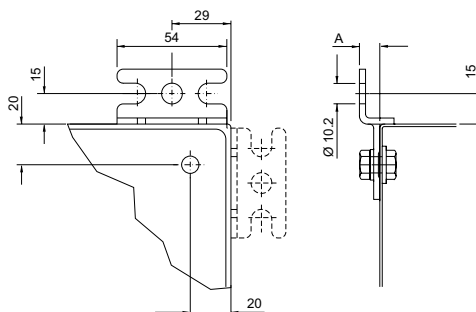
Assembly parts for mounting on the enclosure

Possible alternative:

Hygienic Design wall spacer bracket, see page 208

Material	Wall distance (A) inches (mm)	PU	Part No.
Sheet steel zinc-plated, passivated	1.6 (40)	1	2503.000¹⁾
		4	2503.200
	0.4 (10)	1	2508.000¹⁾
		4	2508.200
Type 304 stainless steel	0.4 (10)	4	2433.000
Type 316L stainless steel	0.4 (10)	4	2433.500

¹⁾ Without assembly hardware.



Roof/wall mounting

Wall mounting



Wall mounting bracket for KS

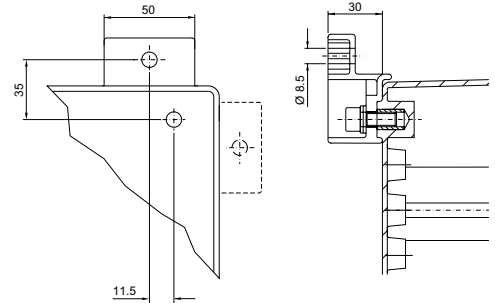
For attachment to the wall, only possible from the outside of the enclosure.

Material:
Fiberglass-reinforced polyamide¹⁾

Configuration:
Assembly parts for mounting on the enclosure

Color	Packs of	Part No.
Similar to RAL 7035	4	1483.010
Similar to RAL 9011	4	9266.000¹⁾

¹⁾ With graphite additive for Ex applications.

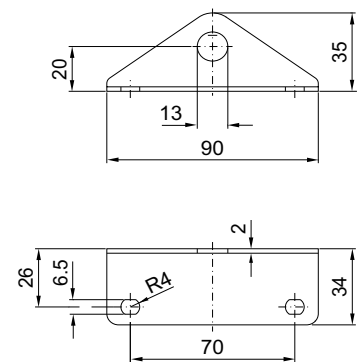


Wall angle

For compact enclosures (additional holes required in the enclosure).

Configuration:
Assembly parts for mounting on the enclosure

Material	Color	Packs of	Part No.
Carbon steel	RAL 7035	4	2505.510
Type 304 stainless steel	-	4	2583.010



Wall bracket

For wall mounting of TS and ES enclosures at the roof, e.g. with heavy components on the door or built-in swing frame.

Packs of	Part No.
4	4595.000

Material:

Carbon steel

Surface finish:

Zinc-plated

Possible alternative:

With TS 8 inside the enclosure (without mounting panel), buying bracket 8800.470, see page 577



Wall mounting for CS wall-mounted enclosures

For mounting on a wall or panel.

Packs of	Part No.
4	9765.120

Material:

Type 304 stainless steel



Pole clamp

for KL, EB, BG, AE, KS and CS wall-mounted enclosures

For reliable, convenient fastening to round or square poles. For pole diameter/size:

- Ø from 1.6" to 7.5" (40 to 190 mm)
- □ from 2.0" to 5.9" (50 to 150 mm)

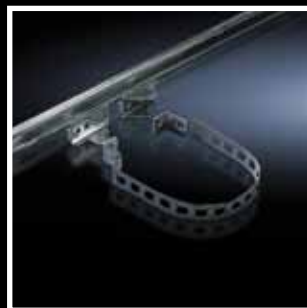
Material:

- Mounting angles, clamping section: Carbon steel
- Clamping strap: Type 304 stainless steel

Packs of	Part No.
1 set	2584.000

Configuration:

- 2 mounting angles, 24" (600 mm) long
- 4 clamping sections
- 2 clamping straps
- 4 clamping brackets
- 4 screws and captive nuts M8 for mounting on the enclosure



Surface finish:

Mounting angle, clamping section: Zinc-plated

Frame connector, adjustable for Comfort Panel

Between the command panel and keyboard housing and horizontal or vertical surfaces.

Rotation range:

Adjustable in 8° stepped increments, see drawing.

Material:

Die-cast zinc

Surface finish:

Powder-coated

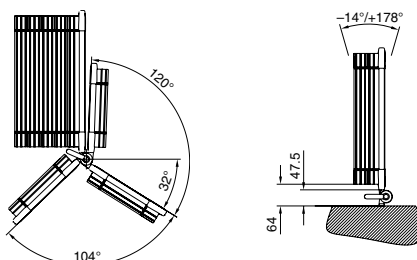
Color:

RAL 7024

Packs of	Part No.
1 set	6005.500

Configuration:

Assembly parts and clamping levers for both sides



Roof/wall mounting

Wall mounting



Enclosure connectors

Adjustable

Between Command Panels, terminal boxes, compact enclosures and horizontal or vertical surfaces. Pre-mount the connector halves on both sides, screw together and secure with a locking screw, and/or adjust the angle of rotation.

Rotation range:

±105° adjustable in 7.5° stepped increments

Material:

Die-cast zinc

Surface finish:

Powder-coated

Color:

RAL 7035

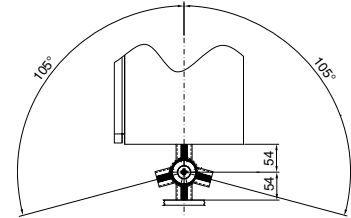
Configuration:

Assembly parts for both sides

Note:

The locking screws may be exchanged for standard, commercially available clamping levers (M10 x 50 mm).

Packs of	Part No.
1 set	6016.200



Wall mounting

Vertically hinged

Between the Compact Panel and horizontal or vertical surfaces.

Rotation range:

180° adjustable on a 7.2° pitch pattern

Material:

- Wall mounting bracket: Carbon steel
- Knurled screw: Steel with plastic knurled handle

Configuration:

Knurled screw and assembly parts for mounting on the Compact Panel

Packs of	Part No.
1 set	6341.000



Full size mounting panels for JB, WM

Surface finish:
Zinc-plated

Material:

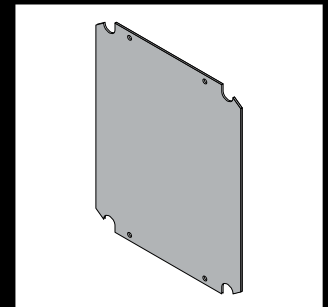
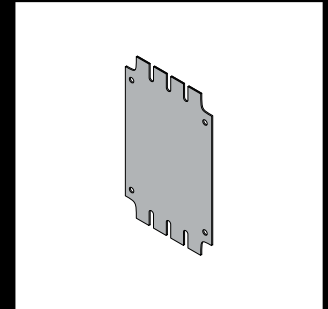
JB: 16 ga (1.5 mm)

WM: 14 - 11 ga (2.0 - 3.0 mm)

Configuration:

Assembly parts

Height inches (mm)	Width inches (mm)	Zinc-plated Part No.	White Part No.	Stainless Steel Part No.	JB	WM
11 (275)	10 (254)	WMMP1212	WMMP1212W	WMMP121S6	-	■
15 (375)	10 (254)	WMMP1612	WMMP1612W	WMMP1612S6	-	■
15 (375)	14 (354)	WMMP1616	WMMP1616W	WMMP1616S6	-	■
19 (475)	14 (354)	WMMP2016	WMMP2016W	WMMP2016S6	-	■
22 (570)	14 (354)	WMMP2416	WMMP2416W	WMMP2416S6	-	■
15 (375)	18 (449)	WMMP1620	WMMP1620W	WMMP1620S6	-	■
19 (475)	18 (449)	WMMP2020	WMMP2020W	WMMP2020S6	-	■
22 (570)	18 (449)	WMMP2420	WMMP2420W	WMMP2420S6	-	■
29 (730)	18 (449)	WMMP3020	WMMP3020W	WMMP3020S6	-	■
19 (475)	22 (549)	WMMP2024	WMMP2024W	WMMP2024S6	-	■
22 (570)	22 (549)	WMMP2424	WMMP2424W	WMMP2424S6	-	■
29 (730)	22 (549)	WMMP3024	WMMP3024W	WMMP3024S6	-	■
34 (870)	22 (549)	WMMP3624	WMMP3624W	WMMP3624S6	-	■
22 (570)	28 (704)	WMMP2430	WMMP2430W	WMMP2430S6	-	■
29 (730)	28 (704)	WMMP3030	WMMP3030W	WMMP3030S6	-	■
34 (870)	28 (704)	WMMP3630	WMMP3630W	WMMP3630S6	-	■
40 (1020)	28 (704)	WMMP4230	WMMP4230W	WMMP4230S6	-	■
34 (870)	33 (840)	WMMP3636	WMMP3636W	WMMP3636S6	-	■
40 (1020)	33 (840)	WMMP4236	WMMP4236W	WMMP4236S6	-	■
45 (1155)	33 (840)	WMMP4836	WMMP4836W	WMMP4836S6	-	■
57 (1455)	33 (840)	WMMP6036	WMMP6036W	WMMP6036S6	-	■
22 (550)	39 (1000)	WMMP2442	WMMP2442W	WMMP2442S6	-	■
28 (710)	39 (1000)	WMMP3042	WMMP3042W	WMMP3042S6	-	■
33 (850)	39 (1000)	WMMP3642	WMMP3642W	WMMP3642S6	-	■
28 (710)	45 (1150)	WMMP3048	WMMP3048W	WMMP3048S6	-	■
33 (850)	45 (1150)	WMMP3648	WMMP3648W	WMMP3648S6	-	■
45 (1150)	45 (1150)	WMMP4848	WMMP4848W	WMMP4848S6	-	■
33 (850)	57 (1450)	WMMP3660	WMMP3660W	WMMP3660S6	-	■
40 (1020)	57 (1450)	WMMP4260	WMMP4260W	WMMP4260S6	-	■
5 (135)	3 (75)	JBMP0604	JBMP0604W	JBMP0604S6	■	-
5 (135)	5 (135)	JBMP0606	JBMP0606W	JBMP0606S6	■	-
7 (185)	5 (135)	JBMP0806	JBMP0806W	JBMP0806S6	■	-
11 (285)	5 (125)	JBMP1206	JBMP1206W	JBMP1206S6	■	-
7 (185)	7 (175)	JBMP0808	JBMP0808W	JBMP0808S6	■	-
9 (235)	7 (175)	JBMP1008	JBMP1008W	JBMP1008S6	■	-
9 (235)	9 (225)	JBMP1010	JBMP1010W	JBMP1010S6	■	-
11 (285)	9 (225)	JBMP1210	JBMP1210W	JBMP1210S6	■	-
11 (285)	11 (275)	JBMP1212	JBMP1212W	JBMP1212S6	■	-
13 (335)	11 (275)	JBMP1412	JBMP1412W	JBMP1412S6	■	-
15 (385)	13 (325)	JBMP1614	JBMP1614W	JBMP1614S6	■	-
15 (385)	14 (350)	JBMP1614	JBMP1614W	JBMP1614S6	■	-



Interior installation

Mounting panel



Full size mounting panels for TS

Depth-adjustable on a 25 mm pitch pattern

Material:

Carbon steel, 11 ga (3.0 mm)

Surface finish:

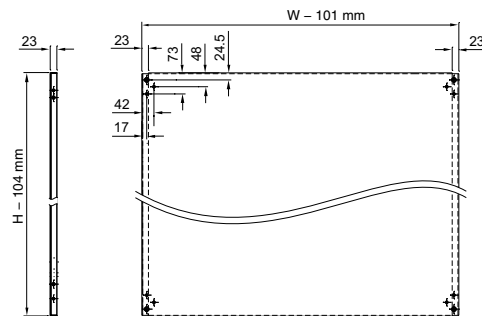
Zinc-plated

Configuration:

Assembly parts

Accessories:

- TS 18 x 38 mm punched rail, used as mounting plate slide rail, see page 655
- TS width divider, for installation in wider enclosures, see page 552



Enclosure Height inches (mm)	Enclosure Width inches (mm)	Part No.
55 (1400)	24 (600)	8645.791
55 (1400)	32 (800)	8845.791
55 (1400)	39 (1000)	8945.791
55 (1400)	47 (1200)	8245.791
63 (1600)	24 (600)	8665.791
63 (1600)	32 (800)	8865.791
63 (1600)	47 (1200)	8265.791
71 (1800)	16 (400)	8485.791
71 (1800)	24 (600)	8684.791
71 (1800)	32 (800)	8880.791
71 (1800)	39 (1000)	8080.791
71 (1800)	47 (1200)	8284.791
71 (1800)	63 (1600)	8901.960
71 (1800)	71 (1800)	8901.970
79 (2000)	16 (400)	8405.791
79 (2000)	24 (600)	8604.791
79 (2000)	32 (800)	8804.791
79 (2000)	39 (1000)	8005.791
79 (2000)	47 (1200)	8204.791
79 (2000)	63 (1600)	8901.980
79 (2000)	71 (1800)	8901.990
87 (2200)	16 (400)	8426.791
87 (2200)	24 (600)	8626.791
87 (2200)	32 (800)	8826.791
87 (2200)	39 (1000)	8026.791
87 (2200)	47 (1200)	8226.791

Mounting panel

Mounting panels

for KL and Hygienic Design terminal box

For component installation inside of the enclosure.
Assembly screws included as accessories with the enclosure.

Material:

Carbon steel, 14 ga (2.0 mm)

Surface finish:

Zinc-plated

Accessories:

Self-tapping screws 2487.000, see page 674

Possible alternative:

Support rails, see page 662

Detailed drawings:

Available at www.rittal-corp.com



For size inches (mm)	For KL and Hygienic Design terminal boxes	Part No.
6 x 6 (150 x 150)	1500.510, 1514.510, 1521.010, 1527.010, 1670.600, 1671.600	1560.700
8 x 6 (200 x 150)	1528.510, 1529.510	1575.700
12 x 6 (300 x 150)	1501.510, 1515.510, 1522.010, 1530.510	1561.700
16 x 6 (400 x 150)	1589.510	1576.700
8 x 8 (200 x 200)	1502.510, 1516.510, 1523.010, 1528.010, 1672.600	1562.700
12 x 8 (300 x 200)	1503.510, 1517.510, 1524.010, 1529.010, 1531.510, 1674.600	1563.700
16 x 8 (400 x 200)	1504.510, 1518.510, 1525.010, 1532.510, 1675.600	1564.700
20 x 8 (500 x 200)	1505.510, 1533.510	1565.700
24 x 8 (600 x 200)	1506.510, 1519.510, 1534.510	1566.700
32 x 8 (800 x 200)	1527.510, 1542.510	1574.700
12 x 12 (300 x 300)	1507.510, 1526.010, 1535.510	1567.700
16 x 12 (400 x 300)	1508.510, 1530.010, 1536.510, 1676.600	1568.700
20 x 12 (500 x 300)	1509.510, 1537.510	1569.700
24 x 12 (600 x 300)	1510.510, 1538.510	1570.700
16 x 16 (400 x 400)	1511.510, 1539.510	1571.700
24 x 16 (600 x 400)	1512.510, 1540.510	1572.700
32 x 16 (800 x 400)	1513.510, 1541.510	1573.700

Mounting panel infill

for TS

For a continuous mounting surface in bayed suites where the mounting panel is set forward.

Material:

Carbon steel, 14 ga (2.0 mm)

Surface finish:

Zinc-plated

Configuration:

Assembly parts

For enclosure height inches (mm)	Part No.
71 (1800)	4590.700
79 (2000)	4591.700
87 (2200)	4592.700



Interior installation

Mounting panel

Mounting panel attachment

For additional clamping and to reduce potential vibration of the mounting panel. Select according to mounting position, installation type and enclosure.

Material: Carbon steel

Surface finish: Zinc-plated

Configuration: Assembly parts



For TS

Installation options:

- Side, at half height in conjunction with mounting panel infill
- In the penultimate position
- Set forward (supplied state)

Benefit: No impairment to the mounting surface, but mounting is only possible from the enclosure rear.

Packs of	Part No.
10	8800.630

Accessories:

Mounting panel infill, see page 635



For TS

Installation options:

- Side
- Rear, flush with enclosure frame

Benefit: No impairment to the mounting surface, but mounting is only possible from the enclosure rear.

Packs of	Part No.
10	8800.610



For TS

Installation options:

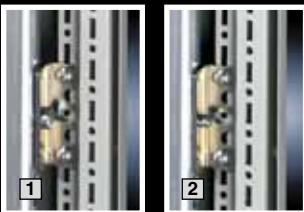
- Side
- Rear, flush with enclosure frame
- Set forward on a 25 mm pitch pattern

Benefit: No impairment to the mounting surface. May optionally used for attachment or screw fastening.

Packs of	Part No.
10	8800.090

Also required:

Punched section with mounting flange 17 x 73 mm for the inner mounting level, see page 652 (with Fig. 3)



- 1** Mounting panel screw-fastened in the rearmost installation position.
- 2** Mounting panel screw-fastened from the rear in the rearmost installation position.
- 3** Mounting panel in a set forward position, either attached (shown) or screw-fastened (not shown).



For TS

Installation options:

- Side
- Rear, flush with enclosure frame

Slide over the plate at the side and secure with screws. Additionally, the mounting panel may be drilled and screw-fastened at the rear C-edge.

Packs of	Part No.
10	8800.050



Mounting panel

Mounting panel attachment

For additional clamping and to reduce potential vibration of the mounting panel. Select according to mounting position, installation type and enclosure.

For TS, ES

Installation options:

- All-round
- Set forward on a 25 mm pitch pattern

Slide in between the bar and plate from below or above or from the side, and secure with screws.

For TS, ES

Installation options:

- On the top and bottom of the mounting panel (TS) or all-round (ES)
- Rear, flush with enclosure frame

Screw in the clip behind the plate and secure with screws.

Material: Carbon steel

Surface finish: Zinc-plated

Configuration: Assembly parts

Packs of	Part No.
10	4593.000

Also required:

- Support strip (with TS for inner level), see page 656 or
- Punched section with mounting flange (with TS for inner level), see page 652 or
- Punched rails and punched sections without mounting flange, see page 658

Packs of	Part No.
10	4576.000



Installation kit

for mounting panels TS, back-to-back

The minimal distance between the two mounting plates ensures a maximum installation depth for installed equipment on both sides.

Material:

Carbon steel

Surface finish:

Zinc-plated

Note:

Build height front and rear, with central installation =
(enclosure depth - 1.9" (48 mm))

Example:

8806.521 = Depth 24" (600 mm)
Build depth = 2 x 10.9" (276 mm)

Packs of	Part No.
1 set	8800.280



Interior installation

Mounting panel



Mounting panel slide block for CM

In this way, populated mounting panels slide easily into the mounting position for installation and/or clip-fastening.

Benefits:

- Installation without drilling
- Simply screw-fasten to the existing holes in the mounting panel
- May be reused, unscrew to detach

Material:

Polyamide

Packs of	Part No.
2	5001.070

Color:

Similar to RAL 9011

Configuration:

Assembly parts



Slide rails for mounting panel TS

Slides in from the side.

- Attachment of the mounting panel to the slide rails via captive nuts and screws
- Mounting of the slide rails directly on the enclosure frame, depth-adjustable on a 25 mm pitch pattern

Technical specifications:

Possible mounting depth T6 – 25 mm

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

For enclosure width inches (mm)	Packs of	Part No.
24 (600)	2	8802.260
32 (800)	2	8802.280
47 (1200)	2	8802.220



Mounting panel adjustment bracket for KS, infinitely adjustable

Other equipment can also be installed on a rail system, instead of the mounting panel.

Other equipment can also be installed on a rail system, instead of the mounting panel.

Material:

Carbon steel

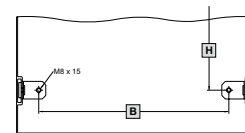
Surface finish:

Zinc-plated

Configuration:

Assembly parts

For KS enclosure	PU	Part No.
1423.500, 1432.500, 1434.500, 1444.500, 1446.500, 1448.500, 1449.500, 1466.500, 1467.500	4	1481.000
1400.500, 1453.500, 1454.500, 1468.500, 1469.500, 1479.500, 1480.500	4	1491.000



- B** Enclosure width:
 - 3" (76 mm) – 1481.000
 - 4" (104 mm) – 1491.000

- H** Enclosure height:
 - 6" (150 mm)



Mounting panel

Mounting panel attachment for CM, TP one-piece console, TP pedestal for high dynamic loads

For example, if a direct connection between the mounting panel and the enclosure is required for mobile use (cranes etc.). Tested as per DIN EN 60 721 severity 4M4, with a weight of 331 lb (150 kg) evenly distributed over the mounting panel. Simply screw-fasten to the existing holes in the mounting panel to pre-assemble for:

Wall mounting from the inside:

Direct using a bracket and wall/support mounted enclosure.

Wall mounting from the outside:

Screws for wall mounting brackets (see page 629) can easily be screwed into the plate nuts from the outside.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Packs of	Part No.
1 set	5001.075



Cross-brace for mounting panel for TS, ES

Additional horizontal rigidity for vibration resistance and/or stabilization of wide mounting panels. This brace may also be used as an attachment aid for heavy components.

Material:

Carbon steel

Surface finish:

Zinc-plated

For enclosure width inches (mm)	Part No.
47 (1200)	4333.120
63 (1600)	4333.160
71 (1800)	4333.180

Other widths available on request.

Configuration:

- 2 sections
- 4 clamping sections
- 4 grub screws M10 x 16 mm



Transport handle for mounting panel for TS, ES

May be used at any given position in the side C-fold.

Benefits include:

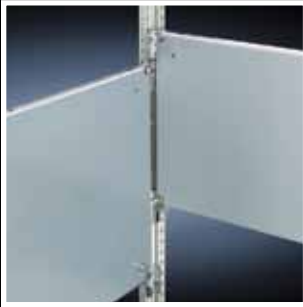
- Can be used for people of different heights
- Optimized leverage
- Easy handling

Packs of	Part No.
2	2415.500



Interior installation

Mounting panel



Partial mounting panel

for TS, CS Toptec

For

- Universal interior installation, also in conjunction with punched sections with mounting flanges and support strips. Defective assemblies are quickly and easily replaced
- Additional mounting levels

Partial mounting panels are fastened directly onto the vertical enclosure sections via the inner mounting level using the assembly parts supplied loose. In this mounting position (in both the width and the depth) they form one level with TS punched sections with mounting flanges 17 x 73 mm and TS support strips for the inner mounting level.

Material:

Carbon steel, 10 ga (2.5 mm)

Surface finish:

Zinc-plated

Configuration:

Assembly parts

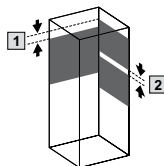
Accessories:

- TS punched section with mounting flange 17 x 73 mm for the outer mounting level, see page 652
- TS support strip, see page 656
- Hinge attachment, see page 641
- Self-tapping screws, 2487.000, see page 674

Enclosure width inches (mm)					Enclosure depth (side) inches (mm)				Size inches (mm)	Packs of	Part No.
16 (400)	24 (600)	32 (800)	39 (1000)	47 (1200)	16 (400)	20 (500)	24 (600)	32 (800)			
■	■				■		■		20 x 12 (500 x 300)	1	8614.640
	■					■	■		20 x 16 (500 x 400)	1	8614.650
	■						■		20 x 20 (500 x 500)	1	8614.660
	■	■					■	■	20 x 28 (500 x 700)	1	8614.680
	■						■		20 x 31 (500 x 775)	1	8614.675 ¹⁾
■		■			■			■	28 x 12 (700 x 300)	1	8614.840
		■				■		■	28 x 16 (700 x 400)	1	8614.850
		■						■	28 x 28 (700 x 700)	1	8614.880
■			■		■				35 x 12 (900 x 300)	1	8614.040
			■			■			35 x 16 (900 x 400)	1	8614.050
	■		■				■		35 x 20 (900 x 500)	1	8614.060
■				■	■				43 x 12 (1100 x 300)	1	8614.240
				■		■			43 x 16 (1100 x 400)	1	8614.250
	■			■			■		43 x 20 (1100 x 500)	1	8614.260

¹⁾ Also suitable for installing in

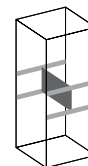
- PC enclosures based on TS behind the lower front door
- IW enclosures, height 35" and 39" (900 and 1000 mm)



When **installing around corners** due to collision between the assembly components

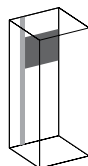
- 1** At least 75 mm, adjustable on a 25 mm pitch pattern. Maximum space utilization

2 1 mm (adjustable on a 25 mm pitch pattern).



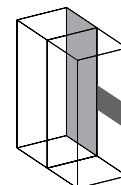
Set forward installation position

Quickly and easily achieved with four TS punched sections with mounting flanges 17 x 73 mm for the outer mounting level, see page 652.



Partial installation

Partial utilization of the enclosure depth or width is also possible. In this example, using a PS punched section without mounting flange 23 x 73 mm, see page 658.



Continuously flush

In bayed enclosures, the partial mounting panel is in the rear most position flush with the standard mounting panel. This facilitates continuous component mounting.

Mounting panel

Hinge attachment for partial mounting panel TS

Material:
Steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Packs of	Part No.
1 set	8614.100

Also required:
Depending on the installation position,

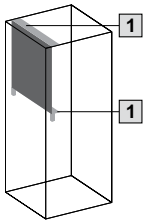
- 1 Installation kit for swing frame, small, for enclosure width
24" (600 mm), Part No. 2377.860
32" (800 mm), Part No. 2377.880, see page 745
- 2 PS punched section without mounting flange
23 x 73 mm according to the enclosure depth,
see page 658
- Support brackets 8800.330, see page 669

Side installation:
In conjunction with hinge, for side panel, see page 563, for an enclosure depth of 24" or 32" (600 or 800 mm), side installation is identical to installation parallel to the front.

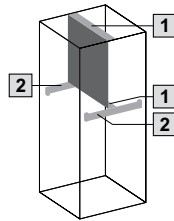
Examples

In the highest or lowest position

At the front

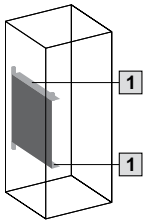


Set back

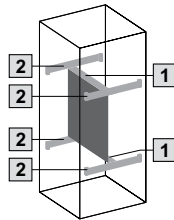


In a central position

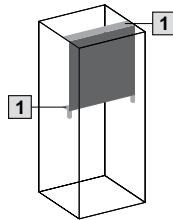
At the front



Set back



Side installation



Partial mounting panels for ES, CS Basic and modular enclosures

For additional mounting levels.

Material:
Carbon steel, 10 ga (2.5 mm)

Surface finish:
Zinc-plated

Configuration:
Assembly parts

- Accessories:**
- PS punched section without mounting flange,
23 x 73 mm, see page 658
 - Self-tapping screws, 2487.000, see page 674

For enc. width inches (mm)	Height x width inches (mm)	Packs of	Part No.
24 (600)	15 x 19 (373 x 492)	2	4131.700
24 (600)	23 x 19 (573 x 492)	2	4132.700
32 (800)	23 x 27 (573 x 692)	2	4137.700



Interior installation

Mounting panel



Partial mounting panels, locatable into rails

for TP

For installation in:

- Console and desk unit on the interior installation system rails
- Punched sections with mounting flanges or support strips fitted to the side of the pedestal in the depth
- Other enclosures mounted on rails with 25 mm pitch pattern punchings

For easy mounting on pre-fitted assembly screws. Bayable by screw-fastening at the sides

Material:

Carbon steel

Surface finish:

Zinc-plated

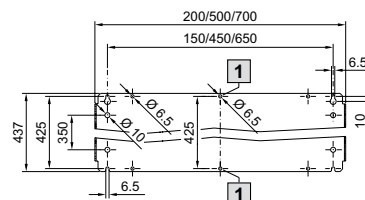
Configuration:

Assembly parts

Height inches (mm)	Width inches (mm)	Packs of	Part No.
17 (437)	8 (200)	1	6730.310
17 (437)	20 (500)	1	6730.330
17 (437)	28 (700)	1	6730.340

For console/desk unit Width inches (mm)	Max. partial mounting panel installation
24 (600)	1 x 6730.330
32 (800)	1 x 6730.340
47 (1200)	2 x 6730.310 1 x 6730.340
63 (1600)	3 x 6730.330

1 From width 20" (500 mm)



Support rail, locatable for TS, CM, PC, TP

To fit:

- Internal mounting behind the mounting compartment, small, of the PC enclosure
- Mounting on the vertical TS enclosure section
- Mounting in CM and TP on the interior installation rail.

Integral 25 mm pitch pattern of holes to accommodate:

- Mounting panel, small
- PS punched section without mounting flange via support brackets PS as a second mounting level if, due to an installed:
- Mounting panel infill
- Cable duct, vertical
- no punched sections or other assemblies can be mounted in the depth.

Static load capacity: max. 33 lb (15 kg.)

Material:

Carbon steel, 14 ga (2.0 mm)

Surface finish:

Zinc-plated

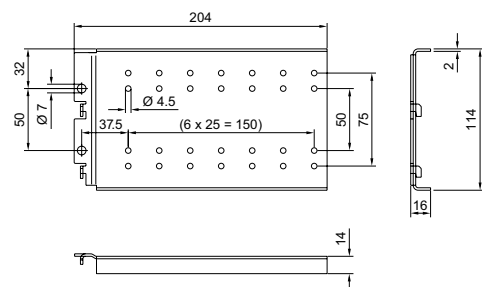
Configuration:

Assembly parts

Accessories:

PS punched section without mounting flange, see page 658

Packs of	Part No.
1 set	8612.200



Mounting panel

Mounting panel, small

For external mounting on:

- Support rail TS, locatable, depth-adjustable on a 25 mm pitch pattern
- Punched sections with mounting flanges, attached to the outer mounting level

Material:

Carbon steel, 16 ga (1.5 mm)

Surface finish:

Zinc-plated

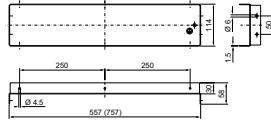
Configuration:

Assembly parts

Accessories:

- TS punched section with mounting flange, see page 652
- Self-tapping screws, 2487.000, see page 674

Enclosure width inches (mm)	Packs of	Part No.
24 (600)	1	8612.600



Mounting panel

for CS Toptec, Basic and modular enclosures

For the configuration of mounting levels. The mounting panels are depth-adjustable on a 25 mm pitch pattern.

Material:

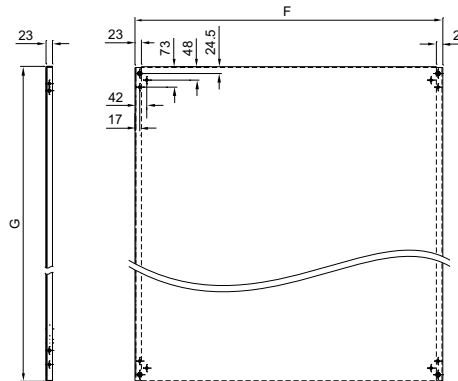
Aluminum, 11 ga (3.0 mm)

Configuration:

Assembly parts

Note:

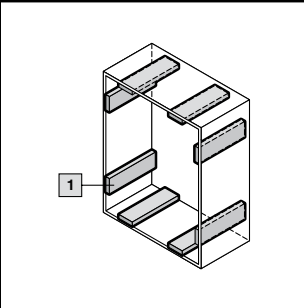
For an enclosure width of 47" (1200 mm), partial installation with one or two 24" (600 mm) wide mounting panels is possible.



For enclosure		F	G	Part No.
Height inches (mm)	Width inches (mm)			
32 (800)	24 (600)	20 (499)	27 (696)	9765.090
47 (1200)	24 (600)	20 (499)	43 (1096)	9765.092
32 (800)	32 (800)	28 (699)	27 (696)	9765.097
47 (1200)	32 (800)	28 (699)	43 (1096)	9765.095
63 (1600)	32 (800)	28 (699)	59 (1496)	9765.096
47 (1200)	47 (1200)	43 (1099)	43 (1096)	9765.191

Interior installation

Rail systems



AE, WM Installation examples with TS system rail

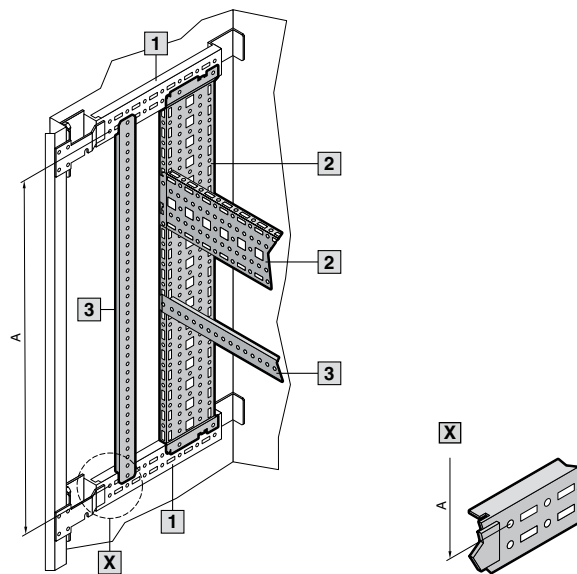
1 Rails for interior installation AE, WM (preparing for installation)

For enclosure depth inches (mm)	Packs of	8 (210)	10 (250)	12 (300)	14 (350)	Page
Part No.	4	2373.210	2373.250	2373.300	2373.350	651

Interior installation in the width and height

2 TS punched section with mounting flange, 17 x 73 mm	AE from enclosure width/height inches (mm)	A ¹⁾ inches (mm)	Packs of	Part No.			Page
652	15 (380)	9 (225)	4	8612.130			652
	20 (500)	13 (325)	4	8612.140			
		15 (375)	4	8612.040			
	24 (600)	17 (425)	4	8612.150			
		19 (475)	4	8612.050			
	30 (760)	21 (525)	4	8612.160			
		23 (575)	4	8612.060			
	39 (1000)	29 (725)	4	8612.180		–	
		31 (775)	4	8612.080		–	
		34 (875)	4	8612.090		–	
	47 (1200)	36 (925)	4	–	8612.100	–	
		38 (975)	4	–	8612.000	–	
55 (1400)	44 (1125)	4	–	8612.120	–		
	46 (1175)	4	–	8612.020	–		
3 TS mounting bar	16 (400)	13 (325)	20	4694.000			656
	20 (500)	17 (425)	20	4695.000			
	24 (600)	21 (525)	20	4696.000			
	32 (800)	29 (725)	20	4697.000			

¹⁾A = Rail mounting distance



CM Installation examples with TS system rails

1 Rails for interior installation (preparing for installation)

For encl. width/height inches (mm)	Packs of	24 (600)	32 (800)	39 (1000)	47 (1200)	55 (1400)	Page
Part No.	4	5001.050	5001.051	5001.052	5001.053	5001.054	651

2 Base configuration rail (preparing for installation)

For enclosure depth inches (mm)	Packs of	12 (300)	16 (400)	-	-	-	
Part No.	2	5001.371	5001.370	-	-	-	655

Installation in the width

	Packs of	Part No.					Page
For enclosure width inches (mm)		24 (600)	32 (800)	39 (1000)	47 (1200)	55 (1400)	
A ¹⁾ inches (mm)		23 (575)	31 (775)	38 (975)	46 (1175)	-	
3 TS punched section with mounting flange, 17 x 73 mm	4	8612.060	8612.080	8612.000	8612.020	-	652
4 TS mounting bars	20	8800.130	4579.000	-	-	-	656
5 Support rail	slotted	4	4396.000	4398.000	-	-	661
	unslotted	4	4396.500	4398.500	-	-	661
6 System support rails	2	4361.000	4362.000	4347.000	4363.000	-	660
7 C rails 30/15	6	4944.000	4945.000	4946.000	4947.000	-	659
8 Cable clamp rail	2	4191.000	4192.000	4336.000	4196.000	-	723

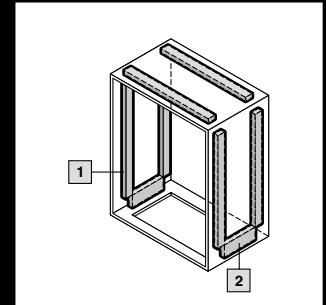
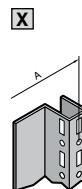
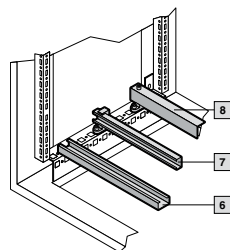
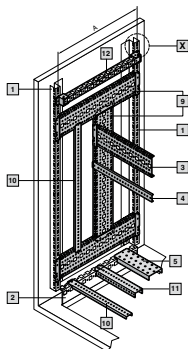
Installation in the height (individual installation e.g. with)

TS punched section with mounting flange, 17 x 73 mm	See page 652
TS mounting bars	See page 656

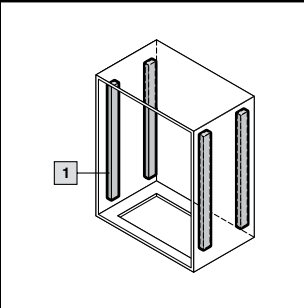
Installation in the depth

	For encl. depth inches (mm)	A ¹⁾ inches (mm)	Packs of	Part No.	
9 TS punched section with mounting flange, 17 x 73 mm	12 (300)	9 (225)	4	8612.130	652
	16 (400)	13 (325)	4	8612.140	652
10 TS mounting bars	16 (400)	13 (325)	20	4694.000	656
11 TS punched rail, 18 x 38 mm	16 (400)	13 (325)	4	8612.240	655
12 PS punched rail, 23 x 23 mm	16 (400)	11 (275)	12	4169.000	657
With mounting bracket TS (2 per rail)			24	8800.370	667

¹⁾ A = Rail mounting distance



Rail systems



TP pedestal Installation examples with TS system rail

1 Rails for interior installation (preparing for installation)

For enclosure depth inches (mm)	Packs of	24 (600)	32 (800)	47 (1200)	63 (1600)	Page
For enclosure height inches (mm)		27 (675)	27 (675)	27 (675)	27 (675)	
Part No.	4	5001.050				651

Installation in the width

	Packs of	Part No.				Page
For enclosure width inches (mm)		24 (600)	32 (800)	47 (1200)	63 (1600)	
A ¹⁾ inches (mm)		23 (575)	31 (775)	46 (1175)	62 (1575)	

2 TS punched section with mounting flange, 17 x 73 mm	4	8612.060	8612.080	8612.020	-	652
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3 TS mounting bars	20	8800.130	4579.000	-	-	656
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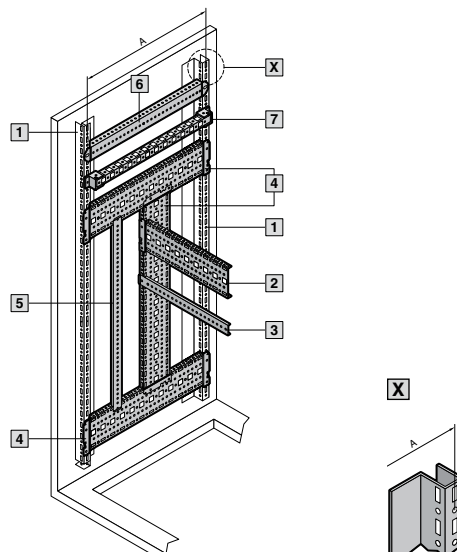
Installation in the height (individual installation e.g. with)

TS mounting bars	See page 656				
TS punched rail 18 x 38 mm	See page 655				

Installation in the depth

	For enclosure depth inches (mm)	A ¹⁾ inches (mm)	Packs of	Part No.	Page
4 TS punched section with mounting flange, 17 x 73 mm	16 (400)	13 (325)	4	8612.140	652
	20 (500)	17 (425)	4	8612.150	652
5 TS mounting bars	16 (400)	13 (325)	20	4694.000	656
	20 (500)	17 (425)	20	4695.000	656
6 TS punched rail, 18 x 38 mm	16 (400)	13 (325)	4	8612.240	655
	20 (500)	17 (425)	4	8612.250	655
7 PS punched rail, 23 x 23 mm	16 (400)	13 (325)	12	4169.000	657
	20 (500)	17 (425)	12	4170.000	657
With mounting bracket TS (2 per rail)			24	8800.370	667

¹⁾A = Rail mounting distance



TP pedestal Installation examples with TS system rail

1 Rails for interior installation (preparing for installation)

For enclosure width inches (mm)	Packs of	24 (600)	32 (800)	47 (1200)	63 (1600)	Page
Part No.	4	5001.050	5001.051	5001.053	-	651

Installation in the height

	A ¹⁾ inches (mm)	Packs of	Part No.				Page
For enclosure width inches (mm)			24 (600)	32 (800)	47 (1200)	63 (1600)	

2 TS punched section with mounting flange, 17 x 73 mm

For cover	15 (375)	4	8612.040				652
For enclosure	17 (425)	4	8612.150				652

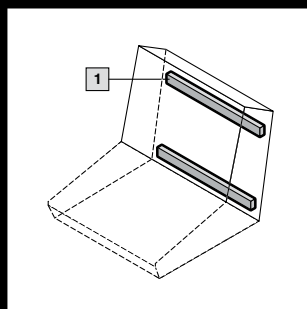
3 TS mounting bars

For cover	15 (375)	4	4309.000				656
For enclosure	17 (425)	4	4695.000				656

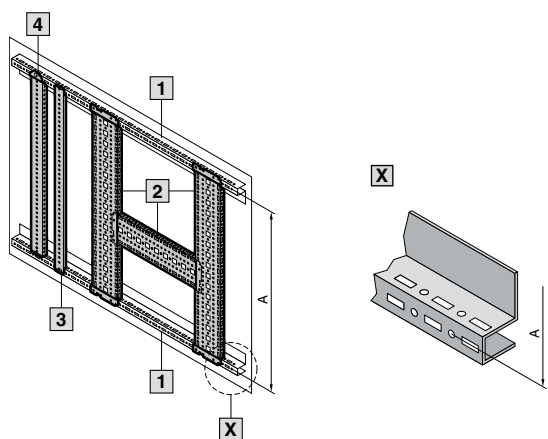
4 TS punched rail 18 x 38 mm

For enclosure	17 (425)	4	8612.250				655
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¹⁾A = Rail mounting distance



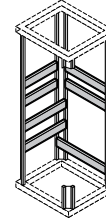
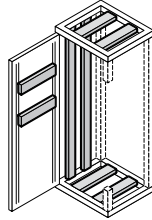
Console



Interior installation

Rail systems

TS installation examples with TS system rail

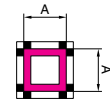


Installation in the roof and base frame in the width/depth

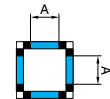


Installation between vertical sections in the width/depth

Internal level



External level



TS punched section with mounting flange, 17 x 73 mm

For enclosure width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
12 (300)	4	–	–	11 (275)	8612.030	9 (225)	8612.130	652
16 (400)	4	–	–	15 (375)	8612.040	13 (325)	8612.140	652
20 (500)	4	–	–	19 (475)	8612.050	17 (425)	8612.150	652
24 (600)	4	–	–	23 (575)	8612.060	21 (525)	8612.160	652
32 (800)	4	–	–	31 (775)	8612.080	29 (725)	8612.180	652
39 (1000)	4	–	–	38 (975)	8612.000	36 (925)	8612.100	652
47 (1200)	4	–	–	46 (1175)	8612.020	44 (1125)	8612.120	652

¹⁾A = Rail mounting distance

TS punched section with mounting flange, 23 x 73 mm

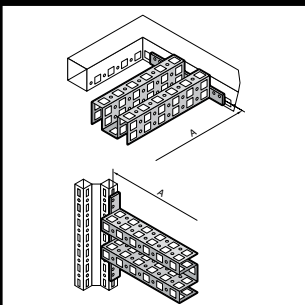
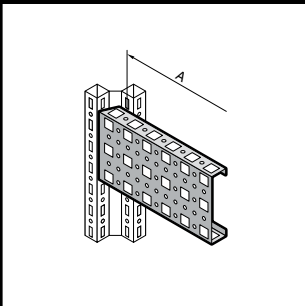
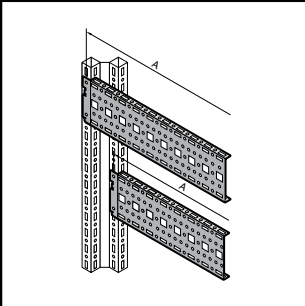
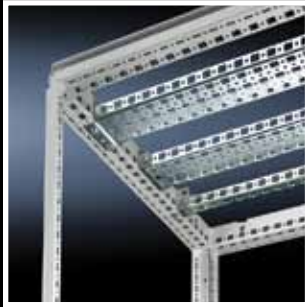
For enclosure width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
20 (500)	4	–	–	17 (425)	8612.550	–	–	653
24 (600)	4	–	–	21 (525)	8612.560	–	–	653
32 (800)	4	–	–	29 (725)	8612.580	–	–	653
39 (1000)	4	–	–	36 (925)	8612.500	–	–	653
47 (1200)	4	–	–	44 (1125)	8612.520	–	–	653

¹⁾A = Rail mounting distance

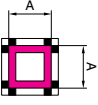
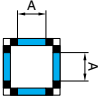
TS punched section without mounting flange, 45 x 88 mm

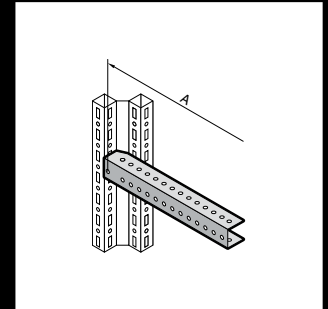
For enclosure width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
20 (500)	2	15 (375)	8612.650	–	–	15 (375)	8612.650	654
24 (600)	2	19 (475)	8612.660	–	–	19 (475)	8612.660	654
32 (800)	2	27 (675)	8612.680	–	–	27 (675)	8612.680	654

¹⁾A = Rail mounting distance



TS installation examples with TS system rail

	Installation in the roof and base frame in the width/depth	Installation between vertical sections in the width/depth	
		Internal level	External level
			



TS punched rail 25 x 38 mm (with snap-on nut M8)

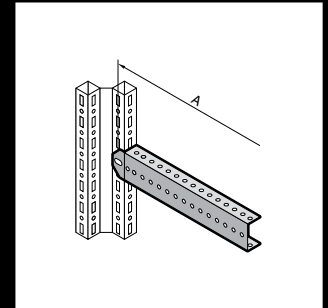
For encl. width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
20 (500)	2	-	-	17 (435)	8612.750	-	-	654
24 (600)	2	-	-	27 (535)	8612.760	-	-	
32 (800)	2	-	-	29 (735)	8612.780	-	-	

¹⁾ A = Rail mounting distance

TS punched rail 18 x 38 mm

For encl. width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
16 (400)	2	13 (335)	8612.240	-	-	13 (335)	8612.240	655
20 (500)	2	17 (435)	8612.250	-	-	17 (435)	8612.250	
24 (600)	2	27 (535)	8612.260	-	-	27 (535)	8612.260	
32 (800)	2	29 (735)	8612.280	-	-	29 (735)	8612.280	

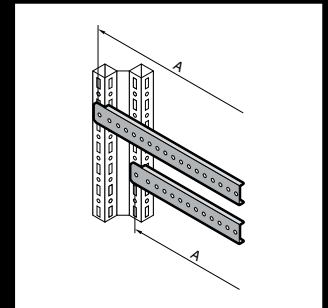
¹⁾ A = Rail mounting distance. Two TS punched rails 18 x 38 mm are included in the supply of enclosures with a mounting panel. After installing the mounting panel, the TS punched rail may be inserted, as shown here.



TS mounting bars

For encl. width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
16 (400)	20	-	-	-	-	13 (325)	4694.000	656
20 (500)	20	-	-	-	-	17 (425)	4695.000	656
24 (600)	20	-	-	-	-	21 (525)	4696.000	656
32 (800)	20	-	-	-	-	29 (725)	4697.000	656
16 (400)	20	-	-	15 (375)	4309.000	-	-	656
20 (500)	20	-	-	19 (475)	4596.000	-	-	656
24 (600)	20	-	-	23 (575)	8800.130	-	-	656
-	20	-	-	27 (675)	4598.000	-	-	656
32 (800)	20	-	-	31 (775)	4579.000	-	-	656
-	20	-	-	34 (875)	4599.000	-	-	656

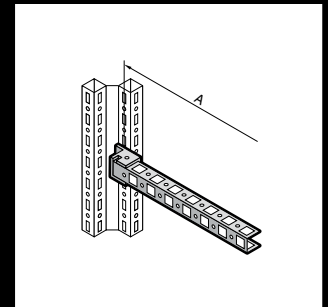
¹⁾ A = Rail mounting distance. Alternatively, the TS support strip for the inner mounting level may be used for mounting on the door.



PS punched rails 23 x 23 mm (for installation options, see support bracket TS/PS, angle bracket, mounting bracket)

For encl. width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
16 (400)	12	11 (275)	4169.000	11 (275)	4169.000	-	-	657
20 (500)	12	15 (375)	4170.000	15 (375)	4170.000	-	-	657
24 (600)	12	19 (475)	4171.000	19 (475)	4171.000	-	-	657
32 (800)	12	27 (675)	4172.000	27 (675)	4172.000	-	-	657
39 (1000)	12	34 (875)	4173.000	34 (875)	4173.000	-	-	657
47 (1200)	6	42 (1075)	4174.000	42 (1075)	4174.000	-	-	657
55 (1400)	6	50 (1275)	4393.000	50 (1275)	4393.000	-	-	657
63 (1600)	6	58 (1475)	4175.000	58 (1475)	4175.000	-	-	657
71 (1800)	6	66 (1675)	4176.000	66 (1675)	4176.000	-	-	657
79 (2000)	6	74 (1875)	4177.000	74 (1875)	4177.000	-	-	657
87 (2200)	6	82 (2075)	4178.000	82 (2075)	4178.000	-	-	657

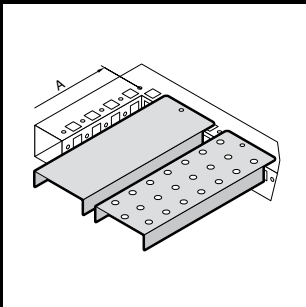
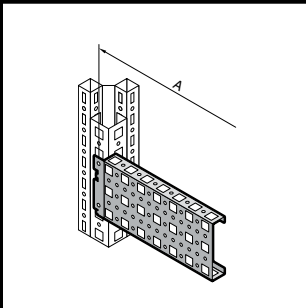
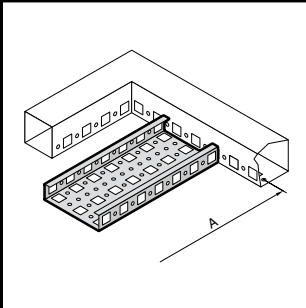
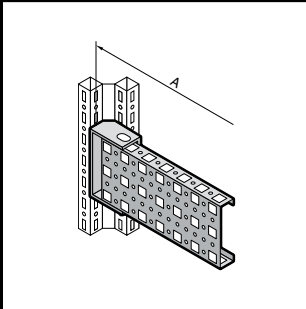
¹⁾ A = Rail mounting distance


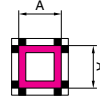
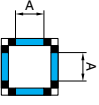


Interior installation

Rail systems

TS installation examples with TS system rail



	Installation in the roof and base frame in the width/depth	Installation between vertical sections in the width/depth	
		Internal level	External level
			

PS punched section without mounting flange 23 x 73 mm (installation option with support bracket TS)

For incl. width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
16 (400)	4	11 (275)	4374.000	11 (275)	4374.000	-	-	658
20 (500)	4	15 (375)	4375.000	15 (375)	4375.000	-	-	658
24 (600)	4	19 (475)	4376.000	19 (475)	4376.000	-	-	658
32 (800)	4	27 (675)	4377.000	27 (675)	4377.000	-	-	658
39 (1000)	4	34 (875)	4382.000	34 (875)	4382.000	-	-	658
47 (1200)	4	42 (1075)	4378.000	42 (1075)	4378.000	-	-	658
71 (1800)	4	66 (1675)	4379.000	66 (1675)	4379.000	-	-	658
79 (2000)	4	74 (1875)	4380.000	74 (1875)	4380.000	-	-	658
87 (2200)	4	82 (2075)	4381.000	82 (2075)	4381.000	-	-	658

¹⁾A = Rail mounting distance

PS punched section with mounting flange 23 x 73 mm (installation options with TS adaptor rail when mounting on the vertical TS enclosure section)

For incl. width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
16 (400)	4	13 (335)	8800.640	-	8800.640	-	-	658
20 (500)	4	17 (435)	8800.650	-	8800.650	-	-	658
24 (600)	4	21 (535)	4364.000	-	4364.000	-	-	658
32 (800)	4	29 (735)	4365.000	-	4365.000	-	-	658
39 (1000)	4	37 (935)	4373.000	-	4373.000	-	-	658
47 (1200)	4	45 (1135)	4367.000	-	4367.000	-	-	658

¹⁾A = Rail mounting distance

TS mounting bars

For incl. width/depth inches (mm)	Packs of	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	A ¹⁾ inches (mm)	Part No.	Page
16 (400)	4	13 (335)	4394.000	-	-	-	-	661
20 (500)	2	17 (435)	4395.000	-	-	-	-	661
24 (600)	2	21 (535)	4396.000	-	-	-	-	661
32 (800)	2	29 (735)	4398.000	-	-	-	-	661

TS mounting bars

16 (400)	4	13 (335)	-	-	-	-	-	661
20 (500)	2	17 (435)	-	-	-	-	-	661
24 (600)	2	21 (535)	4396.500	-	-	-	-	661
32 (800)	2	29 (735)	4398.500	-	-	-	-	661

¹⁾A = Rail mounting distance. Alternatively, the support rail (slotted and unslotted) can also be fitted with snap-on nut M8, adaptor rail or TS punched rail 25 x 38 mm on the vertical TS enclosure section.

Rails for interior installation for AE, WM

For mounting in the enclosure, no machining required. Suitable for all-round mounting on the sides, base and roof areas. Variable with 2 rows of system punchings, creates additional mounting space e.g. for:

- TS punched section with mounting flange
- Enclosure lights
- Door-operated switch
- Door stay
- Cable conduit holder

Material:

Carbon steel

Surface finish:

Zinc-plated

Note:

Other mounting options:

- Mounting panels, locatable, 8612.400, see page 664
- Mounting panels, screw-fastening, large, 8612.410, see page 664
- Mounting panels, screw-fastening, small, 4532.000, see page 665
- Mounting brackets, 4597.000, see page 665

Configuration examples:

See page 644

For enclosure depth inches (mm)	Packs of	Part No.
8 (210)	4	2373.210
10 (250)	4	2373.250
12 (300)	4	2373.300
14 (350)	4	2373.350



Rails for interior installation for CM, TP

For mounting on the existing threaded bolts. With TS system punchings on three sides.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Configuration examples:

See page 645

Height inches (mm)		Width inches (mm)		PU	Part No.
CM	TP ¹⁾	CM	TP ²⁾		
-	27 (675)	24 (600)	24 (600)	4	5001.050
32 (800)	-	32 (800)	32 (800)	4	5001.051
43 (1100)	-	43 (1100)	-	4	5001.052
47 (1200)	-	47 (1200)	47 (1200)	4	5001.053
55 (1400)	-	-	-	4	5001.054

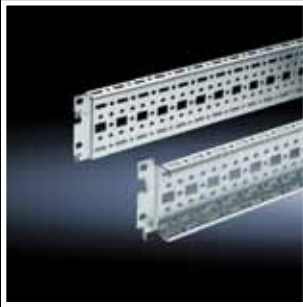
¹⁾ Only with TP console and desk unit (cover or rear panel/base).

²⁾ Only with TP pedestal.



Interior installation

Rail systems



TS punched section with mounting flange, 17 x 73 mm

Variable, with 5 rows of holes for universal skeleton structures or partial assembly. Simply locate into the TS punchings and secure.

Installation options:

- On the vertical TS enclosure section
 - On the outer mounting level, all-round, at the same height
 - On the inner mounting level, all-round, height-offset
- In CM and TP via rail for interior installation
 - In the depth, for outer mounting level
 - In the width, for inner mounting level

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly screws

Also required:

For installation in CM, TP:
Rail for interior installation, see page 651

Accessories:

- Screws, see page 674
- Cable tie for fast assembly 2597.000, see page 726

Configuration examples:

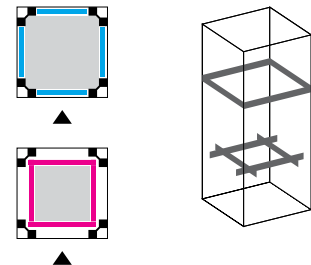
From page 644

For the outer mounting level

For enc. width/depth inches (mm)	Packs of	Part No.
12 (300)	4	8612.130
16 (400)	4	8612.140
20 (500)	4	8612.150
24 (600)	4	8612.160
32 (800)	4	8612.180
39 (1000)	4	8612.100
47 (1200)	4	8612.120

For the inner mounting level

For enc. width/depth inches (mm)	Packs of	Part No.
12 (300)	4	8612.030
16 (400)	4	8612.040
20 (500)	4	8612.050
24 (600)	4	8612.060
32 (800)	4	8612.080
36 (900)	4	8612.090
39 (1000)	4	8612.000
47 (1200)	4	8612.020



Attachment TS for TS punched section with mounting flange, 17 x 73 mm

Benefits:

- For attaching the TS punched section with mounting flange where access to installed equipment, such as mounting panels, is blocked by the screw fastening
- May also be screw-fastened onto the punched section with mounting flange or enclosure frame and used as a support for contact hazard protection covers or master switch trim panels

Material:

Carbon steel

Surface finish:

Zinc-plated

Packs of	Part No.
12	8612.010

Rail systems

TS punched section with mounting flange, 17 x 73 mm Depth-variable for mounting frames for TS

For designing flexible interior installation, and/or to accommodate additional built-in components. The punched sections with mounting flanges may be located in the enclosure depth between two mounting frames. An additional screw fastening secures the unit. The depth variability of the rails facilitates flexible adaptation of their length to the existing attachment distance between the two 19" (482.6 mm) mounting frames. An additional punched section center piece may be slid flexibly along the rail in the depth and secured to slots. This facilitates flexible attachment at any point between the mounting frames in the enclosure depth.

Material:

Carbon steel

Surface finish:

Zinc-plated

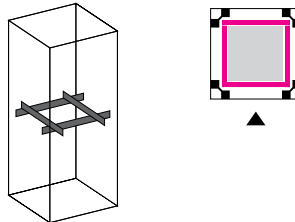
Configuration:

- 2 variable punched sections with mounting flanges
- One sliding center part each
- Assembly parts

Length inches (mm)	Packs of	Part No.
12 – 19 (300 – 470) ^{1) 2)}	2	7000.676
21 – 28 (530 – 700) ¹⁾	2	7000.678

¹⁾ Distance between 19" (482.6 mm) levels = length + 5" (120 mm)

²⁾ L < 10" (420 mm), without center piece



TS punched section with mounting flange, 23 x 73 mm

The alternative to the TS punched section with mounting flange 17 x 73 mm, see page 652, with punchings for captive nuts/threaded blocks instead of the slotted holes top and bottom. Simply locate and secure.

Installation options:

- On the vertical TS enclosure section

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly screws

Accessories:

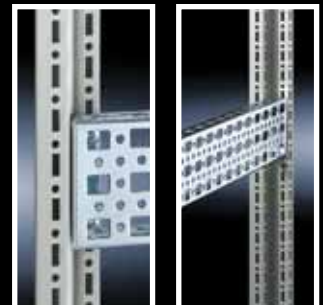
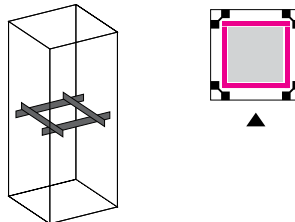
- Screws, see page 674
- Threaded blocks, captive nuts, see page 673

Configuration examples:

See page 648

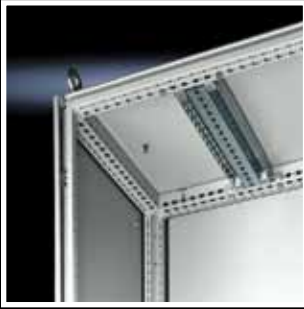
For the inner mounting level

For enc. width/depth inches (mm)	Packs of	Part No.
20 (500)	4	8612.550
24 (600)	4	8612.560
32 (800)	4	8612.580
39 (1000)	4	8612.500
47 (1200)	4	8612.520



Interior installation

Rail systems



TS punched sections without mounting flange, 45 x 88 mm

Heavy top-mounted equipment mounted directly on the internal surfaces (e.g. roof) is supported. Mounted on the side or rear, the enclosure can then be screw-fastened securely to the machine. The twin profile with 11 rows of holes offers numerous additional opportunities for interior installation.

Installation options:

- On the vertical and horizontal TS enclosure section

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

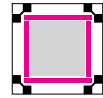
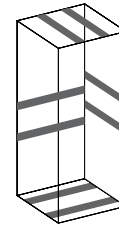
Accessories:

- Screws, see page 674
- Threaded blocks, captive nuts, see page 673

Configuration examples:

See page 648

For enc. width/depth inches (mm)	Packs of	Part No.
20 (500)	2	8612.650
24 (600)	2	8612.660
32 (800)	2	8612.680



TS punched rail 25 x 38 mm

For heavy installations, with attachment holes.

Installation options:

- On the vertical TS enclosure section

With 9 mm round holes on a 25 mm pitch pattern on all sides, for mounting:

- Support rails, see page 661
- System support rails, see page 660
- C rails 30/15, see page 659
- Cable clamp rails (right angle section), see page 723
- Own assemblies

Material:

Carbon steel, 11 ga (3.0 mm)

Surface finish:

Zinc-plated

Configuration:

Assembly screws

Also required:

Snap-on nut M8, 8800.808, see page 666

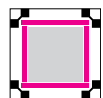
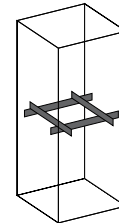
Note:

In conjunction with the snap-on nut, particularly well-suited for dynamic connections.

Configuration examples:

See page 648

For enc. width/depth inches (mm)	Packs of	Part No.
20 (500)	2	8612.750
24 (600)	2	8612.760
32 (800)	2	8612.780



Base configuration rail

for CM

For mounting in the enclosure depth, on the existing threaded bolts, no machining required. TS system punchings on 2 sides. Creates additional installation options.

For enclosure depth inches (mm)	Packs of	Part No.
16 (400)	2	5001.370
12 (300)	2	5001.371

Material:

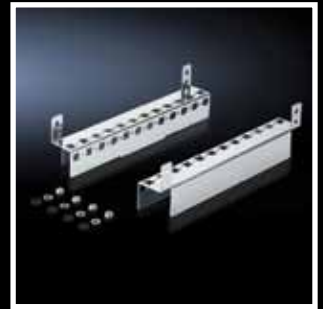
Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts



TS punched rail 18 x 38 mm

Simply locate and secure with a screw. The location system makes assembly and dismantling easier. It only needs to be secured on one side, but may be secured on both sides if required.

For enclosure depth inches (mm)	Packs of	Part No.
16 (400)	4	8612.240
20 (500)	4	8612.250
24 (600)	4	8612.260
32 (800)	4	8612.280

Installation options:

- On the vertical TS enclosure section, on the outer mounting level
- On the horizontal TS enclosure section
- On base configuration rail for CM

Material:

Carbon steel

Surface finish:

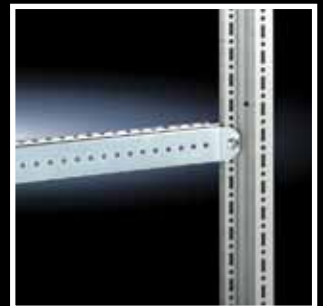
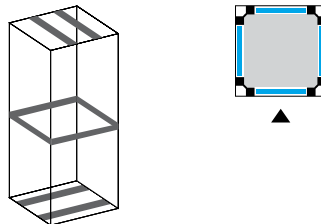
Zinc-plated

Configuration:

Assembly screws

Note:

In enclosures with a mounting panel, 2 punched rails are already included with the supply.



Accessories:

- Screws, see page 674
- Cable tie for fast assembly 2597.000, see page 726
- Cable clamps, see page 723

Configuration examples:

From page 645



Interior installation

Rail systems



TS support strip

Installation options:

- On the vertical and horizontal TS enclosure section
 - On the outer mounting level, all-round, at the same height
 - On the inner mounting level, all-round height-offset
- On the tubular door frame TS, ES
- On the perforated door strip CM, TP
- On the ES system punchings, in the enclosure depth

Material:

Carbon steel

Surface finish:

Zinc-plated

For enc. width/depth inches (mm)	Length inches (mm)	Packs of	Part No.
16 (400)	13 (340)	20	4694.000
20 (500)	17 (440)	20	4695.000
24 (600)	21 (540)	20	4696.000
32 (800)	29 (740)	20	4697.000

Configuration:

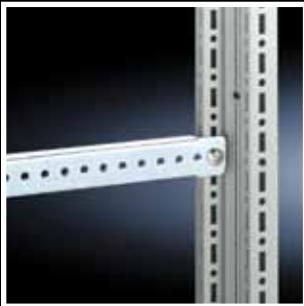
Assembly screws

Accessories:

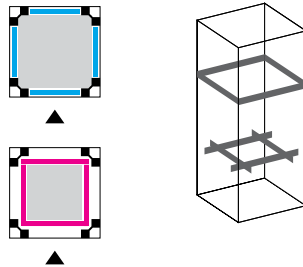
- Screws, see page 674
- Cable tie for fast assembly 2597.000, see page 726

Configuration examples:

From page 644



For enclosure width/depth inches (mm)	For door width inches (mm)	Length inches (mm)	Packs of	Part No.
-	16 (400)	11 (290)	20	4594.000
16 (400)	20 (500)	15 (390)	20	4309.000
20 (500)	24 (600)	19 (490)	20	4596.000
24 (600)	-	23 (590)	20	8800.130
-	32 (800)	27 (690)	20	4598.000
32 (800)	35 (900)	31 (790)	20	4579.000
-	39 (1000)	35 (890)	20	4599.000



TS assembly block

Installation in the vertical TS enclosure sections for mounting PS-compatible individual components.

Material:

Die-cast zinc

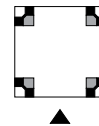
Configuration:

Assembly screws

Possible alternative:

Snap-on nut, see page 666

Packs of	Part No.
4	8800.310



Adaptor rail for PS compatibility

Installation in the vertical TS enclosure sections (across the entire enclosure height or in sub-sections) to create compatibility with:

- PS punched rail, 23 x 23 mm
- PS punched section without mounting flange, 23 x 73 mm
- PS punched section with mounting flange 23 x 73 mm

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly screws

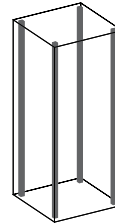
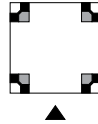
Accessories:

Screws, see page 674

Possible alternative:

Snap-on nut, see page 666

For enc. height inches (mm)	Packs of	Part No.
71 (1800)	4	8800.380
79 (2000)	4	8800.300
87 (2200)	4	8800.320



PS punched rail 23 x 23 mm for TS, ES

Installation options:

- On the vertical enclosure section
 - Directly via support brackets TS
 - Via adaptor rail for PS compatibility in conjunction with angle brackets, mounting brackets or support brackets PS
- On the horizontal enclosure section directly via angle brackets, mounting brackets or support brackets PS

Material:

Carbon steel

Surface finish:

Zinc-plated

Also required:

- U nuts, see page 672
- Mounting brackets TS/PS, see pages 667, 668 or
- Angle brackets, support brackets TS/PS, see page 668, 669

Accessories:

- Cable attachment, see page 726
- Screws, see page 674
- Cable tie for fast assembly 2597.000, see page 726

Configuration examples:

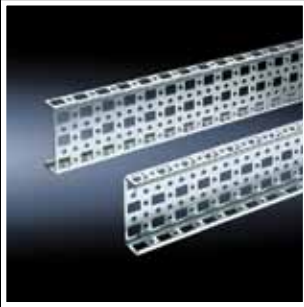
From page 645

Length inches (mm)	For HWD inches (mm)	Packs of	Part No.
12 (295)	16 (400)	12	4169.000
16 (395)	20 (500)	12	4170.000
19 (495)	24 (600)	12	4171.000
27 (695)	32 (800)	12	4172.000
35 (895)	39 (1000)	12	4173.000
43 (1095)	47 (1200)	6	4174.000
51 (1295)	55 (1400)	6	4393.000
59 (1495)	63 (1600)	6	4175.000
67 (1695)	71 (1800)	6	4176.000
75 (1895)	79 (2000)	6	4177.000
82 (2095)	87 (2200)	6	4178.000



Interior installation

Rail systems



PS punched section without mounting flange, 23 x 73 mm for TS, ES

Installation options:

- On the vertical enclosure section
 - Directly via support brackets TS
 - Via adaptor rail for PS compatibility in conjunction with support brackets PS
- On the horizontal enclosure section
 - Directly via support brackets PS

Material:

Carbon steel

Surface finish:

Zinc-plated

Also required:

Support brackets PS/TS, see page 669

Accessories:

- Screws, see page 674
- Cable tie for fast assembly 2597.000, see page 726
- U nuts, see page 672

Configuration examples:

See page 650.

Length inches (mm)	For WHD inches (mm)	Packs of	Part No.
12 (295)	16 (400)	4	4374.000
16 (395)	20 (500)	4	4375.000
19 (495)	24 (600)	4	4376.000
27 (695)	32 (800)	4	4377.000
35 (895)	39 (1000)	4	4382.000
43 (1095)	47 (1200)	4	4378.000
67 (1695)	71 (1800)	4	4379.000
75 (1895)	79 (2000)	4	4380.000
82 (2095)	87 (2200)	4	4381.000



PS punched section with mounting flange 23 x 73 mm for TS, ES

Variable, with 5 rows of holes for universal skeleton structures or partial assembly. Simply locate into the system punchings and secure.

Installation options:

- On the vertical TS enclosure section
 - Via adaptor rail for PS compatibility
- On the horizontal TS enclosure section
- On the ES system punchings, in the enclosure depth

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly screws

Also required:

Adaptor rail for PS compatibility (when mounting on the vertical enclosure section), see page 657

Configuration examples:

See page 650

Installation in enc. width/depth TS inches (mm)	Packs of	Part No.
16 (400)	4	8800.640
20 (500)	4	8800.650
24 (600)	4	4364.000
32 (800)	4	4365.000
39 (1000)	4	4373.000
47 (1200)	4	4367.000

Installation in enc. depth ES, TP universal console, CS modular enc. inches (mm)	Packs of	Part No.
16 (400)	4	4369.000
20 (500)	4	4370.000
24 (600)	4	4371.000
32 (800)	4	4372.000



C rails 30/15 to EN 60 715 for TS, ES

Installation options:

- On the vertical TS enclosure section
 - Via snap-on nut 8800.808 (Fig. **1**)
 - Via adaptor rail for PS compatibility
- On the horizontal TS enclosure section (Fig. **2**)
- On the ES system punchings
- On base configuration rail for CM

Material:

Carbon steel

Surface finish:

Zinc-plated

Accessories:

- Cable clamps, see page 723
- Support bracket or spacer, see page 669
- Quick-assembly block, see page 670
- Snap-on nut M8, 8800.808, see page 666
- Adaptor rail, see page 657

Possible alternative:

Rail for EMC shielding bracket and strain relief, see page 696

For enc. width/depth inches (mm)	Length inches (mm)	PU	Part No.
20 (500)	18 (455)	6	4943.000
24 (600)	22 (555)	6	4944.000
32 (800)	30 (755)	6	4945.000
39 (1000)	38 (955)	6	4946.000
47 (1200)	45 (1155)	6	4947.000



C rail for TS, CS Toptec

For direct mounting on the vertical enclosure section. Thanks to the universally designed attachment piece, the C rails may optionally be attached to the inner or outer level of the TS 8 frame.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Accessories:

Cable clamps, see page 723

For enc. width/depth inches (mm)	Length inches (mm)	PU	Part No.
16 (400)	12 (298)	4	7828.040
20 (500)	16 (398)	4	7828.050
24 (600)	20 (498)	4	7828.060
32 (800)	27 (698)	4	7828.080
39 (1000)	35 (898)	4	7828.100
47 (1200)	43 (1098)	4	7828.120



Interior installation

Rail systems



C rail for TS

Installation options:

- On the horizontal enclosure sections
- On the vertical TS enclosure section via adaptor rail for PS compatibility

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

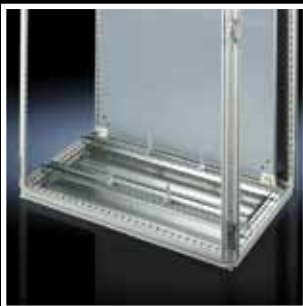
Also required:

Adaptor rail for PS compatibility (when mounting on the vertical enclosure section), see page 657

Accessories:

Cable clamps, see page 723

For enc. width/depth inches (mm)	Length inches (mm)	Packs of	Part No.
16 (400)	11 (290)	6	7091.000
24 (600)	19 (490)	6	7095.000
32 (800)	27 (690)	6	7096.000
39 (1000)	35 (890)	6	7100.000
47 (1200)	43 (1090)	6	7102.000



System support rail

For heavy installed equipment such as transformers. T-head screw and slot in the support rail accommodate all mounting dimensions.

Installation options:

- On the vertical TS enclosure section
 - Via snap-on nut 8800.808 (Fig. **1**)
 - Via adaptor rail for PS compatibility
 - Offset in the height, via TS punched rail 25 x 38 mm (Fig. **2**)
- On the horizontal TS enclosure section
 - In the width
 - In the depth (without mounting panel)
- On the ES system punchings in the enclosure depth
- On base configuration rail for CM

Material:

Carbon steel

Surface finish:

Zinc-plated

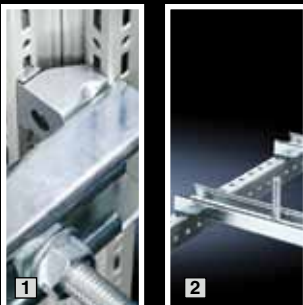
Configuration:

- 2 system support rails 1.8" x 1.0" (45 x 25 mm)
- 4 T-head screws M12 x 60 mm
- Assembly parts

For enc. width inches (mm)	Packs of	Part No.
24 (600)	2	4361.000
32 (800)	2	4362.000
39 (1000)	2	4347.000
47 (1200)	2	4363.000

Accessories:

- Width divider e.g. for the installation of 2 system support rails for 24" (600 mm) width in 47" (1200 mm) wide enclosures, see page 552
- Snap-on nut M8, 8800.808, see page 666.
- Adaptor rail, see page 657
- TS punched rail 25 x 38 mm, see page 654



Support rails

for TS, ES, CM

For heavy installations. Particularly suitable for the installation of base isolators.

Installation options:

- On the vertical TS enclosure section
 - Via snap-on nut 8800.808 (Fig. 1)
 - Via adaptor rail for PS compatibility
 - Offset in the height, via TS punched rail 25 x 38 mm (Fig. 2)
- On the horizontal TS enclosure section
 - In the width
 - In the depth
- On the ES system punchings, in the enclosure depth
- On base configuration rail for CM

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

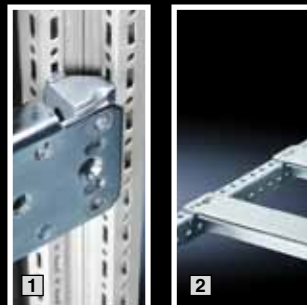
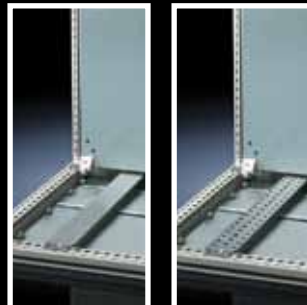
For enc. width/depth inches (mm)	Packs of	Part No.	
		slotted	unslotted
16 (400)	4	4394.000	-
20 (500)	4	4395.000	-
24 (600)	4	4396.000	4396.500
32 (800)	4	4398.000	4398.500

Accessories:

- Snap-on nut M8, 8800.808, see page 666
- Adaptor rail, see page 657
- TS punched rail 25 x 38 mm, see page 654

Configuration examples:

From page 645



Support rail 65 x 42 mm

for TS, ES

Benefits:

- For heavy assemblies up to 1124 lb (5000 N) per support rail

Permissible static load:

2248 lb (10000 N) per enclosure

Material:

Steel

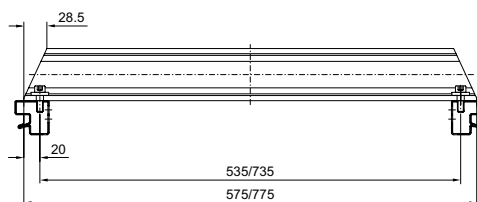
Surface finish:

Zinc-plated

Configuration:

Assembly parts

For enc. width inches (mm)	Packs of	Part No.
24 (600)	2	8612.960
32 (800)	2	8612.980



Interior installation

Rail systems



Support rail TS 35/15 to EN 60 715 for TS, ES

Mounting on the TS vertical section via
 – Snap-on nut M8, 8800.808, see page 666
 – Assembly block see page 656 or
 – Adaptor rail, see page 657

For enc. width/depth inches (mm)	Support rails length inches (mm)	Packs of	Part No.
20 (500)	18 (455)	6	4933.000
24 (600)	22 (555)	6	4934.000
32 (800)	30 (755)	6	4935.000
47 (1200)	45 (1155)	6	4937.000

Support rail TS 35/7.5 and TS 35/15

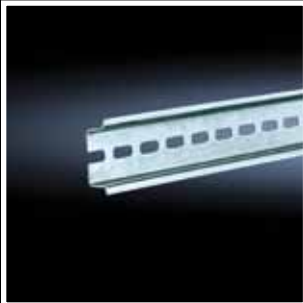
to EN 60 715 for KL, AE, Hygienic Design
 Length sized to the enclosure width

For enc. width inches (mm)	Support rails length inches (mm)	Design	Packs of	Part No.
6 (150)	5 (137)	TS 35/7.5	10	2314.000
8 (200)	7 (187)		10	2315.000
12 (300)	11 (287)		10	2316.000
16 (400)	15 (387)		10	2317.000
20 (500)	19 (487)	TS 35/15	10	2318.000
24 (600)	23 (587)		10	2319.000

Support rail

to EN 60 715
 Standard length 79" (2 m)

Design	Length	Packs of	Part No.
TS 35/15	79" (2 m)	6	2313.150
TS 35/7.5	79" (2 m)	6	2313.750



Mounting clip for support rails

For fast, secure attachment of:
 – Cable ducts
 – Mounting panels
 – Mounting angles
 on support rail TS 35/7.5 and TS 35/15 to EN 60 715. Simply pre-assemble the mounting clip on the part to be installed, then snap into position on the support rail.

Packs of	Part No.
30	2309.000



C rail for EL

For infinite adjustment of the mounting angles in the depth.

Material:
 Carbon steel

Configuration:
 Assembly parts

Accessories:
 Cable clamps, see page 723

For center part depth inches (mm)	Packs of	Part No.
9 (216)	4	2238.000¹⁾
12 (316)	4	2239.000
16 (416)	4	2237.000

¹⁾ Extended delivery times.



TS punched rail 17 x 17 mm for TS

Mounting angle with TS pitch on three sides.

Suitable for:

- building an auxiliary construction for dividing the busbar space
- individual use as mounting frame for low and medium loads
- fastening to the internal or external mounting level of the TS 8 enclosure

Material:

Carbon steel, 16 ga (1.5 mm)

Surface finish:

Zinc-plated

Also required:

- Frame connector piece, see page 670
- T-connector piece, see page 670
- Corner connector, see page 671

For horizontal busbar space separation		PU	Part No.
For compartment depth inches (mm)	Length inches (mm)		
17 (425)	2 (62.5)	12	9673.915
24 (600)	5 (137.5)	12	9673.920

For vertical separation with busbar system in the top rear section		PU	Part No.
For compartment height inches (mm)	Length inches (mm)		
18 – 20 (450 – 500) ¹⁾	19 (487.5)	12	9673.953
26 – 32 (650 – 800) ¹⁾	31 (787.5)	12	9673.983

¹⁾Rails should be shortened where necessary.

For vertical separation with busbar system in the bottom rear section		PU	Part No.
For compartment height inches (mm)	Length inches (mm)		
14 (350)	16 (412.5)	12	9673.951
16 (400)	18 (462.5)	12	9673.960
18 (450)	20 (512.5)	12	9673.961
26 (650)	28 (712.5)	12	9673.981
28 – 32 (700 – 800) ¹⁾	34 (862.5)	12	9673.995

¹⁾Rails should be shortened where necessary.

For external mounting level		PU	Part No.
For enclosure width/depth inches (mm)	Length inches (mm)		
16 (400)	10 (262.5)	12	9673.940
20 (500)	14 (362.5)	12	9673.950
24 (600)	18 (462.5)	12	9673.960

For internal mounting level		PU	Part No.
For enclosure width/depth inches (mm)	Length inches (mm)		
16 (400)	12 (312.5)	12	9673.941
20 (500)	16 (412.5)	12	9673.951
24 (600)	20 (512.5)	12	9673.961
32 (800)	28 (712.5)	12	9673.981



Interior installation

Rail systems



C rail

for cable chamber enclosures

For attaching cables and lines and for mounting stacking insulators.

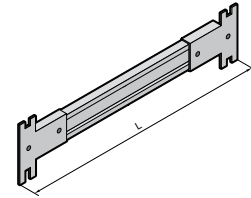
Material:

Carbon steel

Configuration:

- 4 C rails
- 8 brackets
- Assembly parts

For TS enc. width/depth inches (mm)	Length (L) inches (mm)	Packs of	Part No.
24 (600)	24 (600)	4	9660.210
32 (800)	32 (800)	4	9660.220



Punched section with mounting flange for coupling section

For assembling a Maxi-PLS or Flat-PLS busbar system directly beneath or above the circuitbreaker. This punched section with mounting flange may be used without conflict in conjunction with the compartment space side panel modules. It is attached to the outer level of the TS 8 enclosure system, but thanks to the PS punchings allows a mounting level as in the roof or base frame, thereby facilitating the use of busbar system attachment for the roof/base section.

For TS enc. width/depth inches (mm)	Packs of	Part No.
24 (600)	2	9674.056
32 (800)	2	9674.058

Material:

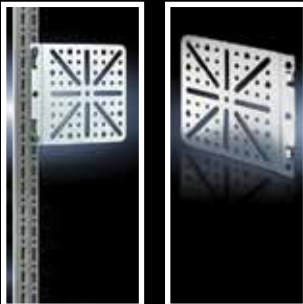
Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts



Mounting plate

Locatable

- on
 - the vertical TS enclosure section
 - TS punched section with mounting flange, 17 x 73 mm

Material:

Carbon steel

Surface finish:

Zinc-plated

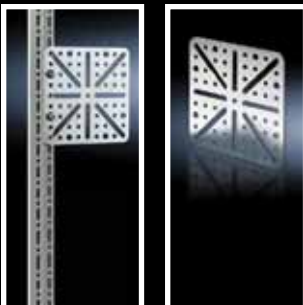
Packs of	Part No.
4	8612.400

Configuration:

Assembly screws

Detailed drawings:

Available at www.rittal-corp.com



Mounting plate

Screw-fastened, large

On all enclosures and mounting parts with system punchings on a 25 mm pitch pattern.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly screws

Detailed drawings:

Available at www.rittal-corp.com

Packs of	Part No.
4	8612.410

Rail systems

Mounting plate Screw-fastened, small

Packs of	Part No.
4	4532.000

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly screws

Detailed drawings:
Available at www.rittal-corp.com



Mounting plate TS with integral top-hat rail

For direct snap-mounting of components such as speed control, enclosure internal thermostat and hygrostat.

Packs of	Part No.
1	7526.964

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Mounting plate (mounting accessories included)



Mounting bracket

May be screw-fastened onto all enclosures and mounting parts with system punchings on a 25 mm pitch pattern.

Packs of	Part No.
4	4597.000

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly screws

Accessories:
– Screws, see page 674
– Cable tie for fast assembly 2597.000, see page 723

Detailed drawings:
Available at www.rittal-corp.com



Mounting bracket for interior installation

For installing punched sections with mounting flanges and support strips in:
– Comfort Panel horizontal/vertical from 2.9" (74 mm) installation depth
or for installing in:
– Optipanel from installation depth of 4" (100 mm)

Packs of	Part No.
4	6205.100

Surface finish: Zinc-plated

Configuration: Assembly parts

Detailed drawings:
Available at www.rittal-corp.com

Material: Carbon steel

		Comfort Panel	Page
		Front panel width 19" (482.6 mm)	
Punched sections with mounting flanges	Horizontal	8612.150	652
	Vertical		652
Support strips	Horizontal	4695.000	656
	Vertical		656



Interior installation

Assembly components



Snap-on nut TS

Metric thread for vertical TS enclosure section. To install, insert into slot and clip into position. The snap-on nut is then secure. By tightening the screw, it is securely tightened against the section, and potential equalization is automatically created.

Installation options:

- On the vertical TS enclosure section
- with metric thread M6 or M8
- the alternative to metal screws
- particularly well-suited for dynamically loaded connections

Material:

Precision-cast stainless steel

Accessories:

Multi-tooth screw M6 x 12 or M8 x 12, see page 674

Accessories for interior installation

- 1 Support rails, see page 661
- 2 Cable clamp rails, see page 723
- 3 C rails 30/15, see page 659
- 4 System support rails, see page 660
- 5 TS punched rail 25 x 38 mm, see page 654

Thread	Packs of	Part No.
M6	20	8800.806
M8	20	8800.808



Assembly components

Mounting bracket TS

Offers variable mounting options for the punched rail 23 x 23 mm, e.g. for supporting external surfaces or creating an additional internal level.

Material:

Die-cast zinc

Configuration:

24 screws 5.5 x 13 mm

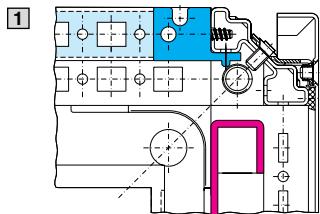
Accessories:

U nuts (recommendation: M6), see page 672

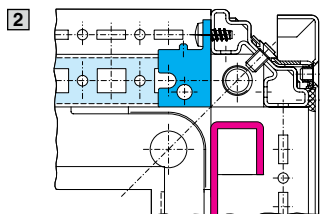
Packs of	Part No.
24	8800.370

Installation options:

- On the vertical TS enclosure section
- flush with the outer edge of the enclosure or
- flush with the enclosure clearance width

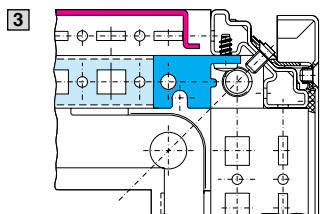


- 1** Support of the external surfaces with two mounting options:
- Without mounting panel (photo)
 - With mounting panel (drawing)

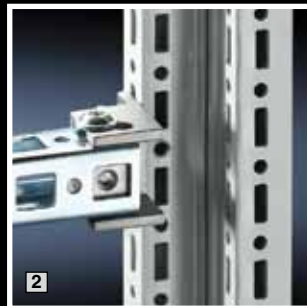


Two installation options for the inner mounting level:

- 2** If there is no divider panel fitted



- 3** With a divider panel fitted, and without or with a mounting panel in a set forward position



Interior installation

Assembly components



Adaptor bracket TS

For external mounting of
 – System lights
 – Cable ducts
 on the vertical TS enclosure section.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly screws

Packs of	Part No.
6	8800.360



Mounting bracket PS

For variable attachment of punched rail
 23 x 23 mm.

Installation options:

- Optionally flush with:
 - Outer enclosure edge or
 - Enclosure clearance width
- On the vertical TS enclosure section via
 - Adaptor rail for PS compatibility, see page 657
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Packs of	Part No.
24	4182.000

Material:

Die-cast zinc

Configuration:

1 set = 1 mounting bracket, 1 screw M6 x 12 mm, 1 cage nut M6

Also required:

- U nuts for punched rails (recommended: M6), see page 672
- Multi-tooth screws M6 x 12 mm, see page 674



Angle bracket PS

For quick attachment of punched rails
 23 x 23 mm.

Installation options:

- On the vertical TS enclosure section via
 - Adaptor rail for PS compatibility, see page 657
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Packs of	Part No.
12 sets	4181.000

Configuration:

1 set = 1 angle bracket, left, 1 angle bracket, right, 2 metal screws 5.5 x 13 mm

Also required:

- U nuts for punched rails (recommended: M6), see page 672
- Multi-tooth screws M6 x 12 mm, see page 674



Material:

Carbon steel

Surface finish:

Zinc-plated

Assembly components

Support bracket TS

For the attachment of punched sections without mounting flange 23 x 73 mm or punched rails 23 x 23 mm.

Installation options:

- On the vertical TS enclosure section
 - on a 25 mm pitch pattern
 - in 2 mm increments

Material:

Die-cast zinc

Packs of	Part No.
6 set	8800.330

Configuration:

1 set = 1 support bracket, 1 stay,
3 metal screws 5.5 x 13 mm

Also required:

- U nuts for punched rails (recommended: M6), see page 672
- Multi-tooth screws M6 x 12 mm, see page 674



Support bracket PS

For the attachment of punched sections without mounting flange 23 x 73 mm or punched rails 23 x 23 mm.

Installation options:

- On the vertical TS enclosure section via
 - Snap-on nut 8800.806, see page 666, or
 - Adaptor rail for PS compatibility, see page 657
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:

Die-cast zinc

Packs of	Part No.
24 set	4183.000

Configuration:

1 set = 1 support bracket, 2 countersunk screws,
2 serrated lock washers

Also required:

- U nuts for punched rails (recommended: M6), see page 672
- Multi-tooth screws M6 x 12 mm, see page 674
- Adaptor rail for PS compatibility (when mounting on the vertical enclosure section), see page 657



Bracket/spacer

For fastening C rails, punched rails or cable clamp rails (angle section). On the sides, to accommodate square sections or tubes (Ø 20 mm). Attachment points with M8 thread.

Installation options:

- On the vertical TS enclosure section via
 - Snap-on nut 8800.808, see page 666, or
 - Adaptor rail for PS compatibility, see page 657
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:

Die-cast zinc

Configuration:

1 set = 1 bracket/spacer, 2 screws M8 x 16 mm,
2 spring lock washers, 2 cage nuts M8,
2 serrated lock washers, 2 metal screws

Accessories:

Angle piece 4134.000, see page 670

Packs of	Part No.
6 set	4199.000



Interior installation

Assembly components



Quick-assembly block

Installation options:

- On the vertical TS enclosure section via
 - Snap-on nut 8800.808, see page 666, or
 - Adaptor rail for PS compatibility, see page 657
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:

Die-cast zinc

Packs of	Part No.
12	4133.000

Configuration:

- 12 quick-assembly blocks
- 12 threaded blocks M8
- 24 screws M8 x 12 mm
- 24 square nuts M8



Angle piece

For assembling punched rails and mounting surfaces with a 45° incline.

Installation options:

- On the vertical TS enclosure section via
 - Snap-on nut 8800.806, see page 666, or
 - Adaptor rail for PS compatibility, see page 657
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:

- Angle pieces: Die-cast zinc
- Insulating pieces: Plastic

Packs of	Part No.
12 set	4134.000

Configuration:

1 set = 1 angle piece, 1 insulating piece, 1 insulating screw, 2 assembly screws, 1 threaded block M6



Frame connector piece for TS punched rail 17 x 17 mm

Mounting part with integral M4 threads for attaching the TS punched rail 17 x 17 mm to the horizontal and vertical TS frame section (external level). The frame adaptor piece can be used as a self-holding construction aid in the TS pitch and fastened with a screw to the frame. Can also be used for fastening other sections with TS pitch.

Material:

Die-cast zinc

Configuration:

Assembly parts

Packs of	Part No.
24	9673.901



T-connector piece for TS punched rail 17 x 17 mm

Mounting piece with integral M4 threaded holes for attaching the TS punched rail 17 x 17 mm

- to horizontal and vertical TS chassis
- to TS punched rail 17 x 17 mm
- to the vertical TS frame section (internal level)

The T-connector piece can be used as a self-holding construction aid in the TS pitch and fastened with a screw to the frame. Can also be used for fastening other sections with TS pitch.

Material:

Die-cast zinc

Configuration:

Assembly parts

Packs of	Part No.
24	9673.903

Assembly components

Corner connector

for TS punched rail 17 x 17 mm

Mounting part with integral M4 threads for connecting two TS punched rails 17 x 17 mm at an angle of 90° across the corner. Required for building the auxiliary construction for the busbar space separation.

Material:

Die-cast zinc

Configuration:

Assembly parts

Packs of	Part No.
10	9673.902



Universal bracket

For installing

- Enclosure lights in compact enclosures AE
- Door-operated switches in
 - Compact enclosures AE
 - TopConsole system TP
- Cable conduit holders 2593.000 and 2591.000 in compact enclosures AE
- Support rails for terminals in command panels and command panel housings with door.

Mounting screws are concealed when the door is closed. Existing holes for mounting blocks or hinges may be used with AE.

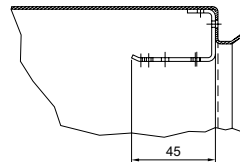
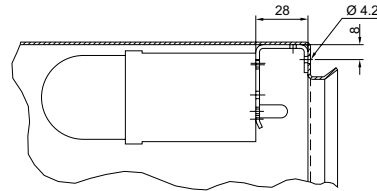
Material:

Carbon steel, zinc-plated

Configuration:

Assembly parts

Packs of	Part No.
6	2373.000



Interior installation

Assembly components



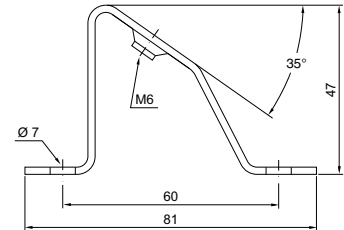
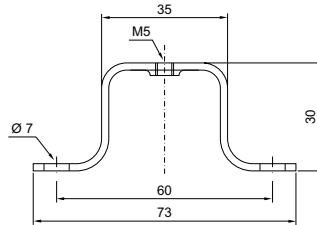
Cable retainer

For individual rail mounting.

Material:

Carbon steel, zinc-plated

Cable retainer	Packs of	Part No.
flat	20	2365.000
inclined	20	2366.000



Mounting block for AE/WM

As an accessory for additional interior installation, e.g. mounting of cable ties, PS punched rails, top hat rails and C rails (e.g. for a second pair of mounting angles).

Configuration:

Assembly parts

Packs of	Part No.
20	2574.000



U nuts

For

- Punched rail 23 x 23 mm
- Punched section without mounting flange, 23 x 73 mm
- Punched section without mounting flange, 45 x 88 mm
- Punched section with mounting flange, 23 x 73 mm

For mounting punched rails and punched sections without mounting flanges on angle brackets, mounting brackets and support brackets, we recommend U nuts with M6 thread (4179.000).

Accessories:

Multi-tooth screws M6 x 12 mm, (for 4179.000), see page 674

Thread	Packs of	Part No.
M4	20	4119.000
M5	20	4157.000
M6	20	4179.000
M8	20	4180.000

Assembly components

Captive nuts/threaded block

Installation options:

On enclosures and rails with rectangular system punching 12.5 x 10.5 mm, such as:

- TS enclosure section
 - vertically, via adaptor rail for PS compatibility
 - horizontally, direct
- ES enclosure body, all-round
- Punched rail 23 x 23 mm
- Punched section without mounting flange, 23 x 73 mm

- Punched section without mounting flange, 45 x 88 mm
- Punched section with mounting flange, 23 x 73 mm

Possible alternative:

On the vertical TS enclosure section TS snap-on nuts, see page 666

Captive nuts

The compression spring, designed as an insertion aid, ensures reliable mechanical and electrical connection in the system punchings.

Thread	Packs of	Part No.
M5	50	4166.000
M6	50	4164.000
M8	50	4165.000



Threaded block

With snap-off insertion aid, die-cast zinc.

Thread	Packs of	Part No.
M6	50	4162.000
M8	50	4163.000



Captive nuts

The nuts are inserted from the same side as screw-fastening takes place. Consequently, attachment points in the same height or width may also be used around corners. The spring cage also ensures electrical connection in the system punchings.

Thread	Packs of	Part No.
M6	50	8800.340
M8	50	8800.350



Interior installation

Assembly components



Spring nut M5

- For
- Comfort Panel from an installation depth of 2.9" (74 mm)
 - Optipanel from an installation depth of 3.9" (100 mm)
 - Compact Panel

The spring ensures reliable protection against unintentional displacement. Further interior installation, e.g. with mounting bracket 4597.000 (see page 665) or mounting bracket 6205.100 (see page 665)

Material:

Carbon steel, zinc-plated

Packs of	Part No.
50	6108.000



Threaded insert M6 for KS

For securing installed equipment to the moulded bosses in the door and in the enclosure rear panel. Screw length available for insertion: 0.3" (8 mm).

Packs of	Part No.
20	1482.000



1

1 Multi-tooth screw

- M6 x 12 to fit:
- Snap-on nuts (8800.806)
 - U nuts for punched rails (4179.000)
 - Captive nuts (4164.000)
 - Threaded blocks (4162.000)



2

- M8 x 12 to fit:
- Snap-on nuts (8800.808)

2 Metal multi-tooth screw

For the round holes 4.5 mm diameter in the enclosure section, punched rails and punched sections without mounting flanges



3

3 Self-tapping screw

For the round holes 4.5 mm diameter in the enclosure section, punched rails and punched sections without mounting flanges



4

4 Self-tapping screw

Mark, drill and tighten in a single operation using electric or pneumatic tools
 For metal thickness: 20 – 11 ga (0.8 – 3 mm)
 Length: 0.6" (16 mm)
 Usable length: 0.4" (9.5 mm)
 Width across flats: 0.3" (8 mm)

Multi-tooth drive for optimum transmission of torque, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Dimensions mm	Packs of	Part No.
Multi-tooth screws		
M6 x 12	300	2504.500
M8 x 12	300	2504.800
Metal multi-tooth screws		
5.5 x 13	300	2486.500
Metal multi-tooth screws for stainless steel		
5 x 13	300	2486.300
Self-tapping hex screws		
M5 x 10	500	2504.000
Self-tapping posidrive raised countersunk screws		
M5 x 12	500	2488.000
Self-tapping pan-head screws, posidrive		
M5 x 12	500	2489.000
Self-tapping multi-tooth pan-head screws		
M5 x 12	500	2489.500
Self-tapping screws		
ST 4.8 x 16	300	2487.000

Assembly components

TS wiring system adaptor

Adaptor rail for the Lütze LSC wiring system.

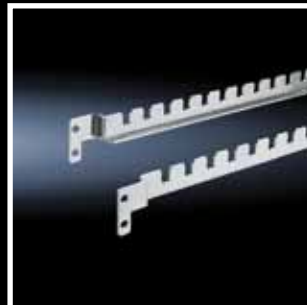
Configuration:

1 set = 6 adaptor rails,
24 spring lock washers,
24 metal screws 0.2" x 0.5" (5.5 x 13 mm).

Note:

Mounting parts for the LCS wiring system not included with the supply

For enc. depth inches (mm)	Packs of	Part No.
20 (500)	1 set	8800.150
24 (600)		8800.160
32 (800)		8800.180

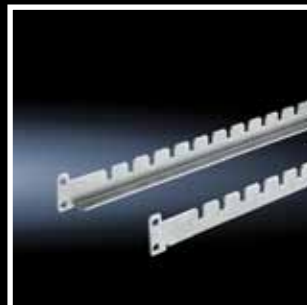


Installation kit for the Moeller MR 25 wiring system.

Configuration:

1 set = 2 mounting brackets, 4 mounting rails,
assembly parts

For enc. depth inches (mm)	Packs of	Part No.
16 (400)	1 set	8800.240



Kit

for separate frame TS

Every TS 8 frame is easily converted to a rack suitable for dismantling. To this end, the frame sections in the roof and base frame are separated, optionally in the width or depth. The four connection components are inserted into the frame section and screw-fastened. The external dimensions of the frame remain unchanged.

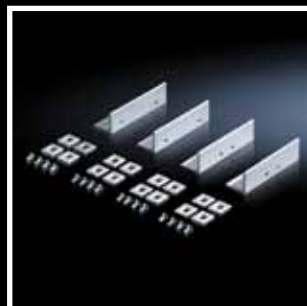
Configuration:

Assembly parts

Note:

The maximum achievable IP protection category is restricted by separation of the frame.

Packs of	Part No.
4	7829.400



Interior installation

Component shelves for frame attachment



Component shelf for frame attachment

Enclosure width 24" and 32" (600 and 800 mm) for TS For installation in enclosures without 19" (482.6 mm) accommodation.

Max. depth of component shelves = Enclosure depth – 3.9" (100 mm)

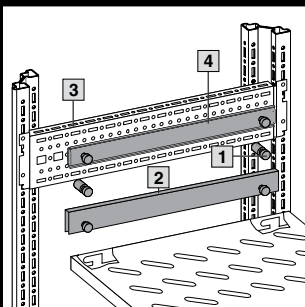
Material:
Carbon steel

Color:
RAL 7035

Configuration:
Assembly parts

Technical specifications:

- Mounting bolts or mounting rails may be installed on a 25 mm pitch pattern in the enclosure depth
- Mounting hole for handles provided



- 1** Fastening bolts
- 2** Mounting rails
- 3** Installation kit
- 4** Telescopic slides

Enclosure width 24" (600 mm)

Load capacity lb (kg) static surface load	110 (50)	110 (50)	110 (50)	110 (50)	220 (100)	220 (100)	220 (100)	220 (100)
Component shelf depth inches (mm)	16 (400)	20 (500)	24 (600)	28 (700)	16 (400)	20 (500)	24 (600)	28 (700)
Component shelf height inches (mm)	1.1 (29)	1.1 (29)	1.1 (29)	1.1 (29)	1.8 (45)	1.8 (45)	1.8 (45)	1.8 (45)
Part No., slotted	7164.035	7165.035	7166.035	7166.735	7464.035	7465.035	7466.035	7466.735
Part No., unslotted	7264.035	7265.035	7266.035	–	–	–	–	–

Enclosure width 32" (800 mm)

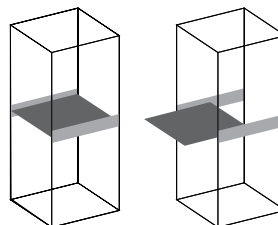
Load capacity lb (kg) static surface load	110 (50)	110 (50)	110 (50)	110 (50)	220 (100)	220 (100)	220 (100)	220 (100)
Component shelf depth inches (mm)	16 (400)	20 (500)	24 (600)	28 (700)	16 (400)	20 (500)	24 (600)	28 (700)
Component shelf height inches (mm)	1.1 (29)	1.1 (29)	1.1 (29)	1.1 (29)	1.8 (45)	1.8 (45)	1.8 (45)	1.8 (45)
Part No., slotted	7184.035	7185.035	7186.035	7186.735	7484.035	7485.035	7486.035	7486.735

Also required:

TS punched section with mounting flange, 17 x 73 mm, as installation kit for enc. depth, see page 652	20 (500)	8612.050
	24 (600)	8612.060
	32 (800)	8612.080
	39 (1000)	8612.000
	47 (1200)	8612.020

Accessories:

Telescopic slides, see page 687	7061.000	7081.000	7161.000	7161.700	7064.000	7065.000	7066.000
Handles for component shelves, see page 688	3636.010						
Hinged cable support	See page 688						



Component shelves for frame attachment

Component shelf, pull-out for TS, PC-TS, IW

For direct mounting on the vertical TS enclosure section.

Load capacity:

88 lb (40 kg) surface load, static

Material:

Carbon steel

Color:

RAL 7015

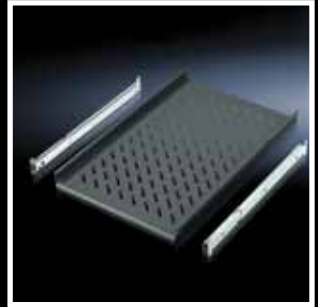
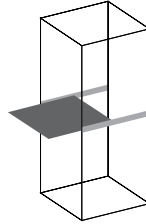
Configuration:

2 telescopic slides

For enclosures ¹⁾		Support area		Part No.
Width inches (mm)	Depth inches (mm)	Width inches (mm)	Depth inches (mm)	
24 (600)	24 (600)	18 (465)	21 (545)	6902.960²⁾
24 (600)	32 (800)	18 (465)	29 (745)	6902.980

¹⁾ For enclosures without a mounting panel.

²⁾ May also be installed in 32" (800 mm) deep enclosures based on TS (pull-out rear attachment).



Component shelf, static installation for TS

Locate the mounting pieces in the frame and attach the component shelf. Attachment in the TS enclosure section offers the greatest possible support surface.

Dimensions:

- Height: 1" (25 mm)
- Width: Enclosure width minus 1.7" (44 mm)
- Depth: Enclosure depth minus 1.7" (44 mm)

Load capacity:

154 lb (75 kg) surface load, static

Material:

Carbon steel

Color:

RAL 7035

Configuration:

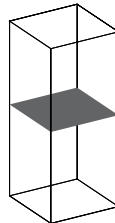
Assembly parts

Note:

- Combined use with vertically divided doors is not possible.
- Not suitable for combination with telescopic slides.

For enclosures		Part No.
Width inches (mm)	Depth inches (mm)	
24 (600)	24 (600)	7828.660
24 (600)	32 (800)	7828.680
24 (600)	39 (1000)	7828.600¹⁾
32 (800)	24 (600)	7828.680
32 (800)	32 (800)	7828.880
32 (800)	39 (1000)	7828.800

¹⁾ Extended delivery times.



Interior installation

Component shelves for frame attachment



Component shelf, static installation for TS, PC-TS, IW prepared for fan expansion kit

For direct mounting on the vertical TS enclosure section. Simply locate into 4 pre-fitted screws and secure.

Load capacity:
88 lb (40 kg) surface load, static

Material:
Carbon steel

Color:
RAL 7015

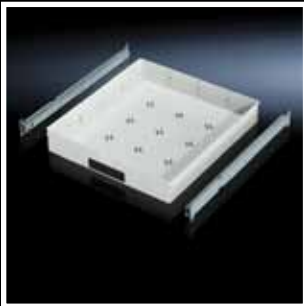
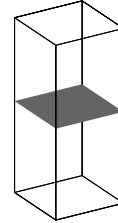
Configuration:
Assembly parts

Accessories:
Fan expansion kit 7980.XXX, see page 389

For enclosures ¹⁾		Support area		Part No.
Width inches (mm)	Depth inches (mm)	Width inches (mm)	Depth inches (mm)	
24 (600)	24 (600)	20 (507)	22 (550)	6902.960²⁾
24 (600)	32 (800)	20 (507)	30 (750)	6902.980

¹⁾ For enclosures without a mounting panel.

²⁾ May also be installed in 32" (800 mm) deep enclosures based on TS (pull-out rear attachment).



Drawer tray pull-out

For enclosures with TS frame construction in series IW, PC-TS.

Width: 24" (600 mm)

Depth: 24" – 32" (600 – 800 mm)

Tray height: 3.3" (83 mm)

Load capacity:
488 lb (40 kg) surface load, static

Material:
Carbon steel

Color:
RAL 7035

Configuration:
2 telescopic slides

Packs of	Part No.
1	6902.700

Component shelves for attachment to the 19" (482.6 mm) section

Component shelf, 19" (482.6 mm) configuration

Enclosures with two 19" (482.6 mm) mounting levels

Depending on their depth, the component shelves have several attachment points, so the distance between the 19" (482.6 mm) mounting angles is variable within certain limits. Each component shelf secured in this way can be retrospectively upgraded to full withdrawal using telescopic slides. For this purpose, the telescopic slides are screw-fastened in place of the spacers.

Load capacity:

110 lb (50 kg) surface load, static

Material:

Carbon steel

Configuration:

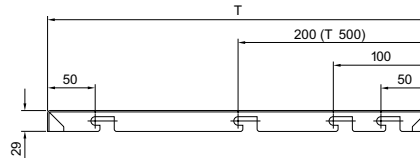
Assembly parts

Also required:

- Adaptor for L-shaped mounting angles TS, see page 686
- Installation kit, depth-variable, for installation on mounting frames and L-shaped mounting angles, see page 686

Possible alternative:

Component shelves, heavy duty, for 19" (482.6 mm) configuration, see page 680, 681



Component shelf width inches (mm)	16 (409)								
Component shelf depth inches (mm)	12 (300)	16 (400)	20 (500)	24 (600)	28 (700)	20 (500)	24 (600)	28 (700)	
Dist. between levels (X) inches (mm)	12 (298)	14/16 (348/398)	14/18/20 (348/448/498)	18/22/24 (448/548/598)	22/26/27 (548/648/698)	14/18/20 (348/448/498)	18/22/24 (448/548/598)	22/26/27 (548/648/698)	
Color	RAL 7035	■	■	■	■	■	-	-	-
	RAL 9005	-	-	-	-	-	■	■	■

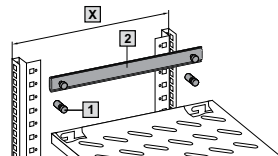
Accessories:

Telescopic slides for 110 lb (50 kg), see page 687	7051.000	7061.000	7081.000	7161.000	7161.700	7081.000	7161.000	7161.700	
Handles for component shelf, see page 688	3636.010								
Hinged cable support	see page 688								

For TS:

Note for installation in network enclosures based on TS, cranked mounting angle:

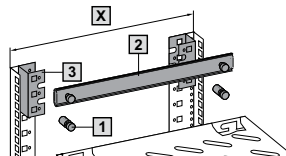
The component shelves are mounted on the sides of the 19" (482.6 mm) cranked mounting angles with spacers on a U pitch pattern.



For TS:

Note for installation in network enclosures based on TS, L-shaped mounting angle:

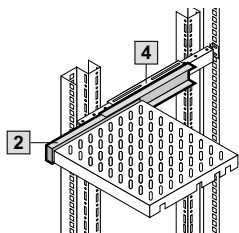
If L-shaped mounting angles are used, adaptor 7827.300 is required, see page 686.



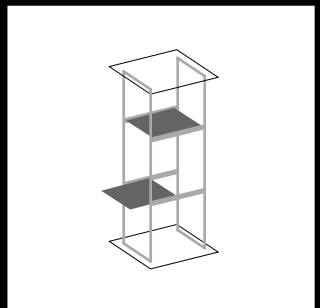
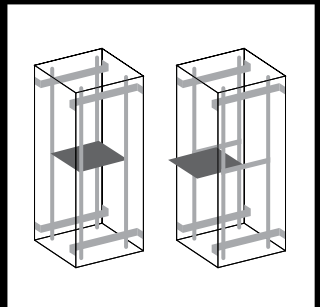
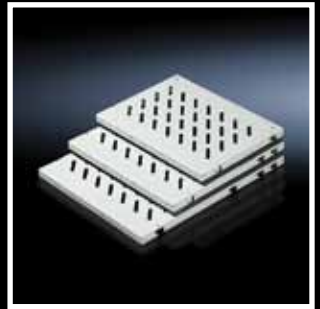
For TS 19" (482.6 mm) system punchings

Note for installation between two mounting frames or L-shaped mounting angles:

May be mounted directly on the 19" (482.6 mm) system punchings using the depth-variable installation kit, see page 686.



- 1 Spacers
- 2 Telescopic slides
- 3 Adaptor
- 4 Mounting kit, depth-variable
- X Distance between angles



Interior installation

Component shelves for attachment to the 19" (482.6 mm) section



Component shelf, static installation on the 19" (482.6 mm) mounting frame for TS

The component shelf is attached directly to the front and rear 19" (482.6 mm) mounting angles.

Load capacity:
66 lb (30 kg) surface load, static

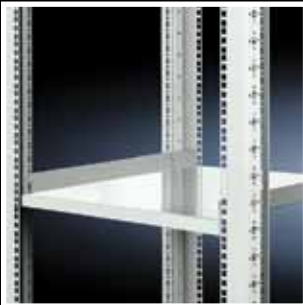
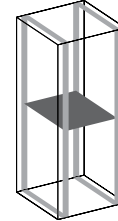
Material:
Carbon steel

Color:
RAL 7035

Configuration:
Assembly parts

Note:
Not suitable for combination with telescopic slides.

Height inches (mm)	Width inches (mm)	Depth inches (mm)	19" (482.6 mm) distance between levels inches (mm)	Part No.
0.9 (22)	20 (511)	16 (413)	19 (495)	7000.620



Component shelf, heavy duty for network enclosures TS with cranked mounting angles

For static installation between two 19" (482.6 mm) mounting levels. The component shelf is located directly onto the **cranked** mounting angles.

Zinc-plated version:
Load capacity:
165 lb (75 kg) surface load, static

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Spray-finished version:
Load capacity:
220 lb (100 kg) surface load, static

Material:
Carbon steel

Color:
RAL 7035

Configuration:
Assembly parts

Zinc-plated version:

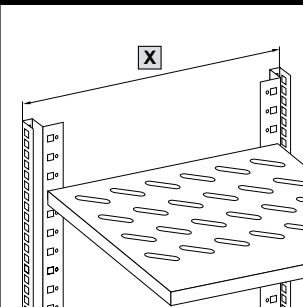
Dimensions			19" (482.6 mm) distance between levels inches (mm)	Part No.
Height inches (mm)	Width inches (mm)	Depth inches (mm)		
20 (511)	18 (452.5)	19 (478)	20 (498)	7828.950
20 (511)	18 (452.5)	23 (578)	24 (598)	7828.960
20 (511)	18 (452.5)	27 (678)	27 (698)	7828.970

Spray-finished version:

Dimensions			Distance between levels (X) mm	Part No.
Height inches (mm)	Width inches (mm)	Depth inches (mm)		
2 (44)	18 (453)	19 (470)	20 (498)	7145.535

Note:
Not suitable for combination with telescopic slides.

Possible alternative:
Component shelf, heavy duty, for 19" (482.6 mm) configuration, see page 681, may be combined with telescopic slides, see page 687



Component shelves for attachment to the 19" (482.6 mm) section

Component shelf, heavy duty for network enclosures TS with L-shaped mounting angles

For static installation between two 19" (482.6 mm) mounting levels. The component shelf is located directly onto the L-shaped mounting angles.

Load capacity:

165 lb (75 kg) surface load, static

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

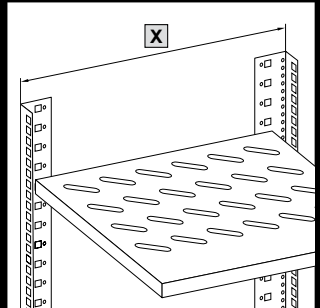
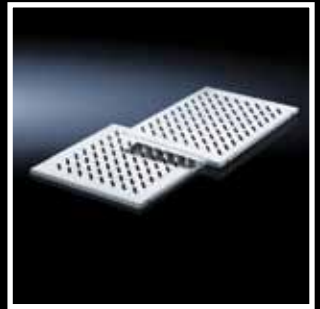
Note:

Not suitable for combination with telescopic slides

Possible alternative:

Component shelf, heavy duty, for 19" (482.6 mm) configuration, see page 681, may be combined with telescopic slides, see page 687

Dimensions			Distance between levels (X) mm	Part No.
Height inches (mm)	Width inches (mm)	Depth inches (mm)		
0.8 (20)	20 (507.5)	19 (480)	20 (498)	7828.951
0.8 (20)	20 (507.5)	23 (580)	24 (598)	7828.961
0.8 (20)	20 (507.5)	27 (680)	27 (698)	7828.971



Component shelf, heavy duty 19" (482.6 mm) for TS

- L-shaped mounting angles
- Mounting frame 19" (482.6 mm)

Load capacity:

220 lb (100 kg) surface load, static

Material:

Carbon steel

Configuration:

Assembly parts

Also required:

Installation kit, depth-variable 7063.890, see page 686

Accessories:

- Telescopic slides, 220 lb (100 kg) for 19" (482.6 mm) component shelf, see page 687
- Handles for component shelf, see page 688

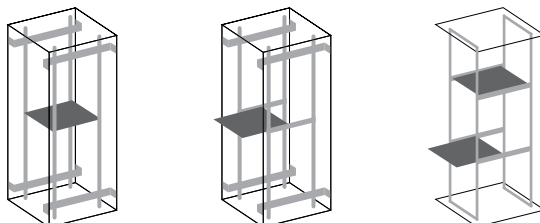
Color: RAL 7035

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.
1.8 (45)	16 (409)	20 (500)	7063.895
1.8 (45)	16 (409)	28 (700)	7063.897

Color: RAL 9005

Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.
1.8 (45)	16 (409)	20 (500)	7063.835¹⁾
1.8 (45)	16 (409)	28 (700)	7063.837

¹⁾ Extended delivery times.



Interior installation

Component shelves for attachment to the 19" (482.6 mm) section



Component shelf 2 U 19" (482.6 mm) for 19" (482.6 mm) system punchings

Suitable for installation in all enclosures with only one 19" (482.6 mm) recess and all swing frames with flange mounting, 19" (482.6 mm).

Load capacity: 95 lb (25 kg) surface load, static

Material: Carbon steel

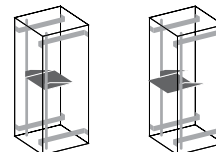
Color: RAL 7035

Configuration: Assembly parts

Width inches (mm)	Depth inches (mm)	Part No.
12 (300)	12 (300)	7148.035

Accessories:

- Telescopic slides for component shelf, see page 687
- Handles for component shelf, see page 688



Component shelf 1 U, depth-variable 19" (482.6 mm) for 19" (482.6 mm) system punchings

For mounting between the front and rear 19" (482.6 mm) levels. The component shelf is infinitely depth-adjustable from 19" to 30" (488 to 750 mm).

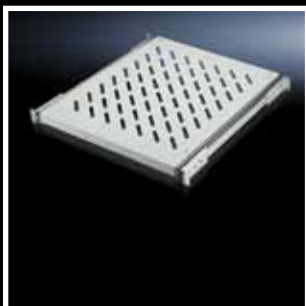
Load capacity: 110 lb (50 kg) surface load, static

Material: Carbon steel

Distance between levels inches (mm)	Part No.
19 - 30 (488 - 750)	3861.580

Color: RAL 7035

Note: Not suitable for combination with telescopic slides.



Component shelf, complete set, pull-out 19" (482.6 mm) for 19" (482.6 mm) system punchings

Tailored to the distance between levels in enclosures as per their supplied state of 19" (495 mm), this complete set contains a vented component shelf, telescopic slides and a mounting kit for direct attachment. The mounting kit also offers depth-variable attachment within 16" -25" (395 - 645 mm) on a 25 mm pitch pattern.

Load capacity:
110 lb (50 kg), static

Material:
Base: Carbon steel

Surface finish:
- Base: Spray-finished
- Mounting kit/telescopic slides: Zinc-plated

Color:
RAL 7035

Configuration:
- 1 component shelf
- Telescopic slides
- Installation kit

Accessories:
Handles for component shelf, see page 688

Base depth inches (mm)	Packs of	Part No.
20 (500)	1 set	7000.625



Component shelves for attachment to the 19" (482.6 mm) section

Component shelf ½ U, depth-variable 19" (482.6 mm) for 19" (482.6 mm) system punchings

For mounting between the front and rear 19" (482.6 mm) levels. The component shelf is infinitely depth-adjustable from 19" to 30" (488 mm to 750 mm).

Load capacity:

110 lb (50 kg) surface load, static

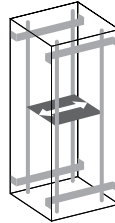
Material:

Carbon steel

Note:

Not suitable for combination with telescopic slides.

Distance between levels inches (mm)	Color	Part No.
16 – 24 (400 – 600)	RAL 7035	7063.710
24 – 35 (600 – 900)	RAL 7035	7063.720
24 – 35 (600 – 900)	RAL 9005	7063.725



Tool-less shelves for 19" (482.6 mm) rack mounting

These 19" (482.6 mm) enclosure mount shelves are designed for your ease – the tool-less advantage allows quick and simple assembly.

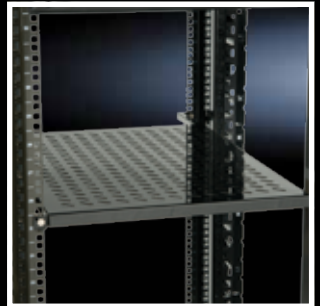
Load capacity:

150 lb (68 kg)

Note:

Cabinet must have a depth of 28" (700 mm)

Mounting	Color	Part No.
Fixed	RAL 7035 light grey	9968.421
Fixed	Cool black	9968.422



Heavy-duty tool-less shelves for 19" (482.6 mm) rack mounting

These 19" (482.6 mm) heavy-duty enclosure mount shelves are designed for your ease. The tool-less advantage allows quick and simple assembly.

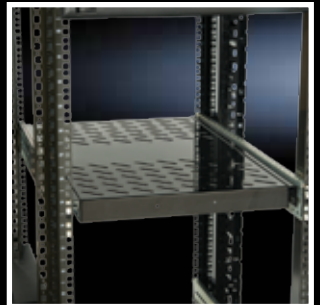
Load capacity:

250 lb (113 kg)

Note:

Cabinet must have a depth of 32" (800 mm)

Mounting	Color	Part No.
Fixed	RAL 7035 light grey	9968.556
Fixed	Cool black	9968.557
Telescopic	RAL 7035 light grey	9968.586
Telescopic	Cool black	9968.587



Interior installation

Component shelves for attachment to the 19" (482.6 mm) section



Component shelf 1 U, static installation

19" (482.6 mm)/21" (535 mm) (metric) for
19" (482.6 mm) system punchings

The ideal support surface for small active components such as modems or mini-hubs in 19" (482.6 mm) or metric levels.

Load capacity:

22 lb (10 kg) surface load, static

Material:

Carbon steel

Color:

RAL 7035

Note:

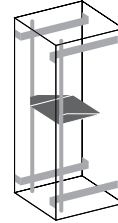
Not suitable for combination with telescopic slides.

Also required:

- Captive nuts, see page 673
- Screws, see page 674

Component shelf depth inches (mm)	Part No.	
	19" (482.6 mm)	Metric
6 (140)	7119.140	7119.155¹⁾

¹⁾ Extended delivery times.



Component shelf 2 U, static installation

19" (482.6 mm)/21" (535 mm) (metric) for
19" (482.6 mm)/metric system punchings

If only one 19" (482.6 mm) or metric mounting level is available for mounting a component shelf, this version offers a particularly cost-effective solution.

Load capacity:

55 lb (25 kg) surface load, static

Material:

Carbon steel

Color:

RAL 7035

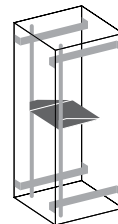
Note:

Not suitable for combination with telescopic slides.

Also required:

- Captive nuts, see page 673
- Screws, see page 674

Component shelf depth inches (mm)	19" (482.6 mm)	Metric	Part No.
10 (250)	■	-	7119.250
16 (400)	■	-	7119.400
10 (250)	-	■	7119.255
16 (400)	-	■	7119.455



Component shelves for attachment to the 19" (482.6 mm) section

Utility table

for location in the 19" (482.6 mm) level for 19" (482.6 mm) system punchings

The utility table may be attached directly between the 19" (482.6 mm) mounting angles without any additional assembly work. The utility table has a height of 3 U and a support area of 17" x 12" (450 x 295 mm); it can be used as a support for measuring devices or splicing equipment during maintenance and wiring work.

Material:

Carbon steel

Color:

RAL 7035

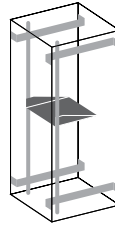
Configuration:

Assembly parts

Note:

Installation in enclosures with a TS trim frame is not possible.

Support surface inches (mm)	Part No.
17 x 12 (450 x 295)	7183.100



Shelf

for AE with pull-out frame

The vented shelf is inserted into the pull-out frame of wall-mounted distributor 7644.000 and may additionally be screw-fastened. In this way, an additional support surface can be created with very little effort. Captive nuts may be clipped into the punchings of the frame, even after the shelf has been inserted.

Material:

Carbon steel

Color:

RAL 7035

Configuration:

Assembly parts

Width inches (mm)	Depth inches (mm)	Part No.
17 (430)	8 (195)	7644.400

Delivery times available on request.



Interior installation

Installation kits for component shelves



TS punched section with mounting flange, 17 x 73 mm as installation kit for component shelves

Simply locate and secure. One pack is sufficient for 2 component shelves.

Load capacity:
220 lb (100 kg) surface load, static

Material:
Carbon steel

Surface finish:
Zinc-plated

Installation in enclosure depth inches (mm)	Packs of	Part No.
20 (500)	4	8612.050
24 (600)	4	8612.060
32 (800)	4	8612.080
39 (1000)	4	8612.000
47 (1200)	4	8612.020

Configuration:
Assembly parts



Mounting kit, depth-variable for 19" (482.6 mm) component shelf

In conjunction with
– L-shaped mounting angles or
– Mounting frame 19" (482.6 mm)
Infinitely adjustable to the spacing between the two pairs of 19" (482.6 mm) mounting angles. Suitable for all 19" (482.6 mm) component shelves in 16" (409 mm) width.

Material:
Carbon steel

Surface finish:
Zinc-plated

Length inches (mm)	Load capacity lb (kg)	U	Part No.
15 – 23 (390 – 590)	110 (50)	1	7063.858
19 – 28 (490 – 710)	220 (100)	1.5	7063.892¹⁾
23 – 31 (590 – 790)	110 (50)	1	7063.860
28 – 40 (706.5 – 1006.5)	220 (100)	1.5	7063.890

¹⁾Max. depth of component shelves: 20" (500 mm)

Configuration:
1 set = 2 mounting rails including assembly parts

Accessories: Telescopic slides, see page 687



Adaptor for L-shaped mounting angle for TS network enclosures

For mounting component shelves and slide rails on L-shaped mounting angles.

Material:
Carbon steel

Configuration:
Assembly parts

Packs of	Part No.
4	7827.300



Installation kit for component shelves and drawers, with 19" (482.6 mm) installation in TS

For installation between the front and rear adaptor sections or adaptor pieces, 19" (482.6 mm) in 24" (600 mm) wide enclosures.

Material:
Carbon steel, zinc-plated

Configuration:
Assembly parts. Also required:
– Mounting angles, 19" (482.6 mm), see page 753
– Adaptor pieces, 19" (482.6 mm), see page 754

For enc. depth inches (mm)	Packs of	Part No.
24 (600)	1 set	8800.560
32 (800)	1 set	8800.580

Max. depth of component shelves = Enclosure depth minus 4" (100 mm).

Accessories for component shelves

Side parts 3 U

for static installation of component shelves, 19" (482.6 mm)

For the attachment of component shelves to a single pair of 19" (482.6 mm) mounting angles. The component shelves are screw-fastened to the 3 U side part. Either one or two component shelves may be secured.

Depth of side parts inches (mm)	For component shelf	Component shelf depth inches (mm)	Part No.
16 (400)	7143.035	12 (300)	7147.035
16 (400)	7144.035	16 (400)	
16 (400)	7145.035	20 (500)	

Load capacity:

66 lb (30 kg) surface load, static

Material:

Carbon steel

Color:

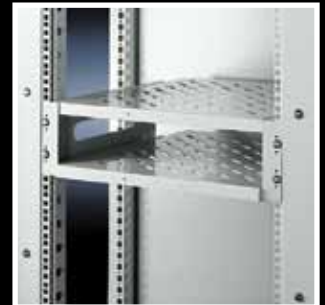
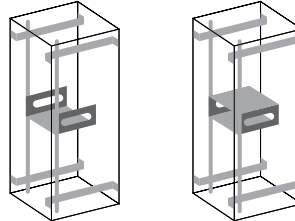
RAL 7035

Configuration:

2 side parts

Note:

- Not suitable for combination with telescopic slides.
- Component shelves, 19" (482.6 mm), see page 679.



Telescopic slide

for component shelves

Fixed component shelves are easily converted to full withdrawal. For this purpose, the existing fastening bolts or mounting rails (heavy-duty version) are exchanged for the telescopic slides.

Technical specifications:

For installation and locking on a 25 mm pitch pattern in the enclosure depth

Load capacity:

110/220 lb (50/100 kg) per set

Material:

Carbon steel, zinc-plated

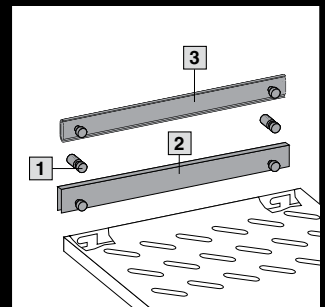
Load capacity 110 lb (50 kg)

For component shelf depth inches (mm)	Packs of	Part No.
12 (300)	2	7051.000
16 (400)	2	7061.000
20 (500)	2	7081.000
24 (600)	2	7161.000
28 (700)	2	7161.700

Load capacity 220 lb (100 kg)

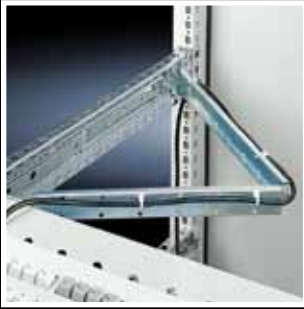
For component shelf depth inches (mm)	Packs of	Part No.
16 (400)	2	7064.000
20 (500)	2	7065.000
24 (600)	2	7066.000
28 (700)	2	7066.700

- 1 Fastening bolts
- 2 Mounting rails
- 3 Telescopic slides



Interior installation

Accessories for component shelves



Cable support hinged, with clamp

For secure routing of connection cables from the component shelf to the clamping point. The attachment may be released on both sides thanks to clamps.

Material:

Carbon steel, zinc-plated

Configuration:

Assembly parts

For enclosure depth inches (mm)	Part No.
< 24 (600)	7163.500
> 24 (600)	7163.550



Cable support hinged, with anti-kink device and clamp

For secure routing of connection cables from the component shelf to the clamping point. Kink-free cable routing in the central part via mobile chain links. The attachment may be released on both sides, thanks to clamps.

Material:

- Carbon steel, zinc-plated
- Center part: Plastic

Configuration:

Assembly parts

For enclosure depth inches (mm)	Part No.
< 24 (600)	7163.560
> 24 (600)	7163.565



Handles for pull-out component shelves

The component shelves are prepared for the attachment of handles.

Material:

Die-cast zinc

Surface finish:

Spray-finished, silver-grey

Configuration:

Assembly parts

Packs of	Part No.
2	3636.010



Fastening bolt for slotted component shelves

For non-slip attachment of your components. The bolts are screwed into the longitudinal slots of the component shelf support surface. Consequently, they are infinitely adjustable and can be adapted to suit any appliance.

Packs of	Part No.
4	7115.000

System light

- for direct attachment in all large enclosures
- for mounting on compact enclosures
- wall-mounted enclosures and in the console system with system accessories

Protection rating:

IP 20 to IEC 60 529

Also required:

Connection accessories, see page 694

Accessories:

- Adaptor bracket, see page 668
- Universal bracket, see page 671
- Rail for interior installation, see page 651



Technical comparison/equipment		Standard light	Courtesy light	Universal light	Compact light	LED system light	US light	
Page		690	690	691	691	692	693	
Voltage supply	100 – 240 V AC, 50/60 Hz	–	■	■	■	–	–	
	120 V AC, 60 Hz	■	–	–	–	–	■	
	230 V AC, 50 Hz	■	–	–	–	–	–	
	24 V DC	–	–	–	■	■	–	
Full-electronic ballast		–	■	■	■	–	■	
Light	Fluorescent lamp, base G13	■	■	–	–	–	■	
	Compact fluorescent lamp, base G24q-3	–	–	■	–	–	–	
	Fluorescent lamp T5	–	–	–	■	–	–	
	LEDs, cold white	–	–	–	–	■	–	
Protection category	II (all-insulated)	–	–	–	■	–	–	
	III (SELV)	–	–	–	–	■	–	
Installation type	Screw-fastening	■	■	■	■	■	■	
	Clip attachment	–	–	–	■	■	–	
	Magnetic attachment (accessory)	–	–	–	■	■	–	
Mounting options	TS roof frame (horizontal section)	direct	■	■	■	■	■	
		with adaptor bracket	■	■	■	–	–	■
	TS vertical section	direct	–	–	–	■	■	–
		with universal bracket	■	■	■	–	–	■
	AE, CM, TP	with magnetic attachment	–	–	–	■	■	–
		AE	with rail for interior installation	■	■	■	–	–
Connection options	Infeed/connection cable	■	■	■	■ ³⁾	■	■	
	Door-operated switch	■	■	■	■	■	■	
	Through-wiring (series connection of several lights)	■	■	■	–	■	–	
Approvals	UL/cUL	■	–	■ ²⁾	■ ²⁾	– ¹⁾	■	
	ENEC	■ ²⁾	■	–	■ ²⁾	–	–	
	VDE	–	–	■ ²⁾	–	–	–	
Equipment	Light cover	–	■	■	■	■	■	
	Light cone adjustment	–	–	■	–	■	–	
	Integral sockets, grounding-pin	■ ²⁾	■	■	–	–	–	
	Integral sockets, USA	■ ²⁾	–	–	–	–	■	
	Integral motion detector	–	–	■	–	–	–	
Integral door-operated switch	■ ²⁾	■ ²⁾	–	–	–	–		

¹⁾ Safety extra-low voltage, not required by the standard.

²⁾ Depending on the equipment.

³⁾ Integral

Interior installation

System lights



Standard light

Without door operated switch



Technical specifications	Socket	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.	Approvals
14 kW, 230 V, 50 Hz	Grounding-pin	5 (117)	18 (452)	2 (50)	4138.140	ENEC
18 kW, 230 V, 50 Hz	Grounding-pin	5 (117)	27 (682)	2 (50)	4138.180	ENEC
30 kW, 230 V, 50 Hz	Grounding-pin	5 (117)	39 (987)	2 (50)	4138.300	ENEC
14 kW, 120 V, 60 Hz	USA	5 (117)	18 (452)	2 (50)	4138.240	cURus
18 kW, 120 V, 60 Hz	USA	5 (117)	27 (682)	2 (50)	4138.280	cURus
30 kW, 120 V, 60 Hz	USA	5 (117)	39 (987)	2 (50)	4138.400	cURus

With door operated switch

Technical specifications	Socket	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.	Approvals
14 kW, 230 V, 50 Hz	Grounding-pin	5 (117)	18 (452)	2 (50)	4138.150	ENEC
18 kW, 230 V, 50 Hz	Grounding-pin	5 (117)	27 (682)	2 (50)	4138.190	ENEC
30 kW, 230 V, 50 Hz	Grounding-pin	5 (117)	39 (987)	2 (50)	4138.350	ENEC
14 kW, 120 V, 60 Hz	USA	5 (117)	18 (452)	2 (50)	4138.250	cURus
18 kW, 120 V, 60 Hz	USA	5 (117)	27 (682)	2 (50)	4138.290	cURus
30 kW, 120 V, 60 Hz	USA	5 (117)	39 (987)	2 (50)	4138.450	cURus

Also required:

Connection accessories, see page 694



Courtesy light

Without door operated switch

Technical specifications	Socket	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.	Approvals
14 W, 100 – 240 V, 50/60 Hz	Grounding-pin	5 (117)	18 (452)	2 (50)	4139.140	ENEC
18 W, 100 – 240 V, 50/60 Hz	Grounding-pin	5 (117)	27 (682)	2 (50)	4139.180	ENEC
30 W, 100 – 240 V, 50/60 Hz	Grounding-pin	5 (117)	39 (987)	2 (50)	4139.300	ENEC

With door operated switch

Technical specifications	Socket	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.	Approvals
14 W, 100 – 240 V, 50/60 Hz	Grounding-pin	5 (117)	18 (452)	2 (50)	4139.150	ENEC
18 W, 100 – 240 V, 50/60 Hz	Grounding-pin	5 (117)	27 (682)	2 (50)	4139.190	ENEC
30 W, 100 – 240 V, 50/60 Hz	Grounding-pin	5 (117)	39 (987)	2 (50)	4139.350	ENEC

Also required:

Connection accessories, see page 694



Universal light With integral motion detector

Technical specifications	Socket	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Part No.	Approvals
26 W, 110 – 240 V, 50 – 60 Hz	Grounding-pin	4 (95)	14 (345)	2 (55)	4155.100	VDE
26 W, 110 – 240 V, 50 – 60 Hz	–	4 (95)	14 (345)	2 (55)	4155.000	VDE
26 W, 110 – 240 V, 50 – 60 Hz	–	4 (95)	14 (345)	2 (55)	4155.500	UL

Also required:

Connection accessories, see page 694



Compact light Slimmer – Faster – Brighter

- Slimmer: Around 50% less height and depth and also around 75% less volume than conventional lights
- Faster: Universal fast attachment via clips, screws, or powerful magnets (optional)
- Brighter: Up to 75% greater luminous efficiency from the lamp with the same power helps to cut electricity costs
- Door-operated switch can also be connected via a 2-pole connection

Color:

Similar to RAL 7035

Protection rating:

IP 20 to IEC 60 529

Configuration:

Compact light with clip and screw mounting kits, including assembly parts

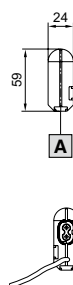
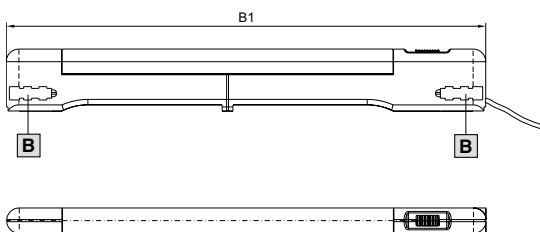
Accessories:

- Mounting kit magnet, see page 692
- Door-operated switch with connection cable, see page 694

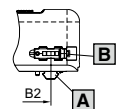


Part No.	ENEC 24	4140.010	–	4140.020	–	4140.110	4140.120
	cURus	–	4140.210 ¹⁾	–	4140.220 ¹⁾	–	–
Rated voltage		100 – 240 V AC ±10% at 50 – 60 Hz				24 V DC ±10%	
Wattage		8		14		8	14
Protection rating		II (all-insulated)					
Width (B1) inches (mm)		18 (455)		28 (705)		18 (455)	28 (705)
Mounting distance (B2) inches (mm) clip/magnet		16 (400)		26 (650)		16 (400)	26 (650)
Mounting distance (B3) inches (mm)		19 (475)		29 (725)		17 (425)	29 (725)
Connection cable		3 m (open end)					
Cover color		Yellow	Grey	Yellow	Grey	Yellow	Grey
Rated current (A)		0.045 – 0.088		0.073 – 0.127		–	–
– at 230 V AC		0.083 – 0.149		0.149 – 0.216		–	–
– at 110 V AC		–		–		0.35	0.57
– at 24 V DC		–		–		–	–
Light		Fluorescent lamp T5					
Operating unit		Wide-range electronic ballast				Electronic ballast	
Circuit-breakers		Integral, on/off/door-operated switch mode					
Light cover		Transparent, grooved on the inside					
Cable deflector across rear		■	–	■	–	■	■

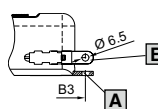
¹⁾ Only for the North American market.



Clip/magnet attachment



Screw attachment



- A** Rear attachment
- B** Side attachment



Interior installation

System lights



Mounting kit magnet

For reliable adhesion on all carbon steel surfaces.

Packs of	Part No.
2	4140.000

LED system light in 24 V DC version

- Max. EMC capacity
- Safe, economical and low maintenance
- Integral through-wiring
- Universal attachment options
- Vertically hinged light cone

Material:

- Light body: Extruded aluminum
- Light cover: Polycarbonate (halogen-free)
- Light ends: PC-ABS

Color:

Similar to RAL 7035

Protection rating:

IP 20 to IEC 60 529

Configuration:

Light with clip, screw mounting kits, assembly parts

Also required:

- LED connection cable, see page 693 or
- Door-operated switch with LED connection cable, see page 693

Accessories:

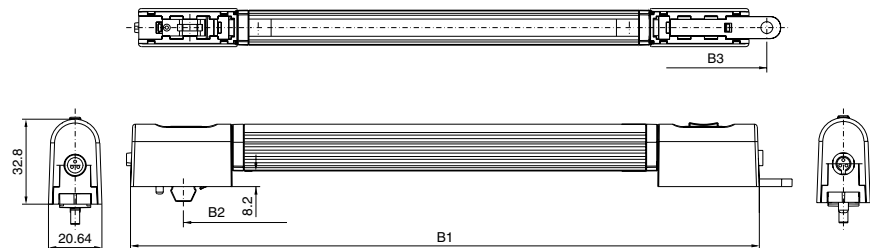
- Mounting kit magnet, see page 692
- Door operated switch with LED connection cable, see page 693
- LED connection cable, see page 693
- Adaptor power pack, see page 693

Note:

Only intended for use in enclosures and sealed cases. When using on customer-supplied power packs, it is important to obtain the requisite approvals depending on the application.

Part No.	4140.810	4140.820	4140.830	4140.840
Rated voltage	24 V DC (± 10%)			
No. of LEDs	10	20	30	40
Protection rating	III (SELV)			
Width (B1) inches (mm)	9 (230)	13 (330)	17 (430)	21 (530)
Mounting distance CLIP (B2) inches (mm)	7 (175)	11 (275)	15 (375)	19 (475)
Mounting distance, screw attachment (B3) inches (mm)	10 (250)	14 (350)	18 (450)	22 (550)
Rated current (A) ¹⁾	0.04	0.08	0.12	0.16
Circuit-breakers	Integral on/off/door-operated switch mode			

¹⁾Maximum buying up to a total rated current strength of 2 amps.



Connection accessories for LED system light

Connection cable		Length inches (mm)	Packs of	Part No.
1	LED connection cable	118 (3000)	1	4315.800

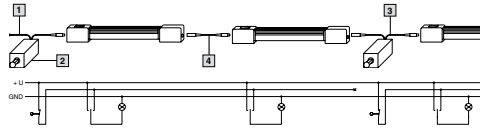
Door-operated switch		Length inches (mm)	Packs of	Part No.
2	With LED connection cable	118 (3000)	1	4315.810
3	With LED interconnecting cable	39 (1000)	1	4315.820

Interconnecting cable		Length inches (mm)	Packs of	Part No.
4	LED interconnecting cable	4 (100)	1	4315.830
		24 (600)	1	4315.840
		39 (1000)	1	4315.850

Adaptor power pack		Technical spec.	Packs of	Part No.
5	Adaptor power pack	230 V AC/24 V DC, 1 A	1	4315.860

Layout diagram for LED system light 24 V DC:

- 1 Connection cable
- 2 Door operated switch with LED connection cable (open end/cable bush)
- 3 Door operated switch with LED interconnecting cable
- 4 LED interconnecting cable for through-wiring



Enclosure light

Rittal's fluorescent enclosure lights are designed for quick and easy installation. The external terminal block means no need to disassemble the light to make electrical connections. Available in 15 or 18 watt rating, they can be used with or without the Rittal 4127.010 door switch (see page 694). Equipped with interference suppression capacitor or a RFI filter they also come with or without a lamp shade or 115 V U.S. style receptacle.

Technical specifications:

Rating: 120 V, 60 Hz

Color:

- RAL 7044 (silky grey)
- Light medium: cool white
- Includes installation hardware
- Connection terminals: L1 N. GND
- On/off rocker switch

Protection rating:

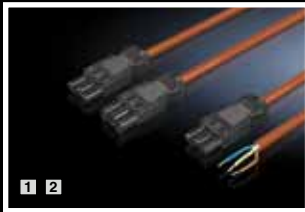
UL recognized for Canadian and U.S. requirements.

Part No.		Installation length A	Technical data
With interference suppression capacitor and no receptacle	With RFI filter, U.S. receptacle and lamp shade		
9968.108	9968.111	18 (467)	15 W
9968.109	9968.112	24 (620)	18 W



Interior installation

System lights



Connection accessories

The following components can be used for timesaving and simple installation of the lights:

Accessories:

Cable ties for quick assembly, see page 726

Connection cable for	UL	Length inches (mm)	Packs of	Part No.	
				Orange	Grey
1 Power supply (with jack, without connector)	–	118 (3000)	5	4315.100	–
1 Power supply (with socket and strain relief, without connector)	■	118 (3000)	1	–	4315.150
2 Through-wiring (with socket and connector)	■	24 (600)	1	–	4315.450
3 Through-wiring/power supply via connection component 2507.500 (with socket and connector)	–	24 (600)	5	4315.400	–
	–	39 (1000)	5	4315.200	–
	–	157 (4000)	1	4315.600	–

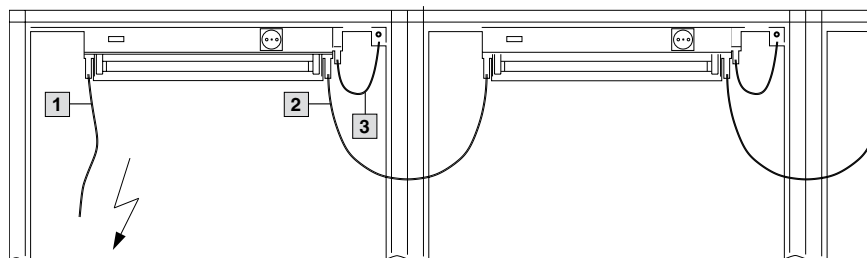
Door-operated switch With mounting accessories	UL	Length inches (mm)	Technical specifications	Packs of	Part No.		
					Orange	Yellow	Grey
3 With connection cable (not required for universal lights and standard/courtesy lights with integral door-operated switch)	–	24 (600)	240 V AC, 6 A 125 V DC, 8 A 24 V AC, 6 A 24 V DC, 6 A	1	4315.520	–	–
	–	39 (1000)		1	4315.320	–	–
	■	24 (600)		1	–	–	4315.550
	■	39 (1000)		1	–	–	4315.350
Without connection cable	■	–	1	4127.010			
4 With connection cable (for compact light)	–	24 (600)	1	–	4315.710	–	
	■	24 (600)	1	–	–	4315.720	

Door-operated switch With toggle	UL	Technical specifications	Packs of	Part No.
5 Without connection cable, for TS enclosures with installed large swing frame. The toggle is actuated via the tubular door frame of the carbon steel door, or in the case of glazed doors, via an adaptor included with the supply.	■	240 V AC, 6 A 125 V DC, 8 A 24 V AC, 6 A 24 V DC, 6 A	1	4127.210

Connection component with circuit-breaker 10 A	Packs of	Part No.
6 Reduce assembly costs: Power is supplied rapidly and reliably to system and workstation lights via connection cables. For independently configured cables, connector 2507.200 must be used. Connection component to be snapped onto the top hat rail.	1	2507.500

For self-assembly	Packs of	Part No.
Sockets for power supply through-wiring	5	2507.100
Connectors for connection component through-wiring	5	2507.200
T distributor with 2 sockets, 1 connector	5	2507.300
Connector for door-operated switch cable	5	2507.400

- 1 Connection cable for infeed
- 2 Connection cable for through-wiring/infeed
- 3 Door-operated switch with connection cable



Enclosure light, 48 V DC with connection cable

Robust light. For attachment vertically or horizontally in the frame section via spring brackets, or may be used as a direct light source during maintenance work by inserting the plastic swivel hook. Impact-resistant lamp housing of PMMA (polymethylmethacrylate) protection category II.

Protection rating:
IP 64

Configuration:
– 2 spring clips
– Assembly parts

Packs of	Part No.
1	9765.150

Technical specifications:

- Luminosity: 11 W
- Luminous efficiency: 900 lm
- Fluorescent tube: TC-SEL 11 W, 4-pin
- Ambient temperature:
–4° to +104° F (–20° to +40° C)
- Voltage: 48 V DC ±10%
- Supply lead 118" (3000 mm),
H05RN – 2 x 1 mm, without connectors,
with crimped ferrules
- Length:
18" (450 mm) overall
Protective tube 13" (320 mm)
- Light outlet 8" (195 mm)
- Diameter:
2.4" (62 mm) overall
Protective tube 1.5" (38 mm)



Light 1 U

Ready-to-connect light for installation in the 19" (482.6 mm) mounting angles. The slot attachment additionally allows it to be fastened to the 25 mm system punchings.

Technical specifications:

- Fluorescent tube 8 kW, 230 V, 50 Hz
- Mains switch
- 98" (2.5 m) connection cable
- Grounding-pin connector

Material:

- Aluminum, anodized
- Plastic

Packs of	Part No.
1	7109.200



Interior installation

EMC



Rail for EMC shielding bracket and strain relief

Combined rail for strain relief and EMC contacting of inserted cables.

- Mounting options:
- On the horizontal/vertical TS, PC, ES enclosure section
 - On a mounting panel

May also be fitted without a retaining bracket.
Additional contacting on the left or right of the rail via existing holes 0.35" (9 mm) diameter.

Material:
Carbon steel

Surface finish:
Zinc-plated

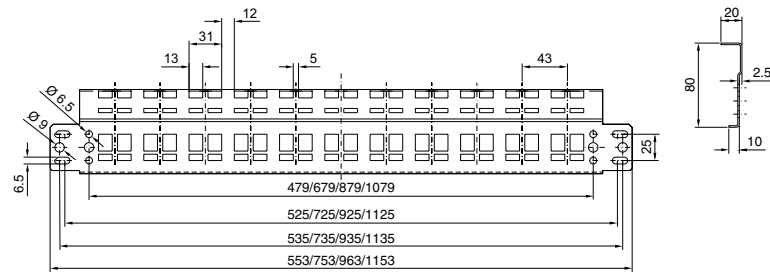
Width inches (mm)	Packs of	Part No.
24 (600)	1	2388.600
32 (800)	1	2388.800
39 (1000)	1	2388.000
47 (1200)	1	2388.120

- Configuration:**
- 1 rail
 - 2 retaining brackets
 - Assembly parts

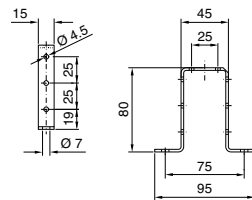
- Also required:**
- EMC shielding bracket, see page 696
 - Cable clamps for strain relief, see page 725

- Accessories:**
- Ground straps, see page 699
 - Grounding braid, see page 699

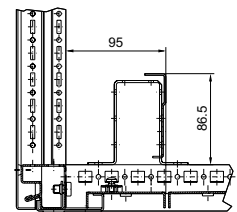
Rail



Retaining bracket



Mounting position



EMC shielding brackets

For shielded cables with a maximum diameter of 0.8" (20 mm). Combined EMC/IP seal provides low-resistance contact between cable shield and gland plate. For all 16" (400 mm), 20" (500 mm), 24" (600 mm) and 32" (800 mm) deep enclosures in conjunction with standard gland plates.

Material:
Carbon steel

Surface finish:
Zinc-plated

- Configuration:**
- 1 gland plate with T-head punching
 - 1 sliding gland plate
 - 2 IP/EMC gaskets

Width inches (mm)	Packs of	Part No.
24 (600)	1	8800.660
32 (800)	1	8800.680
39 (1000)	1	8800.600¹⁾
47 (1200)	1	8800.620¹⁾

¹⁾ For one enclosure half only

EMC gland plates

For shielded cables with a maximum diameter of 20 mm. Combined EMC/IP seal provides low-resistance contact between cable shield and gland plate. or all 16" (400 mm), 20" (500 mm), 24" (600 mm) and 32" (800 mm) deep enclosures in conjunction with standard gland plates.

Material:

Carbon steel

Surface finish:

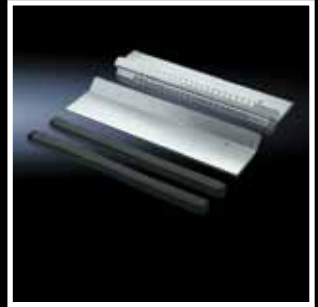
Zinc-plated

Width inches (mm)	Packs of	Part No.
24 (600)	1 set	8800.660
32 (800)	1 set	8800.680
39 (1000)	1 set	8800.600¹⁾
47 (1200)	1 set	8800.620¹⁾

¹⁾For one enclosure half only

Configuration:

- 1 gland plate with T-head punching
- 1 sliding gland plate
- 2 IP/EMC gaskets



EMC cable glands

The cable sheathing may optionally be interrupted at the contact point or removed completely inside the enclosure. The cable shield in the enclosure is retained. The supplied lock nut cuts automatically into the paint when screwed down, thus creating a conductive connection.

Protection rating:

IP 68 to IEC 60 529

IP 69K to DIN 40 050-9

Possible alternative:

Cable gland Hygienic Design, see page 717

Cable glands, metric

Size	Cable diameter inches (mm)	Min. ¹⁾ shield diameter inches (mm)	PU	Part No.
M16	0.2 – 0.4 (4.5 – 10)	0.1 (3)	5	2843.160
M20	0.2 – 0.5 (6 – 12)	0.2 (5)	5	2843.200
M25	0.4 – 0.7 (11 – 17)	0.3 (8)	5	2843.250
M32	0.6 – 0.8 (15 – 21)	0.4 (10)	1	2843.320
M40	0.7 – 1.1 (19 – 28)	0.6 (15)	1	2843.400
M50	1.1 – 1.5 (27 – 38)	0.7 (19)	1	2843.500
M63	1.3 – 1.7 (34 – 44)	1.2 (30)	1	2843.630

¹⁾Min. shield diameter=cable diameter minus cable sheathing

Cable glands, PG

Size	Cable diameter inches (mm)	Min. ¹⁾ shield diameter inches (mm)	PU	Part No.
11	0.2 – 0.4 (5 – 10)	0.2 (4)	5	2411.110
13.5	0.2 – 0.5 (6 – 12)	0.2 (5)	5	2411.140
16	0.4 – 0.6 (10 – 14)	0.3 (8)	5	2411.160
21	0.5 – 0.7 (13 – 18)	0.4 (10)	1	2411.210
29	0.7 – 1.0 (18 – 25)	0.6 (15)	1	2411.290

¹⁾Min. shield diameter=cable diameter minus cable sheathing



EMC shield bus

Made of clear chromated steel strip, 3"² (75 mm²) cross section, for cable shield contact.

Configuration:

Assembly parts

Rail length inches (mm)	Connections	Packs of	Part No.
15 (375)	10	1	2413.375
22 (550)	16	1	2413.550



Interior installation

EMC



EMC ground clamp

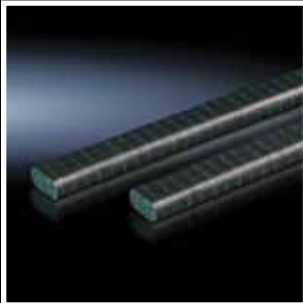
The clamps may be used directly on the device or operating equipment on the mounting panel for cable shield contact.

Material:
Carbon steel

Surface finish:
Zinc-plated

Size inches (mm)	Packs of	Part No.
0.2 (4)	50	2367.040
0.2 (6)	50	2367.060
0.3 (8)	50	2367.080
0.5 (12)	50	2367.120
0.6 (16)	50	2367.160
0.8 (20)	25	2367.200¹⁾

¹⁾ 2 assembly brackets



EMC baying seal for TS

For baying enclosure systems. Seal with all-round, electrically conductive sheathing.

Configuration:
3 seals, length 79" (2 m) each

Cross section inches (mm)	Part No.
0.2 x 0.2 (6.3 x 6.3)	8800.690



EMC divider panel seal

This seal ensures optimum contact in bayed EMC enclosure systems and when using a zinc-plated divider panel.

Material:
PU foam with electrically conductive sheathing

Configuration:
1 roll, 0.5" x 0.5" x 209" (12.7 x 12.7 x 5300 mm)

Packs of	Part No.
1	4348.000



Contact cutter

The contact cutter enables EMC-compatible preparation of the contact point e.g. for grounding straps. Plastic-bound abrasive with guide pin for round system punchings. With location point for drill, grinder etc.

For	Part No.
Frame section	2414.000
Grounding bolts ¹⁾	2414.500

¹⁾ Not necessary with TS

Contact paint

Contact paint prevents the corrosion of conductive, unprotected contact points.

Contents:
0.4 oz (12 ml)

Packs of	Part No.
1	2415.000

Grounding strap

For configuring a reliable grounding connection with perfect contact:

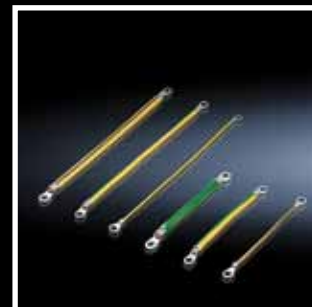
- With ring terminals in M6 and M8 to match the grounding screw
- Length-optimized and ready to install

Enclosure	Connection facility		
	Door/lid	Enclosure	Mounting plate
KL	M6	M6	M8
EB/BG	M6	M6/M8 ¹⁾	–
AE	M6	M6 ^{2)/} M8	M8
KE/KEL	M8	M8	M8
AP/CM/TP	M6	M8	M8
TS/ES	M8	M8	M8
PC	M8	M8	–

¹⁾ M8 with 1050.900

²⁾ M6 with 1032.XXX/1035.XXX

Connection	Cross-section inches ² (mm ²)	Length inches (mm)	PU	Part No.
M8 – M8	0.1 (4)	7 (170)	5	2564.000
M8 – M8	0.6 (16)	7 (170)	5	2565.000
M8 – M8	1.0 (25)	7 (170)	5	2566.000
M6 – M6	0.4 (10)	8 (200)	5	2565.100
M8 – M8	0.1 (4)	12 (300)	5	2567.000
M6 – M8	0.4 (10)	12 (300)	5	2565.110
M8 – M8	0.4 (10)	12 (300)	5	2565.120
M8 – M8	0.6 (16)	12 (300)	5	2568.000
M8 – M8	1.0 (25)	12 (300)	5	2569.000



Grounding strap

Tin-plated copper, in various lengths and crosssections with press-fitted contact rings. Grounding straps counteract the current displacement effect at high frequencies, and at the same time offering highly flexible connection opportunities.

For	Cross-section inches ² (mm ²)	Length inches (mm)	PU	Part No.
M6	0.4 (10)	8 (200)	10	2412.210
M8	0.6 (16)	8 (200)	10	2412.216
M8	1.0 (25)	8 (200)	10	2412.225
M6	0.4 (10)	12 (300)	10	2412.310
M8	0.6 (16)	12 (300)	10	2412.316
M8	1.0 (25)	12 (300)	10	2412.325



Assembly part for system punchings

For fastening the ground straps and grounding braids to:

- Horizontal TS enclosure sections
- PS rail system
- ES system punchings

Also required:

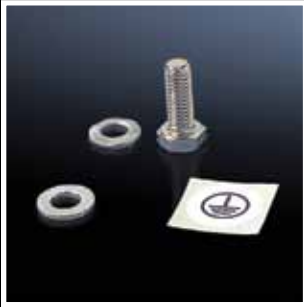
For mounting on the horizontal TS enclosure section: Captive nut, see page 673

Size	Packs of	Part No.
M6	10 set	2570.000
M8	10 set	2559.000



Interior installation

Grounding



Assembly part for gland plates

For fastening the ground straps and grounding braids to gland plates. Fast assembly thanks to self-tapping screws.

Size	Packs of	Part No.
M8	10 set	2570.200



Contact washer

Serrated contact washers facilitate secure PE conductor connection. As a result, there is no need to manually strip paint in the connection area.

Size	Packs of	Part No.
M5	100	2343.000
M6	100	2334.000
M8	100	2335.000



Grounding plate

For installation in:

- Comfort Panel
- Optipanel
- TS
- ES

One grounding cable can be screw-fastened to the threaded bolt for distribution to up to 8 components via 0.2" (6.3 mm) flat-pin connectors.

Packs of	Part No.
1	2570.500

Configuration:

Assembly parts



Central grounding point

For connecting

- Ground straps
- Grounding braids

to the vertical and horizontal enclosure profile.

The connection bracket is connected to the enclosure frame with 2 screws and is securely contacted. Ground connection is carried out via the threaded bolt M8 x 0.8" (20 mm).

Material:

Carbon steel, zinc-plated

Configuration:

- 1 connection bracket
- 2 screws 5.5 x 0.5" (13 mm)
- 2 serrated washers
- 1 nut M8
- 1 contact washer M8
- 1 washer

Packs of	Part No.
10	7829.200

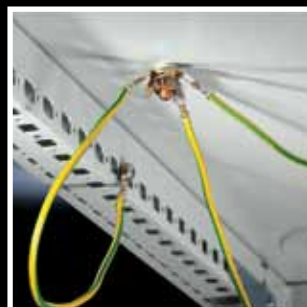
Potential equalization star for 8 mm grounding bolt

The grounding connector is used for simple potential equalization on an 8 mm grounding bolt, or in conjunction with central grounding point 7829.200. Up to five flat connectors, 6.3 mm, may be contacted on one grounding point.

Configuration:

- 10 grounding connectors
- Assembly parts

Packs of	Part No.
10	7548.210



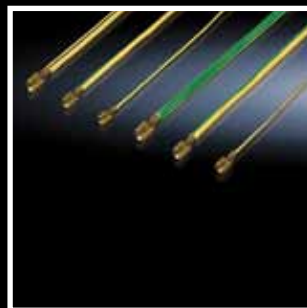
Complete grounding kit for TS

To DIN EN 60 950/VDE 0805, Ø 4 mm², I_{max}. 40 A
For system-compatible grounding of all enclosure parts on the enclosure frame according to VDE. The ground conductors are pre-assembled ready for connection with connectors and cut to the correct length.

Configuration:

- 8 grounding straps
- Central grounding point and assembly parts

Packs of	Part No.
1 set	7829.150



Extension kit for complete grounding kit for TS

To DIN EN 60 950/VDE 0805, Ø 4 mm², I_{max}. 40 A.
To extend the complete grounding kit 7829.150, in order to keep additional components potential free. Conductor length 12" (300 mm) in each case. For 0.2" (6.3 mm) flat-pin connectors, 0.3" (8 mm) grounding bolts or for attachment with contact washers and screw.

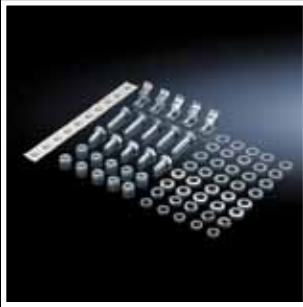
Configuration:

- 5 ground straps
- Assembly parts and identification labels

Packs of	Part No.
1 set	7829.152

Interior installation

Grounding



Grounding kit KE

For producing the required external potential equalization for painted series enclosures

- KL
- AE
- TS

For applications in Unit Group II, Category 3, in compliance with Directive 94/9 EU-Appendix VIII, internal production control.

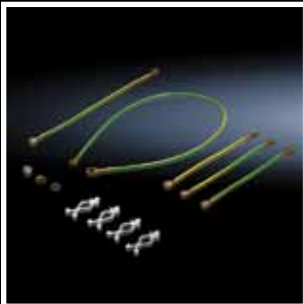
Packs of	Part No.
5	9214.000



Grounding set for KL

Consisting of all the screws, nuts, contact washers and grounding strip needed to ground the cover; length 10" (250 mm), cross-section 4 mm².

Packs of	Part No.
5	2570.100



Grounding set for QuickBox

Ground straps in the appropriate lengths to match the enclosure depth are included in the grounding set, for grounding all enclosure panels on the wall mounting part. The ground strap is a fast-on connector which is quickly disconnected and conveniently accessible when the door is open. In this way, the enclosure cover can be removed completely.

Configuration:

- 5 grounding leads, 0.06"² (1.5 mm²)
- 4 cable retention clips
- Assembly parts

For enc. depth inches (mm)	Packs of	Part No.
12/16 (300/400)	1 set	7502.240
20/24 (500/600)	1 set	7502.260



PE busbar

28" (699 mm) long PE busbar with pre-fitted screws, including terminal clamps up to 0.2"² (6 mm²) fine wire conductors, 0.4"² (10 mm²) single wire or multi-wire conductors and main terminal clamp up to 1.4"² (35 mm²).

Accessories:

Cable retainer, see page 672

Packs of	Part No.
1	2364.000

Ground rail, horizontal for TS

Potential equalization rail, Current carrying capacity approx. 200 A.

Length inches (mm)	Packs of	Part No.
18 (450)	1	7113.000

Configuration:

- Rail made from E-Cu 57 to DIN 12 163, DIN EN 13 601, 15 x 5 mm
- 20 connection points with M5 screws
- 2 ground connections, 25 mm²
- 2 isolators, including assembly parts



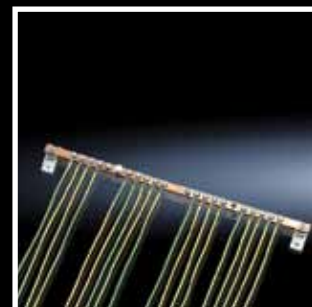
Grounding kit, pre-assembled for TS

For star grounding. With the pre-assembled ground conductors on a potential equalization rail, star potential equalization is easily integrated into network enclosures.

For TS enclosures up to H x W x D inches (mm)	Packs of	Part No.
79 x 32 x 32 (2000 x 800 x 800)	1 set	7829.100
87 x 32 x 39 (2200 x 800 x 1000)	1 set	7829.110

Configuration:

- Ground rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601
- 16 grounding leads, 6 mm²
- 2 insulators
- Assembly parts



Ground rail, vertical for TS

Easily fitted to the 25 mm DIN pitch pattern of distributors or to the 19" (482.6 mm) mounting angles. The supplied ground conductors facilitate star grounding of the cable clamp straps in the patch panels. The ground terminals are fully adjustable. Current carrying capacity of rail approx. 200 A.

For enc. height inches (mm)	Length inches (mm)	Packs of	Part No.
32 (800)	24 (600)	1 set	7541.000
39 (1000)	32 (800)	1 set	7542.000
47 (1200)	39 (1000)	1 set	7543.000
55 (1400)	47 (1200)	1 set	7544.000
63 (1600)	55 (1400)	1 set	7545.000
71 (1800)	63 (1600)	1 set	7546.000
79 (2000)	71 (1800)	1 set	7547.000
87 (2200)	79 (2000)	1 set	7548.000

Configuration:

- Ground rail made from E-Cu 57 to DIN 12 163, DIN EN 13 601, 15 x 5 mm
- 16 conductor connection clamps, (2.5 – 16 mm²)
- 15 grounding leads, 6 mm², L = 20" (500 mm)
- Assembly parts



Extension kit for ground rail, vertical

For system-compatible expansion of the star grounding on the vertical potential equalization rail.

Packs of	Part No.
10	7549.000

Configuration:

- 15 grounding leads 6 mm², L = 20" (500 mm)
- Preassembled, with ring terminal and wire end ferrule
- Ground terminals, (2.5 – 16 mm²)
- Assembly parts



Grounding



ESD connection point

Dangerously high potential differences can occur during maintenance or conversion work on the enclosure. To protect sensitive electronic components, this standardized connection point (pushbutton) provides potential equalization. The connection point is directly conductively connected to the enclosure frame via two screws.

Material:

Carbon steel, zinc-plated

Configuration:

Assembly parts

Packs of	Part No.
1	7752.950

Busbars E-Cu

with integral holes, suitable for

- Direct installation in enclosures
- Busbar support
 - 9340.000/.010, see page 262
 - 9340.004, see page 262
 - 9342.014, see page 262
 - 3052.000, see page 336
 - 3073.000, see page 336

- PE/PEN combinations in conjunction with PE/PEN combination angles, see page 706 and baying bracket E-Cu, see page 706

Detailed drawings:

Available at www.rittal-corp.com



Size 30 x 5 mm (hole Ø 11 mm)

For enclosure width inches (mm)	Length inches (mm)	Packs of	Part No.	Page
16 (400)	14 (365)	2	9661.345	
24 (600)	22 (565)	2	9661.365	
32 (800)	30 (765)	2	9661.385	
39 (1000)	38 (965)	2	9661.305	
47 (1200)	46 (1165)	2	9661.325	

Accessories

Baying bracket E-Cu	4 (95)	4	9661.355	706
PE/PEN combination angle	–	4	9661.325	706

Size 30 x 10 mm (hole Ø 11 mm)

For enclosure width inches (mm)	Length inches (mm)	Packs of	Part No.	Page
12 (300)	10 (265)	2	9661.330	
16 (400)	14 (365)	2	9661.340	
24 (600)	22 (565)	2	9661.360	
32 (800)	30 (765)	2	9661.380	
39 (1000)	38 (965)	2	9661.300	
47 (1200)	46 (1165)	2	9661.320	

Accessories

Baying bracket E-Cu	4 (95)	4	9661.350	706
PE/PEN combination angle	–	4	9661.230	706

Size 40 x 10 mm (hole Ø 14 mm)

For enclosure width inches (mm)	Length inches (mm)	Packs of	Part No.	Page
12 (300)	11 (292)	2	9661.030	
16 (400)	15 (392)	2	9661.040	
24 (600)	23 (592)	2	9661.060	
32 (800)	31 (792)	2	9661.080	
39 (1000)	39 (992)	2	9661.000	
47 (1200)	47 (1192)	2	9661.020	

Accessories

Baying bracket E-Cu	3 (88)	4	9661.350	706
PE/PEN combination angles for use with Form 2-4	–	4	9661.240	706
PE/PEN combination angles for other applications	–	4	9661.200	706

Size 80 x 10 mm (hole Ø 14 mm)

For enclosure width inches (mm)	Length inches (mm)	Packs of	Part No.	Page
12 (300)	11 (292)	2	9661.130	
16 (400)	15 (392)	2	9661.140	
24 (600)	23 (592)	2	9661.160	
32 (800)	31 (792)	2	9661.180	
39 (1000)	39 (992)	2	9661.100	
47 (1200)	47 (1192)	2	9661.120	

Accessories

Baying bracket E-Cu	3 (88)	4	9661.150	706
PE/PEN combination angles for use with Form 2-4	–	4	9661.240	706
PE/PEN combination angles for other applications	–	4	9661.200	706

Interior installation

Grounding



Inserted screw nuts M12

Self-holding nuts with knurled ring for busbars
E-Cu. Hole diameter: 0.6" (14.5 mm).

Packs of	Part No.
30	3591.060



PE/PEN combination angle E-Cu

for PE/PEN combinations

The PE/PEN combination, comprising busbars, combination angles and baying brackets, supports type-tested configurations as per IEC 61 439-1. Thanks to the pre-assembled combination angles, baying brackets and busbars customized to match the enclosure width, assembly is timesaving with cost reduction.

Technical specifications:

Tested short-circuit resistance
PE/PEN combination
– 30 x 5 mm:
Icw 18 kA, 1 sec.
– PE/PEN combination 30 x 10 mm:
Icw 30 kA, 1 sec.
– PE/PEN combination 40/80 x 10 mm:
Icw 60 kA, 1 sec.

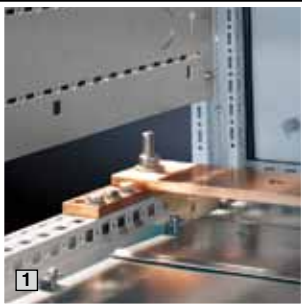
Material:

E-Cu

Configuration:

Assembly parts

For busbars mm	Application		Size mm	Packs of	Part No.
	Form 2-4	Others			
30 x 5	■	■	30 x 5	4	9661.235
30 x 10	■	■	30 x 10	4	9661.230
40 x 10 and	■	–	40 x 10	4	9661.240
80 x 10	–	■	80 x 10	4	1 9661.200



Baying bracket E-Cu

For busbars mm	Length mm	Packs of	Part No.
30 x 5	95	4	9661.355
30 x 10	95	4	9661.350
40 x 10	88	4	9661.050
80 x 10	88	4	9661.150



Cable entry plate

For

– Cable entry grommets
– Connector grommets
instead of segments of the standard divided gland plates.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

For installation in TS and PC enclosures

Enc. width inches (mm)	Cut-outs per plate	Packs of	Part No.
24 (600)	5	2	8800.060
32 (800)	8	2	8800.080
39 (1000)	4	4	8800.100
47 (1200)	6	4	8800.120

For installation in CM enclosures and TP TopConsole system

Enc. width inches (mm)	Cut-outs per plate	Packs of	Part No.
24 (600)	5	1	5001.226
32 (800)	8	1	5001.227
39 (1000)	4	1	5001.228
47 (1200)	6	1	5001.229
63 (1600)	8	1	5001.237

For installation in ES enclosures and TP universal console, CS Basic enclosure

Enc. width inches (mm)	Cut-outs per plate	Packs of ¹⁾	Part No.
24 (600)	5	2	4320.700
32 (800)	8	2	4321.700
39 (1000)	10	2	4323.700

¹⁾Incl. compensating plate

For TS stainless steel

Material:

Type 304 stainless steel

Accessories:

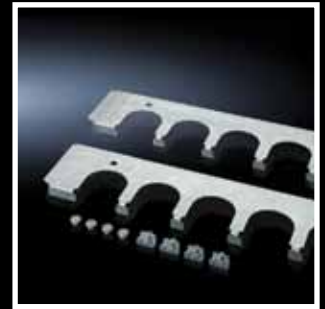
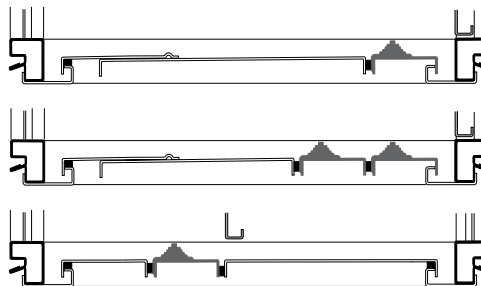
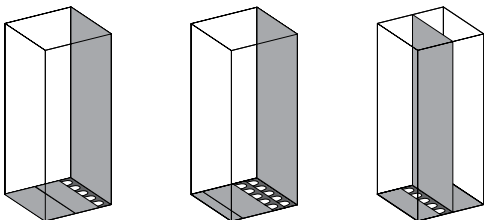
Cable entry grommets, see page 708

For installation in TS, stainless steel

Enc. width inches (mm)	Cut-outs per plate	Packs of	Part No.
24 (600)	5	2	8700.600
32 (800)	8	2	8700.800
47 (1200)	6	4	8700.120

Three examples from a wide range of possibilities

The diagrams show three TS examples for the positioning of cable entry plates instead of segments of the three-piece gland plates supplied as standard. This facilitates positioning to fit the mounting panel. Thanks to the enclosure symmetry, where dimensions permit, cable entry plates may also be inserted in the enclosure depth, right and left, analogous to the gland plates.



Cable management

Cable entry



Cable entry grommet

In conjunction with the cable entry plate, simple and fast sealing of cables inserted in the base area of enclosures.

Material:

- Body: Polypropylene
- Cover: Thermoplastic elastomer

Protection rating:

IP 55 subject to correct mounting

Cables per grommet	Max. Ø mm	Packs of	Part No.
8	13	25	4316.000
3	21	25	4317.000
1	47	25	4318.000

Connector grommets

Suitable for cable diameters from 0.3" to 1.4" (8 to 36 mm).

Material:

- Outer cover: Polypropylene covered with thermoplastic elastomer
- Seal: Cellular rubber

Protection rating:

IP 55 subject to correct mounting

Packs of	Part No.
10	4311.000



Section for cable entry, center for TS, CM, TP

For top-mounting on gland plates. A superior alternative to the foam rubber cable clamp strip, thanks to:

- Easier mounting
- Full-surface support
- High level of sealing of cables inserted into the enclosure

Material:

- Extruded aluminum section
- Seal: PU foam
- Cross-section: 1.2" x 1.0" (30 x 25 mm)

Protection rating:

IP 55 subject to correct mounting

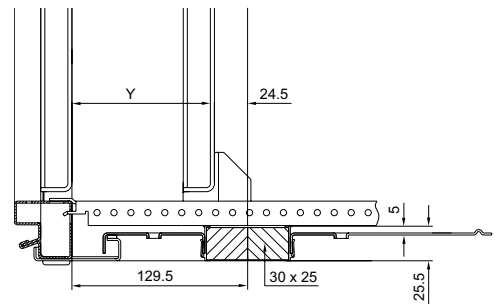
Note:

1 set is sufficient for one base opening up to an enclosure width of 32" (800 mm). From an enclosure width of 39" (1000 mm), two base openings are provided. 2 sets per enclosure may be fitted.

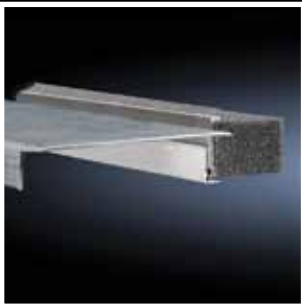
Accessories:

- Cable clamp rails (right angle section), see page 723
- C rail 30/15, see page 659

For enc. width inches (mm)	Packs of	Part No.
24 (600)	1 set	8802.060
32 (800)	1 set	8802.080
39 (1000)	2 sets	8802.100
47 (1200)	2 sets	8802.120
63 (1600)	2 sets	8802.160



Y = Mounting panel depth-adjustable on a 1" (25 mm) pitch pattern, final pitch 1.2" (30 mm).



Section for cable entry, rear for TS, CM, TP

Unlike the section for cable entry, center, the rear section is mounted directly onto the base opening. In this way, when installing the mounting panel in the rearmost position (TS) or with CM, the cables may be routed directly on a cable clamping rail with no large radii. In conjunction with the cable clamp rail, optimum adjustment between the cable entry and mounting panel can be achieved.

Material:

- Extruded aluminum section
- Seal: PU foam
- Cross-section: 1.2" x 1.0" (30 x 25 mm)

Protection rating:

IP 55 subject to correct mounting

Note:

1 set is sufficient for one base opening up to an enclosure width of 32" (800 mm). From an enclosure width of 39" (1000 mm), two base openings are provided. 2 sets per enclosure may be fitted.

Accessories:

Cable clamp rail, see page 723

For enc. width inches (mm)	Packs of	Part No.
24 (600)	1 set	8802.065
32 (800)	1 set	8802.085
39 (1000)	2 sets	8802.105
47 (1200)	2 sets	8802.125
63 (1600)	2 sets	8802.165



Foam rubber cable clamp strip

For sealing the cable entry between the gland plates. Particularly suitable for identical cable cross-sections.

Material:

- PU foam
- Cross-section: 1.2" x 1.2" (30 x 30 mm)

Protection rating:

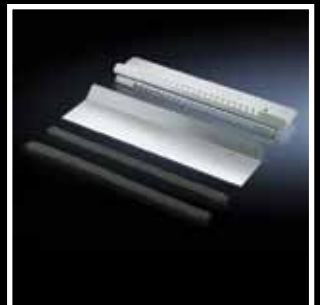
IP 55 subject to correct mounting

Length	Part No.
118" (3000 mm)	2573.000



EMC gland plate

see page 697.



Cable management

Gland plates



Plastic cable gland plates with metric knockouts

With pre-punched holes for cable glands.
Used for sealing standard gland plates.

Temperature range:

May be used from -40° to $+158^{\circ}$ F
(-40° to $+70^{\circ}$ C)

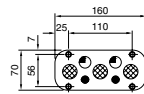
Color:

RAL 7035

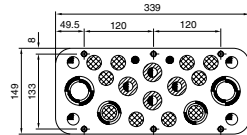
Note:

The applicable size may be taken from the respective product ordering page.

Size 1

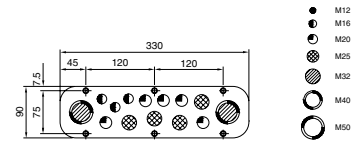


Size 4

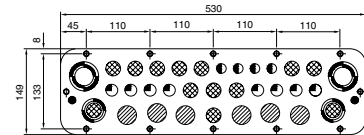


Size	Packs of	Part No.
1	10	2560.010
3	10	2561.010
4	5	2562.010
5	5	2563.010

Size 3



Size 5



Plastic cable gland plates with PG knockouts

With pre-punched PG holes for cable glands.
Used for sealing standard gland plates.

Temperature range:

May be used from -40° to $+158^{\circ}$ F
(-40° to $+70^{\circ}$ C)

Material:

ABS

Color:

RAL 7035

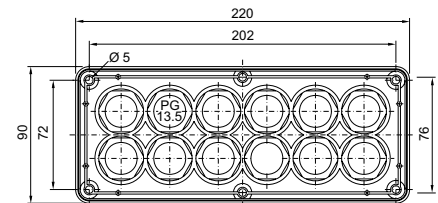
Note:

The applicable size may be taken from the respective product ordering page.

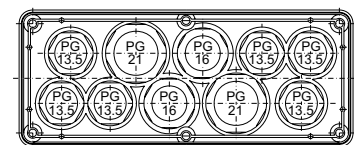


Size	PG	Qty.	PU	Part No.
2	13.5	12	5	1581.000
	13.5	6	5	1582.000
	16	2		
	21	2		

KL 1581.000



KL 1582.000



Plastic gland plates

with membranes

Simply pierce the plastic with a sharp object, and pull through the cable.

Material:

Plastic to UL 94-V0

Color:

Similar to RAL 7035

Protection rating:

IP 65 with careful cable entry

Note:

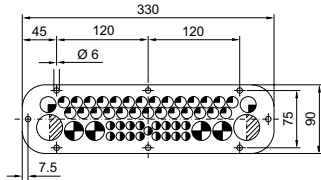
The applicable size may be taken from the respective product ordering page.

Size	Packs of	Part No.
3	1	2561.500
4	1	2562.500
5	1	2563.500

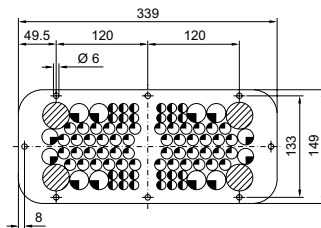
	Diameter mm	Number of respective cable entries by Part No.		
		2561.500	2562.500	2563.500
●	5 – 9	–	–	18
◐	6 – 11	17	–	–
◑	7 – 12	–	24	16
◒	10 – 15	27	48	36
◓	15 – 21	2	4	–
◔	15 – 24	–	–	6
◕	15 – 25	–	8	–
◖	16 – 25	4	–	–
◗	19 – 34	2	–	–
◘	23 – 30	–	–	2
◙	26 – 35	–	4	2
◚	26 – 54	–	–	4
○	50 – 110	–	–	1



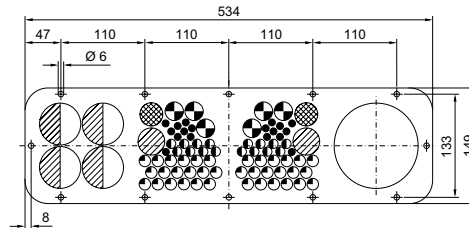
Size 3



Size 4



Size 5



Cable management

Gland plates



Metal gland plate with metric knockouts

Simply knock out the holes for the cable glands using a screwdriver.

Material:
Carbon steel

Color:
RAL 7035

Protection rating:
IP 66 when mounting in the usual position at the bottom

Note:
The applicable size may be taken from the respective product ordering page.

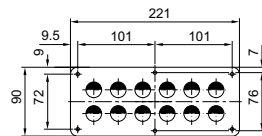
Accessories:
Cable glands made from polyamide or brass, see page 715

Size	Packs of	Part No.
2	1	1581.100
3	1	2561.100
4	1	2562.100
5	1	2563.100

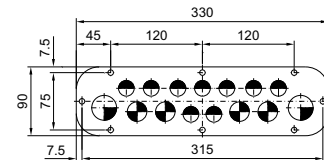
Number of cable entries

Diameter						Part No.
M12	M16	M20	M25	M32	M40	
–	–	12	–	–	–	1581.100
–	–	9	4	2	–	2561.100
–	2	5	13	2	2	2562.100
1	–	12	11	8	4	2563.100

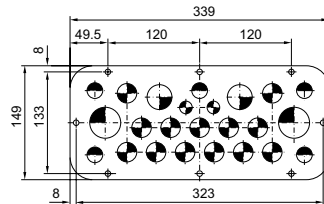
Size 2



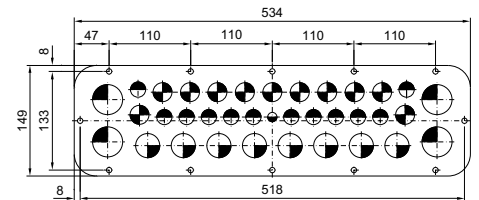
Size 3



Size 4



Size 5



Metal gland plate

As spare/replacement part for the standard gland plates supplied loose.

Material:
Carbon steel

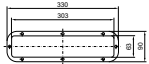
Color:
RAL 7035

Protection rating:
IP 66 when mounting in the usual position at the bottom

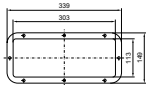
2560.400



2561.400



2562.400

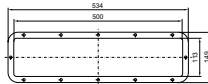


Size	Design	Packs of	Part No.
1	Solid	1	2560.400
2	Solid	6	1158.500
3	Solid	1	2561.400
4	Solid	1	2562.400
5	Solid	1	2563.150

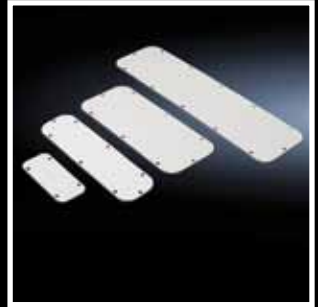
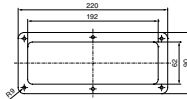
Note:
The applicable size may be taken from the respective product ordering page.

Accessories:
Cable glands made from polyamide or brass, see page 715

2560.400



2561.400



Gland plate

solid, for QuickBox

To conceal the cable entry openings. In exchange for the brush strip at the top and bottom that is used as standard.

Material:
Carbon steel

Color:
RAL 7035

Configuration:
Assembly parts

Packs of	Part No.
2	7502.310



Gland plate

for metric cable glands, for EL

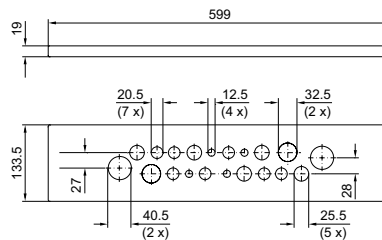
Folded gland plate with foamed-in seal and prepunched, knock-out holes for metric cable glands M12, M20, M25, M32, M40.

Material:
Carbon steel, 16 ga (1.5 mm)

Color:
RAL 7035

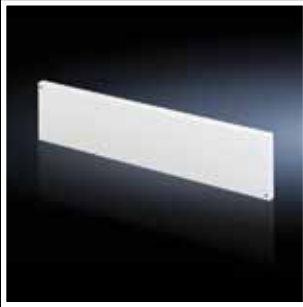
Protection rating:
IP 55 to IEC 60 529

Packs of	Part No.
1	7705.235



Cable management

Gland plates



Gland plate solid, for EL

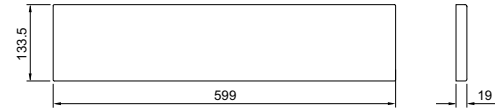
Folded gland plate for the base box, with foamed in seal.

Material:
Carbon steel, 16 ga (1.5 mm)

Color:
RAL 7035

Packs of	Part No.
1	2235.135

Delivery times available on request.



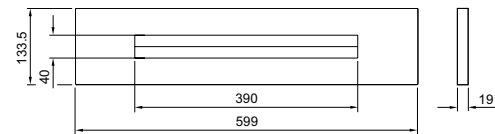
Gland plate with brush insert, for EL

Folded gland plate with foamed-in seal and plastic brush inserts for simple cable entry.

Material:
Carbon steel, 16 ga (1.5 mm)

Color:
RAL 7035

Packs of	Part No.
1	7705.035



Brush strip

For individual installation of enclosure panels, gland plates and panels. Cut-outs for cable routing at any given positions in the side panel, rear panel, doors, roof and gland plate may be finished off attractively by simply attaching the brush strip.

- Technical specifications:**
- For metal thickness: 16 – 22 ga (0.6 – 1.5 mm)
 - Bristle length: 1" (30 mm)
 - Plastic sheathing: 0.7" (18 mm)
 - Snap-on surface: 0.4" (10 mm)
 - Maximum cut-out height: 1.5" (38 mm)

Length	Part No.
79" (2000 mm)	7072.200



Brush strip, super-airtight

For individual installation of enclosure panels, gland plates and panels. Cut-outs for cable routing at any position in the side panel, rear panel, doors, roof and base plate. These special brush strips may be used to create airtight entries for cable sections and conductors. The brush strips arranged in an offset configuration ensure good sealing from the routed cables even with large quantities of cables. In this way, unwanted system losses may be reduced to a minimum.

- Technical specifications:**
- For metal thickness: 16 – 14 ga (1.5 – 2 mm)
 - Bristle length: 2.2" (58 mm)
 - Plastic sheathing: 0.6" (14 mm)
 - Snap-on surface: 0.5" (11.5 mm)
 - Cut-out width: 3.5" (88 – 90 mm)

Packs of	Part No.
2 x 39" (2 x 1 m)	7825.375

Material:
Plastic, UL 94-V0

Configuration:
1 brush strip each, 39" (1 m) in length, right-hand and left-hand version

Cable gland, brass

Benefits:

- Because the gland and lock nut are sold together in a single pack, this saves additional ordering and storage
- Clamping membranes for even tightening and strain relief which protects the cables
- Insulation via plastic insert
- Optimum seal on the connection thread, thanks to O-ring
- The lock nut cuts automatically into the spray finish, creating a conductive connection

Material:

- Brass
- Seal: Neoprene

Surface finish:

Nickel-plated

Protection rating:

- IP 68 (5 bar, 30 min.) to IEC 60 529
- IP 69K to DIN 40 050-9

Approval:

VDE tested to EN 50 262

Size	Cable diameter mm	Packs of	Part No.
M12 x 1.5	3 – 6.5	15	2411.800
M16 x 1.5	4.5 – 10	15	2411.810
M20 x 1.5	6 – 12	10	2411.820
M25 x 1.5	11 – 17	10	2411.830
M32 x 1.5	15 – 21	5	2411.840
M40 x 1.5	19 – 28	4	2411.850
M50 x 1.5	27 – 38	2	2411.860
M63 x 1.5	34 – 44	1	2411.870

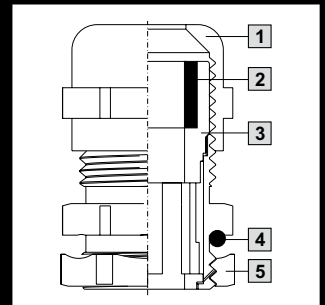
Possible alternative:

Cable gland Hygienic Design, see page 717.

Accessories:

- Sealing bungs, see page 716.
- Multi-seal inserts, see page 716.

- ❶ Cap nut
- ❷ Neoprene seal
- ❸ Plastic insert
- ❹ O-ring
- ❺ Lock nut



Cable gland, polyamide

Benefits:

- Because the gland and lock nut are sold together in a single pack, this saves additional ordering and storage
- Clamping membranes for even tightening and strain relief which protects the cables
- Spray-moulded sealing lip ensures an optimum seal against the enclosure
- Trapezoid thread for secure screw-fastening of the cap nut

Material:

Polyamide 6, neoprene seal

Color:

RAL 7035

Protection rating:

IP 68 (5 bar, 30 min.) to IEC 60 529

Approval:

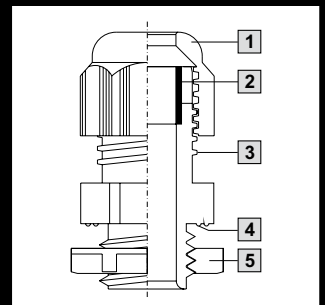
- VDE tested to EN 50 262
- CSA for USA and Canada

Accessories:

- Polyamide cable gland, see page 715
- Sealing bungs, see page 716
- Multi-seal inserts, see page 716

Size	Cable diameter mm	Packs of	Part No.
M12 x 1.5	3 – 6.5	50	2411.600
M16 x 1.5	4.5 – 10	50	2411.610
M20 x 1.5	6 – 12	50	2411.620
M25 x 1.5	11 – 17	25	2411.630
M32 x 1.5	15 – 21	15	2411.640
M40 x 1.5	19 – 28	5	2411.650
M50 x 1.5	27 – 38	5	2411.660
M63 x 1.5	34 – 44	3	2411.670

- ❶ Cap nut
- ❷ Neoprene seal
- ❸ Trapezoid thread
- ❹ Sealing lip
- ❺ Lock nut



Cable management

Cable gland



Polyamide reducer for polyamide cable glands

For adapting metric cable glands to larger diameter holes or threads.

Benefit:

Reducer and locking nut are sold together in a single pack; this saves additional ordering and storage.

Material:

Polyamide 6 GF30

Color:

RAL 7035

Note:

Polyamide cable gland, see page 715



Thread

Exterior:	Inside	Packs of	Part No.
M16 x 1.5	M12 x 1.5	50	2411.550
M20 x 1.5	M12 x 1.5	50	2411.551
M20 x 1.5	M16 x 1.5	50	2411.552
M25 x 1.5	M16 x 1.5	50	2411.553
M25 x 1.5	M20 x 1.5	50	2411.554
M32 x 1.5	M16 x 1.5	50	2411.555
M32 x 1.5	M20 x 1.5	50	2411.556
M32 x 1.5	M25 x 1.5	50	2411.557
M40 x 1.5	M25 x 1.5	25	2411.558
M40 x 1.5	M32 x 1.5	25	2411.559
M50 x 1.5	M40 x 1.5	5	2411.560
M63 x 1.5	M40 x 1.5	5	2411.561
M63 x 1.5	M50 x 1.5	5	2411.562



Sealing bung

for cable glands M20 x 1.5

For use in all situations where pre-installed cable glands M20 x 1.5 must be kept free for future installations but properly sealed. Simply loosen the cap nut, mount the sealing bung, and retighten.

Material:

Polyamide 6

Color:

RAL 7035

Packs of	Part No.
25	2411.532



Multi-seal insert

For the secure entry of several individual cables into a single cable gland.

Material:

Neoprene

Size	Cable diameter mm	Number of cables	PU	Part No.
M25	3	7	25	2411.504
	4	6	25	2411.505
	5	4	25	2411.506
	6	3	25	2411.507

HD cable gland

Applications:

- Manufacturing and packaging of foodstuffs etc.
- Clean room technology (e.g. pharmaceuticals)
- Biotechnology
- Chemical industry

Benefits:

- Smooth, solid exterior surfaces effectively prevent the depositing of harmful micro-organisms
- Much easier, and therefore cheaper to clean compared with conventional cable glands

Material:

- Cap nut: Type 304 stainless steel
- Seal: Conforms to FDA 21 CFR 177.2600

Protection rating:

- IP 68 (5 bar, 30 min.) to IEC 60 529
- IP 69K to DIN 40 050-9

Note:

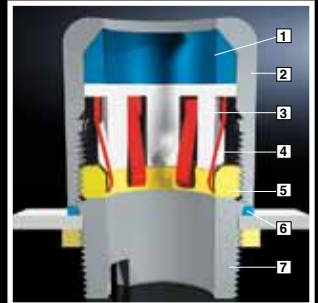
Lock nuts, if needed, must be ordered separately (see below).

Standard version

Size	Cable diameter mm	Packs of	Part No.
M12 x 1.5	3 – 6.5	5	2410.000
M16 x 1.5	4,5 – 10	5	2410.010
M20 x 1.5	6 – 12	5	2410.020
M25 x 1.5	11 – 17	5	2410.030

EMC version

Size	Cable diameter mm	Packs of	Part No.
M16 x 1.5	5 – 10	5	2410.110
M20 x 1.5	6 – 12	5	2410.120
M25 x 1.5	12 – 17	5	2410.130

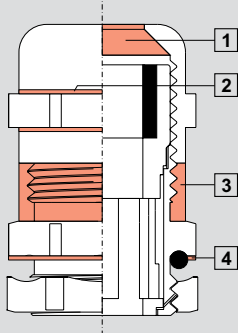


- 1 Seal
- 2 Cap nut
- 3 Gripper jaws
- 4 Shield spring (EMC version only)
- 5 Clamping ring
- 6 Enclosure seal
- 7 Base with locator for assembly tool

Why hygiene-compatible cable glands?

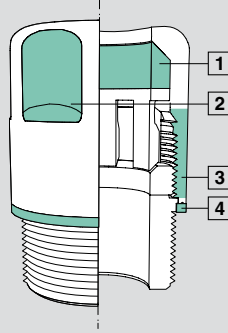
Critical points with conventional solutions

- 1 Cable entry in front of seal
- 2 No minimum radii on the hexagon
- 3 External thread
- 4 Gap caused by O-ring on the enclosure surface



Hygiene-compatible design features

- 1 Seal directly at the cable entry
- 2 Compliance with minimum radii on the hexagon
- 3 No external thread
- 4 Flush termination between the cap nut and the enclosure



Stainless steel lock nut

To match HD cable glands.

Material:

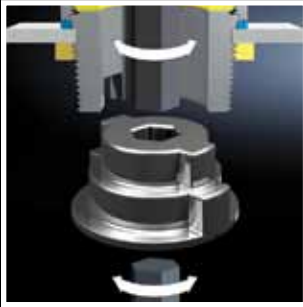
Type 304 stainless steel

Size	Packs of	Part No.
M12 x 1.5	10	2410.200
M16 x 1.5	10	2410.210
M20 x 1.5	10	2410.220
M25 x 1.5	10	2410.230



Cable management

Cable gland



Assembly tool for HD cable glands

For attaching HD cable glands in an internal thread or using lock nuts. This can be achieved either from the inside or from the outside using an Allen key.

Configuration:

1 set = Adaptor for sizes from M12 – M25

Packs of	Part No.
1 set	2410.290



Cable gland for fiber-optic technology

The common size PG 13.5 has a slotted interior seal. This allows super-easy cable entry. Ideal for routing break-out cables, as this eliminates unnecessary bending of the fiber-optic cables.

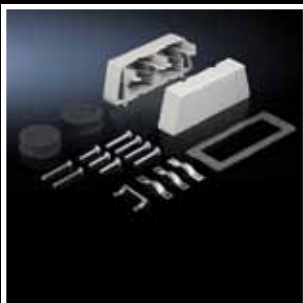
Material:

- Cable gland: Brass
- Inner seal: Soft PVC insert

Surface finish:

Screw connection: Nickel-plated

Fiber-optic cable gland	Cable diameter mm	Packs of	Part No.
PG 13.5	2 x 3	12	7455.030



Connector gland for connector cut-outs (24-pole)

For the entry of 2 pre-assembled cables in the connector cut-out, without dismantling the connector. For cable diameter from 8 – 36 mm.

Material:

- Enclosure: Plastic
- Clamps: Carbon steel

Surface finish:

Clamps: Zinc-plated

Configuration:

1 set =
2 half-shells, including seals,
with fastening clamp

Packs of	Part No.
1 set	2400.000

Cable gland

Cable gland for IW worktops

To fit drilled holes \varnothing 60 mm. For the entry of cables with pre-assembled connectors, the rotating flap and cover are easily removed.

Material:

Plastic

Color:

RAL 7035

Detailed drawings:

Available at www.rittal-corp.com

Packs of	Part No.
1 set	6902.770



Edge protector

For covering sharp edges of cut-outs. Provides protection from injuries and prevents damage to inserted cables. The edge protector is suitable for material thicknesses of approx. 0.04" – 0.08" (1.0 – 2.0 mm), and may be cut to length individually.

Material:

Plastic PVC

Color:

Black

Packs of	Part No.
33 ft (10 m)	7072.100



Cable management

Cable gland



The Rittal connector gland proves that sometimes "less is more": significantly faster installation, a flexible sealing system for different cable diameters, and simple cable entry with pre-assembled cables. Low installation costs, a high degree of protection and flexible cable management – added value guaranteed with the latest generation of cable entry solutions.

Benefits:

- Cable diameters 4 – 16 mm
- Simple cable entry for pre-assembled cables
- Individual cables can be added or replaced without dismantling the sealing frame
- Sealing modules remain safely attached to their cables

Sealing frame

For pre-assembled cables with connectors. Mounting over 24-pole or 16-pole connector cut-outs in:

- Module plates for TS divider panels
- Metal gland plates

Material:

- Front panel: Polyamide
- Flat seal: CR

Protection rating:

IP 64 to IEC 60 529, complies with NEMA 12

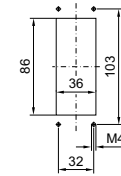
For modules 20 x 20 mm	For cut-out	Packs of	Part No.
10	24-pole	1	2400.900
8	16-pole	1	2400.910

Configuration:

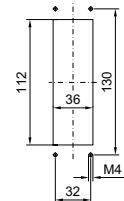
Assembly parts

Accessories:

Module plates for TS divider panel, see from page 657



16-pole



24-pole

Sealing module

To seal cables in conjunction with a sealing frame. It is possible to combine 20 x 20 mm and 40 x 40 mm sealing modules.

Material:

- Hard shell: Polyamide
- Seal: TPE 2

Protection rating:

IP 64 to IEC 60 529, complies with NEMA 12



Sealing modules 20 x 20 mm

Diameter range	Packs of	Part No.
4 – 6 mm	10	2400.920
6 – 9 mm	10	2400.930
Solid	10	2400.970

Sealing modules 40 x 40 mm

Diameter range	Packs of	Part No.
9 – 12 mm	10	2400.940
12 – 16 mm	10	2400.950
Solid	10	2400.960

Cable gland

Connector gland, small

- For pre-assembled cables with connectors.
 – For use with material thickness of up to 8 gauge (4 mm)
 – Strain relief of the pre-assembled cables can be achieved with cable ties

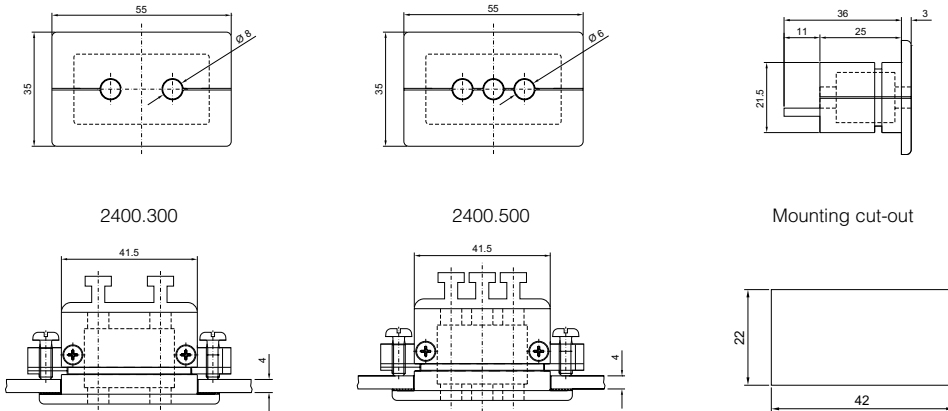
Material:
Plastic

Color:
RAL 9005

To fit	Packs of	Part No.
2 cables Ø 6 to Ø 8 mm	1	2400.300
3 cables Ø 4 to Ø 6 mm	5	2400.500

Protection rating:
IP 65 subject to correct mounting

Configuration:
Assembly parts



Cable gland module

CP-L, Ø 130 mm

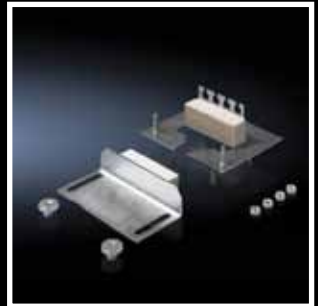
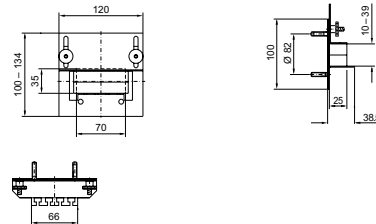
Use of the support arm cutout CP-L, round, with enclosures mounted on the wall, for sealed cable entry. May also be mounted retrospectively with the cables already inserted. Fitted with T-heads for cable clamping. Particularly well-suited to cables with identical cross sections.

Material:
Carbon steel

Surface finish:
Zinc-plated

Packs of	Part No.
1	6052.500

Configuration:
Assembly parts



Stepped collar for wall thicknesses from 16 to 7 gauge (1.5 to 4.5 mm)

For cable entry, simply cut off at the required level to match the cable diameter.

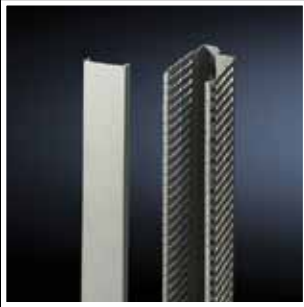
Material:
Plastic to UL 94-HB

Protection rating:
IP 54 with careful cable entry.

For hole	Sealing range mm	Packs of	Part No.
M20	5 – 16	100	2899.200
M25	5 – 21	50	2899.250
M32	13 – 26.5	25	2899.320
M40	13 – 34	20	2899.400



Cable management



Cable duct for vertical TS section

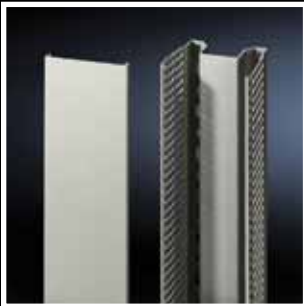
For direct mounting on the vertical enclosure section.

Width 2" (50 mm)

For assembly on a vertical enclosure section in the area of the side panel.

Width 4" (100 mm)

For assembly on two bayed enclosure profiles in the baying area. Baying brackets and baying clamps which have already been fitted can be covered over with the cable duct. The nominal break points of the bars are also designed for combination with the cable ducts for mounting panels; in addition a further nominal break at the level of the mounting panel enables direct insertion into the cable duct. The cable duct fastening points are co-ordinated with the TS system hole pattern; time-consuming drilling work, as in the case of DIN ducts, is eliminated.



Height inches (mm)	Width inches (mm)	Packs of	Part No.
63 (1600)	2 (50)	8 sets	8800.570
71 (1800)	2 (50)	8 sets	8800.520
63 (1600)	4 (100)	4 sets	8800.540
71 (1800)	4 (100)	4 sets	8800.510

Technical specifications:

- Depth: 3" (80 mm)
- Length: 63" (1600 mm) for enclosure height 71" (1800 mm); 71" (1800 mm) for enclosure height 79" (2000 mm). May be shortened for other enclosure dimensions
- Bar width: 0.2" (5.5 mm)
- Slot width: 0.2" (4.5 mm)

Material:

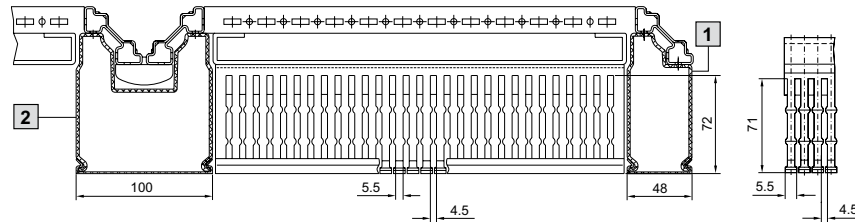
- Hard PVC
- Flame-resistant, self-extinguishing,
- Temperature resistant to +140° F (+60° C)

Color:

Similar to RAL 7030

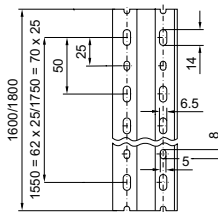
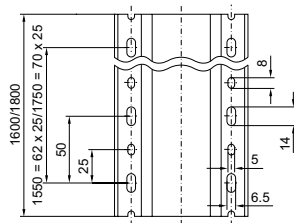
Configuration:

1 set =
1 cable duct with cover



1 8800.570/8800.520

2 8800.540/8800.510



Cable clamp rail

Mounting angle for TS, ES, PC, TP universal console, base/plinths

For strain relief with cable entry. Depth-variable mounting on a 25 mm pitch pattern on the horizontal enclosure section or in side base/plinth trim panels with assembly bolts.

Material:
Steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Cable clamps for cable clamp rails

For fastening the cables to the cable clamp rails.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Plastic insert

Possible alternative:
Rail for EMC shielding bracket and strain relief, see page 696

Enc. width inches (mm)	Length inches (mm)	Packs of	Part No.
16 (400)	15 (385)	2	4193.000
24 (600)	23 (585)	2	4191.000
32 (800)	31 (785)	2	4192.000
39 (1000)	39 (985)	2	4336.000
47 (1200)	47 (1185)	2	4196.000
63 (1600)	62 (1585)	2	4338.000
71 (1800)	70 (1785)	2	4339.000

Accessories:
Assembly bolts for base/plinth, see page 536.

For cable diameter mm	Packs of	Part No.
6 – 12	25	2350.000
12 – 16	25	2351.000
14 – 18	25	2352.000
18 – 22	25	2353.000
22 – 26	25	2354.000
26 – 30	25	2355.000
30 – 34	25	2356.000
34 – 38	25	2357.000
38 – 42	25	2358.000
42 – 46	25	2359.000
46 – 50	25	2360.000



Cable clamp rail

C section for TS, CM, TP

For strain relief with cable entry. The length of the cable clamp rail is tailored to the width of the mounting panel. The mounting bracket included with the supply supports three different installation situations on the mounting panel:

- 1 straight, at a distance of 0.9" (23 mm) from the mounting panel
- 2 straight, at a distance of 0.4" (10 mm) from the mounting panel
- 3 tilted, towards the mounting panel

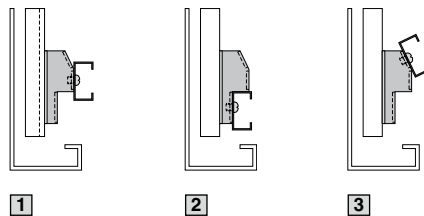
Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Two mounting brackets and assembly screws
Rittal Catalog 33/System accessories

Enc. width inches (mm)	Length inches (mm)	Packs of	Part No.
24 (600)	20 (499)	1	5001.080
32 (800)	28 (699)	1	5001.081
39 (1000)	35 (899)	1	5001.082
47 (1200)	43 (1099)	1	5001.083

Accessories:
Cable clamps for C rails, see page 725.





Cable clamping bracket

For installing in the operating housing with mounting cut-out CP-L and CP-XL.

Cable clamping optionally via:

- Cable clamps or
- Cable tie 2597.000
- Commercially available cable ties.

Bracket height = 1" (25 mm) with fitted C rail 1.6" (40 mm).

Material:

Carbon steel

Surface finish:

Zinc-plated

Packs of	Part No.
1 set	6052.000

Configuration:

C rail and screws

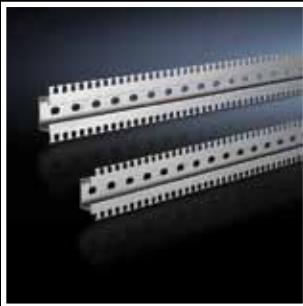
Accessories:

- Cable clamps, see page 725
- Cable ties, see page 726



Cable clamp rails

see page 728.



Combination rails

for QuickBox

For cable clamping and routing. Cables and leads can be fastened to the T-heads top and bottom with cable ties. In addition, the C section of the combination rail will accommodate cable clamps with inserts. In order to achieve a contacting connection, the anodized coating of the rail must be broken.

Material:

Aluminum

Surface finish:

Anodized

Configuration:

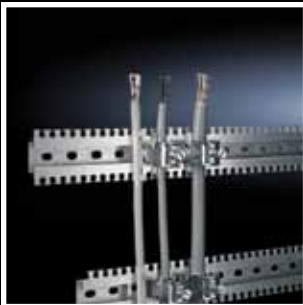
Assembly parts

Accessories:

- Cable clamps, see page 725
- Cable ties, see page 726

For enc. depth inches (mm)	Length inches (mm)	Packs of	Part No.
12/16 (300/400)	8 (200)	6	7502.302
20/24 (500/600)	16 (400)	6	7502.304

For enc. depth inches (mm)	Length inches (mm)	Packs of	Part No.
24 (600)	16 (400)	6	7502.304



Cascade cable routing for chassis mounting for TS

Professional cable routing system for cascading of cables in several levels of the enclosure depth. The cables are attached to the C rail by means of clamps. Suitable for installation on the inner enclosure level.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

- 6 mounting brackets
- 3 C rails
- Assembly parts

Accessories:

- TS punched section with mounting flange for the inner mounting level, see page 651
- PS punched section without mounting flange for vertical mounting in the enclosure frame, see page 658
- Cable clamps, see page 725

For enc. width inches (mm)	Packs of	Part No.
24 (600)	3	7831.570
32 (800)	3	7831.571



Cable clamps for C rails

For attaching the cables to the C rails.

Material:

Carbon steel

Surface finish:

Zinc-plated

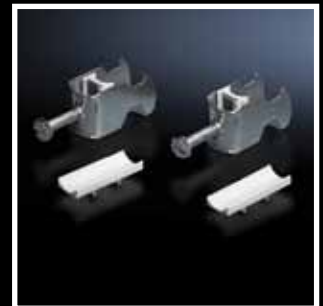
Configuration:

Plastic insert

Note:

C rails, see from page 659

For cable diameter mm	Packs of	Part No.
6 – 14	25	7077.000
12 – 18	25	7078.000
18 – 22	25	7097.000
22 – 26	25	7097.220
26 – 30	25	7097.260
30 – 34	25	7097.300
34 – 38	25	7097.340
38 – 42	25	7098.000
42 – 56	25	7098.100
56 – 64	25	7099.000



Cable conduit and cable conduit holder

For secure cable routing e.g. from the enclosure or mounting panel to the door. Attachment facility for standard commercially available cable ties is provided on the cable conduit holder, so that cables may be attached upon entry to/exit from the cable conduit.

Material:

- Cable conduit: Polythene
- Cable conduit holder: Polyamide

Cable conduit

Internal Ø inches (mm)	Length	Part No.
0.6 (16)	82 ft (25 m)	2595.000
1.1 (29)	82 ft (25 m)	2589.000
1.4 (36)	82 ft (25 m)	2596.000
1.9 (48)	82 ft (25 m)	2590.000

Cable conduit holder

Internal Ø inches (mm)	Packs of	Part No.
0.6 (16)	20	2593.000¹⁾
1.1 (29)	20	2591.000¹⁾
1.4 (36)	20	2594.000
1.9 (48)	20	2592.000

¹⁾ Installation in AE compact enclosures with universal bracket 2373.000, see page 671.



Cable management



Cable attachment

For professional, secure fastening of cables and conduits.

For fastening:

- Slide into the punched rail 23 x 23 mm
- Screw-fasten onto the round punchings of the enclosures, as well as all punched rails and punched sections

As the fastening attachments are bayable, several fastening attachments, even those of different sizes, can be assembled by using just 2 screws.

Material:
Polyamide

For cable diameter from – to mm	Packs of	Part No.
6 – 9	50	4319.090
9 – 12	50	4319.120
12 – 16	50	4319.160
16 – 20	50	4319.200

Note:
Punched rail 23 x 23 mm, see page 674.

Also required:
Posidrive raised countersunk screw M5 x 12 mm, 2488.000, for screw-fastening to the round system punchings, see page 674



Cable ties

The super-fast solution for fastening cables to the enclosure profile or mounting system parts. Simply clip into the round system punchings.

Length inches (mm)	Packs of	Part No.
6 (150)	100	2597.000



Nylon loop

With the nylon loop, secured cables are easily released, allowing individual cables to be added or removed. Ideal for sensitive data cables (fiber-optic/Cu), as it avoids indentations on the cable sheathing. In addition, the nylon loop may be screw-fastened to the round system punchings or attached using a quick-release fastener.

Color:
Black

Configuration:
Quick-release fastener

Width inches (mm)	Length inches (mm)	Max. cable diam. inches (mm)	PU	Part No.
0.8 (20)	5 (130)	1.2 (30)	10	7072.220
0.8 (20)	0.8 (20)	2.0 (50)	10	7072.230
0.8 (20)	12 (300)	3.5 (90)	10	7072.240

Also required:
Screw 2486.500 for screw-fastening to the round system punchings, see page 674



Quarter-turn velcro cable fastener

Adjustable velcro strap provides flexibility for bundling cables. Strap attaches to cabinet with a quarter turn base.

Strap length inches (mm)	Packs of	Part No.
17 (420)	10	9969.599



Nylon loop

For tidy cable routing. Supplied on a reel for cutting to the required length. Unlike cable ties, – protects the cable sheathing – easily reopened – reusable

Length inches (mm)	Width inches (mm)	Packs of	Part No.
196 (5000)	0.6 (16)	1	2203.400

Nylon loop cable holder

self-adhesive

Suitable for universal use in all network enclosures and server racks, wall-mounted enclosures, mounting panels and gland plates.

Material:

Woven polyamide 6.6

Color:

Black

Size length x width inches (mm)	Packs of	Part No.
2 x 0.6 (70 x 16)	10	7111.350



Cable tie fastener

for round system punchings

For all commercially available cable ties up to a tie width of 0.2" (4.8 mm). Simply insert into the screw channel and secure by hammering down the split rivet.

Material:

Polyamide 6.6

Packs of	Part No.
100	6059.000



Cable tie fastener

for Comfort Panel, Optipanel and Compact Panel

For secure cable routing of all standard commercially available cable ties up to a tie width of 0.2" (4.0 mm). Simply insert into the T channel and secure by rotating through 45°.

Material:

Polyamide 6.6

Packs of	Part No.
100	6059.500



Snap-in cable routing

for clipping into the system punchings

Cable routing suitable for universal use, for tool-less, fast assembly, in two versions:

For locking:

- User-friendly opening for cable management via locating points
- For cable diameters 14 – 19 mm
- For system punchings 6.2 mm

For twisting:

- User-friendly opening for cable management
- For cable diameters 10.2 – 12.7 mm
- For system punchings 4.7 mm

Design	Packs of	Part No.
For locking for system punchings 6.2 mm	10	7111.300
For twisting for system punchings 4.7 mm	10	7111.310

Material:

Polyamide 6.6, self-extinguishing to UL 94 V-2

Color:

Natural





Cable clamp rails for TS and 19" (482.6 mm) mounting frames

The cables may be attached to the cable clamp rails with cable ties or nylon tapes. The cable clamp rails are simply located onto the frame section and may additionally be secured with a screw.

Material:

Carbon steel

Configuration:

Assembly parts

Accessories:

- Cable ties, see page 726
- Nylon loop, see page 726

For the inner mounting level

For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
24 (600)	24 (600)	4	7828.061
32 (800)	32 (800)	4	7828.081
39 (1000)	39 (1000)	4	7828.101
47 (1200)	47 (1200)	4	7828.121

For the outer mounting level

For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
24 (600)	24 (600)	4	7828.062
32 (800)	32 (800)	4	7828.082
39 (1000)	39 (1000)	4	7828.102
47 (1200)	47 (1200)	4	7828.122



Cable clamp rail, depth-variable for TS and 19" (482.6 mm) mounting frames

For strain relief of the routed cables. The cables may be attached to the cable clamp rails with cable ties or nylon tapes. The cable clamp rails may be located horizontally at the rear directly onto a 19" (482.6 mm) mounting frame or in the enclosure depth between two mounting frames. An additional screw fastening secures the unit. The depth variability of the rails facilitates flexible adaptation of their length to the existing attachment distance between the two 19" (482.6 mm) mounting frames.

Material:

Carbon steel

Configuration:

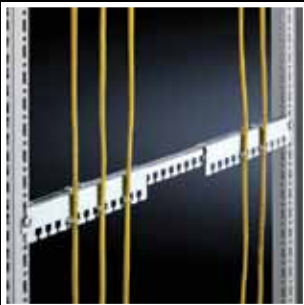
Assembly parts

Accessories:

- Cable ties, see page 726
- Nylon loop, see page 726

Mounting dimensions ¹⁾ inches (mm)	Packs of	Part No.
13 – 23 (325 – 575)	4	7858.160
20 – 35 (500 – 895)	4	7858.162

¹⁾ Mounting dimensions + 5" (120 mm) = 19" (482.6 mm) distance between levels



Cable clamp, variable for enclosure-independent mounting

Variable attachment from 18" to 32" (450 to 800 mm) for flexible cable clamping in two variants. Supports attachment to punched sections with and without mounting flanges and direct screw fastening onto mounting panels and other flat surfaces.

Material:

Carbon steel, zinc-plated

Configuration:

Assembly parts

Design	Packs of	Part No.
C rail	1	7016.140
T-head rail	1	7016.150

1 C rail

2 T-head rail



Cable manager

For system-compatible cable deflection while complying with minimal bending radii and to accommodate surplus cables and excess length. The elements may optionally be used individually or in combination for cable routing. They may be combined into semi-circular or circular elements. As the mounting distance between the elements grows larger, the deflection radius of the cables may optionally be enlarged, or the cable route designed individually. The option of securing elements on their straight-edge side supports the use of corners and edges, to allow protected cable routing around them. Mounting clips for use above the arc hold the routed cables back within the elements. The elements are also bayable in an axial direction to allow U-based cable routing to the mounting level, or channelling of the cable sections.

Material:

Plastic, UL 94-V0

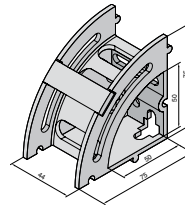
Color:

RAL 7035

Configuration:

Mounting clip and assembly parts

	Packs of	Part No.
Basic kit	8	7064.100
Maxi kit	20	7064.110



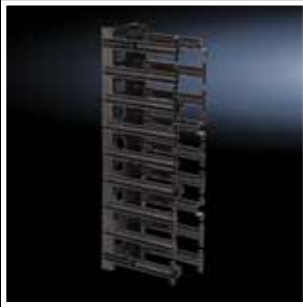
Cable slack spool

Includes M5.5 mounting screw. Installs into the metal back plate of vertical manager kit (see page 730).

Description	Packs of	Part No.
Cable slack spool	10	9969.601



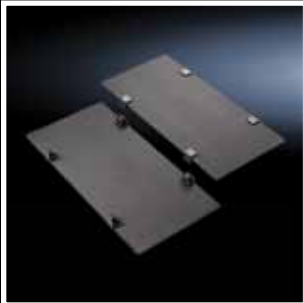
Cable management



Vertical manager kit

Attaches to the side of the EIA rail in the 0 U space and organizes cables. Covers available and are sold separately.

Description	Packs of	Cable diameter (sq. in.)							Part No.
		0.15	0.17	0.19	0.21	0.23	0.25	0.27	
3.5" wide x 9 U (89 x 400 mm) vertical manager kit for 24" (600 mm) suited enclosures and 28-32" (700-800 mm) stand alone enclosures	1	466	363	290	238	198	168	144	9969.593
7.5" wide x 9 U (190 x 400 mm) vertical manager kit for 28" (700 mm) wide suited enclosures	1	1166	908	727	595	496	420	360	9969.595
7.5" wide x 9 U (190 x 400 mm) vertical manager kit for 32" (800 mm) wide suited enclosures	1	1166	908	727	595	496	420	360	9969.598



Manager cover

Manager covers are used on vertical manager kits and are available in two sizes.

Description	Packs of	Part No.
3.5" Wide x 9 U (89 x 400 mm) manager cover	4	9969.594
7.5" Wide x 9 U (190 x 400 mm) manager cover	4	9969.596

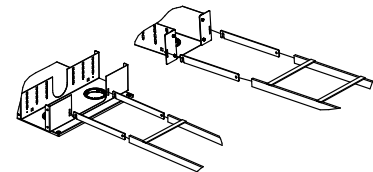


Roofmount ladder rack

Provides suspended overhead cable management from cabinet to cabinet. Attaches to roofmount ladder rack or end ladder brackets.

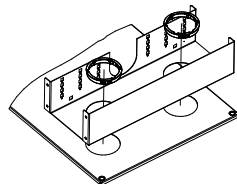
Color:
Sand Texture Black

Width x length inches (mm)	Part No.
12 x 120 (305 x 3048)	9970.271



Roofmount cable manager

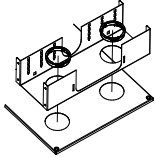
Provides cable management outside the cabinet easy. Fastens to existing roof without tools through use of 2 snap rings and pre-existing cable passes on cabinet roof. Square hole pattern allows use of cable management claws and rings.



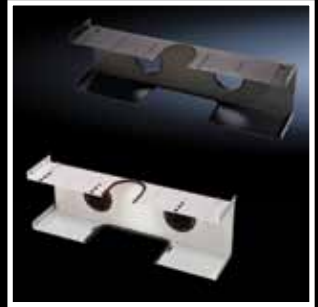
Width inches (mm)	Color	Part No.
24 (600)	RAL 7035 light grey	9970.253
24 (600)	Sand Texture Black	9970.254
28 (700)	RAL 7035 light grey	9970.255
28 (700)	Sand Texture Black	9970.256
32 (800)	RAL 7035 light grey	9970.257
32 (800)	Sand Texture Black	9970.258

Roofmount cable manager with ladder rack provision

Provides cable management outside the cabinet easy. Fastens to existing roof tool-lessly through use of 2 snap rings and pre-existing cable passes on cabinet roof. Square hole pattern allows use of cable management claws and rings. Has ladder rack provision.

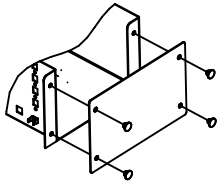


Width inches (mm)	Color	Part No.
24 (600)	RAL 7035 light grey	9970.263
24 (600)	Sand Texture Black	9970.264
28 (700)	RAL 7035 light grey	9970.265
28 (700)	Sand Texture Black	9970.266
32 (800)	RAL 7035 light grey	9970.267
32 (800)	Sand Texture Black	9970.268

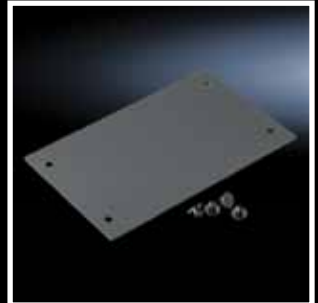


Roofmount manager end covers

Tool-less attachment end covers to roof mount cable managers.



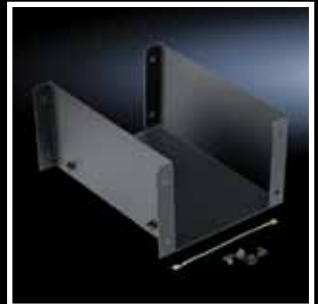
Color	Packs of	Part No.
RAL 7035 light grey	2	9970.259
Sand Texture Black	2	9970.260



Roofmount manager LCP

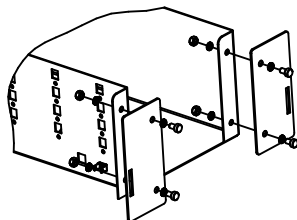
Provides cable management outside the cabinet. Tool-less attachment to adjacent roof mount cable manager.

Width inches (mm)	Color	Part No.
12 (300)	RAL 7035 light grey	9970.261
12 (300)	Sand Texture Black	9970.262



Roofmount end ladder rack installation brackets

Required when ladder rack is attached at end of roofmount cable managers.



Color	Packs of	Part No.
RAL 7035 light grey	4	9970.269
Sand Texture Black	4	9970.270





Shunting ring, plastic

For flexible cable routing, in two materials and three size versions. Option of mounting on the 19" (482.6 mm) enclosure and swing frame section of the data distributor, on all patch panels, on the Data Rack and all components on a 25 mm DIN pitch pattern.

Polyamide version:

Infinitely variable mounting thanks to a longitudinal slot. The shunting ring 7218.035 may also be used on 1 U patch panels.

Color:

RAL 7035

Polycarbonate version:

Variable mounting. With 45° attachment, the cable shunting ring may be attached to a 1 U panel.

Color:

RAL 7035

Possible alternative:

Cable management panel, 1 U, see page 738

Material	Dimensions inches (mm)	Packs of	Part No.
1 Polyamide	2.8 x 1.7 (70 x 44)	10	7218.035
1 Polyamide	4.1 x 2.8 (105 x 70)	10	7219.035
2 Polycarbonate	3.7 x 2.0 (95 x 50)	10	7228.035



Cable shunting ring

For flexible, system-compatible cable routing at the side of the 19" (482.6 mm) mounting frame or on 19" (482.6 mm) mounting angles.

Material:

Carbon steel, zinc-plated

Configuration:

Mounting accessories

Dimensions inches (mm)	Packs of	Part No.
5 x 3 (125 x 85)	10	7111.900
5 x 3 (125 x 65)	10	7111.000
3 x 2 (85 x 43)	10	7112.000



Anti-twist guard for cable shunting rings

For individual attachment of cable shunting rings (7111.000, 7111.900, 7112.000) to mounting angles, mounting frames or enclosure panels. May be mounted on a 25 mm pitch pattern of system punchings on mounting angles and on the 10.5 x 12.5 mm system punchings of the 19" (482.6 mm) mounting frame. It may be variably mounted and rotated on the system punchings in 90° increments. Form-fit accommodation of the shunting ring into the integral channels allows large forces to be accommodated in all directions.

Material:

Plastic

Color:

RAL 7035

Packs of	Part No.
10	7111.100

Shunting ring

To accommodate large quantities of cables. Shunting ring for side attachment to 19" (482.6 mm) sections and mounting frames in 32" (800 mm) wide network enclosures. The ring is attached asymmetrically providing approx. 4" (110 mm) free space in front of the 19" (482.6 mm) level. This allows even large quantities of cables to be effectively managed.

Material:

Round steel, zinc-plated

Configuration:

Assembly parts

Dimensions inches (mm)	Packs of	Part No.
13 x 4/3 (330 x 90/70)	4	7220.600



Fiber-optic shunting rings

The inner body is grooved, and fiber-optic shunting or jumper cables can be inserted into these. A rubber ring holds different fiber-optic cables with diameters of up to 4.5 mm. Strain relief and bending radius are ensured.

Length:

5" (120 mm)

Material:

Dual compound plastic

Color:

- Outside: RAL 7035
- Interior: Black

Configuration:

- 2 rubber rings
- Baying kit
- Mounting accessories

Possible alternative:

Fiber-optic cable management panel, 1 U, see page 743

Assembly:

The supplied mounting brackets are suitable for universal use; the fiber-optic cables can be routed to the patch panel in all directions in various mounting positions:

- 1 At the side, directly on the patch panel
- 2 In front of the patch panel
- 3 At the side next to the patch panel
- 4 Behind the patch panel

Packs of	Part No.
2	7116.500



Cable management



Cable clamp strap for patch panels

To provide strain relief of incoming or outgoing data cables. Optionally available with spring brackets for accommodating and contacting the cable screen. Connection to the patch panel is by means of bolts on the panel itself.

Material:

Carbon steel, 14 ga (2.0 mm), zinc-plated

Configuration:

Assembly parts

Design	Packs of	Part No.
Without cable screen contact	1	7610.000
With spring clips for contacting the cable screen	1	7611.000



System supports for cable routes for TS

The depth-variable support system may be attached to all 32" – 47" (800 – 1200 mm) deep TS enclosures with external screw-fastening of the roof plate. The integral system punchings, for screws or captive nuts, support the attachment of most common cable route systems.

Material:

Carbon steel

Surface finish:

Powder-coated

Packs of	Part No.
2	7831.472

Color:

RAL 7035

Accessories:

- Metal multi-tooth screws 5.5 x 13 mm, 2486.500, see page 674.
- Cage nuts M6, 8800.340, see page 673.



Cable route on the mounting frame

The mounting kit facilitates rear, side attachment of a cable tray to mounting frames inside TS enclosures. This allows the integration of vertical cable management independently of the enclosure frame.

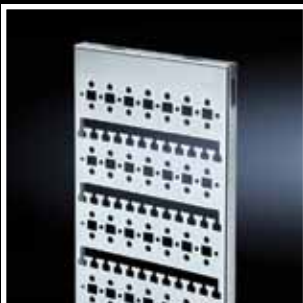
Material:

Carbon steel, zinc-plated

Configuration:

1 cable route 4" (100 mm) wide, 67" (1700 mm) high, including mounting kit

Packs of	Part No.
1	7000.685



Cable route, vertical for TS

For direct attachment between the roof and base frame of a 79" (2000 mm) high frame structure. Installation position optionally on the inner or outer mounting level. Route width 8" (200 mm). With integral system punchings for the attachment of various cable routing aids and T-head attachment for nylon loops and cable ties.

Material:

Carbon steel, zinc-plated

Configuration:

Assembly parts

Packs of	Part No.
1	7858.200

Cable management wall

Organizes and stores cables in the 0 U space. Several attachment points for tool-less quarter turn cable management accessories and PDU mounting locations. Attaches securely to the frame.

Color:
RAL 9005

Dimensions inches (mm)	Packs of	Part No.
79 (2000 mm)	1	9978.360
87 (2200 mm)	1	9978.361



Cable route for TS

For cable routing between two 19" (482.6 mm) mounting angles in bayed enclosure suites (enclosure width 32 (800 mm), mounting angles fitted centrally). Suitable for L-shaped and cranked mounting angles.

Material:
Carbon steel

Packs of	Part No.
1	7827.050

Color:
RAL 7035

Configuration:
Assembly parts



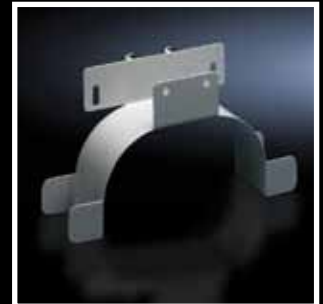
Surplus cable holder

For fastening at the rear area of the enclosure, or at the side of network enclosures. The surplus cable holder can be attached to all depth stays or to punched sections and rails with a 25 mm pitch pattern – mounting dimension 6" (150 mm). Units may also be fastened to each other.

Material:
Carbon steel

Color:
RAL 7035

W x H x D inches (mm)	Packs of	Part No.
6 x 11 x 3 (151 x 280 x 75)	1	7220.500





Cable duct for TS

For laying cable in particularly high packaging densities (high density network nodes), in the optical fiber or copper cabling sector.

Large capacity. A wide range of cable routing, cable clamping, channelling and cross-cabling options creates the requirements for maximum port density in the minimum possible space. Individual U-based cable routing makes it possible to dispense with additional cable routing via patch panels within the distributor level, thereby equipping every U with connection points. This increases port density by up to 50%. The removable duct cover, hinged on both sides, allows user-friendly access at any time. The cable sections are held back by removable cross-bars to protect them against falling out. Mounting is either on mounting rails at the sides, and on mounting angles and mounting frames in the 19" (482.6 mm) distributor level. Two ducts may also be secured back-to-back.

Material:

- Cable duct: Carbon steel, spray-finished
- Cable routing components: Plastic
- Front trim panel: Aluminum, spray-finished

Color:

RAL 7035

Configuration:

Hinged front trim panel and assembly parts

Size W x D inches (mm)	U	Packs of	Part No.
4 x 9 (95 x 235)	24	1	7827.310
	42	1	7827.320

Note:

When using the duct in conjunction with 19" (482.6 mm) mounting frames and TS 8, the inner mounting level in the vicinity of the cable duct is not available. Within the duct, additional cable ties may be attached to accommodate spare cables and for system-compatible cable deflection.

Accessories

Cable ties for spare cables:

	Packs of	Part No.
1	4	7827.330

Distributor clip

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

	Packs of	Part No.
1	4	7111.252
2	4	7111.250

- 1** Distributor clip
For structured cable routing of entire cable bundles, the distributor clip may be secured to a variety of different positions inside the enclosure. It may be used for both horizontal and vertical distribution of the cables.

- 2** Distributor clip, horizontal
For mounting angles and mounting frames. Distribution of cables among the various height units of the patch level.

Cable routing bars

For structured routing of entire cable bundles, the cable bars may be secured to a variety of different positions inside the enclosure.

Material:

- Support: Carbon steel
- Cable routing bars, connection combs: Plastic

Color:

RAL 9005

Configuration:

- Cable routing bars
- Connection combs

19" (482.6 mm) attachment

For horizontal cable routing within the distributor level. Thanks to their open mounting holes, they can also be retrospectively slotted onto the 19" (482.6 mm) system punchings of the mounting level at any time and secured with the existing mounting screws of the installed components.

U	No. of connection combs	Packs of	Part No.
4	2	4	7111.224
1	5	10	7111.214

All-round attachment for universal use

For vertical and horizontal cable routing inside the enclosure or within the distributor level.

U	No. of connection combs	Packs of	Part No.
4	2	4	7111.222
1	5	10	7111.212

Cranked attachment

For mounting angles and mounting frames. Horizontal, U-based cable routing to the distributor level.

U	No. of connection combs	Packs of	Part No.
4	2	4	7111.220
1	5	10	7111.210

Connecting comb

For connecting individual cable routing bars into complete systems (included with the supply).





Cable management panel 19" (482.6 mm)

Material:

- Panel: Carbon steel
- Ring: Polyamide

Color:

RAL 7035

For horizontal management of the patch cables, with 5 cable shunting rings.

U	Ring size inches (mm)	Packs of	Part No.
1	3 x 2 (70 x 44)	1	7159.035¹⁾

¹⁾ Cable shunting rings supplied loose.



Material:

- Panel: Carbon steel
- Ring: Polycarbonate

Color:

RAL 7035

U	Ring size inches (mm)	Packs of	Part No.
1	4 x 2 (95 x 5)	1	7255.035¹⁾

¹⁾ Cable shunting rings supplied loose.



Material:

- Panel: Carbon steel
- Ring: Steel

Surface finish:

Ring: Zinc-plated

Color:

RAL 7035

U	Ring size inches (mm)	Packs of	Part No.
1	4 x 2 (105 x 43)	1	7257.035
2	5 x 3 (125 x 85)	1	7257.100
1	2 x 2 (43 x 55)	1	7257.200



Material:

- Panel: Carbon steel
- Ring: Steel

Surface finish:

Ring: Zinc-plated

Color:

RAL 9005

U	Ring size inches (mm)	Packs of	Part No.
1	4 x 2 (105 x 43)	1	7257.005
2	5 x 3 (125 x 85)	1	7257.105¹⁾

¹⁾ Extended delivery times.

Note:

The sizes given are external dimensions.

Cable management bar, tool-less

Adjustable bar, 15¾" to 24½", attaches to the EIA rails and provides a front-to-back cable pathway. Uses quarter turn cable accessories (not included) in the 0 U space for a stand alone 32" (800 mm) wide or bayed 28" (700 mm) wide enclosures.

Color:

Sand Texture Black

Description	Packs of	Part No.
Cable management bar	1	9967.364

Note:

Use included optional brackets when other cable management accessories are used in the same U space.



Cable management panel

1 U high, 19" (482.6 mm) wide metal panel with 5 cutouts for use with 9969.600 quarter-turn cable collecting claws, 9969.599 quarter-turn velcro cable fastener, and 9961.780/790 D-rings (see pages 726 and 739).

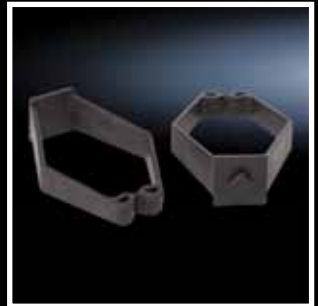
Packs of	Part No.
2	9967.363



Quarter-turn cable collection

Collection claw organizes cables and can attach to the enclosure frame and EIA rails.

Width x depth inches (mm)	Packs of	Part No.
3.00 x 4.45 (76.2 x 113)	10	9969.600



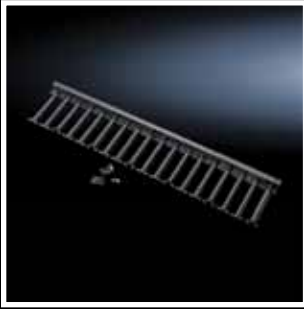
Quarter-turn D-ring

D-ring organizes cables and can be used on enclosure frame and side of EIA rails.

Description	Packs of	Part No.
5.00 x 3.50" (127 x 88.9 mm)	10	9961.780
3.50 x 1.75" (88.9 x 44.5 mm)	10	9961.779



Cable management



Cable manager fingers

Plastic fingers attach to the side of the EIA rail and organizes cables.

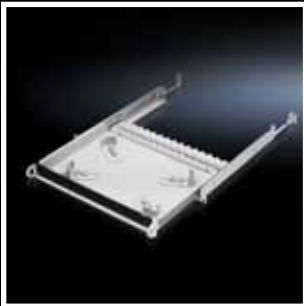
Description	Packs of	Part No.
18 U vertical cable manager fingers	2	9963.600



Horizontal cable management with hingeable/removeable cover

Attaches to the 19" rack mount and provides cable management side to side. Available in 1 U or 2 U.

Description	Packs of	Cable Diameter (sq. in.)							Part No.
		0.15	0.17	0.19	0.21	0.23	0.25	0.27	
1 U	2	260	202	162	132	110	93	80	9969.736
2 U	2	127	98	79	64	54	45	39	9969.597



Drawer 19" (482.6 mm) to accommodate surplus cables

The 1 U drawer offers a convenient opportunity for storing surplus cables in an organised, compact and secure way within the 19" (482.6 mm) levels.

- With brush strip at the front for cable entry
- T-head rail in the rear section for cable clamping
- Ring-shaped kink-free routing of the conductors on adjustable elements in the interior
- May be fitted between two 19" (482.6 mm) levels at a distance of 17" – 30" (435 – 750 mm)
- Independent from the enclosure system
- Both on L-shaped and cranked mounting angles and mounting frames

Distance between levels inches (mm)	Packs of	Part No.
17 – 35 (435 – 750)	1	7063.200

Material:

Carbon steel

Color:

RAL 7035

Configuration:

Drawer including telescopic slides and assembly parts

Accessories:

Nylon loop 7072.220/7072.230, see page 726



Cable management panel with cable routing bars

19" (482.6 mm)

For horizontal management of the patch cables with cable routing bars. Opening the individual cable routing bars allows user-friendly modification and extension of the cabling.

Material:

- Panel: Carbon steel, spray-finished
- Cable routing bars: Plastic

Color:

- Panel: RAL 7035
- Cable routing bars: Black

U	Bar depth inches (mm)	No. of bars/U	Packs of	Part No.
1	Approx. 3 (80)	5	1	7257.050
2	Approx. 3 (80)	4	1	7257.150



Cable management panel, 2 U

19" (482.6 mm)

The cable routing chamber has cut-outs from above, into which the patch cables can be inserted. The cable management panel is equipped with a flap and quick-release fasteners at the front, for optimum access to the cables. From the rear, the cables can be inserted via a cut-out with brush strips. With accommodation facility for cable clamp straps 7610.000 or 7611.000.

Material:

Carbon steel

Color:

RAL 7035

Accessories:

Cable clamp strap, see page 734

U	Depth inches (mm)	Packs of	Part No.
2	3 (85)	1	7158.035





Cable routing channel

19" (482.6 mm)

To hold the patching cables.

Material:

Carbon steel

Color:

RAL 7035

U	Depth inches (mm)	Packs of	Part No.
1	3 (85)	1	7149.135
3	4 (100)	1	7149.035



Cable management panel, 2 U

To accommodate fiber-optic and copper cables. Fibers from the patch panels are placed into the tray via openings and may be distributed at the sides. Rounded openings protect the cable sheathing.

Material:

Carbon steel

Color:

RAL 7035

U	Packs of	Part No.
2	1	7269.135



Cable management duct, horizontal

19" (482.6 mm)

The duct facilitates concealed, simple cable routing of large quantities of cables to equipment within the 19" (482.6 mm) attachment level. Large cut-outs ensure convenient, kink-free cable routing to the components top and bottom. For simple handling, the entire front panel may be removed via quick-release fasteners. After attaching the cables, these are held in position via nylon ties, allowing the duct to be resealed.

Material:

Carbon steel

Color:

RAL 7035

Configuration:

5 nylon loops

U	Packs of	Part No.
2	1	7158.100
3	1	7158.150¹⁾

¹⁾ Extended delivery times.



Cable tray, 2 U

For side routing and distribution of fiber-optic and copper cables. In this way, cables inserted into the roof area may be routed at the side of the mounting angles in the upper section of the rack. Depth 3" (85 mm).

Material:

Carbon steel

Color:

RAL 7035

U	Packs of	Part No.
2	1	7269.235



Fiber-optic cable management panel, 1 U

19" (482.6 mm)

The four fiber-optic cable shunting rings integrated into the front permit optimum management of up to 48 fibers.

Material:

- Panel: Carbon steel
- Ring: Dual compound plastic

Color:

- Panel: RAL 7035
- Cable shunting rings on the outside: RAL 7035, black interior

U	Packs of	Part No.
1	1	7256.035

Possible alternative:

Fiber-optic support guide 7116.500, see page 733



Cable trough, tool-less

Adjustable depth of 16" min to 25¾" max. Cable trough area is 3" x 3". Attaches to the EIA rails and provides front-to-back cable pathway in the 0 U space for a stand alone 32" (800 mm) wide or bayed 28" (700 mm) wide enclosures.

Color:

Sand Texture Black

Note:

Use included optional brackets when other cable management accessories are used in the same U space.

Description	Packs of	Part No.
Cable trough	1	9967.365



Cable entry panel

19" (482.6 mm)

2U cut-out, 15" x 2" (390 x 40 mm) or 1 U cut-out 15" x 1" (390 x 20 mm), edge protector and brush insert to protect against dust. With accommodation facility for cable clamp straps 7610.000 or 7611.000.

Material:

Carbon steel

Color:

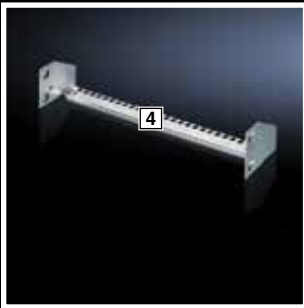
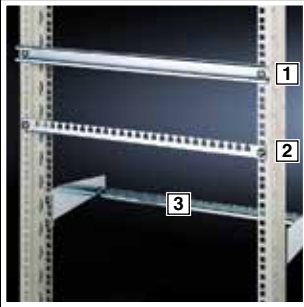
RAL 7035

Accessories:

Cable clamp strap, see page 734

U	Color	Part No.
1	RAL 7035 light grey	7140.535
1	Sand Texture Black	9967.361
2	RAL 7035 light grey	7150.535
2	Sand Texture Black	9967.362





Cable routing across the 19" (482.6 mm) mounting level

There are various different cable clamping systems available for system-compatible cable routing in 19" (482.6 mm) systems with one or two pairs of mounting angles:

- 1 C rail**
for mounting between all pairs of 19" (482.6 mm) mounting angles.

- 2 Cable clamp rails**
for mounting between all pairs of 19" (482.6 mm) mounting angles, for cable ties.

- 3 Cable clamp straps for large swing frames and Data Rack,**
the cable clamp straps are mounted on the frame at the rear, with the cables clamped 10" (250 mm) behind the 19" (482.6 mm) mounting angles.

- 4 Cable clamp strap for TS mounting angles,**
with side lugs for suspending from the cranked 19" (482.6 mm) mounting angles. Cable clamping is via cable ties.

Material:
Carbon steel

Surface finish:
Zinc-plated

C rail	Depth inches (mm)	PU	Part No.
19" (482.6 mm) level	–	6	7016.100

Cable clamp rail	Depth inches (mm)	PU	Part No.
19" (482.6 mm) level	–	6	7016.110

Cable clamp strap for	Depth inches (mm)	PU	Part No.
Data Rack and large swing frame	10 (250)	6	7016.120
TS mounting angles	4 (100)	6	7016.130

Also required:
With L-shaped TS mounting angles, adaptor 7827.300 is additionally required, see page 686

19" (482.6 mm) installation system

Swing frame

Swing frame, small

Installation for 24" (600 mm) and 32" (800 mm) wide enclosures

For mounting 19" (482.6 mm) equipment.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Cam with double-bit lock insert and parts for attaching to the installation kit

Technical information:

Available at www.rittal-corp.com



Installation		Front, top/bottom	Set back, top/bottom	Set back/front, center
U	Packs of	Part No.		
3	1	2377.030		
6	1	2377.060		
9	1	2377.090		
12	1	2377.120		
15	1	2377.150		
18	1	2377.180		

Also required:

1 Installation kit		1 set	For enclosure width inches (mm)		
			24 (600)	32 (800)	
			2377.860	2377.880	
2 PS punched section without mounting flange, 2 or 4 required		For enc. depth inches (mm)		Page	
		16 (400)	4	4374.000	658
		20 (500)	4	4375.000	658
		24 (600)	4	4376.000	658
		32 (800)	4	4377.000	658
Support bracket, 2 required per PS punched section without mounting flange		6 sets	8800.330	669	
Accessories					
Lock inserts, type D			2484.000	747	

Note:

The swing frame stay is required to lock the open swing frame, see page 750.

Installation kit

for swing frame, small in ES, TP universal console.

Enclosure width inches (mm)	Packs of	Part No.
24 (600)	1 set	2377.460

Accessories:

Depending on the installation position:

- Support bracket 4183.000, see page 669
- PS punched section without mounting flange in accordance with the enclosure depth, see page 658



19" (482.6 mm) installation system

Swing frame



Vario swing frame

**Installation for ES and CS modular enclosures,
800 mm wide enclosures**

For the installation of 19" (482.6 mm) equipment.

Material:

Carbon steel

Color:

RAL 7035

Configuration:

Double-bit lock insert and assembly parts

Technical information:

Available at www.rittal-corp.com

Installation		Front ¹⁾ , top	Set back, top	Set back/front ¹⁾ , center
U	Packs of	Part No.		
6	1	2004.235		
12	1	2008.235		
18	1	2011.235		

Also required:

	For enclosure inches (mm)	Packs of		Page
PS punched section with mounting flange	3 16 (400) depth	4	8800.640	658
	3 20 (500) depth	4	8800.650	658
	4 32 (800) depth	4	4365.000	658

Accessories

Lock inserts, type D	2484.000	747
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¹⁾Max. installation depth for enclosure depth 16" (400 mm): 12" (305 mm)

Max. installation depth for enclosure depth 20" (500 mm): 16" (405 mm)

19" (482.6 mm) installation system

Swing frame

Swing frame, large without trim panel, for 24" (600 mm) and 47" (1200 mm) wide enclosures

For mounting 19" (482.6 mm) equipment.

Material:
Carbon steel

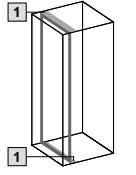
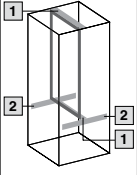
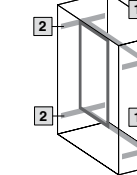
Surface finish:
Zinc-plated

Configuration:

Cam with double-bit lock insert and parts for attaching to the installation kit

Technical information:

Available at www.rittal-corp.com

Installation	Full installation, front/set back	Partial installation top, front/set back	Partial installation center, front/set back
			

For enclosure width inches (mm)			24 (600)	47 (1200)
U	For min. enc. height inches (mm)	Packs of	Part No.	
22	47 (1200)	1	2322.700	
31	63 (1600)	1	2331.700	
36	71 (1800)	1	2336.700	
40	79 (2000)	1	2340.700	
45	87 (2200)	1	2345.700	

Accessories			Page
Lock inserts, type D		2484.000	747

Also required:

1 Divider kits

For enclosure			Hinge	Load Capacity			Packs of
TS	ES	CM					
-	-	■	130°	< 180 lb (800 N)	1985.500	-	1 set
■	■	-		< 337 lb (1500 N) ¹⁾	1994.835	-	1 set
■	■	-		< 337 lb (1500 N) ¹⁾	-	1996.835	1 set
■	-	-		< 337 lb (1500 N) ²⁾	-	1996.535	1 set

¹⁾ Maximum load 180 lb (800 N) with the TS mounting panel slide rail dismantled.

²⁾ Installation only possible with the mounting panel slide rail dismantled.

2 For TS:

TS punched section with mounting flange 23 x 73 mm,
2 or 4 required

Installation in enc. depth inches (mm)	Packs of	Part No.	Page
16 (400)	4	8612.140 ¹⁾	652
20 (500)	4	8612.550	653
24 (600)	4	8612.560	653
32 (800)	4	8612.580	653
39 (1000)	4	8612.500	653
47 (1200)	4	8612.520	653

¹⁾ TS punched section with mounting flange, 17 x 73 mm

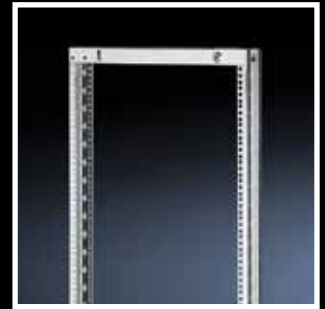
2 For ES:

PS punched section with mounting flange 23 x 73 mm,
2 or 4 required

Installation in enc. depth inches (mm)	Packs of	Part No.	Page
16 (400)	4	4369.000	658
20 (500)	4	4370.000	658

Note:

The swing frame stay is required to lock the open swing frame, see page 750.



19" (482.6 mm) installation system

Swing frame



Swing frame, large

with trim panel, for 32" (800 mm) wide enclosures
For mounting 19" (482.6 mm) equipment.

Material: Carbon steel

Surface finish:

- Frame: Zinc-plated
- Trim panel: Spray-finished

Color:

RAL 7035

Configuration:

Locking rod system with double-bit lock insert and parts for attaching to the installation kit

Technical information:

Available at www.rittal-corp.com

Installation		Full installation, width 32" (800 mm), front/set back	Partial installation top, width 32" (800 mm), front/set back	Partial installation center (in the height), width 32" (800 mm), front/set back
Mounting position				
with hinge		130°/180°	180°	
For enclosure width inches (mm)		32 (800)		
U	For min. enc. ht. inches (mm)	Packs of	Part No.	
22	47 (1200)	1	2323.235	2324.235
31	63 (1600)	1	2332.235	–
36	71 (1800)	1	2337.235	2338.235
40	79 (2000)	1	2341.235	2342.235
45	87 (2200)	1	2346.235	2347.235
Heavy-duty version ¹⁾				
U	For min. enc. ht. inches (mm)	Packs of	Part No.	
40	79 (2000)	1	7858.100	–

Accessories

Ergoform S lock systems

see page 605

Lock inserts, version A

see page 605

Also required:

1 Divider kits

For enclosure			Hinge	Load Capacity	Packs of
TS	ES	CM			
–	–	■	130°	< 180 lb (800 N)	1986.500 1 set
■	■	–		< 337 lb (1500 N) ²⁾	1995.235 1 set
■	–	–		< 337 lb (1500 N) ³⁾	1995.835 1 set
–	–	■	180°	< 180 lb (800 N)	1986.500 + 1978.200 1 set
■	■	–		< 270 lb (1200 N) ²⁾	1997.235 1 set
■	–	–		< 270 lb (1200 N) ³⁾	1997.835 1 set

¹⁾ Load capacity 771 lb (350 kg), including installation kit, for enclosure height 79" (2000 mm).

²⁾ Maximum load 180 lb (800 N) with the TS mounting panel slide rail dismantled.

³⁾ Installation only possible with the mounting panel slide rail dismantled.

2 For TS:

TS punched section with mounting flange 23 x 73 mm, 2 or 4 required

Instal in enc. depth inches (mm)	Packs of	Part No.	Page
16 (400)	4	8612.140 ¹⁾	652
20 (500)	4	8612.550	653
24 (600)	4	8612.560	653
32 (800)	4	8612.580	653
39 (1000)	4	8612.500	653
47 (1200)	4	8612.520	653

2 For ES:

PS punched section with mounting flange 23 x 73 mm, 2 or 4 required

Installation in enc. depth inches (mm)	Packs of	Part No.	Page
16 (400)	4	4369.000	658
20 (500)	4	4370.000	658

Note:

The swing frame stay is required to lock the open swing frame, see page 750.

¹⁾ TS punched section with mounting flange, 17 x 73 mm

Metric measurements for are exact, imperial measurements are rounded

19" (482.6 mm) installation system

Swing frame

Compact swing frames for AE

For mounting slide-in electronic equipment, 19" (482.6 mm), across the entire height.

Technical specifications:

Torsionally stiff frame, welded from rectangular tube and triple-folded support section

Material:

Carbon steel

Color:

RAL 7035

Configuration:

Double-bit lock insert and assembly parts

Width inches (mm)	24 (600)	24 (600)	24/31 (600/760)
Height inches (mm)	15 (380)	24 (600)	31 (76)
U	6	11	14
Packs of	1	1	1
Part No.	2026.200	2027.200	2034.200

Accessories:

41 mm lock insert, version C, see page 607

Detailed drawings:

Available at www.rittal-corp.com



Pull-out frame, 19" (482.6 mm) for TS

For the installation of a pull-out 19" (482.6 mm) front. For 24" (600 mm) and 32" (800 mm) wide TS enclosures, from a depth of 32" (800 mm).

- Overall depth: 21" (525 mm)
- Extension piece: 20" (500 mm)
- Distance: 21" (300 mm)

Load capacity:

110 lb (50 kg)

Color:

RAL 7035

U	Packs of	Part No.
12	1	7124.035

Configuration:

Telescopic slides and assembly parts

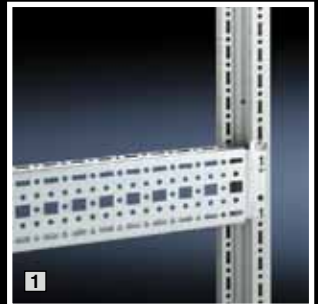
Note:

The slide rail 7963.310 (see page 750) can be mounted directly in the pull-out frame to support heavy equipment.



Divider kits for pull-out frame

	Enclosure depth inches (mm)	Packs of	For enclosure width inches (mm)	
			24 (600)	32 (800)
			Part No.	
1 TS punched section with mounting flange	32 (800)	4	8612.080	–
	39 (1000)	4	8612.000	–
2 Depth stays	32 (800)	4	–	7827.800
	39 (1000)	4	–	7827.000



19" (482.6 mm) installation system

Swing frame



Swing frame stay

Holds the swing frame in the open position.

For mounting on: Swing frame, large
– 1979.200, at the top of the enclosure
– 1980.200, at the bottom of the enclosure
(with safety stop at 160°)

	Packs of	Part No.
with 130° hinge	5	1979.200
with 180° hinge	1	1980.200



For mounting on: Swing frame, small
– 1979.200, may be mounted at the top or bottom of the installation kit



Slide rail

To support heavy slide-in electronic equipment, 19" (482.6 mm) in the swing frame.

Material:
Carbon steel

Surface finish:
Zinc-plated

For slide-in equipment with max. installation depth inches (mm)	Packs of	Part No.
T max. < 7 (190)	10	1979.200
T max. > 7 (190)	10	1980.200

19" (482.6 mm) installation system

Mounting angles

Mounting angles, 19" (482.6 mm)

for TS, CS Toptec

Available in two versions:

Cranked

The integral U markings in the front facilitate systematic assembly within the 19" (482.6 mm) attachment level.

L-shaped

The L-shaped mounting angles accommodate the installation kits of server systems. The integral U markings in the front facilitate systematic assembly within the 19" (482.6 mm) attachment level.

Technical specifications:

- 14 ga (2.0 mm) carbon steel
- Integral 19" (482.6 mm) punchings (EIA standard)
- Side round and square punchings
- Clear chromated for conductive connection of the 19" (482.6 mm) installed equipment

Configuration:

Assembly parts

Explanation of the mounting dimensions in interior installations: see page 752

Note:

The mounting angles can also be used to accommodate 21", 23" and 24" attachment dimensions.

Also required:

- TS punched sections with mounting flanges or depth stays as installation kit for mounting angles, see page 757, 758
- For L-shaped mounting angle version: for mounting slide rails or component shelves: Adaptor 7827.300, see page 686

Cranked

Full installation rack height inches (mm)	U	Packs of	Part No.
32 (800)	15	2	7827.080
39 (1000)	20	2	7827.100
47 (1200)	24	2	7827.120
55 (1400)	29	2	7827.140
63 (1600)	33	2	7827.160
71 (1800)	38	2	7827.180
79 (2000)	42	2	7827.200
87 (2200)	47	2	7827.220

L-shaped

Full installation rack height inches (mm)	U	Packs of	Part No.
24 (600)	11	2	7827.061
32 (800)	15	2	7827.081
39 (1000)	20	2	7827.101
47 (1200)	24	2	7827.121
55 (1400)	29	2	7827.141
63 (1600)	33	2	7827.161
71 (1800)	38	2	7827.181
79 (2000)	42	2	7827.201
87 (2200)	47	2	7827.221



Mounting angles, metric for TS

The L-shaped mounting angles accommodate metric assemblies and components. Depending on the installation kit, mounting dimensions 18" (465 mm) and 20" (515 mm) can be configured.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Explanation of the mounting dimensions in interior installations: see page 752

Full installation rack height inches (mm)	SU	Packs of	Part No.
–	17	2	7831.611¹⁾
39 (1000)	37	2	7831.621¹⁾
47 (1200)	43	2	7794.420¹⁾
63 (1600)	59	2	7794.740¹⁾
79 (2000)	76	2	7831.631
87 (2200)	84	2	7831.641¹⁾

¹⁾ Extended delivery times.

Also required:

TS punched sections with mounting flanges or depth stays as installation kit for mounting angles, see pages 757, 758



19" (482.6 mm) installation system

Mounting angles



Mounting frame, 19" (482.6 mm) for TS, CS Basic and modular enclosures

The welded 19" (482.6 mm) mounting frame may be attached with complete depth variability and is used to structure the front and rear 19" (482.6 mm) level. The mounting frame has the same system punchings as the TS 8 enclosure section at the sides and rear, and therefore supports the mounting of various TS 8 system accessories such as cable clamp rails, cable shunting rings, etc.

Load capacity:

Up to 2204 lb (1000 kg) static load, with even load distribution on two 19" (482.6 mm) mounting frames, with full installation

Material:

Carbon steel

Surface finish:

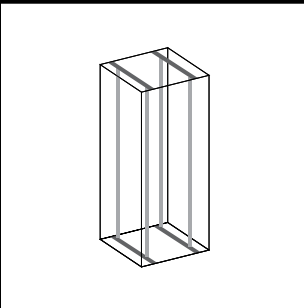
Zinc-plated

Configuration:

Assembly parts

Note:

A combination of 19" (482.6 mm) mounting frame plus fan mounting panel is not possible. For active ventilation, we recommend use with modular fan roof.



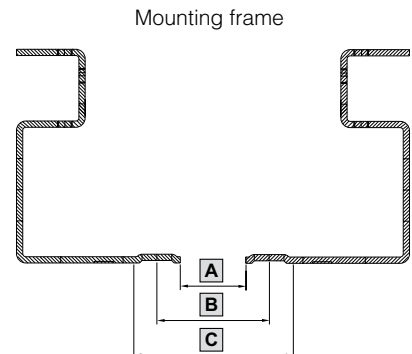
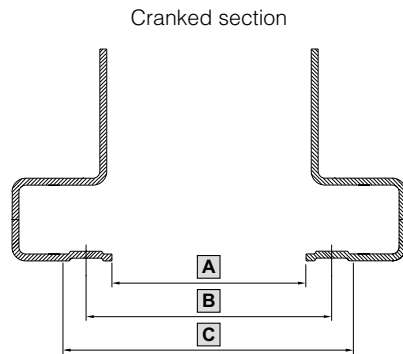
For enclosure		U	PU	Part No.
Width inches (mm)	Height inches (mm)			
24 (600)	24 (600)	11	1	7856.710
24 (600)	47 (1200)	24	1	7856.713
24 (600)	71 (1800)	38	1	7856.716
24 (600)	79 (2000)	42	1	7856.719
24 (600)	87 (2200)	47	1	7856.722
32 (800)	47 (1200)	24	1	7856.725
32 (800)	71 (1800)	38	1	7856.728
32 (800)	79 (2000)	42	1	7856.731
32 (800)	87 (2200)	47	1	7856.734

Explanation of the mounting dimensions in interior installations: see below

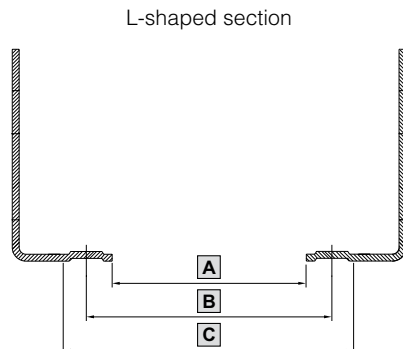
Accessories:

- Captive nuts, see page 772
- Assembly screws, see page 674
- Cable clamp rails TS, see page 728
- C rails, see page 659
- Component shelves, see from page 676
- Fan roof, modular, see page 387
- TS divider kit, heavy-duty, width/depth-variable, see page 757

Explanation of the mounting dimensions in interior installations



- A** = Clearance width
- B** = Mounting dimension
- C** = External dimension of the rack-mounted equipment or of the front panels



Installation width	A inches (mm)	B inches (mm)	C inches (mm)
19"	18 (450)	18 (465)	19(482.6)
21"	20 (500)	20 (515)	21 (533.4)
23"	22 (552)	22 (567)	23 (584.2)
24"	23 (577)	23 (592)	24 (609.6)
10'739 HP	9 (221.4)	9 (236)	10 (254)
1/2 19'742 HP	9 (236.6)	10 (251.2)	11 (269.2)
9.5"	8 (208.7)	9 (223.3)	10 (241.3)
18 SU	18 (450)	18 (465)	19 (485)
20 SU	20 (500)	20 (515)	21 (53)

19" (482.6 mm) installation system

Mounting angles

Adaptor section, 19" (482.6 mm) for TS

For the installation of subracks and other equipment. Mounting angles are easily shortened for partial assemblies.

Configuration:

Assembly parts

Note:

The 19" (482.6 mm) measurement is obtained when mounting on the TS frame for enclosures with width 24" (600 mm).

Accessories:

- Infill panels, see page 754
- Captive nuts, see page 673
- Assembly screws, see page 674
- Slide rails with one-sided mounting, see page 765
- Slide rails with two-sided mounting, see page 765
- Drawer installation kit, see page 767
- Component shelf installation kit, see page 676

For enclosure system TS¹⁾

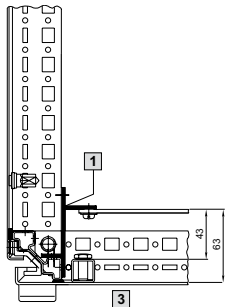
For enclosure height inches (mm)	Material	U	Packs of	Part No.
63 (1600)	Extruded aluminum section	32	4	8613.060
71 (1800)		38	4	8613.080
79 (2000)		42	4	8613.000
87 (2200)		47	4	8613.020
For PC enclosure ²⁾		17	4	8613.070

¹⁾ For the rear of electronic enclosures, see page 754.

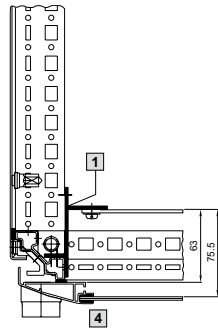
²⁾ Behind lower door.

Assembly examples of TS:

Drawing 1



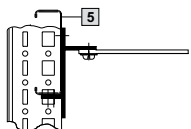
Drawing 2



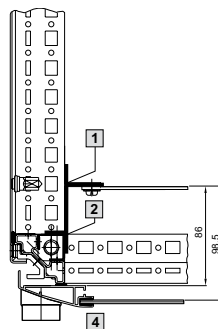
Drawing 1 and 2:

Mounting angle or adaptor piece fitted in the foremost installation position, directly on the vertical section. When installing slide rails with two-sided mounting (see page 765), the same mounting angles or adaptor pieces must also be mounted on the vertical section at the rear.

Drawing 3



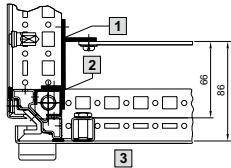
Drawing 5



Drawing 3:

Mounting on two vertically installed PS punched sections permits fully flexible use of the enclosure depths.

Drawing 4



Drawing 4 and 5:

Greater distance from the door is achieved by mounting on adaptor rails for PS compatibility. In this position, the slide rails can be fitted with one-sided mounting.

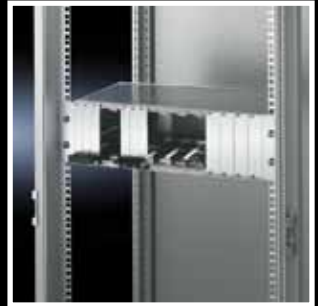
1 Adaptor section/piece

4 TS glazed door

2 Adaptor rail

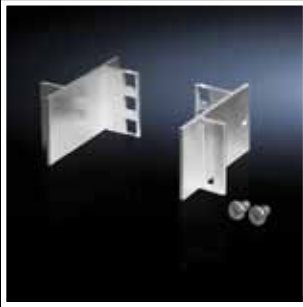
5 Punched sections without mounting flanges

3 TS carbon steel door



19" (482.6 mm) installation system

Mounting angles



Adaptor piece, 19" (482.6 mm) for TS, ES

The "1 U" sub-section of mounting angles, for the installation of individual subracks and other equipment.

Configuration:

Assembly parts

Assembly examples:

May be found on page 753

Note:

The 19" (482.6 mm) measurement is obtained when mounting on the TS/ES frame for enclosures with width 24" (600 mm). Adaptor set (7246.100) for 32" (800 mm) wide enclosures, see page 760

Accessories:

- Captive nuts, see page 673
- Assembly screws, see page 674
- Slide rails with two-sided mounting, see page 765
- Drawer installation kit, see page 767
- Component shelf installation kit, see page 676



For TS

U	Packs of	Part No.
1	4	8613.010

For TS

U	Packs of	Part No.
1	4	4547.000



Adaptor piece, 19" (482.6 mm) for rear installation in TS electronic enclosures

For installing subracks at the front and back, and for attaching the slide rails 8613.150, 8613.160 and 8613.180 (see page 765).

For mounting on the inner mounting level.

The outer mounting level may, for example, still be used for cable routing on depth-mounted TS punched sections with mounting flange.

Material:

Extruded aluminum section

Configuration:

Assembly parts

Note:

Design similar to adaptor sections, 19" (482.6 mm) (see page 753), but asymmetrical height, suitable for TS electronic enclosure.

Accessories:

- Captive nuts, see page 673
- Assembly screws, see page 674
- Slide rails with two-sided mounting, see page 765
- Drawer installation kit, see page 767
- Component shelf installation kit, see page 676

Possible alternative:

Adaptor pieces, 19" (482.6 mm), see above

For enc. height inches (mm)	U	Packs of	Part No.
63 (1600)	33	2	8613.360
79 (2000)	42	2	8613.300

19" (482.6 mm) installation system

Mounting angles

Infill panel, 19" (482.6 mm), horizontal

for adaptor pieces

To infill between installed 19" (482.6 mm) equipment positioned in the full enclosure height and the enclosure clearance height.

Material:

Extruded aluminum section

Configuration:

Assembly parts

Enclosure height inches (mm)	Packs of	Part No.
63/79 (1600/2000)	2	8613.040
71/87 (1800/2200)	2	8613.030



Mounting angle, 19" (482.6 mm)

for CS basic and modular enclosures

For mounting 19" (482.6 mm) components in Outdoor enclosures. The mounting angles are depth adjustable on a 25 mm pitch pattern. An installation bracket is required to attach the mounting angles.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Mounting accessories

Also required:

Installation bracket PS, see page 755

Explanation of the mounting dimensions in interior installations: see page 752

Enclosure height inches (mm)	U	Packs of	Part No.
32 (800)	15	2	7685.000
47 (1200)	24	2	7688.000



Depth stay for PS

for mounting angles 19" (482.6 mm)

Material:

Carbon steel

Surface finish:

Zinc-plated

Encl. width inches (mm)	Installation (center)	Packs of	Part No.
24/47 (600/1200)	19" (482.6 mm)	2	7696.000
32 (800)	19" (482.6 mm)/ metric	2	7698.000



19" (482.6 mm) installation system

Mounting angles



Mounting angle, 19" (482.6 mm) for EL

This mounting angle kit allows you to integrate a second 19" (482.6 mm) level into EL enclosures.

Material:
Carbon steel

Color:
RAL 7035

Configuration:
Assembly parts

U	Packs of	Part No.
6	2	7705.706
9	2	7705.709
12	2	7705.712
15	2	7705.715
18	2	7705.718
21	2	7705.721

Extended delivery times.

Explanation of the mounting dimensions in interior installations: see page 756



Mounting angle, 19" (482.6 mm) for QuickBox

For the installation of 19" (482.6 mm) rack mounted equipment.

Material:
Carbon steel

Color:
RAL 7035

Configuration:
Assembly parts

For enclosure U	Packs of	Part No.
12	2	7502.203
15	2	7502.204
18	2	7502.205
21	2	7502.206



Mounting angle, 19" (482.6 mm) for FlatBox

L-shaped bracket as 2nd attachment level.

Material:
Carbon steel

Configuration:
Assembly parts for fast, tool-less assembly

Note:
The 2nd attachment level should always be ordered in the same height as the basic enclosure. Partial configuration is not possible.

U	Packs of	Part No.
6	2	7507.706
9	2	7507.709
12	2	7507.712
15	2	7507.715
18	2	7507.718
21	2	7507.721



Mounting angle, 19" (482.6 mm) for VerticalBox

For mounting at the side of the VerticalBox. With these mounting angles, instead of 5 U vertically at the side, up to 10 U may be used horizontally if only a minimal installation depth is required. Infinitely depth-variable positioning.

Material:
Carbon steel, spray-finished

Color:
RAL 7035

Configuration:
Assembly parts

Note:
10 usable U.

U	Packs of	Part No.
12	2	7502.203

19" (482.6 mm) installation system

mounting kits for mounting angles

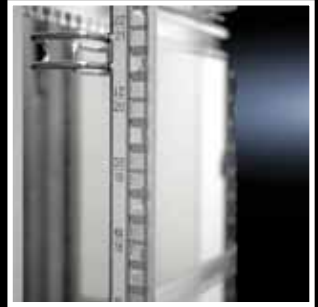
Adhesive measurement strip, 19" (482.6 mm)

Made from robust aluminum foil, guarantees easy handling and durability. With numerical labelling on a 19" (482.6 mm) pitch pattern for clear identification of the various height units. The double sided labelling allows the counting direction to be freely selected, up to a maximum of 56 U. In this way, clear documentation of the various mounting parts is easily achieved.

Material:

Aluminum foil

Labelling range U	Packs of	Part No.
1 – 56	1	7950.100



TS mounting kit, heavy-duty, width/depth-variable

for mounting frame 19" (482.6 mm) in TS,
CS basic and modular enclosures

Installation in enclosure width 32" (800 mm)
The mounting kit allows depth- and width-variable installation of a 24" (600 mm) wide mounting frame, 19" (482.6 mm), in 32" (800 mm) wide enclosures.

Load capacity:

1654/3307 lb (750/1500 kg) static load per level/
per enclosure

Material:

Carbon steel

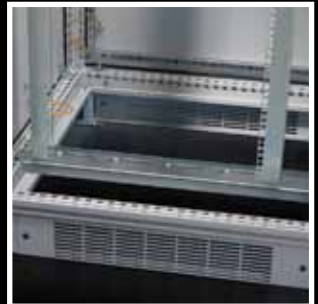
Surface finish:

Zinc-plated

Configuration:

Assembly parts

Packs of	Part No.
1 set	7827.590



Additional fastening attachment for mounting angle

for 32" (800 mm) wide TS network enclosures

The additional fastening attachment counteracts bending of the mounting angles mounted on installation brackets in case of unevenly distributed loads. It is attached directly to 19" (482.6 mm) mounting angles and to the punched section with mounting flange fitted in the depth (inner mounting level).

Material:

Carbon steel

Configuration:

Assembly parts

Packs of	Part No.
2	7284.135

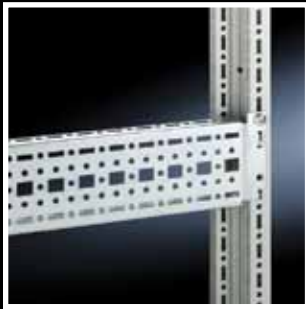
Also required:

TS punched section with mounting flange for the inner mounting level, see page 652



19" (482.6 mm) installation system

Mounting angles/mounting kits for mounting angles



TS punched section with mounting flange as installation kit

- for
- Mounting angles, 19" (482.6 mm)
- Mounting angles, metric, mounting dimension 18" (465 mm)

Installation in enclosure width 600 mm

The installation kit consists of 4 TS punched sections with mounting flange 17 x 73 mm to accommodate mounting angles. One pack is sufficient for installing one or two 19" (482.6 mm) mounting levels. For exceptionally heavy installed equipment, we recommend the installation of additional punched sections in the center.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
24 (600)	24 (600)	4	8612.060
24 (600)	32 (800)	4	8612.080
24 (600)	39 (1000)	4	8612.000
24 (600)	47 (1200)	4	8612.020



Installation bracket TS

for mounting angles into TS, 19" (482.6 mm)

Installation in enclosure width 32" (800 mm)

Depth stays are screw-fastened to the enclosure frame in the enclosure width. The mounting angle is attached to the depth stay at the top and bottom. The bracket ensures optimum clearance at the sides for cable routing. For partial enclosure configuration, the depth stays may be attached to the TS punched sections with mounting flanges 17 x 73 mm on the outer attachment level of the enclosure frame. Fully depth variable attachment is facilitated by the attachment slots. Either cranked or L-shaped mounting angles may be used.

Material:

Carbon steel

Surface finish:

Zinc-plated

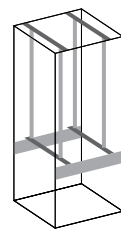
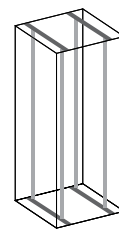
Configuration:

Assembly parts

Accessories:

- For partial installation,
- TS punched section with mounting flange, 17 x 73 mm, see page 652
 - Mounting angles, cranked or L-shaped, see page 751

Installation position	Packs of	Part No.
central	2	7827.480
side	2	7827.490



19" (482.6 mm) installation system

Mounting kits for mounting angles

TS installation kit, width-variable

19" (482.6 mm)/metric in TS

Universal depth stays to which both L-shaped and cranked mounting angles may be variably mounted in the depth and width. Installation kit for all width dimensions

- Imperial mounting dimensions 19"/21"/23"/24"
- Metric mounting dimensions 18/20 SU

Load capacity:

440 lb (200 kg) static load per level

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

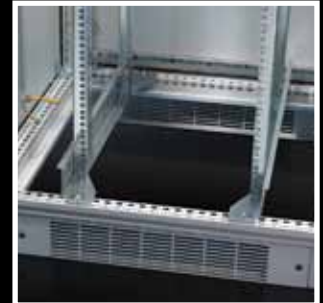
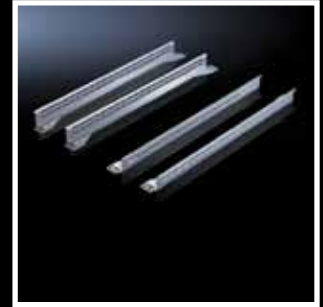
Assembly parts

Accessories:

Component shelves, 19" (482.6 mm), see page 751

For enc. depth inches (mm)	Packs of	Part No.
32 (800)	1 set	7827.550
39 (1000)	1 set	7827.560
47 (1200)	1 set	7827.570

1 set = 4 stays



Depth stays as installation kit for mounting angles, 19" (482.6 mm)

Installation in enclosure width 32" (800 mm)

One installation kit consists of 4 depth stays to accommodate mounting angles. One pack is sufficient for installing one or two 19" (482.6 mm) attachment levels. For exceptionally heavy installed equipment, we recommend the installation of an additional depth stay in the center. The front cut-out makes cable routing easier with full configuration

Material:

Carbon steel

Surface finish:

Zinc-plated

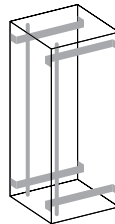
Configuration:

Assembly parts

Possible alternative:

Installation brackets TS for mounting angles, see page 759

For enclosure		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
32 (800)	24 (600)	4	7827.600
32 (800)	32 (800)	4	7827.800
32 (800)	39 (1000)	4	7827.000



19" (482.6 mm) installation system

Mounting kits for mounting angles



Depth stays as installation kit for mounting angles, 19" (482.6 mm), mounting dimensions 23" and 24"

Installation in enclosure width 32" (800 mm)
When using depth stays in 32" (800 mm) wide enclosures, attachment spacings of 23" and 24" are achieved. Either cranked or L-shaped, 19" (482.6 mm) mounting angles may be used.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Accessories:

Mounting angles, cranked or L-shaped, see page 751

Mounting dimension 23"

For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
32 (800)	32 (800)	4	7827.823
32 (800)	39 (1000)	4	7827.023

Extended delivery times.

Mounting dimension 24"

For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
32 (800)	32 (800)	4	7827.824
32 (800)	39 (1000)	4	7827.024

Extended delivery times.



Mounting frame 54 U for TS

The mounting frame allows configuration of a side-offset 19" (482.6 mm) level with 42 U useful installation space plus the additional integration of a further 12 U for vertical installation at the side. The additional side extension is divided into three installation levels arranged on top of one another, each with 4 U. The mounting frame may be installed at either the front or rear.

Material: Carbon steel

Surface finish:

- Installation bracket: Zinc-plated
- Side trim panel: Spray-finished

For enclosures		Additional vertical installation area	PU	Part No.
Height inches (mm)	Width inches (mm)			
79 (2000)	32 (800)	12 U	1 set	7827.554

Extended delivery times.

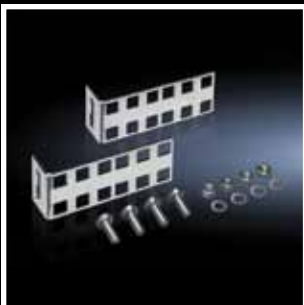
Color:

RAL 7035

Configuration:

12 U mounting trim at the side

Also required: Mounting angles, 19" (482.6 mm), see page 751.



Mounting kit for 19" (482.6 mm) equipment

Facilitates fast, simple integration of additional mounting space within an enclosure by attaching to the enclosure frame or to the existing mounting angles at the sides. The flexible slot fastening of the brackets means that the distance between the two installation brackets may be freely selected, so that other 19" (482.6 mm) attachment dimensions may be implemented. The second row of holes is used for the optional configuration of additional mounting surfaces.

U	Color	Packs	Part No.
1	Black	2	9970.986
2	Carbon steel	2	7246.420

Material:

Carbon steel, zinc-plated, passivated

Configuration:

Assembly parts

19" (482.6 mm) installation system

Accessories for Data Rack

Second pair of mounting angles

To accommodate 19" (482.6 mm) network components or for the attachment of component shelves and slide rails. 19" (482.6 mm) punched profile at the front, hole center distance 18" (465 mm), 19" (470 mm) at the rear. Tailored to the attachment of patch panels and cable routing rails. The mounting level may be positioned on a 50 mm pitch pattern.

Minimum distance between levels 6" (150 mm), maximum distance between levels 14" (350 mm).

Material:

Carbon steel, 14 ga (2.0 mm)

Color:

RAL 7035

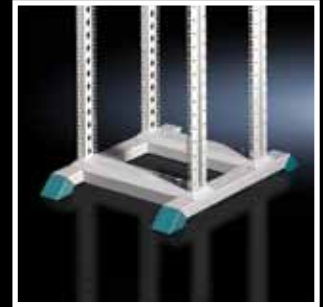
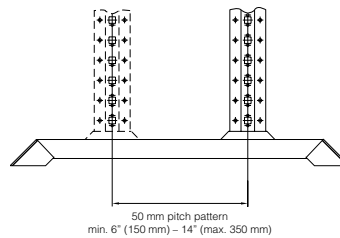
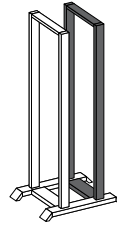
Configuration:

- 1 torsionally stiff profile frame
- Mounting accessories

Detailed drawings:

Available at www.rittal-corp.com

U	Packs of	Part No.
31	1	7296.000
36	1	7297.000
40	1	7298.000
45	1	7299.000



Baying clamp

For assembling rows of distributor frames, or for cable routing between data racks.

Technical specifications:

Length: 2" (53 mm)

Color:

RAL 7035

Packs of	Part No.
3	7494.000



Roof plate with cable route

For optimized use of the Data Rack as a corridor distributor or cable management rack. The size of individual cable routes may be individually dimensioned by sliding the guide plates. On all Data Racks, the roof plate can be attached with two mounting levels and a distance between the levels of 14" (350 mm).

Material:

Carbon steel, spray-finished

Color:

RAL 7035

Configuration:

- Roof plate
- Mounting accessories

Packs of	Part No.
1	7411.000



19" (482.6 mm) installation system

Accessories for Data Rack



Depth stay

For securing and stabilizing two pairs of 19" (482.6 mm) mounting angles in the Data Rack. The length of the depth stays is adjustable, and can accommodate the following spacings of mounting angles: 10" (250 mm), 12" (300 mm) and 14" (350 mm).

Material:

Carbon steel, spray-finished

Color:

RAL 7035

Packs of	Part No.
2	7401.000



Continuous slide rail for two pairs of mounting angles, 19" (482.6 mm)

To support heavy equipment in the Data Rack. The mounting dimensions of the slide rails were selected to enable them to be combined with 20" (500 mm) deep, 19" (482.6 mm) component shelves. The mounting distance of the 19" (482.6 mm) mounting angles is 14" (350 mm).

Requirements:

Second pair of mounting angles

Packs of	Part No.
2	7402.000

Material:

Carbon steel, zinc-plated

Accessories:

Component shelves, 20" (500 mm) deep, see page 679

19" (482.6 mm) installation system

Button mount bracket/Slide rails

Button mount bracket

- Enables tool-less installation of PDUs
- Allow 0 U mounting of PDUs
- Black, E-coated

Description	Packs of	Part No.
0 U, z-rail button mount bracket	2	9971.066
0 U, dual button mount bracket	2	9971.067
0 U, dual recessed button mount bracket	2	9963.800



Slide rail, depth-variable, 1 U for server and network enclosures with two 19" (482.6 mm) mounting levels, without additional loss of U

For mounting both on cranked and flat mounting angles, 19" (482.6 mm) mounting frames. The slide rails are pulled out to the required length and secured between the front and rear mounting level on the 19" (482.6 mm) pitch pattern.

19" (482.6 mm) distance between levels inches (mm)	Contact surface inches (mm)	Packs of	Part No.
15 – 22 (390 – 550)	1 (30)	2	7063.750
22 – 30 (550 – 750)	1 (30)	2	7063.752



Load capacity:

44 lb (20 kg) static load

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

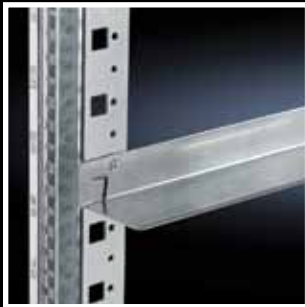
Note:

Thanks to the thin support surface of only around 0.03" (0.8 mm) thickness, exceeding the U pitch pattern is generally avoided, provided the components do not exceed a maximum height of 1.7" (43.5 mm). In this way, several units may be easily arranged on top of one another without offset.



19" (482.6 mm) installation system

Slide rails



Slide rail, heavy-duty for TS network enclosures with two mounting levels

To support heavy installed equipment. The slide rails are simply located into the cranked mounting angles and secured with screws. The combined use with additional depth stays or, in case of 32" (800 mm) wide enclosures, with the additional fastening attachment counteracts possible bending of the mounting angles in case of unevenly distributed loads.

Load capacity:
176 lb (80 kg) static load

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Note:
Not suitable for use on the 19" (482.6 mm) mounting frame.

Also required:
For fastening to L-shaped TS mounting angles:
Adaptor 827.300, see page 686

19" (482.6 mm) distance between levels inches (mm)	Contact surface		PU	Part No.
	Width inches (mm)	Depth inches (mm)		
-	2 (55)	6 (152) ¹⁾	2	7063.000
12 (298)	2 (55)	10 (261)	2	7492.300
16 (398)	2 (55)	14 (361)	2	7492.400
20 (498)	2 (55)	18 (461)	2	7492.500
24 (598)	2 (55)	22 (561)	2	7492.060
27 (698)	2 (55)	26 (661)	2	7492.070

¹⁾ Side leg height 3" (72 mm).
Load capacity: 110 lb (50 kg), static load.



Telescopic support rail, heavy duty

These telescopic support rails are designed to support components from underneath, and can support up to 200 lb (91 kg). Rails extend from 22" (560.5 mm), totally retracted, to 30" (762 mm), totally extended.

Configuration:
2 support rails

Packs of	Part No.
2	9963.499



Slide rail, heavy-duty for TS

With L-shaped mounting angles or 19" (482.6 mm) mounting frame and a clearance between levels of 29" (740 mm). Easily and quickly installed thanks to locating brackets for the rear level.

Load capacity:
220 lb (100 kg), static load

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts

19" (482.6 mm) distance between levels inches (mm)	Contact surface		PU	Part No.
	Width inches (mm)	Depth inches (mm)		
29 (740)	2 (50)	29 (734)	2	7063.740

Slide rails

Slide rail

for TS adaptor section

With two-sided mounting between the front and rear adaptor sections, 19" (482.6 mm) or adaptor pieces, 19" (482.6 mm).

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

enc. depth inches (mm)	Packs of	Part No.
20 (500)	10	8613.150
24 (600)	10	8613.160
32 (800)	10	8613.180

Also required:

- Adaptor sections, 19" (482.6 mm), see page 753, or
- Adaptor pieces, 19" (482.6 mm), see page 754



Slide rail

for TS adaptor section

With one-sided mounting on the 19" (482.6 mm) adaptor sections.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Length inches (mm)	Packs of	Part No.
7 (185)	10	4530.000
11 (270)	10	4531.000

Also required:

- Adaptor sections, 19" (482.6 mm), see page 753



Slide rail

for EL

For the installation of heavy slide-in equipment.

Material:

Carbon steel

Surface finish:

Zinc-plated

Note:

Slide rail designed for mounting level in the foremost position. If offset, a shorter version must be selected.

For center part depth inches (mm)	Packs of	Part No.
12 (316)	10	2250.000
16 (416)	10	2260.000



19" (482.6 mm) installation system

19" (482.6 mm) installation



Adaptor kit, 3 U for 32" (800 mm) wide TS enclosures

For fastening individual 19" (482.6 mm) components, or as an additional mounting facility at the rear of the enclosure. The mounting level in the adaptor angle can be adjusted in 1" (25 mm) increments by up to 4" (100 mm) in the depth, leaving sufficient space for baying where patch panels or splicing boxes are used. Attachment is on the inner mounting level of the frame section or a suitable chassis in the enclosure depth.

Height	Mounting position	Packs of	Part No.
3 U	central	2	7246.100

Material:
Carbon steel

Color:
RAL 7035



Adaptor, 3 U Depth offset 4" (100 mm)

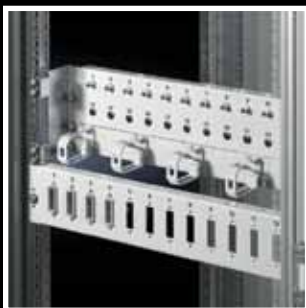
This adaptor is used to recess 19" (482.6 mm) mounting of equipment inside enclosures with 19" (482.6 mm) installation in the foremost position, such as server or electronic enclosures. In this way, sufficient space can be gained in front of the mounting equipment to integrate patch panels or switches, and at the same time exploiting the maximum enclosure depth.

Packs of	Part No.
2	7246.400

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
Assembly parts



Adaptor, metric to 21"/19"

With this adaptor, 19" (482.6 mm) assemblies may be fastened to metric 21" (535 mm) mounting angles, or combined systems may be configured.

Material:
Extruded aluminum section

Configuration:
Assembly parts

SU	U	Packs of	Part No.
2	1	2	7246.010
6	3	2	7246.030
11	6	2	7246.060

19" (482.6 mm) installation system

19" (482.6 mm) installation

Drawer, 2 U, 3 U

for a 19" (482.6 mm) mounting level

For front attachment to mounting angles, 19" (482.6 mm). With cover and telescopic slides to accommodate assignment lists, operating manuals and small parts. The small version of the 2 U variant is also suitable for mounting inside a swing frame.

Material:

Carbon steel

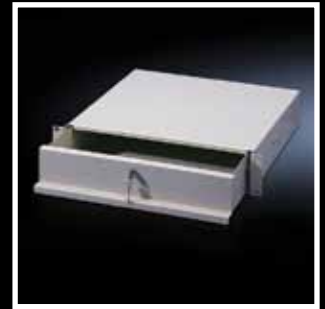
Color:

RAL 7035

Height	Clearance openings		Install. depth inches (mm)	PU	Part No.
	Width inches (mm)	Depth inches (mm)			
2 U	16 (411)	10 (244)	10 (250)	1	7282.135
2 U	16 (411)	17 (419)	17 (427)	1	7282.035
3 U	16 (411)	17 (419)	17 (427)	1	7283.035

Configuration:

Fully assembled, including assembly parts



Drawer for 19" (482.6 mm)

with shelf

For keyboards, operating manuals etc. The perforated plate in the base helps air to circulate in the enclosure. Load capacity 110 lb (50 kg). The 1 U drawer can be installed rotated through 180° about its longitudinal axis, allowing it to be used as a utility table.

Material:

- Drawer: Aluminum
- Telescopic slides: Carbon steel

Surface finish:

- Drawer: Anodized
- Telescopic slides: Zinc-plated

U	Packs of	Part No.
1	1	4541.000
3	1	4542.000

Configuration:

Telescopic slides.

Also required:

Installation kit for enclosure system TS or installation kit, depth variable, see page 767



Installation kit

for component shelves and drawers, with 19" (482.6 mm) installation in TS

For installation between the front and rear adaptor sections or adaptor pieces, 19" (482.6 mm) in 24" (600 mm) wide enclosures.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

For enclosure system TS

For enc. depth inches (mm)	Packs of	Part No.
24 (600)	1 set	8800.560
32 (800)	1 set	8800.580

Also required:

- Adaptor sections, 19" (482.6 mm), see page 753, or
- Adaptor pieces, 19" (482.6 mm), see page 754



Installation kit, depth-variable

for 19" (482.6 mm) component shelves and drawers

Depending on the distance between the two 19" (482.6 mm) mounting levels, the installation kit is screw-fastened in the depth between the cranked, L-shaped mounting angles or 19" (482.6 mm) mounting frame.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

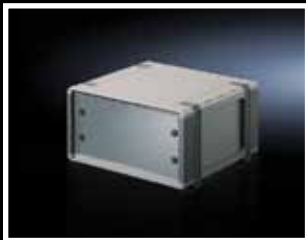
Assembly parts

19" (482.6 mm) distance between levels inches (mm)	Packs of	Part No.
22 – 33 (550 – 850)	2	7063.850



19" (482.6 mm) installation system

19" (482.6 mm) installation



Blanking plates, 19" (482.6 mm)

For installation in electronic enclosures or housings.

Material:
Aluminum

Surface finish:
Natural-anodized

U	Packs of	Packs of
1	3	1931.200
2	3	1932.200
3	3	1933.200
4	3	1934.200
6	3	1936.200
7	3	1935.200
9	3	1939.200
12	3	1937.200



Blanking plate, horizontally hinged

For installation in electronic enclosures or housings.

Material:
– Blanking plate: 11 ga (3.0 mm) aluminum
– Hinge: Die-cast zinc

Width	U	Packs of	Part No.
19" (482.6 mm)	6	1	1945.000

Surface finish:
– Blanking plate: Natural-anodized
– Hinge: Zinc-plated

Configuration:
Assembly parts



Blanking plate, vertically hinged

For installation in electronic enclosures or housings.

Material:
– Blanking plate: 11 ga (3.0 mm) aluminum
– Hinge: Die-cast zinc

Width	U	Packs of	Part No.
19" (482.6 mm)	3	1	1940.000
19" (482.6 mm)	6	1	1941.000

Surface finish:
– Blanking plate: Natural-anodized
– Hinge: Zinc-plated

Configuration:
Assembly parts



Hinge for blanking plates

Material:
Die-cast zinc

Surface finish:
Zinc-plated

Configuration:
Assembly parts

Packs of	Part No.
2	1950.000



Ventilated front panel

For venting enclosures and housings.

Material:
Aluminum

Surface finish:
Natural-anodized

Width	U	Packs of	Part No.
19" (482.6 mm)	1	3	2231.000
19" (482.6 mm)	2	3	2232.000
19" (482.6 mm)	3	3	2233.000

19" (482.6 mm) installation system

19" (482.6 mm) installation

Air baffle plate

for TS

Targeted air routing to the components. To prevent bridges between hot and cold air. Energy efficiency is boosted while retaining cooling output. Mounted all-round on the 19" (482.6 mm) installation between the 19" (482.6 mm) mounting frame and modular LCP, LCP Plus, side panel or partition. The width-variable air baffle plates may be individually adapted to suit the requirements. In the variant for 32" (800 mm) wide enclosures, vertical 19" (482.6 mm) mounting holes of 3 x 1 U are additionally integrated, which may be used for configuration with additional components. Cable glands with stepped collars distributed across the height facilitate shielded cable routing between the front and rear chamber. In the delivered state, these openings are each covered with a 1 U blanking panel with snap-in fastening.

For enclosures		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
24 (600)	79 (2000)	2	7151.206
32 (800)	79 (2000)	2	7151.208

Material:

- Air baffle plates: Carbon steel, spray-finished
- Stepped collar: Plastic, to UL 94-V0
- Blanking panel: Plastic, to UL 94-V0

Color:

RAL 7035

Configuration:

- 2 air baffle plates, side, width-variable
- 1 air baffle plate, top, horizontal
- With 32" (800 mm) width including blanking panel and stepped collar

Note:

Mounting on the inner and outer mounting level in the enclosure depth is not possible.



Infill panel, hinged

for 32" (800 mm) wide TS network enclosures

To cover the side cable chamber. The infill panel is attached to the vertical enclosure frame at the front. The generous curved design will conceal even large quantities of cables, and facilitates combined use with large-scale shunting rings 7220.600, see page 733. The infill panel has a hinged design and allows easy access to the cabling level by simply swinging it upwards. Locating points keep the panel in its open and closed state. With an offset 19" (482.6 mm) mounting level, the panel may likewise be offset in the enclosure depth and secured to TS punched sections with mounting flange on the inner mounting level. For mounting the 19" (482.6 mm) attachment level in the foremost mounting position, choose the version with straight trim panel.

Material:

Carbon steel

Surface finish:

Spray-finished

Color:

RAL 7035

Configuration:

Assembly parts

Trim panel curved

For installation height U	Packs of	Part No.
38	2	7827.532¹⁾
42	2	7827.534
47	2	7827.536

¹⁾ Extended delivery times.

Trim panel straight

For installation height U	Packs of	Part No.
42	2	7827.520¹⁾

¹⁾ Extended delivery times.

Accessories:

- TS punched section with mounting flange 17 x 73 mm for the inner mounting level, see from page 652
- PS punched section without mounting flange, 23 x 73 mm, see page 658

Note:

The installation of depth stays, e.g. 7827.600/.800 is not possible.



19" (482.6 mm) installation system

19" (482.6 mm) installation



Brush strip, vertical for TS

Serves as a flexible infill panel which conceals the cable management area to the side of the 19" (482.6 mm) mounting level. The brush strip allows cable routing from the side and rear distributor area to the front connection level. The clearance required in front of the mounting level is at least 3" (75 mm). Within the TS, the brush strip is mounted at the side on the vertical frame section, on horizontal or vertical punched sections. There is an additional mounting option directly on the installation level of the TS. For direct attachment to the 19" (482.6 mm) mounting frame of the TS, the brush strip must be cut to length accordingly.

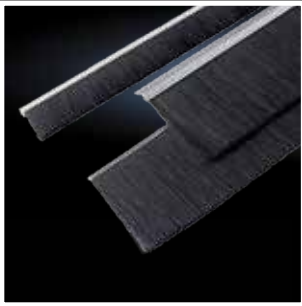
For enc. height inches (mm)	Packs of	Part No.
79 (2000)	1 set	7827.544

Material:

Aluminum section with brush strip:
Plastic, UL 94-V0

Configuration:

1 set = 4 brush strips, length 37" (950 mm) each



Air brush baffle

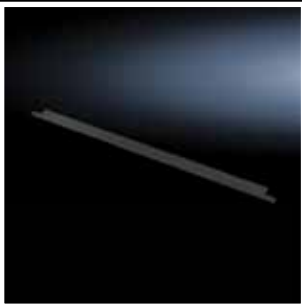
Designed to block air and redirect it where needed. Designed to mount to the z-rail on the top, bottom, and both sides.

- Easy installation
- Available for 79" (2000) and 87" (2200) server cabinets
- Standard in LCP ready cabinet

Note:

Metal trim is black.

Height x Width inches (mm)	Part No.
80 x 24 (2000 x 600)	9961.328
80 x 28 (2000 x 700)	9961.329
80 x 32 (2000 x 800)	9961.330
88 x 24 (2200 x 600)	9961.331
88 x 28 (2200 x 700)	9961.332
88 x 32 (2200 x 800)	9961.333

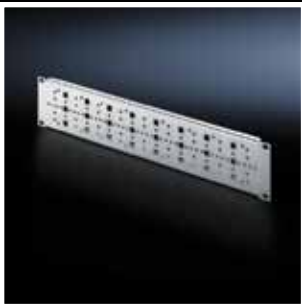


Metal air baffle

Designed to block air between the frame and rails and redirect it where needed. Designed to mount to frame.

- Easy installation
- Available for 79" (2000) and 87" (2200) server cabinets
- Economical solution

Height x Width inches (mm)	Part No.
80 x 24 (2000 x 600)	9978.352
80 x 28 (2000 x 700)	9978.353
80 x 32 (2000 x 800)	9978.354
88 x 24 (2200 x 600)	9978.355
88 x 28 (2200 x 700)	9978.356
88 x 32 (2200 x 800)	9978.357



Mounting panel 19" (482.6 mm)

For fast integration of smaller mounting units within the 19" (482.6 mm) level, such as potential equalization rails, distributor boxes, small electrical components etc. Simple screw-fastening of the components to the integral 25 mm system punchings.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Panel height U	Panel width inches (mm)	Packs of	Part No.
2	18 (450)	1	7151.300

19" (482.6 mm) installation system

19" (482.6 mm) installation

Support

for small appliances

For secure attachment of small, non-19" (482.6 mm)-conforming equipment such as modems, power packs, routers etc. Angle-shaped support for mounting in the empty space at the side between the 19" (482.6 mm) level and the side panel on L-mounting angles, mounting frame or chassis. Attachment of the components and connection cables can be achieved quickly and easily using nylon tape or cable ties. Also suitable for cable routing in the enclosure depth.

Material:

Carbon steel

Surface finish:

Zinc-plated

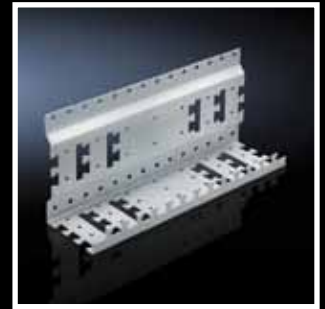
Configuration:

Assembly parts

Accessories:

Nylon tape, cable ties, see page 726

H x W x D inches (mm)	Packs of	Part No.
6 x 14 x 4 (150 x 350 x 97)	1	7246.500



Mounting kit

for VerticalBox

The vertically hinged support plate offers even more flexibility in interior installation for cable routing, attachment of small appliances, socket strips etc. Depth-variable positioning on a 25 mm pitch pattern.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

H x W inches (mm)	Packs of	Part No.
19 x 14 (485 x 350)	1	7501.100



19" (482.6 mm) installation system

19" (482.6 mm) installation



Captive nut M5/M6

For the attachment of rack-mounted electronic equipment, 19" (482.6 mm) installed equipment and blanking plates to mounting angles, 19" (482.6 mm). For use with metal thickness from 20 – 14 ga (0.8 – 2.0 mm). In areas of narrow tolerance, captive nuts for metal thicknesses of 18 – 16 ga (1.2 – 1.5 mm) should be used. Optionally with or without contact of the installed equipment to the 19" (482.6 mm) section/ enclosure.

Captive nut M5

Design	For metal thicknesses ga (mm)	Packs of	Part No.
With contact	20 – 14 (0.8 – 2.0)	50	2094.500
Without contact	20 – 14 (0.8 – 2.0)	50	2092.500

Captive nut M6

Design	For metal thicknesses ga (mm)	Packs of	Part No.
With contact	20 – 14 (0.8 – 2.0)	50	2094.200
Without contact	20 – 14 (0.8 – 2.0)	50	2092.200
With contact	18 – 16 (1.2 – 1.5)	50	2094.300
Without contact	18 – 16 (1.2 – 1.5)	50	2092.300

Captive nut 10/32

Design	For metal thicknesses ga (mm)	Packs of	Part No.
Without contact	20 – 14 (0.8 – 2.0)	50	9957.324



Multi-tooth screws

M5 x 16 mm/M6 x 16 mm

For optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Configuration:

Plastic washers

	Bit size	Packs of	Part No.
M5	Multi-tooth 25	50	7094.130
M6	Multi-tooth 30	50	7094.140



Assembly screws

M5 x 16 mm/M6 x 16 mm

For electronic equipment, 19" (482.6 mm) installed components and blanking plates.

Configuration:

Plastic washers

Design	Packs of	Part No.
Phillips-head screw M5	50	7094.120
Cheese-head screw M6	50	7094.110
Phillips-head screw M6	50	7094.100

19" (482.6 mm) installation system

19" (482.6 mm) installation/tool-less snap rings

Cage nut – front mounting, 19" (482.6 mm)

Consists of an expanding nut which is inserted into the square attachment hole at the front and then secured with the assembly screw. When tightening the screw, the cage expands and secures the required components. Clamping range from 18 – 7 ga (1.2 – 4.5 mm). Multi-tooth screw head, bit size T 30.

Material:
Carbon steel

Surface finish:
Zinc-plated

Dimensions	Size of mounting hole inches (mm)	Packs of	Part No.
M6 x 16	0.4 x 0.4 (9.5 x 9.5)	50	2094.400

Configuration:
– 50 expanding nuts
– Assembly screws
– Plastic washers



Spring nuts with screws M6 x 10 mm for T-slot mounting angle

The spring nuts ensure flexible, secure mounting of accessory components on the T-slot mounting angles.

Configuration:
50 spring nuts, 50 screws, self-locking

Design	Packs of	Part No.
Phillips-head, M6	50	7000.990

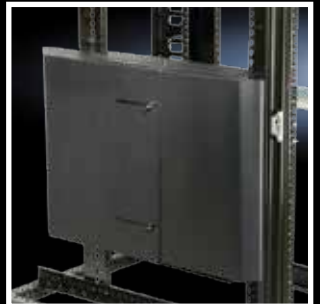


Side breathing air baffle system

Air baffles are engineered to take advantage of available O U space and to redirect heated exhaust from side-breathing components toward the back of an enclosure.

- Units are adjustable for depth.
- Designed for up to 12 U side-breathing components
- For use with 32" (800 mm) enclosures
- Tool-less installation
- Designed for hot aisle/cold aisle installations

Packs of	Part No.
1	9960.552



Tool-less snap ring

Easily attaches to roof and caster plates and protects cables when passing through. Optional brush ring attachment to block air flow.

Description	Part No.
Brush ring 4" (112 mm)	9961.334
Snap ring grommet	9961.326



19" (482.6 mm) installation system

Patch panels



Top-hat rail module

Top-hat rail module with mounting clip for top-hat rails to DIN 50 002, robust metal housing, with strain relief. Cat. 6, 2 x RJ 45, System Corning Future Com S 250 (cables are attached without the use of tools).

Design	Cat.	Packs of	Part No.
2 x Corning Future Com S 250	6	3	7870.614

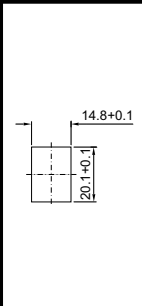


Data distributor

LSA-plus system

24 x RJ 45 jacks, shielded, cover with quickrelease fastener, with strain relief, grounding connection and 12 patch cables STP, 24" (600 mm), yellow.

U	Cat.	Packs of	Part No.
1	6	1	7870.830



For shielded RJ 45 modular jacks

To accommodate shielded RJ 45 jacks. Cut-outs and rear of patch panels electrically conductive to contact the fitted jacks with the patch panel and the zinc-plated, passivated 19" (482.6 mm) mounting angles. With accommodation facility for cable clamp straps 7610.000 or 7611.000.

U	Number of locations	Packs of	Part No.
1	16	1	7394.035

Color:

- Front: RAL 7035
- Rear: Clear-chromated

Accessories:

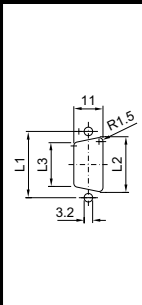
Cable clamp strap 7610.000 or 7611.000, see page 734

Material:

Carbon steel

Surface finish:

Zinc-plated



For 24 V interfaces

For the installation of 16 sub-D (trapezoid) jacks and connectors. With accommodation facility for cable clamp straps 7610.000 or 7611.000.

Color:

RAL 7035

Accessories:

Cable clamp strap 7610.000 or 7611.000, see page 734

Material:

Carbon steel

L1 mm	L2 mm	L3 mm	Packs of
25	21	16.5	1
33.3	29.2	24.7	1
47	43	38.5	1

U	For no. of poles	Number of locations	Part No.
2	9	16	7087.535
2	15	16	7086.535
2	25	16	7089.535

Patch panels

To accommodate BNC jack (version E)

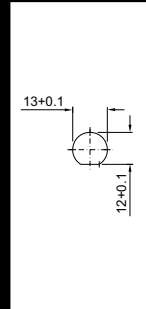
With accommodation facility for cable clamp straps 7610.000 or 7611.000.

Material:
Carbon steel

Color:
RAL 7035

Accessories:
Cable clamp strap 7610.000 or 7611.000,
see page 734

U	Number of locations	Packs of	Part No.
3	32	1	7069.535



To accommodate E-2000, E-2000 duplex, SC or LC duplex fiber-optic coupling

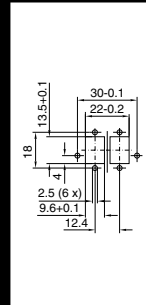
For 1 U with accommodation facility for cable clamp straps 7610.000 or 7611.000.

Material:
Carbon steel

Color:
RAL 7035

Accessories:
Cable clamp strap 7610.000 or 7611.000,
see page 734

U	Number of locations single/ duplex	Packs of	Part No.
1	16/8	1	7433.035



To accommodate SC duplex and LC quad fiber-optic coupling

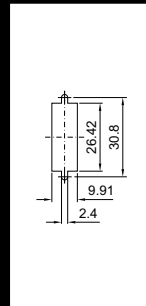
With accommodation facility for cable clamp straps 7610.000 or 7611.000.

Material:
Carbon steel

Color:
RAL 7035

Accessories:
Cable clamp strap 7610.000 or 7611.000,
see page 734

U	Number of locations	Packs of	Part No.
1	12	1	7154.035



To accommodate ST fiber-optic coupling

With accommodation facility for cable clamp straps 7610.000 or 7611.000.

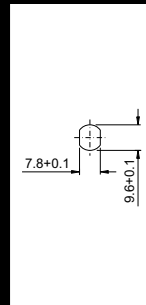
Material:
Carbon steel

Color:
RAL 7035

Accessories:
Cable clamp strap 7610.000 or 7611.000,
see page 734

U	Number of locations	Packs of	Part No.
1	16	1	7437.035

Extended delivery times.



19" (482.6 mm) installation system

Patch panels



Panel 1 U, 19" (482.6 mm) with solid tray

For the storage of fiber-optic coupling covers or assembly parts.
Depth: 4" (100 mm)

Material:
Carbon steel

Color:
RAL 7035

U	Packs of	Part No.
1	1	7300.335



Blanking panel, 19" (482.6 mm)

As an extension cover or for population as required.

Material:
Carbon steel

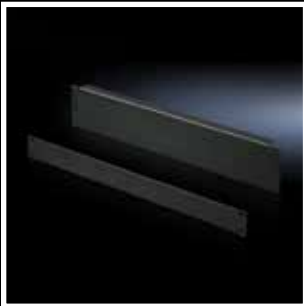
Color: RAL 7035

U	Installation height inches (mm)	Packs of	Part No.
1	1.7 (44)	2	7151.035
1.5	2.6 (66)	2	7157.035
2	3.5 (88)	2	7152.035
3	5 (132.5)	2	7153.035
6	10 (266)	2	7156.035

Color: RAL 9005

U	Installation height inches (mm)	Packs of	Part No.
1	1.7 (44)	2	7151.005
2	3.5 (88)	2	7152.005
3	5 (132.5)	2	7153.005¹⁾
6	10 (266)	2	7156.005¹⁾

¹⁾ Extended delivery times.



Blanking panel

Tool-less attachment, 19" (482.6 mm)

To place in unused or vacant space to block off airflow. Installs without the need for additional hardware or tools.

U	Packs of	Item	Part No.
1	12	Sand Texture Black tool-less (plastic)	9960.676
1	10	Sand Texture Black tool-less (metal)	9970.016
3	5	Sand Texture Black tool-less (metal)	9970.017
1	10	RAL 7035 light grey texture tool-less (metal)	9970.240
3	5	RAL 7035 light grey texture tool-less (metal)	9970.241



Blanking panel, 1 U

Tool-less attachment, 19" (482.6 mm)

The blanking panel is used to seal unused areas within the 19" (482.6 mm) mounting level. Quick tool-less attachment means that it is easily integrated anywhere, and can also be removed again if necessary. The consistent use of blanking panels ensures targeted air routing in partially configured racks.

Material:

Plastic, ABS

Fire protection:

Self-extinguishing to UL 94-V0, non-halogen-free

Configuration:

10 blanking panels with integral quick-fastening

Color	Packs of	Part No.
RAL 7035	10	7151.110
RAL 9005	10	7151.105



Identification strips

for patch panels

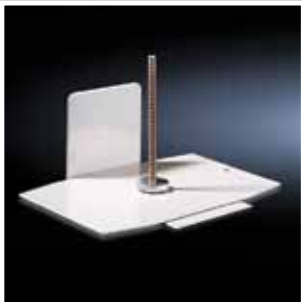
For individual labelling of different slots, self-adhesive. Length: 8" (210 mm), height: 0.4" (10 mm).

Packs of	Part No.
32	7167.000



19" (482.6 mm) installation system

Splicing boxes



Splicing cassette holder

To accommodate differently sized splicing cassettes with variable cassette accommodation. Up to 8 splicing cassettes may be fitted in one holder. The splicing cassette holder can be flexibly secured to any mounting surface, and is particularly suitable for retro-fitting in small fiber-optic distributors without patch panels.

Material:
Carbon steel

Color:
RAL 7035

Height		Packs of	Part No.
Overall height inches (mm)	Threaded bolts inches (mm)		
4 (93)	3 (85)	1	7450.035

Configuration:

- Holder with threaded bolts
- Variable bracket
- Cassette cover
- Knurled nut
- Assembly parts



Fiber-optic splicing box, depth-variable

The 19" (482.6 mm) splicing box is designed to accommodate splicing cassettes and can be installed in any network distributor with 19" (482.6 mm) accommodation and used as a fiber-optic termination or distributor. The variable cassette fixture permits twist-proof installation of all standard splicing cassettes. The rear section of the splicing box is completely open for cable entry; a rubber cable clamp strip provides protection against dust. The fiber-optic cables can be secured with cable ties or cable clamps. The splicing box is infinitely depth-adjustable up to 4" (100 mm) within the 19" (482.6 mm) flanges. In addition, the splicing box may be fully withdrawn from the 19" (482.6 mm) flanges. Two strain relief clips and cable routing clips for the fiber stock provide a solution to suit any fiber-optic wiring system.

Installation depth:
12" (302 mm)

Material:
Carbon steel

Color:
RAL 7035

U	Maximum no. of splicing cassettes	Packs of	Part No.
1	2	1	7241.005
2	4	1	7242.005

Configuration:

- Splicing box
- Cable routing clips
- Cassette cover
- Mounting accessories for patch panel

Note:

Supplied without patch panel and splicing cassettes.



Fiber-optic breakout box, 1 U

For splice-free cabling of fiber-optic breakout cables. Cable bundles may be clamped onto the T-heads at the rear. 4 self-adhesive cable clips are supplied loose for cable clamping and for storing excess lengths inside the box.

Material:
Carbon steel

Color:
RAL 7035

Configuration:

- Breakout box
- Cable routing clips
- Mounting accessories for patch panel

Installation depth inches (mm)	Packs of	Part No.
10 (250)	1	7241.500

Splicing boxes

Patch panel

for

- Fiber-optic splicing box, depth-variable
- Fiber-optic breakout box, 1 U

With cut-outs for population with fiber-optic couplings.

Material:

Carbon steel

Color:

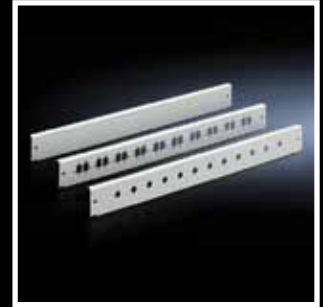
RAL 7035

Note:

For drawings of the cut-outs, see page 774.

For coupling	No. of locations	U	Packs of	Part No.
ST	12	1	1	7241.015
	16	1	1	7241.065
	24	2	1	7242.015
E-2000, E-2000 duplex ¹⁾ , SC or LC duplex	24	1	1	7241.024
SC duplex, LC quad	12	1	1	7241.045

¹⁾ For E-2000 duplex only half of the locations are available.



Fiber-optic splicing box with telescopic pull-out

Lockable

The 19" (482.6 mm) splicing box is designed to accommodate splicing cassettes and can be installed in any network distributor with 19" (482.6 mm) accommodation and used as a fiber-optic termination or distributor. The telescopic pull-out provides optimum access to the splicing cassettes and cable clamp. The variable cassette fixture permits twist-proof installation of all standard splicing cassettes. The security lock fitted at the front protects against unauthorized access. The rear section of the splicing box is completely open for cable entry; a rubber cable clamp strip provides protection against dust. The fiber-optic cables can be secured with cable ties or cable clamps; two strain relief clips and cable routing clips for the fiber stock provide a solution to suit any fiber-optic wiring system.

U	Max. no. of splicing cassettes	Packs of	Part No.
1	2	1	7170.535
2	4	1	7470.535
3	6	1	7570.535

Installation depth:

14" (363 mm)

Material:

Carbon steel

Color:

RAL 7035

Configuration:

- Splicing box
- Cable routing clips
- Security lock
- Cassette cover
- Mounting accessories for patch panel

Note:

Supplied without patch panel and splicing cassettes.



Patch panels

for fiber-optic splicing box, lockable

There is a choice of 20 panels with appropriate cutouts for the installation of various fiber-optic couplings, together with 3 blanking panels for individual population or as a cover.

For coupling	No. of locations	U	PU	Part No.
ST	12	1	1	7174.535 ¹⁾
	24	2	1	7474.535
	48	3	1	7574.535 ¹⁾
E-2000, E-2000 duplex ²⁾ or SC, LC duplex	20	1	1	7178.535
		2	1	7478.535
		3	1	7578.535 ¹⁾
SC duplex, LC quad	12	1	1	7169.535
	24	2	1	7469.535

¹⁾ Extended delivery times. ²⁾ For E-2000 duplex only half of the locations are available.

Material:

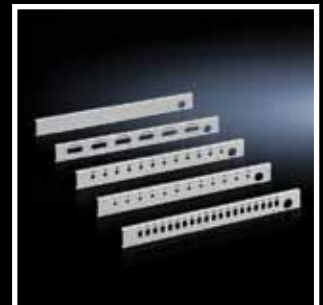
Carbon steel

Color:

RAL 7035

Note:

For drawings of the cut-outs, see page 744.



19" (482.6 mm) installation system

Splicing boxes/LSA connection system



Blanking cover for fiber-optic cut-outs

To cover unused cut-outs in patch panels.

Material:
Plastic PA 6.6

Color:
Black

	Packs of	Part No.
SC, E-2000, LC duplex	20	7300.230
E-2000 Duplex	20	
SC duplex, LC quad	20	7300.240
ST	20	7300.250



Fixture with rods, 3 U for LSA strips

To accommodate 15 LSA profile dividing strips 2/10 on 2 rods, Ø 12 mm. The fixture unit may be integrated into all 19" (482.6 mm) mounting levels. With cable clamp rail at the rear.

Dimensions:
H x W x D inches/U (mm):
3U x 19 x 7 (132.5 x 482.6 x 180 mm)

Material:

- Side panels: Aluminum plates
- 19" (482.6 mm) flange/horizontal rail: Extruded aluminum section

U	Packs of	Part No.
3	1	7050.200

Configuration:
Fixture with rods as modular system.



Support unit, 3 U for LSA-Plus strips, max. 150 paired wires

To accommodate a maximum of 15 LSA-Plus strips (each with 10 paired wires). 3 x 5 LSA-Plus connection strips 2/10, series 2, may be installed horizontally. Strip length 5" (124 mm), height pitch pattern 0.8" (22.5 mm). The support unit may be integrated in all 19" (482.6 mm) mounting levels. The mounting level is recessed 3" (75 mm) behind the 19" (482.6 mm) flanges. Integral shunting rings enable tidy routing and distribution of the telecommunication cables.

U	Packs of	Part No.
3	1	7050.100

Material:
Stainless steel

Configuration:
Support unit, 8 shunting rings.



Accommodation system, 2 U for LSA installation kit

To accommodate LSA mounting troughs/cable retainers on the 19" (482.6 mm) mounting angle.

Size:

- Overall depth: 4" (98.5 mm)
- Height: 2 U

Material:
Carbon steel

Color:
RAL 7035

Accessories:
FM universal mounting bracket, see page 781

U	Packs of	Part No.
2	2	7050.035

LSA connection system

FM universal mounting bracket

The universal mounting bracket for LSA-Plus strips (8 or 10 paired wires) and other connection systems are comprised of 2 brackets, which may be combined with different systems depending on their position in relation to one another. The brackets also slide flexibly against each other so that strips with different lengths can be used.

Material:
Carbon steel

Surface finish:
Zinc-plated

Configuration:
– 2 mounting brackets
– Support strips
– Assembly parts

Length inches (mm)	Connection system	LSA Plus	Other connection systems	Packs of	Part No
	Pitch pattern in inches (mm)	0.9 (22.5)	0.7 (17.5)		
11 (275)	No. of strips	12	15	1 set	7031.100





System accessories for monitoring

CMC III Monitoring System

CMC III monitoring system	784
CMC III Processing Unit/Compact	788
CMC III sensors/accessories	790
CMC III accessories	792

Door Control System

Door control system	796
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Monitor/keyboard unit

Monitor/keyboard units, 1U	798
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KVM switches

SSC view and compact	799
SSC premium	801
SSC Duo	803
KVM switches, consoles, converters, cables	804

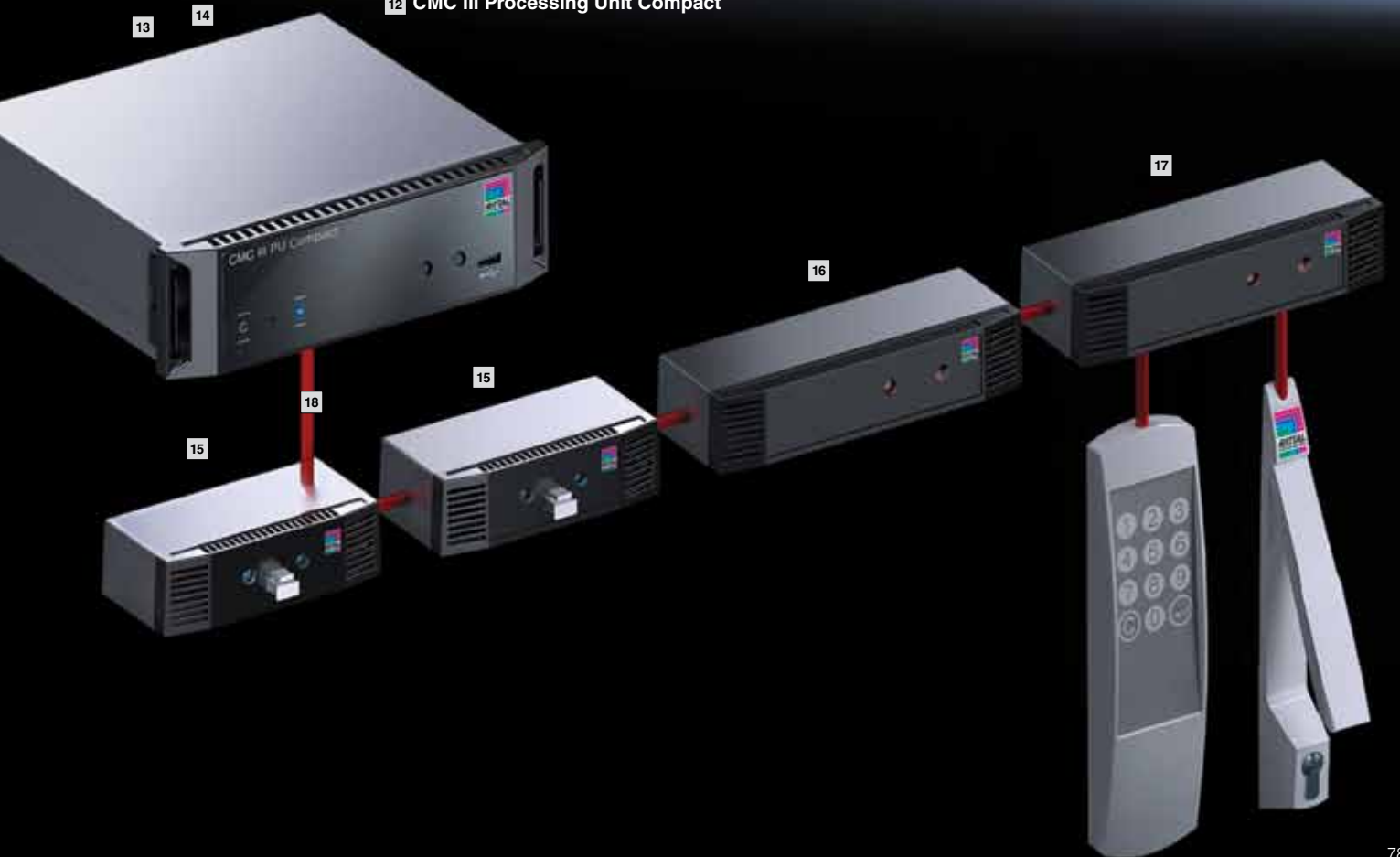
Dynamic Rack Control

RFID mounting frame, tags, controller	808
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12 CMC III Processing Unit Compact

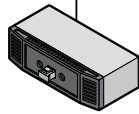


CMC III Processing Unit Compact

System overview

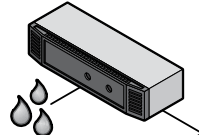


Up to 4 CAN-Bus components are supported.¹⁾



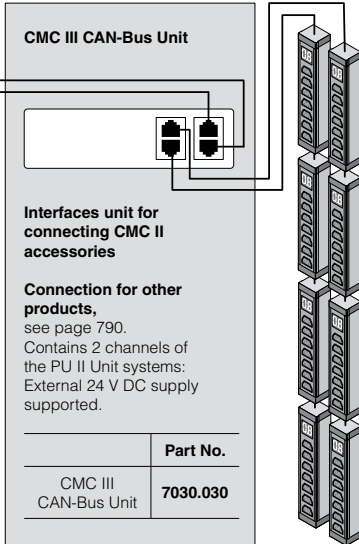
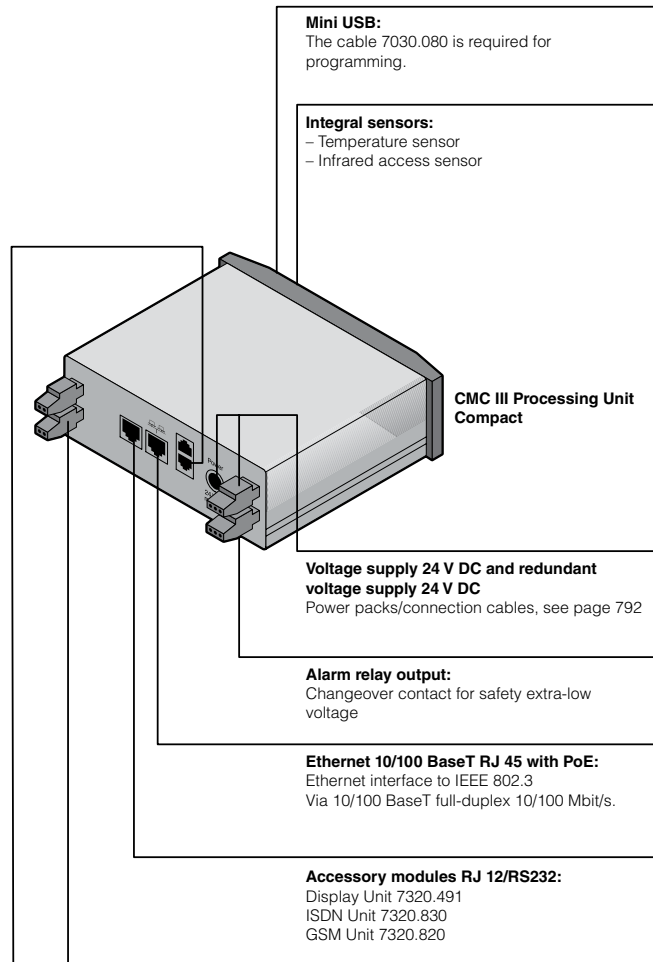
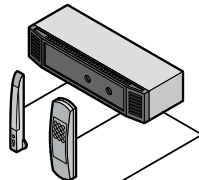
CMC III sensors
for direct connection

CMC III CAN-Bus sensor



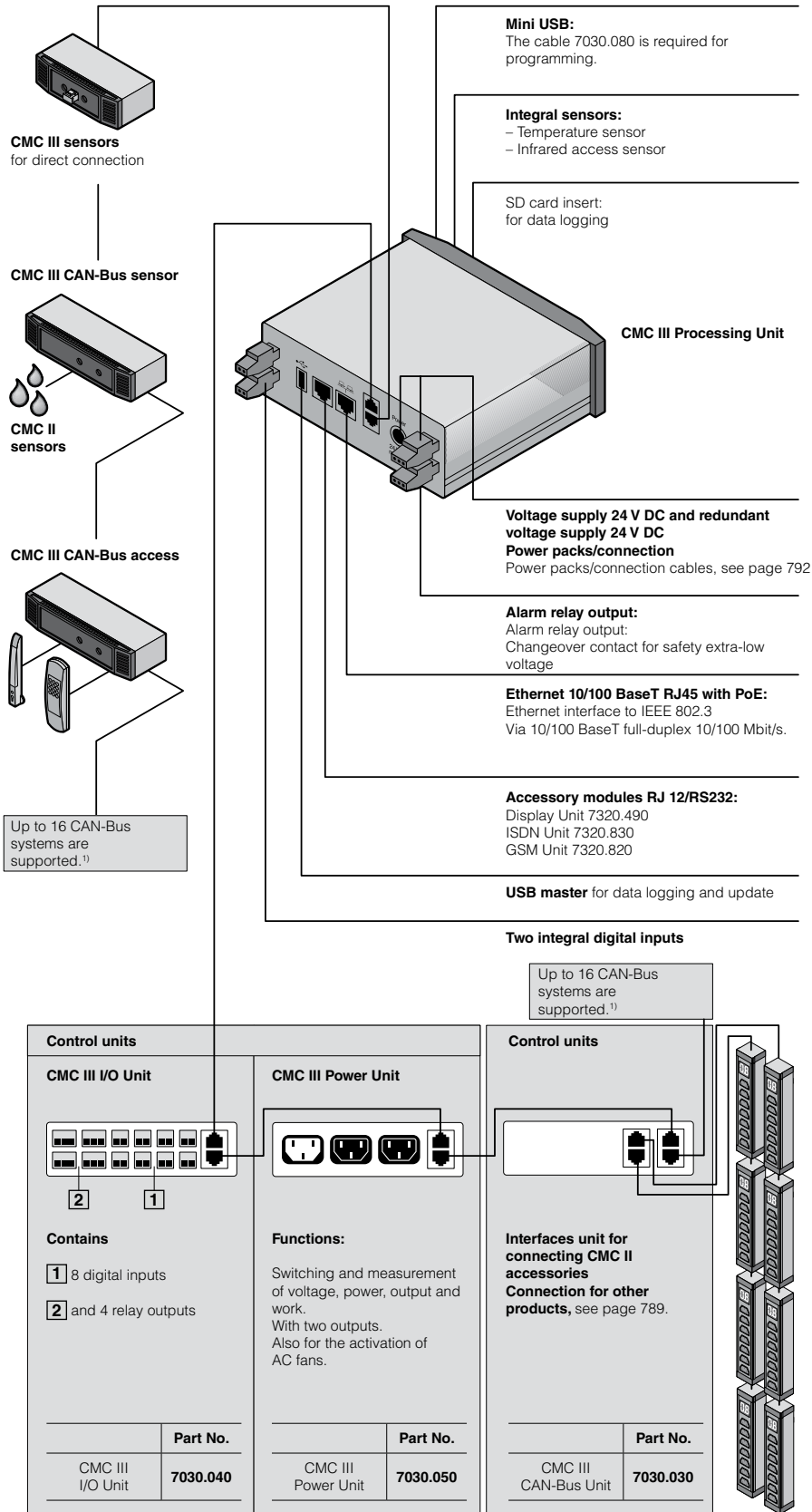
CMC II sensors

CMC III CAN-Bus access



¹⁾ Depending on the power supply/connection combinations, see page 791.

CMC III Processing Unit Compact



¹⁾ Depending on the power supply/connection combinations, see page 791.



CMC III Processing Unit/Compact



System overview Page 784 - 787 Basic modules and connection accessories Page 790

CMC III Processing Unit

Compact:

- Industrial/enclosure monitoring
- Building monitoring
- Small monitoring applications in IT

CMC III Processing Unit

- Larger monitoring applications in IT and industry

Material: Plastic

Surface finish: Front smooth, enclosure textured

Color:

- Front: RAL 9005
- Enclosure: RAL 7035

Protection rating:

IP 30 to IEC 60 529

Configuration:

- Basic system
- Quick-start instructions
- 4 mounting feet

Photo shows a configuration with equipment not included in the base part number

		CMC III Processing Unit Compact	CMC III Processing Unit
W x H x D mm		1 U x 5.4 x 4.7 + 0.5 (1 U x 138 x 120+12 (front assembly))	1 U x 5.4 x 4.7 + 0.5 (1 U x 138 x 120+12 (front assembly))
Temperature range F° (C°)		32° to +131° F (0° to +55° C)	32° to +131° F (0° to +55° C)
Operating humidity range		5% to 95% relative humidity, non-condensing	5% to 95% relative humidity, non-condensing
Sensors/CAN-Bus connection units		max. 4	max. 32
Max. overall cable length for CAN-Bus		1 x 164 ft (1 x 50 m)	2 x 164 ft (2 x 50 m)
Part No.		7030.010	7030.000
Interfaces	Network interface (RJ 45)	Ethernet to IEEE 802.3 via 10/100BaseT with PoE	Ethernet to IEEE 802.3 via 10/100BaseT with PoE
	Front USB interface	Mini USB for system setting	Mini USB for system setting
	Rear USB interface	–	For USB data recording and SW updates up to 32 GB
	Front SD-HC slot	–	1x up to 32 GB for data recording
	Rear serial RS232 (RJ 12)	1 x for connecting Display Unit 7320.491 or GSM Unit 7320.820 or ISDN Unit 7320.830	1 x for connecting Display Unit 7320.491 or GSM Unit 7320.820 or ISDN Unit 7320.830
Inputs and outputs	Digital inputs (terminal)	2	2
	Relay output (terminal)	Change-over contact max. 24 V DC, 1 A	Change-over contact max. 24 V DC, 1 A
	CAN-Bus (RJ 45)	1 x for max. 4 sensors (quantity restriction, see next page)	2 x for max. 16 sensors each = 32 sensors in total (quantity restriction, see next page)
Operation/signals	Push-button	1 x acknowledgement button	1 x acknowledgement button
	Concealed reset button	1 x service button	1 x service button
	Piezo signal generator	1	1
	LED display	1 x multi-color OK/warning/alarm	1 x multi-color OK/warning/alarm
	Rear LED	1 x for the network status	1 x for the network status
Protocols	Ethernet	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS server, SMTP, XML, Syslog, LDAP	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS server, SMTP, XML, Syslog, LDAP
Redundant power supply	Input 24 V DC (jack)	1 x for connecting CMC III power pack	1 x for connecting CMC III power pack
	Input 24 V DC (terminals)	1 x for direct connection/connecting CMC III power pack	1 x for direct connection/connecting CMC III power pack
	Power over Ethernet	1 x	1 x

CMC III Processing Unit/Compact

		CMC III Processing Unit Compact	CMC III Processing Unit
Part No.		7030.010	7030.000
Functions	Time function	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP
	User administration	LDAP	LDAP
	User interface	Integral WEB server	Integral WEB server
	Control room connection	Integral OPC server	Integral OPC server
Integral sensors	Temperature sensor	NTC sensor in the enclosure front	NTC sensor in the enclosure front
	Access sensor	Infrared technology in the enclosure front	Infrared technology in the enclosure front



Control units for CMC III Processing Unit

	Part No.	PU Compact	PU	Page
		Maximum qty.		
CMC III I/O Unit, 8 digital inputs + 4 relay outputs	7030.040 ⁹⁾	–	16	787
CMC III Power Unit, 1 input (C14) + 2 outputs (C13) 230 V, 50/60 Hz	7030.050 ⁹⁾	–	16	787

CMC III sensors for direct connection

Temperature sensor	7030.110	4	32	–
Temperature/humidity sensor	7030.111	4	32	–
Infrared access sensor	7030.120	4	32	–
Vandalism sensor	7030.130	4	32	–
Analog airflow sensor	7030.140	4	10 ¹⁾	–
Analog differential pressure sensor	7030.150	4	32	–
Universal sensor (digital input or 4-20 mA or SoBus power meter or Wiegand interface)	7030.190	4	32	–

CMC III sensors for direct connection

CMC III CAN-Bus Unit for sensor	7030.100	4	32	–
For connecting the following products:				
5 x access sensors (packs of 2), connect a max. of 5 in series	7320.530			–
1 x smoke detector	7320.560			–
1 x motion detector	7320.570			–
1 x voltage monitor 48 V DC	7320.620			–
1 x leakage sensor	7320.630			–
1 x leakage sensor, with sensor length 49 ft (15 m)	7320.631			–
1/3 x fire detector and extinguisher system DET-AC Plus with 3 messages	7338.120			508
1/3 x fire early detector system DET-AC Plus with 3 messages	7338.220			508
1/2 x Door Control System with 2 enclosure channels	7320.790			796

Leak sensor cable

1 x leak sensor control unit 5V DC	9978.506			–
1 x sensing cable 25 ft (7600 mm) pre-installed male/female connectors	9978.507			–
1 x sensing cable 100 ft (35000 mm) pre-installed male/female connectors	9978.508			–
1 x power supply 100-240V to 5V dc, stripped end	9978.509			–

Access System

CMC III CAN-Bus Unit Access (with integral infrared access sensor and interface for one reader III)	7030.200	2	16 ¹⁾	–
For connecting the following products:				
1 x Ergoform-S handle (electro-magnetic)	7320.700			–
1 x RAL 7035 comfort handle TS 8 (electro-magnetic TS 8 handle with master key function, with and without CCP)	7320.721			–
1 x RAL 9005 black comfort handle TS 8 (electro-magnetic TS 8 handle with master key function, with and without CCP)	9980.135			–
1 x universal lock	7320.730			795
1 x universal handle	7320.950			–
1 x CMC III coded lock	7030.220	2	16 ¹⁾	–
1 x CMC III transponder reader	7030.230	2	16 ¹⁾	–

¹⁾Max. 5 p. and

²⁾max. 1 p. for power supply with PoE or 48 V power pack.

³⁾Optional attachment see pages 793, 794.

Interface for PCU, FCS, DRC

	Part No.	PU Compact	PU	Page
		Maximum qty.		
CMC III CAN-Bus Unit for 2 unit channels	7030.030⁹⁾	1	4 ²⁾	786
For connecting the following products (note: separate supply via power pack possible):				
2 x Fan Control System FCS (7320.812 fan 24 V DC for FCS)	7320.810			795
2 x fan mounting panel DC (universal fan roof W x D 32" x 32" (800 x 800 mm) with FCS)	7858.488			-
2 x RFID controller DRC	7890.500			808





Power pack

The CMC III power pack may be integrated into the CMC III assembly unit.

CMC III power pack	Part No.
Input voltage 100 – 240 V 50/60 Hz, output voltage 24 V DC, 2 A	7030.060¹⁾

¹⁾ Connection cable/extension required
 USA/CDN: 230/115 V, Part No. 7200.214
 D/F/B: 230 V, Part No. 7200.210
 C13/C14: 230/115 V, Part No. 7200.215



Power pack for PU II/Basic CMC/FCS

A 24 V DC power pack is required to supply the power. Both power packs include an output cable, 65" (1650 mm) long. There are two versions available:

- The 100 – 240 V AC power pack requires an IEC connection cable to supply the voltage
- An alternative power pack is designed for the telecommunications sector (48 V battery voltages) and is connected at the input end via a terminal block

Primary input voltage	Output voltage	Part No.
48 V DC	24 V DC	7320.435

Connection cable for PU II/Basic CMC/FCS for direct connection, provided the 24 V DC supply is available.

Packs of	Length inches (mm)	Part No.
1	79 (2000)	7320.813

Technical specifications 7320.425:

- Rated voltage: 100 – 240 V AC, 50/60 Hz
- Rated current: max. 1.5 A
- Secondary range: 24 V DC, 3 A

Technical specifications 7320.435:

- Rated voltage: 20 – 72 V DC
- Rated current: max. 2.5 A
- Secondary range: 24 V DC, 1.3 A

Also required:

Connection cable for 7320.425 power pack, see page 792



Programming cable

The programming cable is required for commissioning of the Processing Unit (PU) or PU Compact.

	Part No.
CMC III programming cable USB	7030.080

CAN-Bus connection cable

This can be used to connect the PU with the CAN-Bus sensors III, units III, control units III as a bus. Also for cabling together.

Cable	Length inches (mm)	PU	Part No.
CMC III CAN-Bus connection cable RJ 45	20 (500)	1	7030.090
CMC III CAN-Bus connection cable RJ 45	39 (1000)	1	7030.091
CMC III CAN-Bus connection cable RJ 45	59 (1500)	1	7030.092
CMC III CAN-Bus connection cable RJ 45	79 (2000)	1	7030.093
CMC III CAN-Bus connection cable RJ 45	197 (5000)	1	7030.094
CMC III CAN-Bus connection cable RJ 45	394 (10000)	1	7030.095



Connection cable/extension

The cable is used to connect to:

- CMC III power pack C13
- CMC III power unit C13
- PCU

Technical specifications:

PVC cable, 3-pole, with IEC connector (non-heating appliances) with contact protection CEE22. Length: Minimum 71" (1800 mm)

Country version	Voltage Volt	Part No.
USA/CDN/C13	230/115	7200.214
D/F/B/C13	230	7200.210
IEC 320 device extension C13/C14	230/115	7200.215
Connection cable D/C19	230/115	7200.216
Connection cable C19/C20	230/115	7200.217



Extension cable

for sensor cable

Connector/jack	Length inches (mm)	Packs of	Part No.
RJ 12	197 (5000)	4	7200.450
RJ 12	39 (1000)	2	7320.814



CMC III mounting unit, 1 U

To accommodate PU, PU Compact, control units, CMC III CAN-Bus unit and CMC III power pack. The mounting unit can accommodate up to 3 units and is secured in the 19" (482.6 mm) frame.

	Packs of	Part No.
CMC III mounting unit, 1 U	1	7030.070





CMC III mounting unit

for enclosure frame

Can accommodate one unit and is mounted on the enclosure frame.

	Packs of	Part No.
CMC III mounting unit for enclosure frame	1	7030.071



Mounting unit, 1 U

For display, ISDN and GSM unit, fan control system, door control module, dynamic rack control

For accommodating between two 19" (482.6 mm) mounting angles. Cable clamp straps 7610.000 or 7611.000 can be used for cable clamping.

Material:

Carbon steel

Surface finish:

Spray-finished

Mounting unit, 1 U

Packs of	Part No.
1	7320.440

Single cover

Packs of	Part No.
2	7320.441

Color:

RAL 7035

Accessories:

Cable clamp strap, see page 734



Display Unit II

The Display Unit II may be linked directly to the CMC III. CMC alarms, status messages, temperatures, voltages, currents etc. may be displayed on the screen, depending on the monitoring application.

Note:

The serial interface RS232 of the PU/PUC may only be assigned to one accessory module.

Also required:

- Processing unit, see page 788
- Mounting unit, see page 794

Packs of	Part No.
1	7320.491



ISDN unit

For configuring a redundant transmission channel or, if there is no network infrastructure available, for alarm forwarding. The alarm signal is designed in SMS format. Power supply is via the processing unit.

Requirements for the ISDN connection:

- DSS1 (Euro-ISDN) must also be provided when connecting to the ISDN system
- Point-to-multi-point configuration

Configuration:

Connection cable

Components	Part No.
ISDN unit	7320.830 ¹⁾

¹⁾ Extended delivery times.

Note:

The serial interface RS232 of the PU/PUC may only be assigned to one accessory module.

Also required:

- Processing unit, see page 788
- Mounting unit, see page 794

GSM Unit Quad-Band

For configuring a redundant transmission channel or, if there is no network infrastructure available, the unit may be used for alarm forwarding. The alarm signal is designed in SMS format. The GSM unit quad-band covers 4 GSM frequencies: 850 MHz, 900 MHz, 1800 MHz and 1900 MHz. A standard, commercially available SIM card for GSM must be provided by the customer.

Note:

The serial interface RS232 of the PU may only be assigned to one accessory module.

GSM Unit Quad-Band	Part No.
SMS function	7320.820

Also required:

- Processing unit, see page 788
- Mounting unit, see page 794



Fan Control System FCS

Speed-controlled fan system

The Fan Control System regulates and controls the speed of up to 6 fans, 24 V DC. It may optionally be connected to the CMC III CAN-bus unit 7030.030.

Functions:

- Speed-regulated speed control
- Fan speed monitoring
- Optional connection via Web/SNMP

Note:

FCS fitted in fan mounting panel, Part No. 7858.488.

FCS	Part No.
Without fan	7320.810

Also required:

- Power pack 7030.060, see page 792
- Connection cable 7200.210, see page 793
- Fan 7320.812, see page 795
- Extension 7320.814, see page 793
- 1 U mounting unit 7320.440, see page 794



Fan 24 V DC for FCS

with speed monitoring

Fan with integral speed monitoring with RJ 12 connector/connection cable 24" (600 mm) for connecting to FCS 7320.810.

Technical specifications:

- Rated voltage: 24 V DC
- Rated current: 0.28 A (max.)
- Rated output: 6.72 W (max.)
- Air throughput (unimpeded air flow): 175 m³/h
- Speed: 2650 rpm
- Noise level: 45 dB (A)

Packs of	Part No.
2	7320.812

Also required:

RJ 12 extension, 39" (1000 mm), 7320.814, see page 793



Universal lock unit

The security lock consists of a base unit and a lock counterpart. The base unit is attached to the enclosure frame. The lock counterpart is attached to the door.

Technical specifications:

- Rated voltage: 24 V DC
- Rated current: 140 mA

Note:

Supplied without mounting kit.

Also required:

CMC III CAN-Bus unit access 7030.200, see page 790

Packs of	Part No.
1 set	7320.730



Door Control System

Door Control System

For automatic opening of closed rack systems:

- In the event of cooling system failures.
- For extinguishing a fire using a fire extinguisher system

Note:

To be connected at rear:

- Door Kit

- Up to 16/2 door kits may be connected for automatic opening.

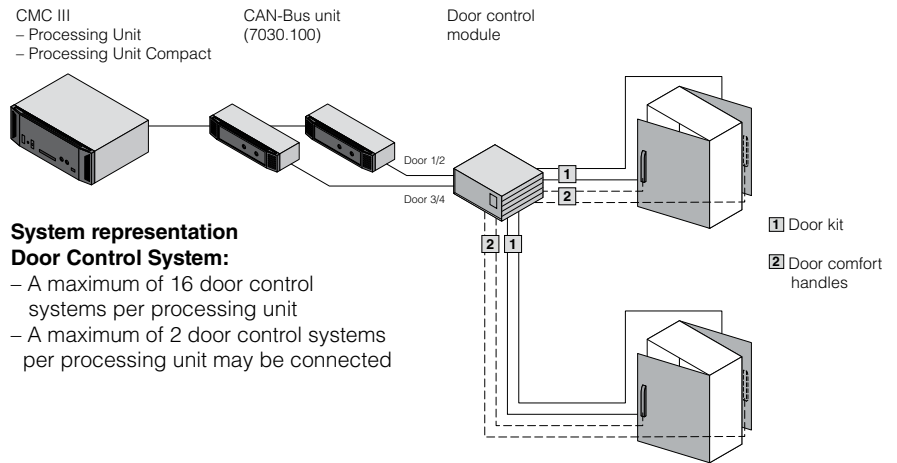
- Door comfort handle or Door switch

- Up to 16/2 door comfort handles/door switches may be connected for manual opening.

- Automatic opening is achieved by connecting to the PU/PU Compact. Independently of this, the doors may be opened using the door comfort handle/door switch
- In the event of a power failure, the doors will open
- The front and rear door must always be opened

Also required:

CMC III processing unit/Compact, see page 788



System representation

Door Control System:

- A maximum of 16 door control systems per processing unit
- A maximum of 2 door control systems per processing unit may be connected



Door control module

For activation of up to 4 door kits There is 1 control channel available per 2 door kits (e.g. front and rear door). There is optionally a normally closed contact integrated for each door output, which is used to connect the automatic door switch, door comfort handle or a customer specific system (e.g. room extinguisher system).

Also required:

- Mounting unit 7320.440, see page 794
- AC power pack 230 V, see page 792
- Connection cable, see page 793



Part No.	7320.790
H x W x D inches (mm)	1U x 5 x 5 (44 x 136 x 129)
Rated voltage	24 V DC
Door outputs	4 x 24 V DC, 400 mA
Ports for CMC III CAN-bus unit	2 x RJ 12
Normally closed contacts	Connection must be designed for 30 V DC, 1 A
Temperature application range	+41° to +113° F (+5° to +45° C)
Humidity application range	5% to 95% relative humidity, non-condensing
IP protection category	IP 40 to IEC 60 529

Door kit

For fitting a standard door for the Door Control System

- The door kit operates with a gas pressure damper system, allowing the door to be opened in any emergency situation. The doors are kept closed by a magnet system, which unlike mechanical lock systems will release the door in every instance
- The door kit is connected and activated using the corresponding door control module 7320.790

Configuration:

- Gas pressure damper
- Cable harness
- Magnetic lock
- Assembly parts

Version for	Packs of	Part No.
2-piece door	1	7320.792
1-piece glazed door	1	7320.795
1-piece carbon steel door	1	7320.796
Complete kit	1	9971.115



Comfort handle

with automatic door opener function

By actuating the lock mechanism, the door is released via the automatic door opening system. Prepared for the installation of standard commercially available semi-cylinders, 40 mm, and SZ lock and push-button inserts. Length: 12" (302 mm).

Technical specifications:

- Rated voltage: 24 V DC
- Rated current: max. 3 A
- Connection cable: Length 10 ft (3 m)
- Temperature application range: +41° to +104° F (+5° to +40° C)

Color	Part No.
RAL 7035	7320.794

Also required:

Handle adaptor for mounting on glazed door 8611.080, see page 581



Door switch

Switch for connecting to the normally closed contacts of the door control module (7320.790) for manual door opening. It is mounted on the 25 mm pitch pattern of the TS 8 frame section.

Technical specifications:

- Installation Ø 0.6" (16.2 mm)
- 250 V/2 A

Configuration:

- 118" (3000 mm) connection cable
- Mounting bracket
- Assembly parts

Packs of	Part No.
1	7320.793





Monitor/keyboard unit, 1 U With 17" TFT display and VGA/DVI connection

Benefits:

- High-quality manufacturing
- Analog and digital video input
- Separate numerical keypad
- Optionally with integrated KVM switch for up to 32 server connections in just 1 U
- Low energy consumption
- Simple, one-man installation

Accessories:

For monitoring several servers:
KVM switches, see page 799

Technical design

- 17" (432 mm) TFT display
- Native resolution 1280 x 1024
- Format 4 : 3
- 16.7 million colors
- Brightness approx. 350 cd/m² (typ.)
- Contrast ratio approx. 1000 : 1
- Mains voltage 100 – 240 V AC, 50 – 60 Hz
- Ambient temperature +41° to +113° F (+5° to +45° C) in operation
- Max. power consumption in operation, without optional KVM switch: 32 W
- Max. power consumption when closed, without optional KVM switch: < 1 W
- Rear connections: Mains power, VGA, DVI-D, PS/2, USB, power supply for KVM
- Lockable at the front
- Cables are safely routed in the energy chain

Height	Width inches (mm)	Depth inches (mm)	Installation depth inches (mm)	Packs of	Color	Keyboard	Part No.
1 U	19 (482.6)	27 (680)	27 – 33 (680 – 850)	1	RAL 7035	English	9055.312
						German	9055.310
					RAL 9005	English	9055.412¹⁾
						German	9055.410¹⁾

Other country-specific versions available on request.

¹⁾ Extended delivery times.

KVM switches

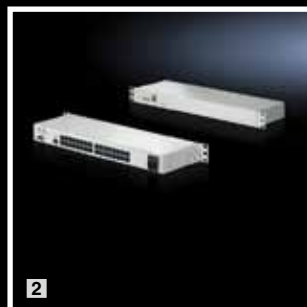
With these ultra-compact KVM switches for 19" (482.6 mm) mounting or for mounting behind a Rittal monitor/keyboard unit, space-saving server administration becomes possible in any IT rack. The Rittal SSC switching system grows flexibly with your requirements. With the SSC compact/view 32 Cat, the computers are connected via Cat cables and converters (SSC converter). The signals for video, keyboard and mouse are transmitted via a shared cable.

Processor-controlled keyboard and mouse emulation for each channel ensures fault-free booting and reliable switching between the connected computers. The SSC view optionally extends the Rittal monitor/keyboard unit to include the function of an 8- or 32-port KVM switch, without requiring an additional U in the server rack for mounting.

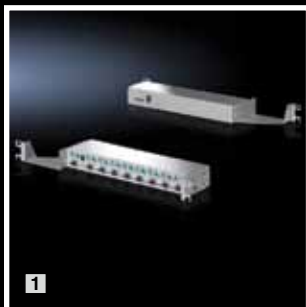
	1 SSC view 8 USB	1 SSC view 32 Cat	2 SSC compact 32 Cat
Installation type	For mounting behind the monitor/keyboard unit 9055.XXX		For mounting on 19" (482.6 mm) levels
Part No.	7552.002	7552.100	7552.110
Equipment	8 Port KVM	32 Port KVM	32 Port KVM
Number of computers in stand-alone mode	8	32	32
Number of users (with password protection)	1	1	1
Cascading ²⁾ as slave to SSC view/compact 32 Cat (with OSD transfer)	-	■	■
OSD menu with mouse operation (English)	■	■	■
OSD superimposed on computer screen (may be de-activated)	■	■	■
OSD display of channels used	■	■	■
Hotkeys for computer selection	■	■	■
Autoscan	■	■	■
Autoskip (skip over unused channels)	■	■	■
Type of cable to computer or to SSC Connect	VGA/HD15 and PS/2	Cat 5, 6	Cat 5, 6
Maximum cable length, SSC to computer (depending on cable quality)	13 ft (4 m)	49 (98) (15 m (30 m))	49 (98) (15 m (30 m))
Port and system support	PS/2 and SUN	PS/2, USB, SUN-USB	PS/2, USB, SUN-USB
Automatic cable alignment (manually readjustable)	-	■ ¹⁾	■ ¹⁾
LED displays (rear)	None	Power	Power
Max. video resolution (depending on cable length)	1280 x 1024@85 Hz	1920 x 1440@75 Hz	1920 x 1440@75 Hz
Bandwidth	200 MHz	250 MHz	250 MHz
Computer	SUB-HD15 / PS/2 / USB-B	RJ 45	RJ 45
Console	SUB-HD15 / PS/2 / USB-B	SUB-HD15 / PS/2	SUB-HD15 / PS/2
Cascading port (connection for slave, SSC compact only)	-	RJ 45	RJ 45
Service (for firmware update)	-	Jack 2.5 mm	Jack 2.5 mm
12 V DC power supply (from monitor/keyboard unit)	■	■	-
Power supply 100 – 240 V, 50/60 Hz (internal power pack, IEC320)	-	-	■
Power consumption (approx.)	10 W	13 W	13 W
Operating temperature	+41 to +113° F (+5 to +45° C)	+41 to +113° F (+5 to +45° C)	+41 to +113° F (+5 to +45° C)
Protection rating	IP 20	IP 20	IP 20
Enclosure	Material	Carbon steel	Carbon steel
	Surface finish	Powder-coated	Powder-coated
Color	RAL 9006	RAL 9006	RAL 7035
Dimensions (excl. protruding parts) approx. W x H x D inches (mm)	2 x 19 x 6 (44 x 482.6 x 140)	2 x 19 x 6 (44 x 482.6 x 140)	2 x 19 x 6 (44 x 482.6 x 140)
Certification	CE	CE	CE

¹⁾ With a cable length of max. 49 ft (15 m), there is no need for any manual video readjustments. Above and beyond this, the maximum permissible cable length is approximately 98 ft (30 m) depending on the cable quality. Here, manual readjustment may be required.

²⁾ Up to 3 SSC compact/view 32 Cat may be cascaded to one master (max. 125 servers on 1 user).



KVM switches



1



2



3

	1 SSC view 8 USB	1 SSC view 32 Cat	2 SSC compact 32 Cat
Installation type	For mounting behind the monitor/keyboard unit 9055.XXX		For mounting on 19" (482.6 mm) levels
Part No.	7552.002	7552.100	7552.110
Equipment	8 Port KVM	32 Port KVM	32 Port KVM

Accessories

Mains connection cable (for SSC compact only)	-	-	7200.210
3 CPU cable VGA/PS/2 (with lockable PS/2 connectors, at both ends)	6 ft (2 m)	7552.120	-
	13 ft (4 m)	7552.140	-
3 CPU cable VGA/USB, USB-A (computer) to USB-B (switch)	6 ft (2 m)	7552.122	-
	16 ft (5 m)	7552.142	-
SSC converter PS/2	-	7552.201	7552.201
SSC converter USB	-	7552.202	7552.202

SSC premium 2/16, 4/32, 8/32

Highly integrated KVM matrix based on Cat technology

KVM switching technology which adapts flexibly to your future requirements. Thanks to Cat technology (transmission of the signals for keyboard, video and mouse via a Cat cable), the amount of cabling work required can be significantly reduced. Super-compact 1 U systems with up to 32 server ports are supported. The full matrix switches offer each of the connected users unrestricted, simultaneous access to the chosen computer system. There are various console types available for administration. By separating the hardware switch and operating console, the systems may be adapted to any required computer environment. On the computer side, conversion to standard PC interfaces is achieved via separate converters which optimize all signals (keyboard, video, mouse) for transmission via the Cat cable.

Material:
Carbon steel

Color:
RAL 7035

Protection rating:
IP 30

Also required:

- SSC converter (depending on the number of computers) and at least one operator console, see page 805
- Mains connection cable (7200.210), see page 793

Rittal SSC premium	1 2/16	2 4/32	3 8/32
Part No.	7552.020 ¹⁾	7552.030 ¹⁾	7552.040 ¹⁾
Equipment			
Number of computers in stand-alone mode	16	32	32
4 No. of computers with cascading as full matrix (max. 3 levels, type-identical SSC premium)	1024	2048	512
Number of users (local, remote, IP), mixed and simultaneous	2	4	8
Number of users that may be administered (with allocation of rights)	128	128	128
Integral user/computer administration	■	■	■
Support of central directory services and authentication systems	–	–	■
OSD menu with mouse operation (English)	■	■	■
Display of system structure in the OSD per computer (path)	■	■	■
OSD superimposed on computer screen (may be de-activated)	■	■	■
OSD display of channels used	■	■	■
Hotkeys for computer selection	■	■	■
Type of cable to SSC converter and SSC console	Cat 5, 6	Cat 5, 6	Cat 5, 6
Maximum cable length console – computer (depending on cable quality)	984 ft (300 m)	984 ft (300 m)	984 ft (300 m)
Port and system support (SSC converter)	PS/2, USB, SUN-USB/ VT100	PS/2, USB, SUN-USB/ VT100	PS/2, USB, SUN-USB/ VT100
Automatic video/cable alignment (manually readjustable)	■	■	■
LED displays, front			
Power/Power Redundant	■	■	■
System Ready (illuminates as soon as the system booting process has been completed without error)	■	■	■
Status Switch (illuminates when the SSC is operational)	■	■	■

¹⁾ Extended delivery times.



KVM switches



Rittal SSC premium	1 2/16	2 4/32	3 8/32
Part No.	7552.020¹⁾	7552.030¹⁾	7552.040¹⁾
LED displays, rear			
Computer port busy/connected	yellow/green	yellow/green	yellow/green
Console port busy/connected	yellow/green	yellow/green	yellow/green
Network port full duplex/half duplex	–	–	yellow/flashing
Network port connection status/activity	–	–	green/flashing
Maximum video resolution (depending on cable length)	1920 x 1440 @ 75 Hz	1920 x 1440 @ 75 Hz	1920 x 1440 @ 75 Hz
Bandwidth	250 MHz	250 MHz	250 MHz
Activation of switchable socket strip (on/off)	■	■	■
Connections			
Computers/consoles	RJ 45	RJ 45	RJ 45
Service (front) for firmware update	Jack 2.5 mm	Jack 2.5 mm	Jack 2.5 mm
RS232 (front)	RJ 11	RJ 11	RJ 11
Network	–	–	2 x RJ 45
Power supply via IEC 320 connection (IEC 320 C13)	■	■	■
Redundant power supply (with SSC power pack)	4-pole mini-DIN	4-pole mini-DIN	4-pole mini-DIN
Power supply (internal power pack)	90 – 264 V/ 47 – 63 Hz	90 – 264 V/ 47 – 63 Hz	90 – 264 V/ 47 – 63 Hz
External power supply, redundant	12 V/approx. 1 A	12 V/approx. 1 A	12 V/approx. 1 A
Power consumption (approx.)	12 W	13 W	16 W
Dimensions (excluding protruding parts) approx. H x W x D inches (mm)	2 x 19 x 11 (44 x 482.6 x 286)	2 x 19 x 11 (44 x 482.6 x 286)	2 x 19 x 11 (44 x 482.6 x 286)
Conformity	CE	CE	CE

¹⁾ Extended delivery times.

SSC Duo 16

Ultra-compact KVM switch with both a local access and an IP access. These two users are able to access the connected servers in parallel/simultaneously. Up to 16 servers may be connected using Cat cables and SSC converter adaptors (available in a PS/2 and USB variant). Processor-controlled keyboard and mouse emulation for each channel ensures fault-free booting and reliable switching between the connected computers. The integral IP console supports location-independent access to the servers down to BIOS level. Access may be made both via the integral Web interface (via Java client) and via client software for Windows and selected Linux distributions, available free of charge. The switch includes rights administration for up to 16 user profiles.

Material:

Carbon steel, powder-coated

Color:

RAL 7035

Protection rating:

IP 40

Also required:

One SSC converter adaptor 7552.201 (PS/2) or 7552.202 (USB) is required for each connected computer, see page 803

	SSC Duo 16
Part No.	7552.510
Equipment	
No. of computers that may be connected	16
Number of users (local, IP), mixed and simultaneous	2
Number of users that may be administered (with allocation of rights)	16
Integral user/rights administration (also via directory services)	■
OSD menu with mouse operation (English)	■
OSD superimposed on computer screen (may be de-activated)	■
OSD display of channels used	■
Hotkeys for computer selection	■
Type of cable to SSC converter and SSC console	Cat 5, Cat 6
Maximum cable length console – computer (depending on cable quality)	98 ft (30 m)
Port and system support (SSC converter)	PS/2, USB
Automatic video and cable alignment (manually readjustable)	■
LED displays	
Power	■
System Ready (illuminates as soon as the system booting process has been completed without error)	■
Status Switch (illuminates when the SSC is operational)	■
Network port (activity, connection status)	■
Maximum video resolution (depending on cable length)	1920 x 1440 @ 75 Hz
Bandwidth	250 MHz
Connections	
Computers/consoles	RJ 45
Service for firmware update	Jack 2.5 mm
Network	RJ 45
Power supply via IEC 320 connection (EN 60 320 C14)	■
Power supply (internal power pack)	90 – 264 V/47 – 63 Hz
Power consumption (approx.)	20 W
Dimensions approximately H x W x D inches (mm)	1 U x 19 x 11 (1 U x 482.6 mm x 290 mm)
Certifications	CE
Accessories	
SSC converter PS/2	7552.201
SSC converter USB	7552.202
Cat 5 cable 2 m	7320.472
Cat 5 cable 5 m	7320.475
Cat 5 cable 10 m	7320.481
Cat 5 cable 15 m	7320.485
Mains connection cable (grounding pin)	7200.210





Console local for SSC premium

For installation in
 – 19" (482.6 mm)
 – at the rear of 15"/17" monitor unit (9055.XXX)
 As the link between the keyboard, monitor, mouse (or the Rittal monitor/keyboard unit) and the SSC premium. Via the console, the computer systems connected to the switch may be conveniently selected and administered using the OSD. Power supply is optionally via the Rittal monitor/keyboard unit or, in the case of stand-alone 19" (482.6 mm) installation, via the SSC Power Pack (7552.220).

Material:
Carbon steel

Color:
RAL 9006 (white aluminum)

Configuration:
Assembly parts

Technical specifications:
 – Video resolution: Max. 1920 x 1440 @ 75 Hz (depending on the cable length)
 – Video bandwidth: 250 MHz
 – Voltage supply: 12 V DC (from monitor/keyboard unit) or via SSC Power Pack 7552.220
 – H x W x D inches (mm):
 2 x 13 x 3 (44 x 325 x 85) stand-alone
 H x W x D inches (mm):
 2 x 19 x 6 (44 x 482.6 x 40) built into 19"/482.6 mm

Type	Packs of	Part No.
Console local	1	7552.200

Extended delivery times.

Connections (jack):

- PS/2 (keyboard/mouse)
- USB-A (keyboard/mouse)
- D15 (VGA-Video RGB & Sync.)
- RJ 45 (KVM matrix connection)
- Mini-DIN 4 (12 V power supply)

Also required:

- Only for 19" (482.6 mm) installation without monitor/keyboard unit:
SSC Power Pack 7552.220, see page 807
- Cat 5 patch cable, see page 806



Console Cat 5 for SSC premium

This remote console forms the link between the keyboard, monitor, mouse and the SSC premium. Via the console, the computer systems connected to the switch may be conveniently selected and administered using the OSD. The signals are forwarded via Cat cable, depending on the cable quality up to 984 ft (300 m), via the KVM matrix to the connected computers. Additionally, 2 local PCs may be connected if required. The console is designed as a compact desktop enclosure with integral wide-range power pack (19" (482.6 mm) versions on request).

Material:
Carbon steel

Color:
RAL 7035

Technical specifications:
 – Video resolution: Max. 1920 x 1440 @ 75 Hz (depending on the cable length)
 – Video bandwidth: 250 MHz
 – Power supply (internal power pack):
 100 – 280 V, 50 – 60 Hz/0.2 A
 – Dimensions:
 H x W x D inches (mm):
 2 x 11 x 9 (44 x 270 x 220)

Type	Packs of	Part No.
Console Cat 5	1	7552.212

Extended delivery times.

Connections (jack):

- PS/2 (keyboard/mouse) USB-A (keyboard/mouse)
- SUB-HD15 (VGA video RGB & Sync.)
- 2 x Cat (RJ 45) to connect 2 local PCs via SSC converters (VGA, PS/2 or USB)
- RJ 45 (KVM matrix connection) IEC 320 C14 (power supply)
- Mini-DIN 4 (redundant power supply)

Also required:

- Cat 5 patch cable, see page 806
- SSC converter for local PCs, see page 805
- Mains connection cable (e.g. 7200.210), see page 793

Console IP

for SSC premium (KVM-over-IP)

With the IP remote console, computers connected to the KVM matrix may be accessed via any given TCP/IP network. The SSC Console IP is a hardware solution, and guarantees remote monitoring of the computers even during the booting phase, down to BIOS level. With the system operational, the target computers may be accessed at any time via web browsers and Java applets (irrespective of the operating system), or if Java is not supported, via optimized client software for common operating systems. This client has extended functions (e.g. a setup mode) and can be used throughout the company without restriction. In addition to remote access via IP, the SSC Console IP also has an integral local console port (competing with IP access) for connecting the keyboard, mouse and monitor locally in the rack. Access to the console is additionally password protected. KVM access to the web interface may be encrypted via HTTPS (SSL 128-bit). In order to further increase protection from failure, the SSC console IP may also be extended with a redundant power pack via the SSC Power Pack (7552.220).

Material:

Carbon steel

Color:

RAL 7035

Technical specifications:

- Video resolution: max. 1280 x 1024 @ 75 Hz
- Network: 10/100 MBit/s
- Power pack: 100 – 240 V AC, 50/60 Hz
- H x W x D inches (mm): approx. 2 x 17 x 9 (44 x 440 x 220)

Connections (jack):

- PS/2 (keyboard/mouse)
- SUB-HD15 (VGA video, RGB and Sync.)
- RJ 45 (KVM matrix connection)
- RJ 45 (Ethernet)
- Sub-D (RS232)
- IEC320 C14 (power supply)
- Mini-DIN 4 (redundant power supply)

Configuration:

Includes client software for the latest Windows operating systems (MS Windows XP Professional, Server 2003, Server 2008, Windows 7) and Linux Distribution (RedHat, SUSE) in German and English

Also required:

- Mains connection cable (7200.210), see page 793
- Cat 5 patch cable, see page 806



SSC converter

for SSC premium/Duo 16/view 32 cat

The SSC converters convert the signals for keyboard, video and mouse from the connected computer to the Cat cable. There is a choice of three different variants for connecting PCs with PS/2 or USB ports, and a separate version for use with SUN computers with a USB port. One converter is required for each computer. Every SSC converter has a unique identification number (Unique ID).

Technical specifications:

- Video resolution: 1600 x 1200 @ 85 Hz
- Power supply: 5 V DC/approx. 150 mA (from the computer)
- Certification: CE
- Approx. dimensions inches (mm): 2.6 x 1.8 x 0.8 (65 x 45 x 20)

SSC converter	Packs of	Part No.
PS/2	1	7552.201
USB	1	7552.202
SUN-USB (German)	1	7552.203
SUN-USB (US English)	1	7552.204



KVM switches



SSC converter VT100 (RS232) for SSC premium/Duo 16

With this SSC adaptor, active network components (such as an Ethernet switch) with a serial management port which support the VT100 terminal mode may be integrated into the SSC premium KVM system.

Connections:

- Sub-D 9-pole (RS232)
- RJ 45 (connection to KVM matrix)
- Mini-DIN 4 (power supply)

Configuration:

- Power pack
(100 – 240 V, 50/60 Hz secondary, 12 V/0.7 A)
- Mains connection cable 7200.210

Also required:

Cat 5 patch cable, see page 806

	Packs of	Part No.
SSC converter VT100	1	7552.205



CPU cable

for SSC view 8/USB, PS/2 and USB

Combination connection cable between SSC view 8 and the individual servers, each with 2 HD 15 connectors for video, plus lockable PS/2 connectors at both ends for the keyboard and mouse, color-coded. USB cable with USB-A and USB-B connector (connection switch) and VGA cable.

Connection	Cable length inches (mm)	Part No.
PS/2	79 (2000)	7552.120
PS/2	157 (4000)	7552.140
USB	79 (2000)	7552.122
USB	197 (5000)	7552.142



Cat 5 patch cable

Flexible, pre-configured Cat 5 STP patch cable with shielded RJ45 connectors for connecting the SSC converter and SSC console to the SSC premium switch. The cables are wired 1 : 1 to AT&T 258A/T568B and comply with ISO/IEC 11801, UL E151955.

Color:

Grey

Length inches (mm)	Packs of	Part No.
79 (2000)	4	7320.472
197 (5000)	4	7320.475
394 (10000)	1	7320.481
591 (15000)	1	7320.485¹⁾

¹⁾ Extended delivery times.

SSC Power Pack

We recommend configuring a redundant power supply to the SSC premium and the connected user consoles. This compact wide-range power pack (AC: 100 – 240 V, 50/60 Hz, DC: 12 V/5 A) with IEC 320 socket (EN 60 320) and Mini-DIN 4 connectors to maintain correct functioning of the KVM switch in the event of a failure in the first power supply to the internal power pack.

Configuration:

Mounting accessories

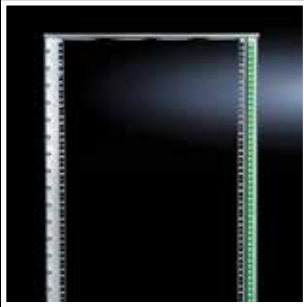
Also required:

Connection cable for power pack, see page 793

SSC	Packs of	Part No.
SSC Power Pack	1	7552.220



Dynamic Rack Control



RFID mounting frame for TS 8

With integral RFID reader (aerial) to accommodate the 19" (482.6 mm) built-in components. The mounting frame may be depth-variably secured in the TS 8 and is used to structure the front 19" (482.6 mm) mounting level. Position detection of the components is accurate to within 1/3 U, therefore there are 3 aerial elements and signalling LEDs integrated into each U. The installation position of the components is correctly recognized even if they are not located precisely in the height pitch pattern. Reading and writing of the RFID tags is likewise signalled by one LED in each case.

Load capacity:

Max. 2200 lb (1000 kg) static load with even distribution across two 19" (482.6 mm) mounting levels

Material:

Carbon steel, zinc-plated, passivated

Configuration:

Assembly parts

Also required:

A matching mounting frame without RFID reader (see ordering table) to emulate the rear mounting level. The mounting frame must be connected to the RFID controller 7890.500, see page 808



RFID tags

One RFID tag is required for each component. Each tag has a "Unique ID" (UID, not sequential), which cannot be altered; all other data are stored on the tag in conformity with ISO 15693. The tags are unwritten in their delivered state. The tag is stuck to the inside/right of the 19" (482.6 mm) mounting bracket. For this purpose, the tag has an adhesive surface. The component is later screw-fastened to the 19" (482.6 mm) level.

For TS 8		U	RFID mounting frame, front	Mounting frame, rear
Height inches (mm)	Width inches (mm)		Part No.	
79 (2000)	24 (600)	42	7890.206	7856.719
79 (2000)	32 (800)	42	7890.208	7856.731
87 (2200)	24 (600)	47	7890.226	7856.722
87 (2200)	32 (800)	47	7890.228	7856.734

Other sizes available on request.

RFID controller

This controller connects the RFID reader (aerial) of the 19" (482.6 mm) mounting frame to the CMC. In this way, the CMC is able to notify automatic changes, graphically depict the enclosure with the built-in components, and list capacity management. One RFID controller is required per rack.

Enclosure dimensions H x W x D inches (mm):

1 U x 5 x 5 (44 (1 U) x 136 x 129)

Material:

Plastic

Rated voltage:

24 V DC

Passive, writable RFID tag (13.56 MHz)	
Packs of	Part No.
20	7890.020

Packs of	Part No.
1	7890.500

Connections:

- RJ 45 jack (connection to CMC)
- 2 x Mini-DIN (connection of RFID frame & floor-reader)

Also required:

Cat 5 patch cable, see page 806



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System accessories for the human/machine interface

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Handles



Handle set for Comfort Panel

For external mounting on corner pieces, also suitable for retro-fitting.

Material:

- Handle tube: Aluminum
- Handle holder: Die-cast zinc
- Covers: Polyamide

Surface finish:

- Handle tube: Natural-anodized
- Handle holder: Powder-coated

For horizontal mounting

With front panel width inches (mm)	Packs of	Part No.
19 (482.6)	1 set	6375.010
20 (520 mm)	1 set	6375.000

Configuration:

- Handle tube, Ø 0.8" (20 mm)
- 2 handle holders
- 2 covers
- Assembly parts

Color:

- Handle holder: RAL 7024
- Covers: Similar to RAL 7024

Note:

Shorter heights and widths can be achieved by cutting the handle tube to length. For enclosures with 3" (74 mm) depth, cannot be mounted on the same side as the support arm connection.

Accessories:

- Clipboard, see page 815
- Display board, see page 815

For vertical mounting

With front panel height inches (mm)	Packs of	Part No.
16 (400)	1 set	6375.040
20 (500)	1 set	6375.050
24 (600)	1 set	6375.060

Configuration:

- 2 handle tubes, Ø 0.8" (20 mm)
- 4 handle holders
- 4 covers
- Assembly parts



Handle set for Optipanel

For external mounting on corner pieces, also suitable for retro-fitting.

Material:

- Handle tube: Aluminum
- Handle holder: Die-cast zinc
- Covers: Polyamide

Surface finish:

- Handle tube: Natural-anodized
- Handle holder: Powder-coated

For horizontal mounting

With front panel width inches (mm)	Packs of	Part No.
19 (482.6)	1 set	6385.010
20 (520 mm)	1 set	6385.000

Configuration:

- Handle tube, Ø 1" (25 mm)
- 2 handle holders
- 2 covers

Color:

- Handle holder: RAL 7035
- Covers: RAL 7024

Note:

Shorter heights and widths can be achieved by cutting the handle tube to length. For enclosures with 4" (100 mm) depth, cannot be mounted on the same side as the support arm connection.

Accessories:

- Clipboard, see page 815
- Display board, see page 815

For vertical mounting

With front panel height inches (mm)	Packs of	Part No.
16 (400)	1 set	6385.040
20 (500)	1 set	6385.050
24 (600)	1 set	6385.060

Configuration:

- 2 handle tubes, Ø 1" (25 mm)
- 4 handle holders
- 4 covers



Handle set

For vertical and horizontal mounting on all surfaces.

Overall length: 16" (420 mm)

Material:

- Handle tube: Aluminum
- Tube holder: Die-cast zinc

Surface finish:

Handle tube: Natural-anodized

Color:

Tube holder: RAL 7035

Packs of	Part No.
1 set	2389.000

Configuration:

- 4 conduit holders
- 2 handle tubes

Accessories:

- Clipboard, see page 815
- Display board, see page 815



Handle frame

for operating housing with display panel front

Color:

RAL 8019

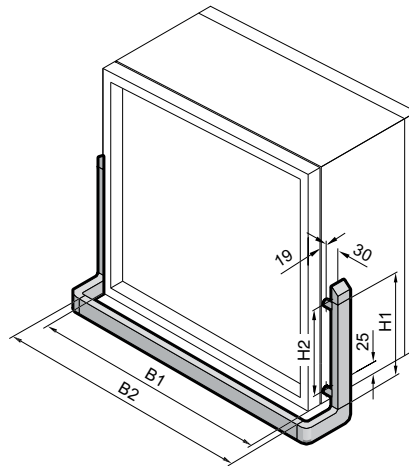
Configuration:

- Square aluminum tube
- Plastic corner bracket
- End caps
- Assembly parts

Note:

Command panel with display panel front 6662.500, see page 175

Part No.	6190.000
Operating housing width (B1) inches (mm)	24 (600)
Width of the horizontal rectangular tube (B2 = B1 + 48 mm) inches (mm)	26 (64)
Height of the vertical rectangular tube (H1) inches (mm)	16 (29)
Hole distance between the assembly holes (H2) inches (mm)	10 (24)



Aluminum strip

For

- One-piece console
- Surfaces

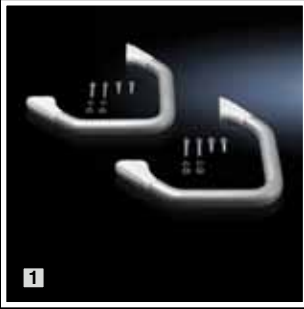
Prevents wiring plans etc. from slipping.

For	Length inches (mm)	Packs of	Part No.
AP console	47 (1183)	3	2682.000

May be cut to length for other dimensions.



Handles



Handles

For horizontal or vertical attachment to the enclosure panel of:

- Comfort Panel,
- Optipanel,
- Other enclosures or
- Surfaces

Mounting holes and surfaces without fins are required for assembly purposes. For the Comfort Panel version with fins, corresponding milling work may be carried out. To this end, please specify "Prepared for handle set 6107.XXX" for the command panel.

Material:

- Handle holder: Die-cast zinc
- Cover bungs: Plastic
- Handle tube: Aluminum

Surface finish:

Handle holder: Powder-coated

Color:

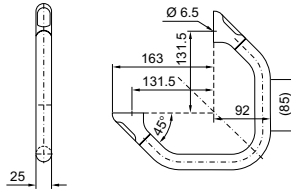
- Handle holder: RAL 7035
- Cover bungs: Similar to RAL 7035
- Handle tube: Similar to RAL 9006

1 Corner handle

Configuration:

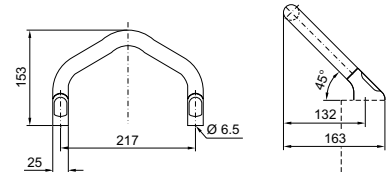
- 4 handle holders
- 2 handle tubes
- Assembly parts

Mounting on enclosure corner



Packs of	Part No.
1 set	6107.000

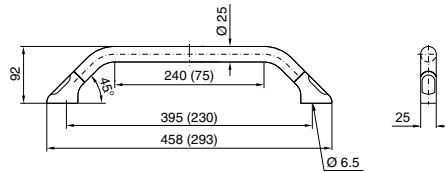
For external mounting on straight surfaces
(90° rotation of handle holder)



2 U handle

Configuration:

- 2 handle holders
- 1 handle tube
- Assembly parts



For front panel size	Packs of	Part No.
≥ 7 U	1 set	6107.100
19" (482.6 mm)	1 set	6107.200

Accessories:

For 6107.200:

- Clipboard, see page 815
- Display board, see page 815

Note:

Dimensions in brackets for front size 7 U.



Clipboard

For securing operating instructions or plans (up to A4 size) at eye level. Prepared for mounting on the right-hand side; mounting on the left is also possible by unscrewing and moving the clip part. For mounting purposes, a straight tube length of $\geq 8"$ (200 mm), $\varnothing 0.8"$ (20 mm) or $\varnothing 1"$ (25 mm), is required.

Material:

- Clipboard: Carbon steel
- Clip part: Aluminum

Surface finish:

Clip part: Natural-anodized

Height inches (mm)	Width inches (mm)	Packs of	Part No.
12 (315)	9 (225)	1	6013.000

Color:

RAL 7035

Also required:

- Handle set 2389.000, see page 813
- Handle set for Comfort Panel, see page 812
- Handle set for Optipanel, see page 812
- U handle 6107.200, see page 814



Display board with bracket

To accommodate test plans, documents etc. in A4 format:

- On surfaces,
- On a 25 mm pitch pattern of the TS frame or rail system,
- On handle set $\varnothing 0.8"$ (20 mm) or $\varnothing 1"$ (25 mm).

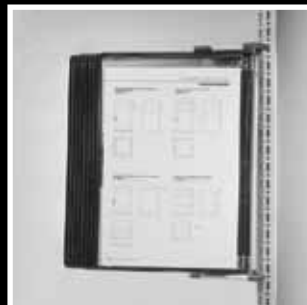
Configuration:

- Display boards
- Wall bracket
- Assembly parts

Packs of	Part No.
1 set	6013.100

Accessories:

- Handle set 2389.000, see page 813
- Handle set for Comfort Panel, see page 812
- Handle set for Optipanel, see page 812
- U handle 6107.200, see page 814



Enclosure surface connector

To accommodate keyboard support (2383.000, see page 822).

Material:

- Surface connector: Extruded aluminum section
- Side cover: Carbon steel

Surface finish:

Surface connector: Natural-anodized.

Color:

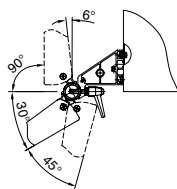
RAL 7024

Configuration:

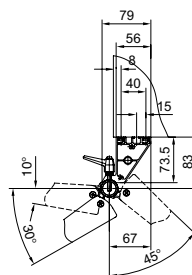
Assembly parts

Packs of	Part No.
1 set	2383.010

Mounting on surfaces



Mounting underneath surfaces



Front assembly



Front panel for Comfort Panel and Optipanel

Material:
Aluminum, 11 ga (3.0 mm)

Surface finish:
Natural-anodized

Note:
Mounting kits included with the supply of 20" (520 mm) wide standard enclosures.

With mounting hole

Width inches (mm)	Height U (mm)	Part No.
19 (482.6 mm)	3.5 (155)	6027.000
19 (482.6 mm)	7 (310.3)	6028.000

With threaded bolts M5

Width inches (mm)	Height U (mm)	Part No.
19 (482.6 mm)	3.5 (155)	6027.010
19 (482.6 mm)	7 (310.3)	6028.010

With threaded bolts M5

Width inches (mm)	Height inches (mm)	Part No.
20 (520)	16 (400)	6028.014
20 (520)	20 (500)	6028.015
20 (520)	24 (600)	6028.016



Front panel for Compact Panel

Material:
Aluminum, 11 ga (3.0 mm)

Surface finish:
Natural-anodized

Size W x H inches (mm)	To fit Compact Panel	Part No.
7 x 8 (178 x 200)	6340.000	6028.500
7 x 14 (178 x 350)	6340.100	6028.510
10 x 8 (252 x 200)	6340.300	6028.530
10 x 14 (252 x 350)	6340.400	6028.540



Cover plate for support arm connection

For secure sealing of an open support arm connection in the enclosure.

Material:
Carbon steel

Configuration:
Seal and assembly parts

Note:
If with
– Comfort Panel
– Optipanel
– Compact Panel
command panels, there are already 2 support arm cut-outs provided, a cover plate is included with the supply of the enclosure.

Support arm connection	Spray-finished in	Part No.
CP-S	RAL 7024	6505.200
CP-L, Ø 130 mm	Zinc-plated, passivated	6505.500
CP-L, □ 120 x 65 mm	Zinc-plated, passivated	6505.100

Mounting kit for Optipanel

For holes, includes:

Packs of 30 retaining claws, captive nuts, screws and sealing washers

For threaded bolts, includes:

Packs of 10 retaining claws and cap screws.

For screw clamp, includes:

Packs of 4 pressure plates, 4 attachment strips

Note:

Command panels TP 277 6", OP 277 6", MP 277 10" Touch, MP 377 12" Touch, MP 377 15" Touch are installed using an adaptor plate (included with the supply subject if selected accordingly, or available on request).

For installing
– Aluminum front panels
– Command panels
– Keyboards

For front panels	Thread	Part No.
Others	M4	6058.000
Rittal and others	M5	6053.000

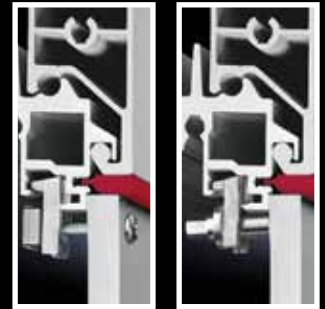
For front panels	Thread	Part No.
Others	M4	6058.500
Rittal and others	M5	6053.500 ¹⁾

¹⁾ For the installation of TFT monitors 15", 17" and 19".

For direct installation of	Part No.
Siemens Sinumerik: OP 010, OP 010C, OP 012, OP 015, MCP 483, PP 012, Query 19", KB 483C, TP 015A	6053.210
Siemens Simatic: Panel PC 477, 577, 677, 677B: 12.1" Touch, 15.1" Touch, 12.1" keys, 15.1" keys, 19" Touch ¹⁾ Panel PC 877: 15.1" Touch, 12.1" keys, 15.1" keys, 19" Touch ¹⁾ , Flat Panel ¹⁾ 12", 15", 17", 19"	
Pro Face Industrial PC: ALP 3600, ALP 3700, ALP 3900	

The mounting set can only be installed vertically.

¹⁾ 2 packs are required.



Mounting kit for Comfort Panel

For the installation of aluminum front panels, command panels and keyboards.

Configuration:

6058.800, 6053.800:

20 each of retaining claws, captive nuts, screws, nuts and sealing washers

6053.300:

8 medium retaining claws, 8 short retaining claws, 4 long retaining claws

1 6058.800, 6053.800

2 6053.300

For drilled holes/bolts/front panel mounting from behind

Thread	Part No.
M4	6058.800
M5	6053.800

For screw clamp

For installing:	Part No.
Siemens Sinumerik: OP 010, OP 010 C, OP 012, TP 012, OP 015, OP 015 A, MCP 483 C, MCP 483, PP 012, PP 012 Erweiterung, MCP, KB 483 C, Query 19"	6053.300
Siemens Simatic: Panel PC 477, 577, 677, 677B: 12,1"-Tasten, 12,1"-Touch, 15,1"-Tasten, 15,1"-Touch, 19"-Touch	
Panel PC 877: 12,1"-Tasten, 15,1"-Tasten, 15,1"-Touch, 19"-Touch, TP 277 6" MP 377 15"-Touch, MP 377 12"-Touch, MP 377 19"-Touch	
Automation Panel Panel PC	



Monitors



TFT monitor

Installation variant for surfaces and command panels.

Benefits:

- High-quality industrial design
- Reduced installation work thanks to integral front frame
- No additional ventilation required
- Very small installation depth 2" (45 mm)
- Resistive touchscreen for operation with a pen, finger or glove.

Material:

Front frame: Aluminum

Surface finish:

Powder-coated

Color:

RAL 7035

Protection rating:

IP 65 to IEC 60 529 (front)

Size	Width inches (mm)	Height inches (mm)	Part No.	
			Touch	
			Without ¹⁾	Resistive, USB
15"	17 (430)	14 (343)	6450.010	6450.070²⁾
17"	19 (482.6)	14 (354.8)	6450.020	–
19"	19 (482.6)	16 (399.3)	6450.170	–

Configuration:

Seal, hex nuts (for installation in surfaces), VGA cables, rear threaded bolts M5 (14). Touch variants additionally with integral connection cable and driver CD-ROM.

Also required:

Mounting kit 6053.800 (when installing in Comfort Panel), see page 817. Mounting kit 6053.500 (when installing in Optipanel), see page 817. Power pack 6450.050, see page 818 and connection cable 6450.060, see page 818, if an operating voltage of only 100 – 240 V AC is available instead of 12 V DC.

Detailed drawings:

Available at www.rittal-corp.com

Technical specifications	15"	17"	19"
Resolution of display (max. pixels)	1024 x 768	1280 x 1024	1280 x 1024
Resolution of controller/colors			
Brightness (cd/m ²)	400	300	250
Contrast ratio	500 : 1		
Reading angle horizontal (right/left)	65°/65°	75°/75°	88°/88°
Reading angle vertical (top/bottom)	45°/65°	65°/65°	88°/88°
Lamp life ¹⁾ (h)	min. 35,000	typ. 50,000	min. 40,000
On-screen display (OSD)	At rear		
VGA input	D-Sub HD 15-pole		
Operating temperature °F (°C)/storage temperature °F (°C)	+32° to +122° F (0° to +50° C)/–4° to +140° F (–20° to +60° C)		
Voltage input	12 V DC		
Power consumption (W)	30	35	40
H-Sync. (kHz)/V-sync. (Hz)	31.5 to 80/60 to 75		
Humidity in operation (%)	20 to 80 (non-condensing)		
Humidity in storage (%)	5 to 95 (non-condensing)		

¹⁾ Until half the original brightness is reached.



Power pack

For TFT monitor

- With IEC 320 socket
- With connection cable (1.5 m) and connector for connecting to the TFT monitor.
- H x W x D inches (mm): 1 x 4 x 2 (30 x 107 x 59)

Technical specifications:

- Input voltage: 100 – 240 V AC
- Output voltage: 12 V DC
- Operating temperature °F (°C): +32° to +104° F (0° to +40° C)

Connection cable

for power pack

With IEC connector at one end.
Length inches (mm): 59 (1500)

Packs of	Part No.
1	6450.050

Material:

Enclosure: Plastic

Packs of	Part No.
1	6450.060

TFT monitor mount

Suitable for mounting TFTs with VESA 75/100 adaptation up to 21" on

- Housing coupling CP-S, 6501.050, see page 181
- CP-L enclosure attachment 120 x 65 mm, 6525.610, see page 185
- Vertical support arm via enclosure attachment, tilting 6902.670, see page 198

Material:

Carbon steel

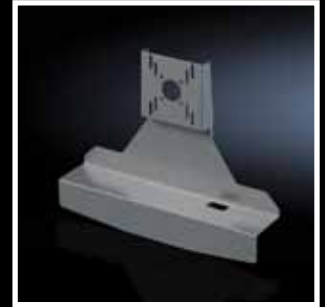
Surface finish:

Spray-finished

Color:

RAL 7024

Dimensions inches (mm)	Packs of	Part No.
19 x 15 x 4 (477 x 372 x 110.5)	1	2383.030



TFT monitor mount

Vertically hinged

Suitable for mounting TFTs with VESA 75/100 adaptation up to 20.1" in

- PC enclosures
- Other enclosures based on TS

The TFT support is attached to the upper horizontal enclosure section using appropriately fitted rails and/or chassis. The integral swivel mechanism allows the TFT to be swung forwards out of the enclosure with the system operational in order to access the equipment behind it. The display on the TFT remains visible even after it has been swung forwards. The length of the actuator handle is adjustable to adapt to the size of the TFT.

Material:

Carbon steel

Configuration:

Assembly part

Packs of	Part No.
1	2383.040

Also required:

For enc. depth inches (mm)	Punched rail TS 18 x 38 mm	Page
16 (400)	8612.240	655
20 (500)	8612.250	655
24 (600)	8612.260	655
32 (800)	8612.280	655





Built-in keyboard 19"/4 U with integral touchpad

The integral touchpad means that the installation of an additional, correct protection category mouse is no longer required, and cabling is also reduced. The short stroke keys are easily identified by edge embossing, less force is required to operate them and they have good positive key actuation.

Benefits:

- The separate number pad enables the parameters to be entered quickly
- Sealed, wipeable surface finish
- High level of mechanical and chemical resistance as per DIN 42 115.

Technical specifications:

- Number of keys: 105
- Front panel dimensions: 19" x 4 U (482.6 x 177.0 mm)
- Installation depth: 0.8" (23 mm)
- 12 M5 x 20 threaded bolts at back
- Actuation travel/force: 0.01"/0.6 lb (0.3 mm/2.6 N)
- Service life: 3 million switching cycles
- Operating temperature: –40° to +194° F (–40° to +90° C)
- Touchpad resolution, capacitive: 40 pixels/mm
- Interfaces: 2 x PS/2 (1 USB adaptor supplied loose)

Material:

Front panel: Aluminum

Protection rating:

IP 65 to IEC 60 529 (front)

Configuration:

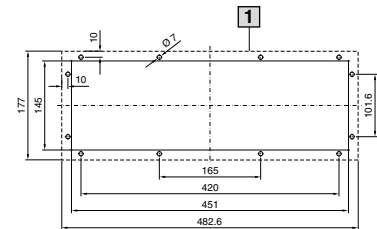
- Y connection cable, length 70" (1800 mm)
- PS/2 connector
- USB adaptor
- Seal
- Drilling template
- Assembly parts for surfaces

Also required:

Mounting kit 6053.800 (when installing in Comfort Panel), see page 817
 Mounting kit 6053.500 (when installing in and Optipanel), see page 817

Keyboard layout	Packs of	Part No.
As specified	1	6446.029 ¹⁾

¹⁾Extended delivery times.



1 Contact surface

Fold-out tray

for keyboard and mouse

For installation in

- 24" and 32" (600 and 800 mm) wide doors
- 19" (482.6 mm) swing frames and enclosures

Standard double-bit lock insert which may be exchanged for lock inserts 27 mm, version A, see page 607 and for lock cylinder 2571.000, see page 608.

Material:

- Flap: Carbon steel
- Side parts: Cast aluminum
- Tray: Extruded aluminum section

Surface finish:

- Cover, side parts: Textured paint
- Tray: Natural-anodized

Color:

Cover, side parts: RAL 7035

Protection rating:

IP 55 to IEC 60 529

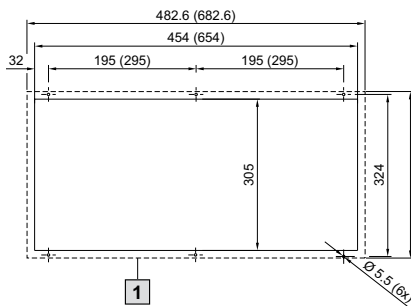
Accessories:

Mousepad support, pull-out, see page 822



For door width inches (mm)	Dimensions W x H x D inches/U (mm)	Installation depth inches (mm)	Max. keyboard dimensions W x H x D inches (mm)	Part No.
24 (600)	19 x 8 U x 5 (482.6 x 355 x 126)	4 (93)	16 x 2 x 10 (405 x 50 x 250) 16 x 2 x 8 (405 x 50 x 195) ¹⁾	2379.600
32 (800)	27 x 8U x 5 (682.6 x 355 x 126)	4 (93)	24 x 2 x 10 (605 x 50 x 250) 24 x 2 x 8 (605 x 50 x 195) ₁₎ 19 x 2 x 10 (475 ¹⁾ x 50 x 250)	2379.800

¹⁾ Maximum keyboard size with holder for mouse.



1 Contact surface

Keyboards, supports and drawers

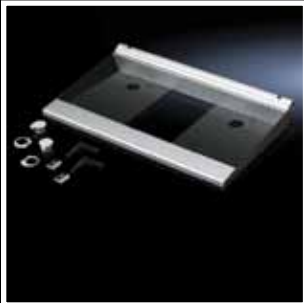


Support for mousepad, pull-out with mouse holder

For screw-fastening into the fold-out tray 2379.600/2379.800, see page 821.
To fit all standard mousepads up to 10" x 8" (250 x 205 mm).

Configuration:
Assembly parts

Packs of	Part No.
1 set	2379.900



Support for keyboards

for max. 16" x 8" (473 x 210 mm).

Prepared for:

- Cable gland
- Support for mousepad, vertically hinged (2383.020)

Material:

- Side parts: Carbon steel
- Front and rear: Extruded aluminum section

Surface finish:

- Side parts: Textured paint
- Front and rear: Natural-anodized

Packs of	Part No.
1 set	2383.000

Color: Side parts: RAL 7024

Configuration:

2 clamping screws, end stoppers, cover plate, cable entry grommet and nylon loop tape

Also required:

For external mounting on surfaces using enclosure surface connectors, see page 815

Accessories:

Mousepad support, swivelling, see page 827



Utility bars, vertically hinged

To support standard keyboards during programming and servicing work. Mounting distance of utility bars for problem-free insertion at least 12" (300 mm). Depth adequate for keyboards up to maximum 8" (210 mm).

For mounting beneath:

- Comfort Panel¹⁾
 - Optipanel²⁾
 - Any sufficiently large surface, such as:
 - IW worktops
 - Command panels
 - Command panel housing with door
- or vertical services (doors/side panels)

Min. front panel width

¹⁾ 15" (385 mm)

²⁾ 16" (405 mm)

After use, the utility bars fit securely and neatly under the mounting surface, thus giving the operator more space to move around.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Packs of	Part No.
1 set	6514.200



Keyboard rack, 19" (482.6 mm)

- 19" (482.6 mm) rack-mounted chassis 1 U, 17" (430 mm) deep
- Prepared for the installation of 19" (482.6 mm) keyboards with touchpad or trackball and mouse with the following dimensions:
 - Max. height: 1.5" (39 mm)
 - max. width: 16" (417 mm)
 - max. depth: 8" (210 mm)
- Solid, lockable front
- Telescopic slides with integral clamp
- Prepared for installation of a mousepad

Material:

Carbon steel

Design	Packs of	Part No.
PS/2	1	3659.520
USB	1	3659.680

Color:

RAL 7035

Configuration:

- 19" (482.6 mm) chassis excluding keyboard
- Connection cable
- Mounting bracket for 32" and 35" (800 and 900 mm) enclosure depth
- Assembly parts



Mousepad for keyboard rack

- For optional mounting on the left, right or front of the keyboard rack (fold-away design)
- Maybe folded into the keyboard drawer after use
- Only suitable for use in conjunction with 19" (482.6 mm) keyboards with a total height of max. 1.5" (39 mm), part no. 9911.396

Material:

Carbon steel

Color:

RAL 7035

Assembly	Packs of	Part No.
right/left	1	3659.620

Configuration:

Assembly parts



TFT monitor, 15"

- 19" (482.6 mm) front panel, 7 U
- TFT LCD 15.1"
- Anti-reflection coated safety glass screen
- Brightness: 250 cd/m²
- On-screen display
- Colors: 16.7 million
- Power pack: Input voltage: 100 – 240 V AC, output: 12 V DC/3.75 A
- OSD membrane keyboard
- VGA + SVGA, non-interlaced
- Maximum resolution 1024 x 768 pixels
- Contrast ratio: 300 : 1
- Viewing angle: 160° (H+V)
- Video input 15-pin D-SUB (analog RGB)
- RS232 monitor interface

Material:

Front panel: Aluminum, powder-coated

Color:

RAL 7035

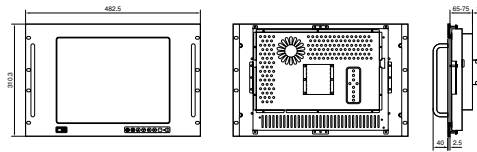
Protection rating:

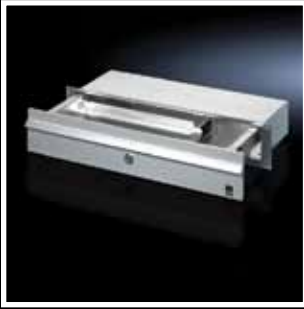
Tested to EN 60 950 and EMC directive 89/336/EEC

Note:

Depth varies according to the display design (protective glass, touchscreen etc.).

Packs of	Part No.
1	3659.440





Drawer 19'' (482.6 mm)/2 U for keyboard and mouse

For installation in:

- Any sufficiently large surface (e.g. door, side panel)
- 19'' (482.6 mm) system punchings
- Front panels
- Directly in Comfort-Panel and Optipanel of a suitable size

Suitable for:

- Accommodation of keyboards up to max. 15" x 1" x 5" (390 x 32 x 139 mm)
- Support of standard commercially available mouse or trackball

Design:

- Drawer: With stay
- Front panel: With security lock (lock no. 12321) and handle strip

Width inches (mm)	U	Depth inches (mm)	Part No.
19 (482.6)	2	6 (150)	6002.000

Material:

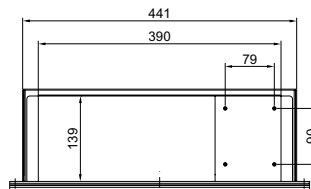
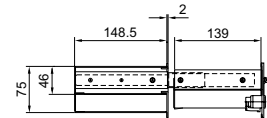
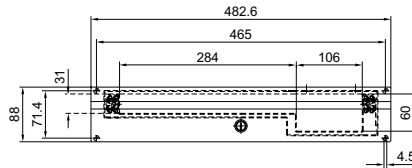
- Drawer housing: Carbon steel
- Drawer and front panel: Aluminum

Surface finish:

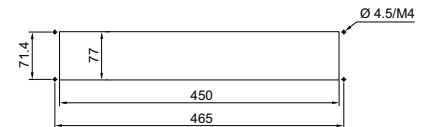
- Drawer housing: Zinc-plated
- Drawer and front panel: Natural-anodized

Configuration:

Assembly parts for installation in Comfort Panel/ Optipanel command panel



Mounting cut-out
(for installation in surfaces)



Drawer for keyboard and mouse

with mousepad support

For installation in:

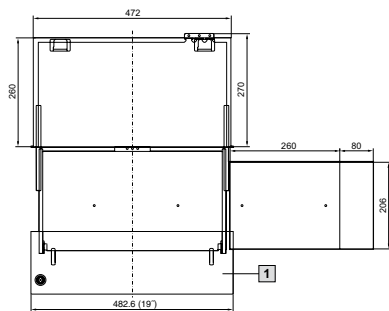
- Any sufficiently large surface (e.g. door, side panel)
- 19" (482.6 mm) system punchings
- Front panels

Suitable for accommodating

- Keyboards up to a maximum of inches (mm): 18 x 2 x 7 (460 x 42 x 170)
- Standard mouse and mouse pad

Design:

- Drawer and housing: With side pull-out mousepad support and tray
- Front panel: With 3 mm double-bit lock insert, folds out as handrest



1 Front trim panel

Width inches (mm)	U	Depth inches (mm)	Part No.
19" (482.6 mm)	3.5	10 (261)	6003.000

Material:

- Drawer and enclosure: Carbon steel
- Front panel: Aluminum

Surface finish:

- Drawer and enclosure: Textured paint
- Front panel: Natural-anodized

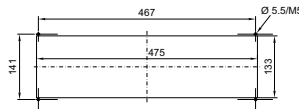
Configuration:

Assembly parts

Accessories:

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, version A, see page 607

Mounting cut-out for installation in surfaces



Keyboard drawer 1 U

for 19" (482.6 mm) attachment level

This space-saving keyboard drawer is screwfastened to the front and rear 19" (482.6 mm) attachment level. The installation spacing is infinitely adjustable from 18" – 32" (460 – 800 mm). It is fully extendible and lockable, with strain relief and hinged cable support. The drawer is suitable to accommodate 19" (482.6 mm) keyboards.

Interior dimensions:

H x W x D inches (mm):
approx. 2 x 17 x 9 (40 x 420 x 220)

Material:

Carbon steel

Color:

RAL 7035

Configuration:

Assembly parts, excluding keyboard

Note:

Monitor/keyboard unit, 1 U, see page 798

Distance between levels inches (mm)	Part No.
18 – 36 (460 – 800)	7281.200 ¹⁾

¹⁾ Delivered without keyboard.





Keyboard drawer 2 U for a 19" (482.6 mm) attachment level

For keyboards up to 17" (430 mm) wide and 10" (250 mm) deep with the front panel folded over.

Material:

Carbon steel with aluminum front

Surface finish:

Spray-finished

Color:

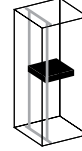
RAL 7035

Height	Packs of	Part No.
2 U	1	7281.035

Installation depth: 15" (390 mm)

Configuration:

Lockable drawer with handles, folding front, pull-out mousepad, mouse support, practical cable entry and strain relief.



Drawer 19" (482.6 mm) for keyboard

For attaching to the 19" (482.6 mm) mounting angles front and rear. Suitable for standard keyboards > 19" (482.6 mm). Keyboard support with non-slip base, plus wrist support. Depth-variable installation from inches (mm): 24 – 37" (610 – 950).
Clearance opening inches (mm)
H x W x D: 1.6 x 16 x 22 (40 x 408 x 550).

Material:

Carbon steel

Color:

RAL 7035

Packs of	Part No.
1	7063.888

Configuration:

Assembly parts, excluding keyboard

Note:

Installation only possible on L-shaped and cranked 19" (482.6 mm) mounting angles and/or 19" (482.6 mm) mounting frames.



Support for mousepad for command panels and surfaces

The angle of the mousepad support is individually adjustable. Two holes are needed on the enclosure for attachment purposes.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Accessories:

Holder for mouse, see page 827

Weight lb (kg)	Packs of	Part No.
2 (1)	1	2381.000



Support for mouse pad, vertically hinged

For mounting on the left/right, beneath support for keyboards. Latches home automatically, both when retracted and extended. With mounting holes for mouse holder (2382.000). With cutouts for cable routing and holes for attachment via cable ties, for fast assembly (2597.000).

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

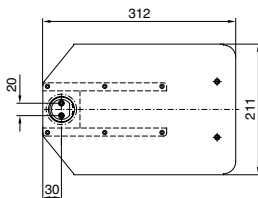
Assembly parts and mouse pad, stuck on with adhesive

Accessories:

Holder for mouse, see page 827

Cable ties, see page 726

Packs of	Part No.
1	2383.020



Holder for mouse

To fit mousepad support and for secure accommodation of a standard mouse.

Material:

Carbon steel

Surface finish:

Zinc-plated

Configuration:

Assembly parts

Also required:

Support for mousepad, see page 827

Weight lb (kg)	Packs of	Part No.
0.8 (0.3)	1	2382.000



Paper removal flap

Facilitates easy removal of pages from the printer without opening the enclosure door. Plexiglass flap with magnetic lock.

Paper removal flap	Color RAL	Packs of	Part No.
DIN A4	7015	1	6903.200



Interfaces



Base for tubular door frame

The space-saving alternative instead of component shelves to accommodate tower PCs (maximum 20 kg). For screw-fastening to the tubular door frame of 24" (600 mm) wide enclosures based on TS. Load capacity: 44 lb (20 kg).

Material:
Carbon steel

Surface finish:
Spray-finished

Height x width x depth inches (mm)	Packs of	Part No.
6 x 19 x 9 (159 x 495 x 230)	1	6902.950

Color:
RAL 7015

Configuration:
Retaining strap and assembly parts

Also required:
TS support strips for direct screw-fastening to the tubular door frame, see page 656



Interface box

For secure accommodation for all common computer ports, 3 1/2" disk drives and sockets. The lockable metal cover provides a high mechanical load-bearing capacity, protects against unauthorized access and ensures an increased shielding effect for the installed equipment.

Material:
– Front panel: Extruded aluminum section
– Mounting tray: Aluminum, 16 ga (1.5 mm)
– Flap: Aluminum, 11 ga (3.0 mm)

Weight lb (kg)	Packs of	Part No.
1.8 (0.8)	1	2482.000

Surface finish:
– Frame, mounting tray: Powder-coated
– Flap: Natural-anodized

Color:
RAL 7035

Configuration:
– Frame with hinged flap
– Cam with security lock (No. 12321).
– Mounting tray including seal and assembly parts



Interface extension with wall connection and built-in RJ 45 module

For extending the internal enclosure interfaces – e.g. from industrial PCs and switches – up to the outside of the enclosure. The wall connection only needs the same space as a switch.

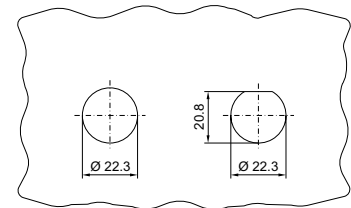
Benefits:
– Rapid access for maintenance work
– The protection category of the enclosure is preserved
– The lock nut cuts automatically into the spray finish or eloxal layer, thereby creating a conductive connection
– Captive protective cap

Material:
– Enclosure: Brass
– Cover: Aluminum
– Seal: Polyamide

Surface finish:
– Enclosure: Nickel-plated
– Cover: Natural-anodized

Protection rating:
IP 66/67 to IEC 60 529
(with the protective cap closed)

Anti-twist guard



Material thickness: 0.04" – 0.23" (1 – 6 mm)



Design	Wall connection	Inside	Length inches (mm)	Packs of	Part No.
USB	Type A jack	Type A connector	20 (500)	1	2482.210
			39 (1000)	1	2482.220
			79 (2000)	1	2482.230
RJ 45	Jack	Connector	20 (500)	1	2482.700
			39 (1000)	1	2482.710
			79 (2000)	1	2482.720
RJ 45	Jack	Jack	–	1	2482.730

Interface flaps, modular

For universal use in all situations where rapid access to interfaces and sockets is needed. The enclosure remains closed and protected from ambient influences and unauthorized access. Space-saving installation e.g.:

- in small enclosures and compact enclosures as a programming interface for controllers
- in IT and industrial distributors as maintenance access for networks
- in PC enclosures and console systems for the temporary connection of additional equipment
- in mobile industrial workstations for rapid connection to existing network structures
- in command panel systems for programming and maintenance of integral components.

The mounting frame has a flap which snaps into position in various stages at opening angles of 90° to 180°. A snap fastener ensures a reliable seal. This may be locked if required.

Material:

- Mounting frame and metal flap: Fine die-cast zinc
- Plastic flap: Polycarbonate (semi-transparent)
- Lock: Polycarbonate, RAL 7024

Surface finish:

Mounting frame and metal flap: Matt nickel-plated

Color:

Lock: RAL 7024

Protection rating:

IP 65 to IEC 60 529 with sealed flap and proper assembly

Description	cUL	UL	PU	Part No.
Mounting frame¹⁾				
1) Single, with plastic flap (semi-transparent)			1	2482.300
2) Double, with plastic flap (semi-transparent)			1	2482.310
3) Single, with metal flap	■	■	1	2482.320
4) Double, with metal flap	■	■	1	2482.330
Socket modules				
5) Germany (VDE), spring-action terminals max. 0.07" x 0.1" (2 x 2.5 mm ²), connection at rear			1	2482.400 ³⁾
6) Germany (VDE), screw terminals max. 6 mm ² , connection at rear, color: yellow (RAL 1016), for installation in front of main switch			1	2482.410 ³⁾
7) USA NEMA 5-15, plug-in solder connection 0.2" x 0.03" (4.8 x 0.8 mm)	■	■	1	2482.420 ⁴⁾
Interface inserts				
8) 2 x SUB-D9 (jack/pin)	■	■	1	2482.500
9) SUB-D9 (jack/jack)	■	■	1	2482.510
10) 2 x USB A (jack/jack)	■	■	1	2482.540 ²⁾
11) RJ 45 (jack/jack, Cat. 5e), SUB-D9 (jack/jack), SUB-D9 (pin/pin)	■	■	1	2482.550
12) 2 x RJ 45 (jack/jack, Cat. 5e)	■	■	1	2482.560 ²⁾
13) USB A (jack/jack), RJ 45 (jack/jack, Cat. 5e), SUB-D9 (jack/pin)	■	■	1	2482.570 ²⁾
14) RJ 45 (jack/jack, Cat. 5e), SUB-D9 (jack/pin), SUB-D25 (jack/pin)	■	■	1	2482.580
15) Blanking plate (slimline), for individual population, usable area: 1.8 x 3.0" (45 x 75 mm)	■	■	1	2482.590

¹⁾ Electrically conductive.

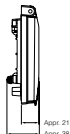
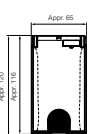
²⁾ Conductively linked to mounting frame.

³⁾ Rated voltage: 250 V AC, rated current: 10 – 16 A

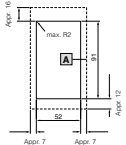
⁴⁾ Rated voltage: 125 V AC, rated current: 15 A (2482.420)

All SUB-D interfaces may be rotated while in operation. Other socket modules and interface inserts available on request.

Interface flap, single



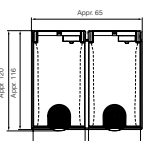
Mounting cut-out



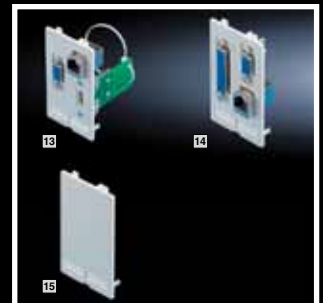
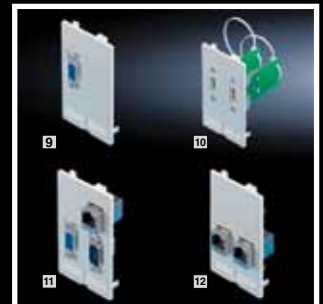
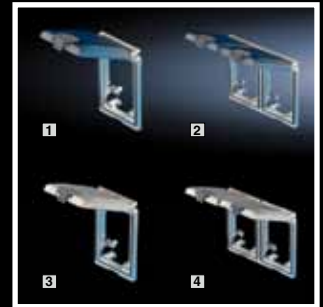
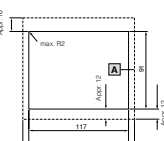
Permissible material thickness:
38 – 4 ga (1 – 5 mm)

A Contact surface

Interface flap, double



Mounting cut-out



Signal pillars



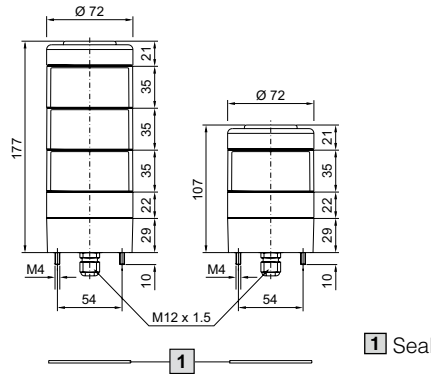
Signal pillars, LED compact

Benefits:

- Complete, ready-to-connect solution
- Minimal build height
- Extremely long service life of the LEDs (at least 70,000 h), maintenance-free
- Minimal assembly work and warehousing costs

Technical specifications:

- Operating voltage: 24 V AC/DC
- Electrical connection: Screw terminals
- Light: LED
- Transmission angle: 3 x 120°
- Operating temperature:
 - 4 to +158° F (-20 to +70° C)
- Flashing function: Controllable via PLC
- Cable entry: Metric screwed cable gland M12 x 1.5 for cable diameter 3.0 – 6.5 mm



Design	Packs of	H inches (mm)	Part No.
3-stage, red, yellow, green	1	177	2372.100
1-stage, red	1	107	2372.130

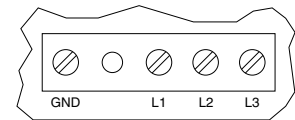
Protection rating:

IP 65 to IEC 60 529

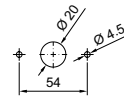
Also required:

- For wall mounting: Bracket for wall mounting, see page 834
- For conduit mounting/support arm systems: Connection adaptor, see page 830
- Other mounting components, see page 834 - 836

Connection picture
2372.100/.130/.140



Mounting cut-out



Connection adaptor for signal pillar, LED compact

For conduit mounting and mounting on support arm systems.

Material:

Plastic

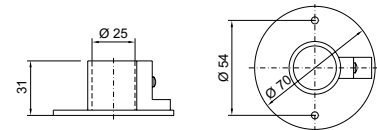
Color:

Black

Accessories:

- Mounting components for conduit mounting, see page 836
- Mounting components for support arm system, see page 835

Packs of	Part No.
1	2372.120



Signal pillars, modular

Benefits:

- Simple assembly and contact via bayonet fastener
- Configuration of up to five components with the same voltage
- Flashing and stroboscopic light element incl. lamp, suitable for direct use
- Components are available in a range of colors and voltages

For modular configuration of

- Connection components
- AS interface element
- Optical components
- Incandescent lamps/LED lamps
- Acoustic components
- Label panel



Connection component for signal pillars, modular

Optionally for conduit or wall/base mounting. Screw terminals in the connection component. With cover for optical components. Contact hazard protection to VDE.

Material:

Enclosure of polyamide

Color:

Black

Protection rating:

IP 54

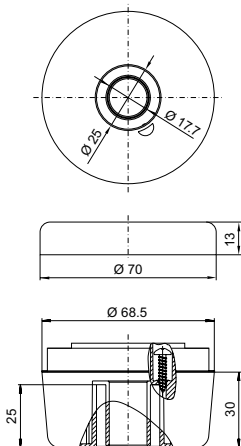
Connection component	Part No.
For conduit mounting	2368.000
For wall/base mounting	2368.010

Accessories:

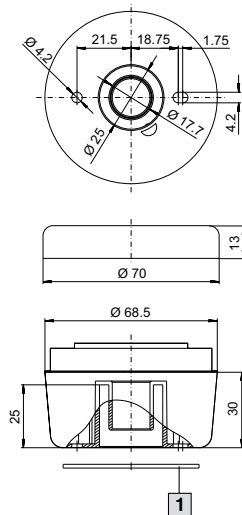
- Mounting components for wall/base mounting, see page 834
- Mounting components for conduit mounting, see page 836
- Mounting components for support arm system, see page 835



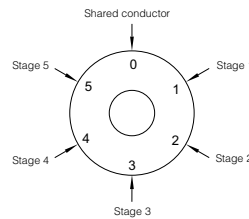
Connection component for conduit mounting
2368.000



Connection component for wall/base mounting
2368.010



Connection diagram



Signal pillars



Optical components for signal pillar, modular

With 360° signal transmission thanks to optimized prism system.
No. of potential stages = 5 components, with identical voltage.

Material:

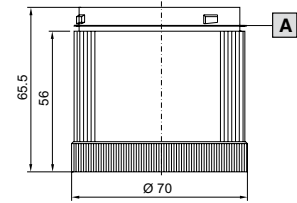
- Enclosure: Polyamide
- Cap: Transparent polycarbonate

Protection rating:

IP 54 if a cover or acoustic component is fitted at the top

Also required:

Incandescent lamps for steady light component, see page 832



A Pre-configured seal

1 Steady light component 12 – 240 V AC/DC¹⁾

	Red	Green	Yellow	Clear	Blue
Part No.	2369.000	2369.010	2369.020	2369.030	2369.040

¹⁾Incandescent lamps not included with the supply.

2 LED steady light component 24 V AC/DC, 25 mA

	Red	Green	Yellow	Clear	Blue
Part No.	2372.000	2372.010	2372.020	2372.030	2372.040

3 LED steady light component 230 V AC/DC

	Red	Green	Yellow	Clear	Blue
Part No.	2370.150	2370.160	2370.170	2370.180	2370.190

4 LED flashing light component 24 V AC/DC

	Red	Green	Yellow	Clear	Blue
Part No.	2370.500	2370.510	2370.520	2370.530	2370.540

5 LED flashing light component 230 V AC/DC

	Red	Green	Yellow	Clear	Blue
Part No.	2370.550	2370.560	2370.570	2370.580	2370.590

6 Flashing light component 24 V DC, 125 mA

	Red	Green	Yellow	Clear	Blue
Part No.	2371.000	2371.010	2371.020	2371.030	2371.040

7 Flashing light component 230 V DC, 15 mA

	Red	Green	Yellow	Clear	Blue
Part No.	2371.050	2371.060	2371.070	2371.080	2371.090

8 Incandescent lamp for steady light components

With BA15d base.

Incandescent lamp	Packs of	Part No.
24 V, 5 W	3	2374.060
230 V, 5 W	3	2374.070

AS interface element for signal pillars, modular

User-friendly activation of the signal pillar levels via AS interface.

Benefits:

- Standard slave
- Max. 31 addresses
- Up to 4 signal levels may be activated
- Power supply may be switched from internal bus supply to external auxiliary voltage
- With programming interface
- Wiring and commissioning work is significantly reduced
- For mounting directly on the connection component of the signal pillar

Design	Packs of	Part No.
24 V DC	1	2376.100

Extended delivery times.

Material:

Polycarbonate

Color:

Black, transparent

Protection rating:

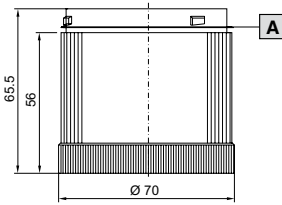
IP 54 to IEC 60 529

Also required:

Connection element, see page 831

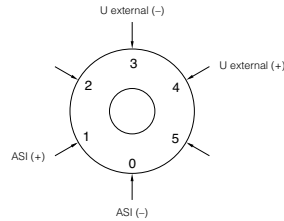
Voltage supply

AS interface element	Via bus cable	
Operating voltage	18.5 V DC to 31.6 V DC (to AS interface specification)	
Polarity reversal protection	Built-in	
Watchdog	Built-in	
External auxiliary voltage	24 V DC +/- 10%	
Auxiliary voltage	internal	external
Current carrying capacity max.	200 mA	200 mA per element
Current rating max.	250 mA	75 mA
Voltage on signal element	18 – 31 V DC	24 V DC +/- 10%
Short-circuit/overload protection	Built-in	Pre-fuse M 1.6 A
Temperature range	-4°F to +122°F (-20°C to +50°C)	



A Pre-configured seal

Connection diagram



Acoustic component for signal pillars, modular

To indicate warnings or malfunctions.

Material:

Enclosure: Polyamide

Color:

Black

Note:

Mounting only on the upper end of the optical components or directly on the connection component.

24 V AC/DC

Acoustic components	Packs of	Part No.
85 dB ¹⁾ max. 25 mA	1	2376.000
100 dB ²⁾ max. 25 mA	1	2376.010

¹⁾ Continuous tone or pulsating

²⁾ Volume and 8 tones may be set

230 V AC

Acoustic components	Packs of	Part No.
85 dB ¹⁾ max. 25 mA	1	2376.020
100 dB ²⁾ max. 25 mA	1	2376.030

¹⁾ Continuous tone or pulsating

²⁾ Volume and 8 tones may be set



Signal pillars



Label panel for signal pillars, modular

For text additions for up to 5 optical components.
With break point for any fields that are not required, 2" x 6" (50 x 150 mm), including clamping section for base or tube with a diameter of 1" (25 mm).

Material:
Acrylic, transparent

Label panel	Part No.
For 5 optical components	2374.150



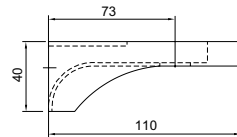
Mounting components For wall/base mounting

Fig.	Mounting component	Color	Suitable for signal pillar		Part No.
			LED compact	modular	
1	Bracket for wall mounting, including rubber gland for concealed cable routing	Black	■		2372.110
2	Bracket for connection component	Black		■ ¹⁾	2374.040
3	For side cable outlet	Black		■ ¹⁾	2374.080

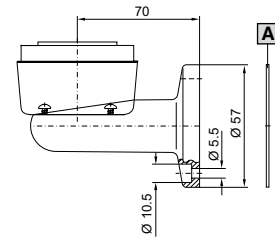
¹⁾ Also requires connection component 2368.010, see page 831.



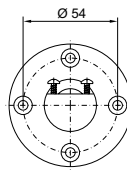
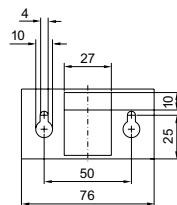
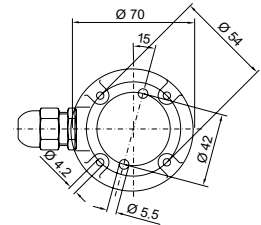
Bracket for wall mounting



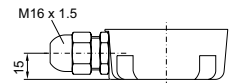
Bracket for connection component



For side cable outlet



A Seal
B Flat seal



Mounting components for support arm systems

Fig.	Mounting component	Color	Suitable for signal pillar		Part No.
			LED compact	modular	
4	For support arm system CP-L – Angle piece 6524.0X0 – Angle coupling 6526.0X0	RAL 9017 (traffic black)	■ ¹⁾	■ ²⁾	2375.000
5	For support arm system CP-L – Intermediate hinge 6523.0X0 – Wall-mounted hinge 6521.0X0 – Top-mounted joint 6522.0X0	RAL 9017 (traffic black)	■ ¹⁾	■ ²⁾	2375.020
6	For support arm system CP-S – Angle piece 90° 6501.140	RAL 7024 (graphite grey)	■ ¹⁾	■ ²⁾	2375.030
7	For support arm system – Angle coupling 90° 6071.200 – Angle piece 90° 6071.400 – Intermediate hinge 6071.800 – Wall-mounted hinge 6072.500 – Top-mounted joint 6072.600	RAL 7024 (graphite grey)	■ ¹⁾	■ ²⁾	6073.000

Also required:

¹⁾ Connection adaptor 2372.120, see page 830

²⁾ Connection component 2368.000, see page 831



Mounting components For conduit mounting

Fig.	Mounting component	Color	Suitable for signal pillar		Part No.
			LED compact	modular	
8	Base with integral conduit, Ø 25 mm, 4" (110 mm) long	Black	■ ¹⁾	■ ²⁾	2374.000
9	Individual base	Black	■ ¹⁾	■ ²⁾	2374.010
10	Single conduit, 10" (250 mm) long	Aluminum	■ ¹⁾	■ ²⁾	2374.020
	Single conduit, 16" (400 mm) long	Aluminum	■ ¹⁾	■ ²⁾	2374.030
11	Angle bracket for conduit mounting	Black	■ ¹⁾	■ ²⁾	2374.050
12	Base, tiltable from 0° – 90° in 7.5° increments. Simple cable entry up to a cable diameter of 14 mm.				2374.090³⁾

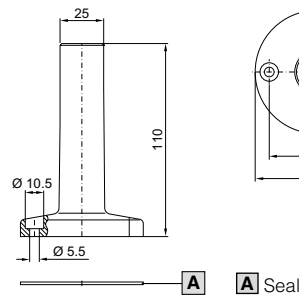
Also required:

¹⁾ Connection adaptor 2372.120, see page 830

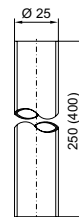
²⁾ Connection component 2368.000, see page 831



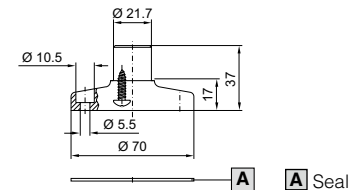
Base with integral conduit



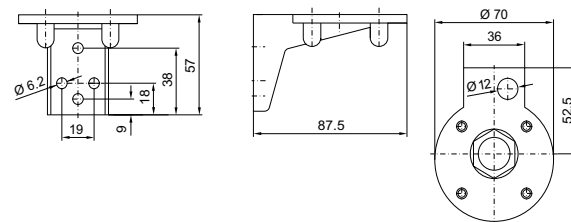
Single conduit



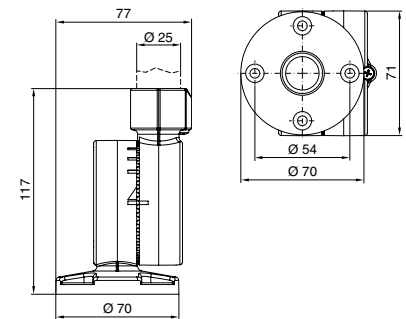
Individual base, plastic



Angle bracket for conduit mounting



Base, tiltable



RittalXpress – Stock > Mod > Ship

One Program — Three Advantages

The industry's best, most sought-after enclosures and accessories are now available as part of the industry's best support program. RittalXpress features an extensive stocking program, a custom modification program and fast and efficient shipping.

STOCK: The vital enclosures and related accessories you need most often are in our warehouse or available through your local distributor and ready for quick access and on-time delivery. The RittalXpress stocking program includes more than 2,220 part numbers, continuously in stock and ready for shipping when you need them.

MOD: Your way, is our way! Now products and accessories in Rittal's exclusive Xpress Stocking Program are eligible for the modifications you need. Your project will be quoted fast and your finished order can be on site within days. If one of Rittal's dozens of enclosures or hundreds of accessories doesn't do exactly what you need, we've a team of modification specialists standing by to make the custom changes and enhancements you require.

SHIP: RittalXpress shipping ensures that order processing and shipping of your off-the-shelf enclosures and accessories gets the ultimate priority attention so your order leaves the warehouse enroute to your site on the next business day.

What RittalXpress can mean to you...

- Quick turn-around — delivered to your site
- Thousands of part numbers in stock and ready to ship
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- Pricing that won't break the bank

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The CE symbol

All Rittal products subject to an EU Directive which defines labeling requirements are labeled CE.

Up-to-date manufacturer declarations for the respective products are available on the Internet at www.rittal-corp.com

Note:

The CE symbol is not a quality symbol. Conformity is certified by the manufacturer on an independent basis.

This distinguishes CE labeling from approvals, which are issued by independent bodies.

Grounding

The grounding must be designed by the manufacturer of switchgear in accordance with the relevant VDE provisions or local regulations.

The enclosure packs generally contain grounding materials (screws, nuts, washers). The assembly instructions contain recommendations on installing a protective ground.

The pre-assembled ground straps available in various cross sections and lengths, are intended to make assembly of a ground conductor easier.

Further information can be found in our technical documentation "PE ground conductor connection, current carrying capacity".

Enclosure designs guaranteeing hygiene and effective cleaning

Special applications require special solutions – in terms of materials, design and security. This is also true for applications in the food and hygiene sector and in sensitive fields such as medical technology and pharmaceuticals.

Consequently, Rittal has reviewed the quality standards in those branches and has subjected its products to stringent testing.



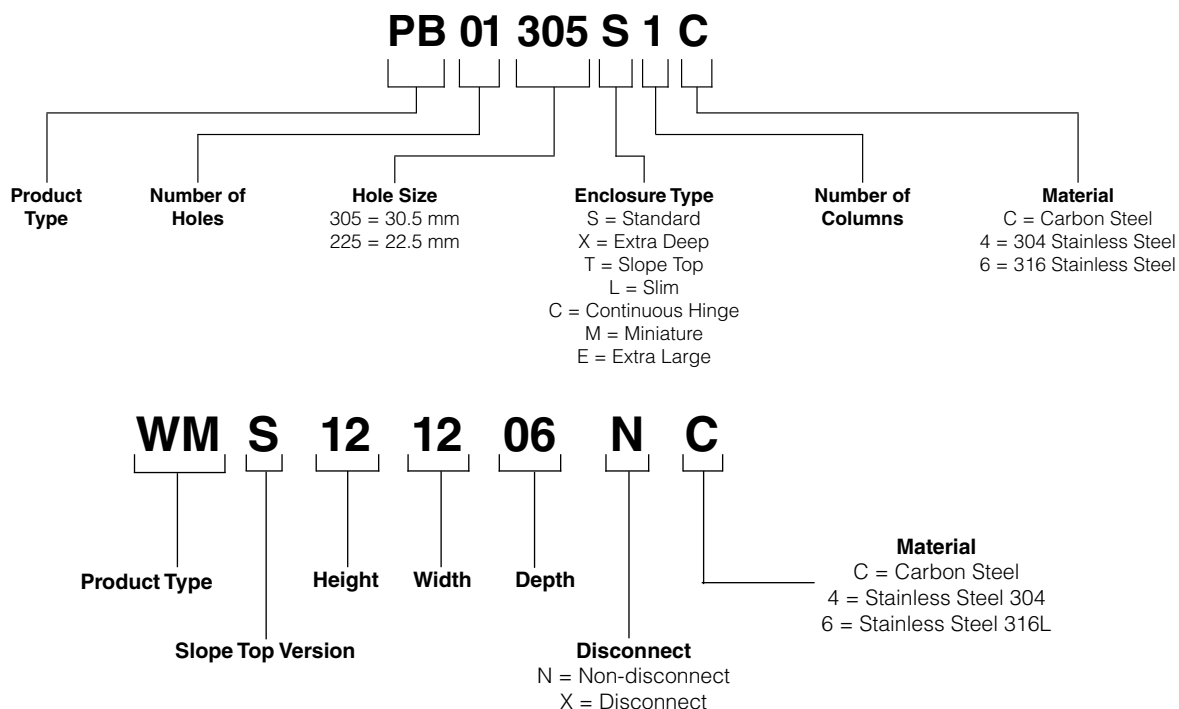
RAL colors

Color RAL	Designation	Color Sample
3001	signal red	
5002	ultramarine	
5005	signal blue	
5018	turquoise blue	
7015	slate grey	
7022	umbra grey	
7024	graphite grey	
7030	stone grey	
7032	pebble grey	

Color RAL	Designation	Color Sample
7033	cement grey	
7035	light grey	
7044	silky grey	
8019	grey brown	
9005	jet black	
9006	white aluminum	
9011	graphite black	
9017	traffic black	

Color samples shown are for reference only and may be different from the finished product

Understanding PB and WM part numbers:



Protection ratings and approvals

Product protection ratings and approvals are key requirements for the global acceptance of industrial products.

Rittal products meet the highest internationally recognized quality standards. All components are subjected to the most stringent testing in accordance with international standards and regulations.

The consistently high product quality is ensured by a comprehensive quality management system. Regular production inspections by external test institutes also guarantee compliance with global standards.

A precise allocation of products to marks of conformity can be found on our product and service pages on the Internet: www.rittal-corp.com

The IP protection ratings is characterized by 2 numbers - example of protection rating IP 43:

Code Letters IP	
First characteristic numeral 4	Second characteristic numeral 3

Degrees of protection for protection against contact and foreign bodies: First characteristic numeral			Degrees of protection for protection against water: Second characteristic numeral		
First characteristic numeral	Degree of protection		Second characteristic numeral	Degree of protection	
	Description	Definition		Description	Definition
1	Protected against solid foreign objects with a diameter of 2.0" (50 mm) and greater	The object probe, a sphere 2.0" (50 mm) in diameter, must not penetrate fully ¹⁾ .	1	Protected against vertically falling water drops	Vertically falling drops shall have no harmful effects.
2	Protected against solid foreign objects with a diameter of 0.5" (12.5 mm) and greater	The object probe, a sphere 0.5" (12.5 mm) in diameter, must not penetrate fully ¹⁾ . The articulated test finger may penetrate up to its length of 3" (80 mm), but adequate distance must be adhered to.	2	Protected against vertically falling water drops when the enclosure is tilted up to 15°	Vertically falling drops must not have any harmful effects when the enclosure is tilted up to 15° in both directions from the vertical.
3	Protected against solid foreign objects with a diameter of 0.1" (2.5 mm) and greater	The object probe, a sphere 0.1" (2.5 mm) in diameter, must not penetrate at all ¹⁾ .	3	Protected against spraying water	Water sprayed at an angle of up to 60° on either side of the vertical must have no harmful effects.
4	Protected against solid foreign objects with a diameter of 0.04" (1.0 mm) and greater	The object probe, a sphere 0.04" (1.0 mm) in diameter, must no penetrate at all ¹⁾ .	4	Protected against splashing water	Water splashed on the enclosure from every direction must not have any adverse effects.
5	Dust-protected	The ingress of dust is not fully prevented, but dust may not enter to such an extent as to impair satisfactory operation of the device or safety.	5	Protected against water jets	Water splashed on the enclosure from every direction must not have any adverse effects.
6	Dust-tight	No ingress of dust at a partial vacuum of 20 mbar inside the enclosure.	6	Protected against powerful water jets	Water splashed on the enclosure from every direction in a powerful jet must not have any adverse effects.
			7	Protected against the effects of temporary immersion in water	Water must not ingress to such an extent as to cause harmful effects when the enclosure is temporarily immersed in water under standardized pressure and time conditions.
			9K	Water with high-pressure/ stream-jet cleaning ²⁾	Water directed at the enclosure from every direction under greatly increased pressure must not have any adverse effects.

¹⁾ The full diameter of the object probe must not pass through an opening of the enclosure.

²⁾ This test is not regulated by EN 60 529, but by DIN EN 40 050, part 9.

Extracts from BS EN 60 259: 1991 are reproduced with the permission of BSI. Complete editions of the standards can be obtained by post from BSI Customer Services, 889 Chiswick High Road, London W4 4AL

NEMA 250-2003 to IEC 60529 enclosure classification designations (IP)

(Cannot be Used to Convert IEC Classification Designations to NEMA Type Ratings)

IP First Character	NEMA Enclosure Type																		IP Second Character	
	1		2		3, 3X, 3S, 3SX		3R, 3RX		4, 4X		5		6		6P		12, 12K, 13			
IP0_																				IP_0
IP1_																				IP_1
IP2_																				IP_2
IP3_																				IP_3
IP4_																				IP_4
IP5_																				IP_5
IP6_																				IP_6
																				IP_7
																				IP_8
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B		

A = A shaded block in the "A" column indicates that the NEMA Enclosure Type exceeds the requirements for the respective IEC 60529 IP First Character Designation. The IP First Character Designation is the protection against access to hazardous parts and solid foreign objects.

B = A shaded block in the "B" column indicates that the NEMA Enclosure Type exceeds the requirements for the respective IEC 60529 IP Second Character Designation. The IP Second Character Designation is the protection against the ingress of water.

Example Of Table Use

An IEC IP 45 Enclosure Rating is specified. What NEMA Type Enclosures meet and exceed the IP 45 rating?

Referencing the first character, 4, in the IP rating and the row designated "IP4_" in the left most column in the table; the blocks in Column "A" for NEMA Types 3, 3X, 3S, 3SX, 4, 4X, 5, 6, 6P, 12, 12K, and 13 are shaded. These NEMA ratings meet and exceed the IEC protection requirements against access to hazardous parts and solid foreign objects.

Referencing the second character, 5, in the IP rating and the row designated "IP_5" in the right most column in the table; the blocks in Column "B" for NEMA Types 3, 3X, 3S, 3SX, 4, 4X, 6 and 6P are shaded. These NEMA ratings meet and exceed the IEC requirements for protection against the ingress of water. The absence of shading in Column "B" beneath the "NEMA Enclosure Type 5" indicates that Type 5 does not meet the IP 45 protection requirements against the ingress of water. Likewise the absence of shading in Column "B" for NEMA Type 12, 12K and 13 enclosures indicates that these enclosures do not meet the IP 45 requirements for protection against the ingress of water. Only Types 3, 3X, 3S, 3SX, 4, 4X, 6, and 6P have both Column "A" in the "IP4_" row and Column "B" in the "IP_5" row shaded and could be used in an IP45 application.

The NEMA Enclosure Type 3 not only meets the IP 45 Enclosure Rating, but also exceeds the IEC requirements because the NEMA

Type requires an outdoor corrosion test; a gasket aging test; a dust test; an external icing test; and no water penetration in the rain test. Slight differences exist between the IEC and NEMA test methods, but the IEC rating permits the penetration of water if "it does not deposit on insulation parts, or reach live parts." The IEC rating does not require a corrosion test; gasket aging test; dust test or external icing test. Because the NEMA ratings include additional test requirements, this table cannot be used to select IP Designations for NEMA rated enclosure specifications.

IEC 60529 specifies that an enclosure shall not only be designated with a stated degree of protection indicated by the first characteristic numeral if it also complies with all lower degrees of protection. Furthermore IEC 60529 states that an enclosure shall only be designated with a degree of protection indicated by the second characteristic numeral if it also complies with all lower degrees of protection up to and including the second characteristic numeral 6. An enclosure designated with a second characteristic numeral 7 or 8 only is considered unsuitable for exposure to water jets (designated by second characteristic numeral 5 or 6) and need not comply with requirements for numeral 5 or 6 unless it is dual coded. Since the IEC protection requirements become more stringent with increasing IP character value up through 6, once a NEMA Type rating meets the requirements for an IP designation up through 6, it will also meet the requirements for all lower IP designations. This is apparent from the shaded areas shown in the table.

Note

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NEMA

The **N**ational **E**lectrical **M**anufacturers **A**ssociation (NEMA) is a standards organization in Washington, D.C., USA, which publishes a number of technical standards but does not test or certify products itself.

The following NEMA classification outlines the protection of individuals from unintentional

contact with equipment and the protection of an enclosure from external factors.

Further information on protection categories may be found on the Internet at: www.rittal-corp.com.

UL

UL is a source for product compliance based in Northbrook, IL, U.S.A. UL has developed more than 800 safety standards, for which it does product testing, and serves customers in more than 35 countries around the world, from manufacturers and retailers to consumers and regulating bodies.

CSA

The **C**anadian **S**tandards **A**ssociation is a not-for-profit membership-based association serving business, industry, government and consumers in Canada and the global marketplace. CSA develops standards for public health and safety and offers training materials, workshops, and seminars for education in those standards.

NEMA, UL and CSA Standards

Enclosure rating	NEMA	UL	CSA
	National Electrical Manufacturers Association (NEMA 250)	Underwriters Laboratories, Inc. (UL 50 and 508)*	Canadian Standards Association (C22.2 No. 94-M91)
Type 1	Enclosures are intended for indoor use primarily to provide a degree of protection against the contact with the enclosed equipment.	Indoor use primarily to provide protection against contact with the enclosed equipment and against a limited amount of falling dirt.	General purpose enclosure. Protects against accidental contact with live parts.
Type 2	Enclosures are intended for indoor use primarily to provide a degree of protection against the contact with the enclosed equipment.	Indoor use to provide a degree of protection against contact with the enclosed equipment and against a limited amount of falling dirt.	Indoor use to provide a degree of protection against dripping and light splashing of noncorrosive liquids, and falling dirt.
Type 3	Enclosures are intended for outdoor use primarily to provide a degree of protection against rain, sleet, windblown dust, and damage from external ice formation.	Outdoor use to provide a degree of protection against windblown rain; undamaged by the formation of ice on the enclosure.	Indoor or outdoor use to provide a degree of protection against rain, snow, and windblown dust; undamaged by the external formation of ice on the enclosure.
Type 3R	Enclosures are intended for outdoor use primarily to provide a degree of protection against rain, sleet, and damage from external ice formation.	Outdoor use to provide a degree of protection against windblown dust and windblown rain; undamaged by the formation of ice on the enclosure.	Indoor or outdoor use to provide a degree of protection against rain, snow; undamaged by the external formation of ice on the enclosure.
Type 4	Enclosures are intended for indoor and outdoor use primarily to provide a degree of protection against rain, sleet, and damage from external ice formation.	Indoor or outdoor use to provide a degree of protection against falling rain, splashing water, and hose-directed water; undamaged by the formation of ice on the enclosure.	Indoor or outdoor use to provide a degree of protection against rain, snow, and windblown dust, splashing and hose-directed water; undamaged by the external formation of ice on the enclosure.
Type 4X	Enclosures are intended for indoor and outdoor use primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose-directed water, and damage from external ice formation.	Indoor or outdoor use to provide a degree of protection against falling rain, splashing water, and hose-directed water; undamaged by the formation of ice on the enclosure; resists corrosion.	Indoor or outdoor use to provide a degree of protection against rain, snow, and windblown dust, splashing and hose-directed water; undamaged by the external formation of ice on the enclosure; resists corrosion.
Type 6	Enclosures are intended for indoor and outdoor use primarily to provide a degree of protection against hose-directed water, the entry of water during occasional temporary submersion at a limited depth, and damage from external ice formation.	Indoor or outdoor use to provide a degree of protection against entry of water during temporary submersion at a limited depth; undamaged by the formation of ice on the enclosure.	Indoor or outdoor use to provide a degree of protection against entry of water during temporary submersion at a limited depth; undamaged by the formation of ice on the enclosure.
Type 12	Enclosures are intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt and non-corrosive liquids.	Indoor use to provide a degree of protection against dust, dirt, fiber flyings, dripping water, and external condensation of non-corrosive liquids.	Indoor use primarily to provide a degree of protection against circulating dust, lint, fibers, and flyings; dripping and light splashing of non-corrosive liquids; not provided with knockouts.
Type 13	Enclosures are intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt and non-corrosive liquids.	Indoor use to provide a degree of protection against lint, dust, seepage, external condensation and spraying of water, oil, non-corrosive liquids.	Indoor use primarily to provide a degree of protection against circulating dust, lint, fibers, and flyings; seepage and spraying of non-corrosive liquids including oils and coolants.

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* UL shall not be responsible to anyone for the use of or reliance upon a UL Standard material by anyone. UL shall not incur any obligation or liability for damages, including consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon a UL Standard Material.

Surface protection

The triple treatment of outer surfaces – Nano coating, electrophoretic dipcoat priming and textured powder-coating – provides optimum corrosion protection for enclosures such as TS, AE and KL. To ensure optimum corrosion protection in extreme climates, aluminum or zinc-plated metal with subsequent zinc phosphating and powder-coating are used for outdoor enclosures.

The standard coating is resistant to:

- Mineral oils
- Lubricants
- Machining emulsions
- Solvent (briefly as for cleaning)
- Weak acids and alkalines

This has been tested and confirmed by various independent test institutes.

Quality is ensured by continuous process monitoring.

Priming or powder-coating suitable for over-painting

After careful cleaning of the surface, the standard coating may be over-painted with:

- DD gloss paints
- Single and dual-component gloss paints
- Car repair paints
- Powder paints
- Water-based paints

If in doubt, perform a compatibility test. Always follow the paint manufacturer's instructions.

When over-painting, take care not to exceed 356° F (180° C) and a baking time of 15 minutes.

Prior to painting, the surface needs to be prepared by physical scuffing or the use of a chemical etching agent.

Physical scuffing would be like a 300 grit 3M pad; chemical etching agents would be Xylene or Toulene.

Special coatings

Chemical paint:

For the best possible resistance to organic and inorganic substances that can be achieved with paint.

Outdoor use of enclosures

In order to guarantee satisfactory long-term function of enclosures in outdoor environments, relevant environmental factors need to be taken into account.

These include:

- UV radiation, the corrosive action of air pollution, rain, ice, snow, wind and other factors in special climate conditions.

Influence of weather conditions on the outer coating

It is necessary to ensure the UV and corrosion resistance of components exposed to the weather. A special 3-phase paint finish is suitable for outdoor installations. For outdoor installation of an enclosure, a rain canopy should be provided to protect the seal against permanent humidity and exposure to prolonged UV radiation.

Condensation inside the enclosure

Condensation needs to be prevented with special measures, for example by venting or heating the enclosure.

Protection ratings

The enclosure is exposed to extreme weather conditions during outdoor use.

Long periods of rain, snow, ice, high winds and temperature fluctuations place high demands on the enclosure's sealing gaskets. Often, the protection ratings for outdoor weather exposure described in DIN VDE 0100, part 737, point 5.2, IP X3 is insufficient to provide permanent protection for electrical installations.

Standard IEC 60 529 offers the option of labeling with the supplementary letter "W". Enclosures labeled this way are suitable for use in weather conditions agreed between the manufacturer and the user, and are equipped with additional protective features or techniques (rain canopy, special paints, special color shades).

The three-phase coating process for enclosures

Coating procedures	Technical properties	Technical specifications	
Degreasing, Nano coating, rinsing	Neutralizes electric resistance, provides temporary corrosion protection and better adhesion of paint.		
Anodic dipcoat priming	Uniform coating on all surfaces, edges and recesses provides superior corrosion protection.	Coat thickness	Approximately 20 µm
		Erichsen cupping DIN EN ISO 20 482	≥ 0.2" (4 mm)
		Bucholz hardness DIN EN ISO 2815	≥ 80
		Cross cutting DIN EN ISO 2409	Gt 0
The primer is readily over-painted and free from heavy metals, chromate and silicone.			
Oven Heating			
Textured powder-coating	The special merits of powder-coating are high durability, good corrosion protection, good resistance to chemicals, temperature, and outdoor environment, and can be easily cleaned.	Outer coating thickness	60 µm . . . 110 µm
		Erichsen cupping DIN EN ISO 20 482	≥ 0.2" (4 mm)
		Bucholz hardness DIN EN ISO 2815	≥ 80
		Cross cutting DIN EN ISO 2409	Gt 0
The powder-coating is readily over-painted and is free from heavy metals, chromate and silicone.			
Oven Heating		Overall outer coating thickness	Ø 80 µm . . . 135 µm

Rittal fan cross over — conversion made easy

As with all products, Rittal continuously implements design improvements and new technology. Our entire line of filter fans has been updated to a new design – designated TopTherm – and, because they have been engineered to fit the same cut-outs as our prior fan design, they are easily integrated into your application. The table below makes it easy to transition from the prior design to the new TopTherm equivalent.

Air throughput with outlet filter including standard filter mat		12/15 cfm (20/25 m³/h)	32/39 cfm (55/66 m³/h)	62/71 cfm (105/120 m³/h)	106/94 cfm (180/160 m³/h)	135/147 cfm (230/250 m³/h)	323/353 cfm (550/600 m³/h)	412/424 cfm (700/770 m³/h)
Cut-out dimensions inches (mm)		4 x 4 (92 x 92)	5 x 5 (124 x 124)	7 x 7 (177 x 177)	9 x 9 (224 x 224)		12 x 12 (292 x 292)	
24 V	TopTherm:	3237.124	3238.124	3239.124	3240.124	3241.124	–	–
	replaces:	3321.027	3322.027	3323.027	3324.027	3325.027	–	–
230 V	TopTherm:	3237.100	3238.100	3239.100	3240.100	3241.100	3243.100	3244.100
	replaces:	3321.107	3322.107	3323.107	3324.107	3325.107	3326.107	3327.107
115 V	TopTherm:	3237.110	3238.110	3239.110	3240.110	3241.110	3243.110	3244.110
	replaces:	3321.117	3322.117	3323.117	3324.117	3325.117	3326.117	3327.117
400 V/460 V	TopTherm:	–	–	–	–	–	–	3244.140
	replaces:	–	–	–	–	–	–	3327.147
EMC fan and filter unit, 230 V	TopTherm:	3237.600	3238.600	3239.600	3240.600	3241.600	3243.600	3244.600
	replaces:	3321.607	3322.607	3323.607	3324.607	3325.607	3326.607	3327.607
Outlet filter	TopTherm:	3237.200	3238.200	3239.200	3240.200		3243.200	
	replaces:	3321.207	3322.207	3323.207	3325.207		3326.207	
EMC outlet filter	TopTherm:	3237.060	3238.060	3239.060	3240.060		3243.060	
	replaces:	3321.267	3322.267	3323.267	3325.267		3326.267	
Hose-proof hood - carbon	TopTherm:	3337.085	3238.085	3239.085	3240.085		3243.085	
	replaces:	3321.835	3322.835	3323.835	3324.835		3326.835	
Hose-proof hood - stainless	TopTherm:	3237.080	3238.080	3239.080	3240.080		3243.080	
	replaces:	3321.800	3322.800	3323.800	3324.800		3326.800	
Blanking cover	TopTherm:	3237.020	3238.020	3239.020	3240.020		3243.020	
	replaces:	–	–	–	–	–	–	–
Standard filter mat (IP 54)	TopTherm:	3321.700	3322.700	3171.100	3172.100		3173.100	
	replaces:	3321.700	3322.700	3171.100	3172.100		3173.100	3327.700
Fine filter mat (IP 55)	TopTherm:	–	3238.055	3181.100	3182.100		3183.100	
	replaces:	–	–	3181.100	3182.100		3183.100	

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1001.600	221	1100.500	59	1380.500	58	1510.510	40	1548.500	43
1002.600	221	1101.010	60	1400.500	64	1511.510	40	1549.500	43
1003.600	221	1101.020	60	1423.500	63	1512.510	40	1550.500	44
1004.600	221	1101.030	60	1432.500	63	1513.510	40	1551.500	43
1005.600	221	1101.040	60	1434.500	63	1514.510	39	1552.500	43
1006.600	221	1101.110	223	1444.500	63	1515.510	39	1553.500	43
1007.600	221	1101.120	223	1446.500	63	1516.510	39	1554.500	43
1008.600	221	1101.130	223	1448.500	63	1517.510	39	1555.500	44
1009.600	221	1101.140	223	1449.500	63	1518.510	39	1556.500	44
1010.600	221	1101.800	617	1453.500	64	1519.510	39	1558.510	46
1011.600	221	1101.910	585	1454.500	64	1521.010	212	1559.510	46
1012.600	221	1101.920	585	1466.500	64	1522.010	212	1560.700	635
1013.600	221	1101.930	585	1467.500	64	1523.010	212	1561.700	635
1014.600	222	1101.940	585	1468.500	64	1524.010	212	1562.700	635
1015.600	221	1110.500	59	1469.500	64	1525.010	212	1563.700	635
1016.600	222	1114.500	59	1479.500	64	1526.010	212	1564.700	635
1017.600	222	1130.500	59	1480.500	64	1527.010	212	1565.700	635
1018.600	222	1158.500	713	1481.000	638	1527.510	40	1566.700	635
1019.600	222	1180.500	59	1482.000	674	1528.010	212	1567.700	635
1030.500	58	1199.100	579	1483.010	630	1528.510	39	1568.700	635
1031.500	58	1213.500	59	1484.000	606	1529.010	212	1569.700	635
1032.500	58	1228.010	540	1484.001	606	1529.510	39	1570.700	635
1033.500	58	1228.110	540	1485.000	607	1530.010	212	1571.700	635
1034.500	59	1228.310	540	1486.000	607	1530.510	40	1572.700	635
1035.500	58	1260.500	59	1487.000	607	1531.510	40	1573.700	635
1036.500	58	1280.500	59	1488.000	607	1532.510	40	1574.700	635
1037.500	59	1302.600	207	1489.000	607	1533.510	40	1575.700	635
1038.500	59	1306.600	207	1490.010	605	1534.510	40	1576.700	635
1039.500	58	1307.600	207	1491.000	638	1535.510	40	1577.450	47
1045.500	59	1308.600	207	1492.000	607	1536.510	40	1577.500	47
1050.500	59	1310.600	207	1500.510	39	1537.510	40	1577.520	47
1054.500	59	1316.600	207	1501.510	39	1538.510	40	1577.530	47
1055.500	59	1317.600	207	1503.510	39	1539.510	40	1577.550	47
1057.500	59	1320.600	207	1504.510	39	1540.510	40	1577.560	47
1058.500	59	1338.500	59	1505.510	39	1541.510	40	1578.450	48
1060.500	59	1339.500	59	1506.510	39	1542.510	40	1578.500	48
1073.500	59	1350.500	59	1507.510	40	1545.500	43	1578.520	48
1076.500	59	1360.500	59	1508.510	40	1546.500	43	1578.530	48
1090.500	59	1376.500	59	1509.510	40	1547.500	43	1578.550	48

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1578.560	48	1931.200	768	2203.400	726	2315.000	662	2363.000	619
1579.450	48	1932.200	768	2231.000	768	2316.000	662	2364.000	702
1579.500	48	1933.200	768	2232.000	768	2317.000	662	2365.000	672
1579.520	48	1934.200	768	2233.000	768	2318.000	662	2366.000	672
1579.530	48	1935.200	768	2235.135	714	2319.000	662	2367.040	698
1579.550	48	1936.200	768	2237.000	662	2322.700	747	2367.060	698
1579.560	48	1937.200	768	2238.000	662	2323.235	748	2367.080	698
1580.000	628	1939.200	768	2239.000	662	2324.235	748	2367.120	698
1581.000	710	1940.000	768	2243.605	83	2325.000	614	2367.160	698
1581.100	712	1941.000	768	2246.605	83	2326.000	614	2367.200	698
1582.000	710	1945.000	768	2249.605	83	2327.000	614	2368.000	831
1583.520	45	1950.000	768	2250.000	765	2328.000	614	2368.010	831
1584.520	45	1962.200	750	2252.605	83	2331.700	747	2369.000	832
1585.520	45	1963.200	750	2253.605	84	2332.235	748	2369.010	832
1586.520	45	1978.200	748	2255.605	83	2334.000	700	2369.020	832
1589.510	39	1979.200	750	2256.605	84	2335.000	700	2369.030	832
1590.000	628	1980.200	750	2258.605	83	2336.700	747	2369.040	832
1591.000	612	1985.500	747	2259.605	84	2337.235	748	2370.150	832
1592.000	612	1986.500	748	2260.000	765	2338.235	748	2370.160	832
1592.010	612	1994.835	747	2261.605	83	2340.700	747	2370.170	832
1594.000	628	1995.235	748	2262.605	84	2341.235	748	2370.180	832
1605.520	46	1995.835	748	2265.605	84	2342.235	748	2370.190	832
1606.520	46	1996.535	747	2268.605	84	2343.000	700	2370.500	832
1609.510	49	1996.835	747	2271.605	84	2345.700	747	2370.510	832
1611.510	49	1997.235	748	2304.000	607	2346.235	748	2370.520	832
1670.600	206	1997.835	748	2304.010	208	2347.235	748	2370.530	832
1671.600	206	2004.235	746	2305.000	595	2350.000	723	2370.540	832
1672.600	206	2008.235	746	2307.000	607	2351.000	723	2370.550	832
1674.600	206	2011.235	746	2308.000	610	2352.000	723	2370.560	832
1675.600	206	2026.200	749	2309.000	662	2353.000	723	2370.570	832
1676.600	206	2027.200	749	2310.038	615	2354.000	723	2370.580	832
1751.500	43	2034.200	749	2310.076	615	2355.000	723	2370.590	832
1752.500	44	2092.200	772	2310.100	615	2356.000	723	2371.000	832
1753.500	44	2092.300	772	2310.120	615	2357.000	723	2371.010	832
1754.500	44	2092.500	772	2311.225	614	2358.000	723	2371.020	832
1755.500	44	2094.200	772	2311.250	614	2359.000	723	2371.030	832
1919.500	85	2094.300	772	2313.150	662	2360.000	723	2371.040	832
1920.500	85	2094.400	773	2313.750	662	2361.000	619	2371.050	832
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2371.080	832	2377.150	745	2410.110	717	2411.810	715	2451.000	605
2371.090	832	2377.180	745	2410.120	717	2411.820	715	2452.000	605
2372.000	832	2377.460	745	2410.130	717	2411.830	715	2453.000	605
2372.010	832	2377.860	745	2410.200	717	2411.840	715	2454.000	605
2372.020	832	2377.880	745	2410.210	717	2411.850	715	2455.000	605
2372.030	832	2379.600	821	2410.220	717	2411.860	715	2455.010	605
2372.040	832	2379.800	821	2410.230	717	2411.870	715	2456.500	605
2372.100	830	2379.900	822	2410.290	718	2412.210	699	2459.000	560
2372.110	834	2381.000	826	2411.140	697	2412.216	699	2459.500	559
2372.120	830	2382.000	827	2411.160	697	2412.225	699	2460.000	607
2372.130	830	2383.000	822	2411.210	697	2412.310	699	2460.650	607
2373.000	671	2383.010	815	2411.290	697	2412.316	699	2461.000	607
2373.210	651	2383.020	827	2411.504	716	2412.325	699	2462.000	607
2373.250	651	2383.030	819	2411.505	716	2414.000	698	2463.000	607
2373.300	651	2383.040	819	2411.506	716	2414.500	698	2464.000	607
2373.350	651	2388.000	696	2411.507	716	2415.000	698	2465.000	607
2374.000	836	2388.120	696	2411.532	716	2415.100	618	2466.000	607
2374.010	836	2388.600	696	2411.550	716	2415.500	639	2467.000	602
2374.020	836	2388.800	696	2411.551	716	2416.000	609	2468.000	602
2374.030	836	2389.000	813	2411.552	716	2418.000	609	2469.000	602
2374.040	834	2400.000	718	2411.553	716	2419.000	609	2470.000	619
2374.050	836	2400.300	721	2411.554	716	2420.000	607	2471.000	619
2374.060	832	2400.500	721	2411.555	716	2422.000	626	2472.000	619
2374.070	832	2400.900	720	2411.556	716	2423.000	626	2473.000	619
2374.080	834	2400.910	720	2411.557	716	2424.100	620	2474.000	619
2374.090	836	2400.920	720	2411.558	716	2425.100	620	2475.000	619
2374.150	834	2400.930	720	2411.559	716	2426.100	620	2476.000	609
2375.000	835	2400.940	720	2411.560	716	2426.500	620	2477.000	570
2375.020	835	2400.950	720	2411.561	716	2427.100	620	2478.000	570
2375.030	835	2400.960	720	2411.562	716	2430.000	607	2479.000	570
2376.000	833	2400.970	720	2411.600	715	2432.000	611	2480.000	570
2376.010	833	2401.000	570	2411.610	715	2433.000	629	2481.000	570
2376.020	833	2402.000	570	2411.620	715	2433.500	629	2482.000	828
2376.030	833	2403.000	595	2411.630	715	2435.000	605	2482.210	828
2376.100	833	2404.000	595	2411.640	715	2439.000	606	2482.220	828
2377.030	745	2410.000	717	2411.650	715	2446.000	615	2482.230	828
2377.060	745	2410.010	717	2411.660	715	2449.000	611	2482.300	829
2377.090	745	2410.020	717	2411.670	715	2450.000	605	2482.310	829

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2482.330	829	2507.400	694	2542.235	480	2572.000	606	2735.540	592
2482.400	829	2507.500	694	2543.235	480	2573.000	709	2735.560	592
2482.410	829	2508.000	629	2545.000	610	2574.000	672	2735.570	592
2482.420	829	2508.100	629	2546.000	610	2575.000	606	2735.580	592
2482.500	829	2508.200	629	2547.000	610	2576.000	606	2735.590	592
2482.510	829	2509.000	627	2548.000	610	2583.010	630	2736.500	592
2482.540	829	2509.500	627	2549.000	610	2584.000	631	2736.510	592
2482.550	829	2510.000	617	2549.500	610	2589.000	725	2736.520	592
2482.560	829	2511.500	619	2549.510	208	2590.000	725	2736.530	592
2482.570	829	2512.000	617	2549.600	610	2591.000	725	2736.540	592
2482.580	829	2513.000	616	2559.000	699	2592.000	725	2740.000	596
2482.590	829	2514.000	616	2560.010	710	2593.000	725	2741.000	596
2482.700	828	2514.500	616	2560.400	713	2594.000	725	2742.000	596
2482.710	828	2514.600	616	2561.010	710	2595.000	725	2743.000	596
2482.720	828	2514.800	616	2561.100	712	2596.000	725	2744.000	596
2482.730	828	2515.000	616	2561.400	713	2597.000	726	2745.000	596
2483.000	607	2518.000	617	2561.500	711	2599.000	606	2746.000	596
2484.000	747	2519.000	617	2562.010	710	2682.000	813	2749.000	596
2485.000	606	2519.200	617	2562.100	712	2683.500	231	2760.000	593
2485.100	606	2520.000	607	2562.400	713	2683.600	231	2761.000	593
2486.300	674	2521.000	610	2562.500	711	2684.500	231	2762.000	593
2486.500	674	2522.000	607	2563.010	710	2684.600	231	2763.000	593
2487.000	674	2523.000	607	2563.100	712	2685.500	231	2772.000	593
2488.000	674	2525.000	608	2563.150	713	2685.600	231	2780.000	593
2489.000	674	2526.000	607	2563.500	711	2686.500	231	2781.000	593
2489.500	674	2527.000	607	2564.000	699	2686.600	231	2782.000	593
2493.000	608	2528.000	607	2565.000	699	2694.500	155	2784.000	593
2493.500	609	2530.000	607	2565.100	699	2695.500	155	2785.000	593
2501.500	619	2531.000	610	2565.110	699	2696.500	155	2786.000	593
2502.500	619	2532.000	610	2565.120	699	2730.000	593	2787.000	593
2503.000	629	2533.000	606	2566.000	699	2731.000	593	2788.000	593
2503.200	629	2534.100	608	2567.000	699	2732.000	593	2789.000	593
2504.000	674	2534.500	608	2568.000	699	2733.000	593	2791.000	595
2504.500	674	2535.000	606	2569.000	699	2734.000	593	2792.000	595
2504.800	674	2536.000	606	2570.000	699	2735.250	592	2793.560	594
2505.510	630	2537.000	604	2570.100	702	2735.500	592	2796.000	593
2507.100	694	2537.010	604	2570.200	700	2735.510	592	2801.200	542
2507.200	694	2540.500	607	2570.500	700	2735.520	592	2802.200	542

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2807.200	542	2885.000	543	3086.000	305	3129.800	394	3209.144	430
2808.200	542	2886.000	543	3087.000	305	3130.100	396	3209.500	431
2816.200	542	2887.000	543	3088.000	305	3130.115	396	3209.504	431
2817.000	536	2889.000	545	3090.000	305	3144.000	385	3209.510	431
2818.200	542	2890.000	545	3091.000	305	3145.000	385	3209.514	431
2819.000	536	2891.000	536	3092.000	298	3148.007	387	3209.540	431
2819.200	536	2892.000	536	3093.000	280	3149.007	387	3209.544	431
2823.200	542	2899.200	721	3105.310	469	3149.410	386	3210.100	432
2824.200	542	2899.250	721	3105.320	469	3149.420	386	3210.104	432
2826.200	542	2899.320	721	3105.330	469	3149.810	386	3210.110	432
2828.200	542	2899.400	721	3105.340	469	3149.820	386	3210.114	432
2829.200	542	2903.200	542	3105.350	469	3149.840	386	3210.140	432
2830.200	542	2904.200	542	3105.360	469	3159.100	515	3210.144	432
2836.200	542	2905.200	542	3105.370	469	3164.115	387	3210.500	433
2837.200	542	2906.200	542	3105.380	469	3164.230	387	3210.504	433
2839.200	542	2907.000	539	3105.390	469	3164.610	387	3210.510	433
2840.200	542	2908.000	539	3105.400	469	3164.620	387	3210.514	433
2843.160	697	2909.200	542	3105.410	469	3169.007	387	3210.540	433
2843.200	697	2910.200	542	3105.420	469	3171.100	483	3210.544	433
2843.250	697	2913.000	539	3105.430	469	3172.100	483	3212.024	434
2843.320	697	3031.000	296	3108.024	388	3173.100	483	3212.115	434
2843.400	697	3032.000	296	3108.100	388	3174.000	483	3212.230	434
2843.500	697	3052.000	336	3108.115	388	3175.000	485	3213.310	474
2843.630	697	3055.000	336	3110.000	476	3176.000	485	3213.320	474
2855.000	543	3056.000	336	3110.200	476	3177.000	481	3213.330	474
2856.000	543	3057.000	336	3114.200	475	3181.100	484	3214.100	435
2859.000	548	3058.000	338	3120.200	477	3182.100	484	3214.115	435
2860.000	543	3059.000	338	3121.000	515	3183.100	484	3215.100	435
2865.000	543	3060.000	338	3124.100	477	3201.050	483	3215.115	435
2866.000	543	3061.000	338	3124.200	477	3201.070	478	3216.480	442
2867.000	543	3071.000	312	3125.800	394	3201.200	400	3232.700	454
2868.000	543	3073.000	336	3126.100	395	3201.300	400	3232.710	454
2869.000	543	3074.000	336	3126.115	395	3201.900	486	3232.720	454
2870.000	543	3075.000	336	3127.100	395	3201.910	486	3232.730	454
2875.000	543	3076.000	336	3127.115	395	3209.100	430	3232.740	454
2876.000	543	3079.000	302	3128.100	395	3209.104	430	3232.750	454
2878.000	543	3079.010	303	3128.115	395	3209.110	430	3232.760	454

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3232.790	454	3239.080	487	3245.510	384	3286.900	479	3302.110	402
3232.800	455	3239.085	487	3245.600	384	3286.970	471	3302.200	402
3232.810	455	3239.100	381	3248.000	397	3286.980	473	3302.210	402
3232.820	455	3239.110	381	3248.110	397	3286.990	471	3302.300	401
3232.830	455	3239.124	381	3253.000	481	3294.100	481	3302.310	401
3232.840	455	3239.200	485	3253.010	481	3294.200	482	3303.100	402
3232.850	455	3239.600	381	3253.200	482	3300.040	427	3303.104	414
3232.860	455	3240.020	485	3253.220	482	3300.050	427	3303.110	402
3232.870	455	3240.060	485	3254.000	481	3300.060	427	3303.114	414
3232.880	455	3240.066	483	3254.200	482	3300.070	427	3303.200	402
3232.890	455	3240.080	487	3267.100	481	3300.080	427	3303.210	402
3235.400	477	3240.085	487	3267.200	482	3300.090	427	3303.500	403
3236.124	389	3240.100	382	3284.210	482	3300.100	427	3303.504	415
3237.020	485	3240.110	382	3285.000	481	3300.120	427	3303.510	403
3237.060	485	3240.124	382	3285.200	482	3301.221	462	3303.514	415
3237.066	483	3240.200	485	3286.000	481	3301.320	461	3303.600	403
3237.080	487	3240.600	382	3286.100	481	3301.370	461	3303.610	403
3237.085	487	3240.610	382	3286.110	481	3301.380	461	3304.100	406
3237.100	380	3241.100	382	3286.120	482	3301.390	461	3304.104	414
3237.110	380	3241.110	382	3286.200	482	3301.421	462	3304.110	406
3237.124	380	3241.124	382	3286.210	482	3301.560	484	3304.114	414
3237.200	485	3241.600	382	3286.300	481	3301.570	484	3304.140	406
3237.600	380	3241.610	382	3286.310	482	3301.580	484	3304.144	414
3237.610	380	3243.020	485	3286.400	481	3301.590	484	3304.200	406
3238.020	485	3243.060	485	3286.410	482	3301.600	484	3304.210	406
3238.055	484	3243.066	483	3286.500	481	3301.606	484	3304.240	406
3238.060	485	3243.080	487	3286.510	482	3301.608	484	3304.500	407
3238.066	483	3243.085	487	3286.520	482	3301.610	484	3304.504	415
3238.080	487	3243.100	383	3286.530	482	3301.612	484	3304.510	407
3238.085	487	3243.110	383	3286.540	482	3301.900	486	3304.514	415
3238.100	380	3243.200	485	3286.550	482	3301.910	486	3304.540	407
3238.110	380	3243.600	383	3286.600	481	3301.920	486	3304.544	415
3238.124	380	3243.610	383	3286.610	482	3301.950	486	3304.600	407
3238.200	485	3244.100	383	3286.780	473	3301.955	486	3304.610	407
3238.600	380	3244.110	383	3286.800	479	3301.957	486	3304.640	407
3238.610	380	3244.140	383	3286.850	472	3301.960	486	3305.100	406
3239.020	485	3244.600	383	3286.860	472	3301.965	486	3305.104	414

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3305.114	414	3311.560	458	3328.544	417	3336.100	450	3363.100	436
3305.140	406	3311.565	458	3328.600	409	3336.200	450	3363.104	436
3305.144	414	3311.600	460	3328.610	409	3336.300	450	3363.110	436
3305.200	406	3318.600	445	3328.640	409	3336.500	450	3363.114	436
3305.210	406	3318.610	445	3329.100	408	3336.600	450	3363.500	437
3305.240	406	3318.700	445	3329.104	416	3336.610	449	3363.504	437
3305.500	407	3319.600	445	3329.110	408	3336.650	450	3363.510	437
3305.504	415	3319.610	445	3329.114	416	3336.700	451	3363.514	437
3305.510	407	3319.700	445	3329.140	408	3336.710	451	3363.540	437
3305.514	415	3319.710	445	3329.144	416	3336.720	451	3363.544	437
3305.540	407	3320.600	446	3329.200	408	3336.730	451	3364.100	436
3305.544	415	3320.700	446	3329.210	408	3336.740	451	3364.104	436
3305.600	407	3321.700	483	3329.240	408	3336.750	451	3364.110	436
3305.610	407	3321.800	487	3329.500	409	3359.100	418	3364.114	436
3305.640	407	3321.835	487	3329.504	417	3359.110	418	3364.140	436
3307.700	426	3322.700	483	3329.510	409	3359.140	418	3364.144	436
3307.710	426	3322.800	487	3329.514	417	3359.200	418	3364.500	437
3307.740	426	3322.835	487	3329.540	409	3359.210	418	3364.504	437
3310.700	426	3323.800	487	3329.544	417	3359.240	418	3364.510	437
3310.710	426	3323.835	487	3329.600	409	3359.500	419	3364.514	437
3310.740	426	3324.800	487	3329.610	409	3359.510	419	3364.540	437
3311.030	461	3324.835	487	3329.640	409	3359.540	419	3364.544	437
3311.040	462	3326.800	487	3329.903	483	3359.600	419	3366.100	412
3311.060	461	3326.835	487	3329.904	483	3359.610	419	3366.110	412
3311.080	462	3327.700	483	3332.140	410	3359.640	419	3366.140	412
3311.110	457	3328.100	408	3332.240	410	3360.100	448	3366.200	412
3311.130	457	3328.104	416	3332.540	411	3360.250	448	3366.210	412
3311.135	457	3328.110	408	3332.640	411	3361.100	404	3366.240	412
3311.210	458	3328.114	416	3334.600	446	3361.110	404	3366.500	413
3311.230	457	3328.140	408	3334.660	447	3361.140	404	3366.510	413
3311.235	457	3328.144	416	3334.700	446	3361.200	404	3366.540	413
3311.260	457	3328.200	408	3334.800	447	3361.210	404	3366.600	413
3311.265	457	3328.210	408	3335.590	449	3361.240	404	3366.610	413
3311.310	461	3328.240	408	3335.600	449	3361.500	405	3366.640	413
3311.400	459	3328.500	409	3335.620	449	3361.510	405	3373.100	438
3311.530	458	3328.504	417	3335.630	449	3361.540	405	3373.104	438
3311.535	458	3328.510	409	3335.640	449	3361.600	405	3373.110	438
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3373.144	438	3382.600	419	3386.240	424	3509.200	299	3572.000	302
3373.500	439	3382.610	419	3386.540	425	3514.000	300	3572.903	302
3373.504	439	3383.100	420	3386.640	425	3515.000	300	3573.000	302
3373.510	439	3383.110	420	3387.140	424	3516.000	299	3574.000	302
3373.514	439	3383.140	420	3387.240	424	3516.200	299	3574.903	302
3373.540	439	3383.200	420	3387.540	425	3524.000	299	3575.000	302
3373.544	439	3383.210	420	3387.640	425	3524.200	299	3575.903	302
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3374.104	438	3383.500	421	3419.000	280	3525.010	299	3576.903	302
3374.110	438	3383.510	421	3420.000	280	3525.200	299	3577.000	302
3374.114	438	3383.540	421	3421.000	280	3525.210	299	3577.903	302
3374.140	438	3383.600	421	3424.000	280	3526.000	299	3578.000	302
3374.144	438	3383.610	421	3425.000	280	3526.200	299	3578.903	302
3374.500	439	3383.640	421	3425.010	280	3527.000	299	3579.000	302
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3374.514	439	3384.140	422	3429.010	280	3528.010	299	3580.100	297
3374.540	439	3384.200	422	3430.000	280	3528.200	299	3581.000	297
3374.544	439	3384.210	422	3431.020	283	3529.000	299	3581.100	297
3375.100	440	3384.240	422	3431.030	283	3529.200	299	3582.000	297
3375.104	440	3384.500	423	3434.000	280	3550.000	304	3583.000	297
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3375.114	440	3384.540	423	3435.010	280	3555.000	304	3584.200	297
3375.140	440	3384.600	423	3436.000	280	3559.000	305	3585.000	297
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3381.710	445	3385.500	423	3457.500	304	3568.000	302	3592.010	313
3382.100	418	3385.510	423	3458.500	304	3568.902	302	3592.020	313
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3382.200	418	3385.600	423	3460.500	305	3570.000	302	3659.440	823
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4114.000	617	4140.110	691	4198.000	626	4347.000	660	4576.000	637
4115.000	617	4140.120	691	4199.000	669	4348.000	698	4579.000	656
4115.500	617	4140.210	691	4309.000	614	4361.000	660	4582.000	577
4116.000	617	4140.220	691	4311.000	708	4362.000	660	4582.500	577
4116.500	617	4140.810	692	4315.100	694	4363.000	660	4583.000	617
4118.000	617	4140.820	692	4315.150	694	4364.000	658	4583.500	617
4118.500	617	4140.830	692	4315.200	694	4365.000	658	4590.700	635
4119.000	672	4140.840	692	4315.320	694	4367.000	658	4591.700	635
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4124.000	617	4155.500	691	4315.450	694	4371.000	658	4594.000	656
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4138.250	690	4174.000	657	4316.000	708	4394.000	661	4695.000	656
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4139.140	690	4181.000	668	4320.700	707	4531.000	765	4916.000	571
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5001.051	209	5001.234	554	5853.500	227	6070.200	189	6141.200	200
5001.052	209	5001.235	554	5854.500	227	6071.000	194	6143.200	199
5001.053	209	5001.236	555	5855.500	227	6071.200	189	6143.210	203
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5001.140	153	5114.500	61	6028.000	816	6074.100	189	6190.000	813
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5001.160	153	5116.500	61	6028.014	816	6074.500	189	6200.500	193
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5001.211	554	5118.500	61	6028.016	816	6075.300	189	6205.100	665
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5001.213	554	5120.500	62	6028.510	816	6100.000	193	6214.500	201
5001.214	554	5121.500	61	6028.530	816	6100.500	193	6215.000	201
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6372.551	168	6501.110	181	6528.410	196	6705.500	150	6900.100	159
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6372.553	168	6501.130	181	6528.510	194	6707.500	152	6900.400	159
6372.561	168	6501.140	181	6529.010	185	6710.500	149	6900.410	159
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6375.060	812	6508.010	185	6535.010	235	6717.500	152	6902.920	544
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6385.040	812	6520.010	185	6662.500	175	6723.500	152	7016.110	744
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6450.020	818	6525.010	185	6664.300	237	6730.310	642	7030.010	788
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6450.170	818	6525.610	185	6680.000	234	6730.410	153	7030.060	792
6462.500	175	6526.010	185	6681.000	234	6730.600	480	7030.070	793
6501.000	181	6527.010	185	6700.500	149	6740.500	154	7030.071	794
6501.020	181	6527.110	185	6701.500	150	6742.500	154	7030.080	792

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7030.091	793	7064.000	687	7109.200	695	7151.300	770	7200.800	603
7030.092	793	7064.100	729	7111.000	732	7152.005	776	7218.035	732
7030.093	793	7064.110	729	7111.100	732	7152.035	776	7219.035	732
7030.094	793	7065.000	687	7111.210	737	7153.005	776	7220.500	735
7030.095	793	7066.000	687	7111.212	737	7153.035	776	7220.600	733
7030.100	790	7066.700	687	7111.214	737	7154.035	775	7228.035	732
7030.110	790	7067.100	579	7111.220	737	7156.005	776	7241.005	778
7030.111	790	7067.200	579	7111.222	737	7156.035	776	7241.015	779
7030.120	790	7069.535	775	7111.224	737	7157.035	776	7241.024	779
7030.130	790	7072.100	719	7111.250	736	7158.035	741	7241.045	779
7030.140	790	7072.200	714	7111.252	736	7158.100	742	7241.065	779
7030.150	790	7072.220	726	7111.300	727	7158.150	742	7241.500	778
7030.190	790	7072.230	726	7111.310	727	7159.035	738	7242.005	778
7030.220	790	7072.240	726	7111.350	727	7161.000	687	7242.015	779
7030.230	790	7077.000	725	7111.900	732	7161.700	687	7246.010	766
7031.100	781	7078.000	725	7112.000	732	7163.500	688	7246.030	766
7050.035	780	7081.000	687	7113.000	703	7163.550	688	7246.060	766
7050.100	780	7086.535	774	7115.000	688	7163.560	688	7246.100	766
7050.200	780	7087.535	774	7116.500	733	7163.565	688	7246.400	766
7051.000	687	7089.535	774	7119.140	684	7164.035	676	7246.420	760
7061.000	687	7091.000	660	7119.155	684	7165.035	676	7246.500	771
7063.000	764	7094.100	772	7119.250	684	7166.035	676	7255.035	738
7063.200	740	7094.110	772	7119.255	684	7166.735	676	7256.035	743
7063.710	683	7094.120	772	7119.400	684	7167.000	777	7257.005	738
7063.720	683	7094.130	772	7119.455	684	7169.535	779	7257.035	738
7063.725	683	7094.140	772	7124.035	749	7170.535	779	7257.050	741
7063.740	764	7095.000	660	7140.535	743	7174.535	779	7257.100	738
7063.750	763	7096.000	660	7145.535	680	7178.535	779	7257.105	738
7063.752	763	7097.000	725	7147.035	687	7183.100	685	7257.150	741
7063.835	681	7097.220	725	7148.035	682	7184.035	676	7257.200	738
7063.837	681	7097.260	725	7149.035	742	7185.035	676	7264.035	676
7063.850	767	7097.300	725	7149.135	742	7186.035	676	7265.035	676
7063.858	686	7097.340	725	7150.535	743	7186.735	676	7266.035	676
7063.860	686	7098.000	725	7151.005	776	7200.210	793	7269.135	742
7063.888	826	7098.100	725	7151.035	776	7200.214	793	7269.235	743
7063.890	686	7099.000	725	7151.105	777	7200.215	793	7281.035	826
7063.892	686	7100.000	660	7151.110	777	7200.216	793	7281.200	825
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7296.000	761	7338.220	508	7502.014	77	7507.100	75	7552.142	806
7297.000	761	7338.320	508	7502.016	77	7507.110	75	7552.200	804
7298.000	761	7391.000	131	7502.024	77	7507.120	76	7552.201	805
7299.000	761	7394.035	774	7502.026	77	7507.200	76	7552.202	805
7300.230	780	7396.000	131	7502.034	77	7507.210	76	7552.203	805
7300.240	780	7400.000	131	7502.035	77	7507.220	76	7552.204	805
7300.250	780	7401.000	762	7502.036	77	7507.706	756	7552.205	806
7300.335	776	7402.000	762	7502.044	78	7507.709	756	7552.212	804
7320.435	792	7411.000	761	7502.045	78	7507.712	756	7552.220	807
7320.440	794	7433.035	775	7502.046	78	7507.715	756	7552.510	803
7320.441	794	7437.035	775	7502.054	78	7507.718	756	7561.500	538
7320.472	806	7445.000	131	7502.056	78	7507.721	756	7570.535	779
7320.475	806	7450.035	778	7502.064	78	7507.740	548	7574.535	779
7320.481	806	7455.030	718	7502.066	78	7507.750	545	7578.535	779
7320.485	806	7464.035	676	7502.114	78	7507.755	545	7581.500	538
7320.491	794	7465.035	676	7502.124	78	7507.760	389	7582.500	538
7320.530	790	7466.035	676	7502.126	78	7526.050	610	7610.000	734
7320.560	790	7466.735	676	7502.136	78	7526.807	624	7611.000	734
7320.570	790	7469.535	779	7502.144	78	7526.827	624	7641.000	86
7320.620	790	7470.535	779	7502.146	78	7526.964	665	7643.000	86
7320.630	790	7474.535	779	7502.166	78	7541.000	703	7644.000	87
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7320.700	790	7484.035	676	7502.204	756	7543.000	703	7645.000	86
7320.721	790	7485.035	676	7502.205	756	7544.000	703	7685.000	755
7320.730	795	7486.035	676	7502.206	756	7545.000	703	7688.000	755
7320.790	796	7486.735	676	7502.220	610	7546.000	703	7696.000	755
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7320.793	797	7492.070	764	7502.260	702	7548.000	703	7705.035	714
7320.794	797	7492.300	764	7502.302	724	7548.210	701	7705.110	604
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7320.814	793	7494.000	761	7502.660	79	7552.100	799	7705.715	756
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7709.135	81	7824.203	582	7825.365	557	7826.669	625	7827.201	751
7709.535	80	7824.204	582	7825.366	558	7826.685	624	7827.220	751
7709.735	80	7824.205	582	7825.367	559	7826.689	625	7827.221	751
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7721.135	81	7824.223	582	7825.385	557	7826.786	625	7827.490	758
7721.535	80	7824.224	582	7825.386	558	7826.788	625	7827.520	769
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7816.120	563	7824.280	583	7825.605	533	7826.845	624	7827.550	759
7816.200	563	7824.282	583	7825.607	537	7826.865	624	7827.554	760
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7824.130	585	7824.525	611	7825.807	537	7827.080	751	7828.061	728
7824.132	585	7824.540	579	7825.808	537	7827.081	751	7828.062	728
7824.146	563	7824.560	567	7825.810	557	7827.100	751	7828.080	659
7824.148	563	7824.580	567	7825.812	557	7827.101	751	7828.081	728
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7824.180	563	7825.250	546	7825.900	550	7827.140	751	7828.101	728
7824.183	582	7825.260	546	7826.245	624	7827.141	751	7828.102	728
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7828.680	677	7857.410	364	7990.202	519	7999.985	506	8108.500	562
7828.800	677	7857.420	364	7990.203	519	7999.986	506	8108.750	243
7828.880	677	7857.430	362	7990.204	519	7999.987	506	8109.235	561
7828.950	680	7857.431	362	7990.205	519	7999.988	506	8115.235	561
7828.951	681	7857.432	362	7990.206	519	7999.989	506	8126.235	561
7828.960	680	7857.435	363	7990.207	519	7999.990	506	8126.500	562
7828.961	681	7857.437	363	7990.208	519	7999.999	504	8128.235	561
7828.970	680	7857.440	363	7990.209	519	8005.435	93	8145.235	561
7828.971	681	7858.100	748	7990.210	519	8005.500	93	8146.235	561
7829.100	703	7858.160	728	7990.211	519	8005.791	634	8148.235	561
7829.110	703	7858.162	728	7990.213	520	8006.500	94	8165.235	561
7829.150	701	7858.200	734	7990.301	519	8006.530	94	8166.235	561
7829.152	701	7870.614	774	7990.302	519	8006.547	100	8168.235	561
7829.200	700	7870.830	774	7990.303	519	8006.548	100	8170.235	561
7829.300	603	7890.020	808	7990.304	519	8008.530	94	8173.235	561
7829.400	675	7890.206	808	7990.305	519	8008.547	100	8174.235	561
7831.429	505	7890.208	808	7990.306	519	8008.548	100	8175.235	561
7831.472	734	7890.226	808	7990.307	519	8025.500	95	8176.235	561
7831.570	725	7890.228	808	7990.308	519	8026.500	95	8180.235	561
7831.571	725	7890.500	808	7990.309	519	8026.547	101	8184.235	561
7831.611	751	7950.100	757	7990.310	519	8026.548	101	8184.500	562
7831.621	751	7950.150	618	7990.311	519	8026.791	634	8185.235	561
7831.631	751	7950.200	618	7990.313	520	8028.500	95	8185.500	562
7831.641	751	7966.035	388	7995.969	505	8028.547	101	8186.235	561
7831.723	566	7967.000	626	7995.992	504	8028.548	101	8186.500	562
7831.724	566	7968.035	388	7999.892	505	8080.500	91	8188.235	561
7831.726	566	7980.000	389	7999.893	505	8080.791	634	8204.500	93
7855.340	545	7980.100	389	7999.896	506	8084.500	91	8204.791	634
7855.342	545	7980.110	389	7999.897	506	8085.500	92	8205.500	93
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7856.716	752	7988.035	388	7999.977	506	8104.500	562	8215.500	90
7856.719	808	7990.012	520	7999.978	506	8105.235	561	8225.500	95
7856.722	808	7990.014	520	7999.979	506	8105.500	562	8226.500	95
7856.725	752	7990.101	519	7999.980	506	8106.235	561	8226.791	634
7856.728	752	7990.102	519	7999.981	506	8106.500	562	8228.500	95
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8265.791	634	8600.255	535	8601.850	533	8609.020	570	8611.140	607
8284.500	91	8600.265	535	8601.905	533	8609.030	570	8611.150	607
8284.791	634	8600.455	535	8601.915	533	8609.040	567	8611.160	607
8285.500	92	8600.465	535	8601.920	533	8609.050	567	8611.170	607
8360.920	538	8600.510	535	8601.930	533	8609.060	567	8611.180	602
8366.000	156	8600.520	535	8602.000	533	8609.080	567	8611.190	602
8366.100	156	8600.655	535	8602.015	534	8609.100	568	8611.200	602
8366.200	156	8600.665	535	8602.025	534	8609.110	568	8611.210	604
8366.300	156	8600.855	535	8602.030	534	8609.120	568	8611.220	607
8366.400	156	8600.865	535	8602.040	534	8609.130	568	8611.250	601
8368.000	156	8601.000	533	8602.050	534	8609.140	569	8611.260	601
8368.100	156	8601.010	534	8602.060	534	8609.150	569	8611.270	601
8404.300	580	8601.015	534	8602.065	534	8609.160	569	8611.280	601
8405.500	93	8601.025	534	8602.080	534	8609.170	569	8611.290	601
8405.510	93	8601.026	534	8602.085	534	8609.190	569	8611.300	581
8405.791	634	8601.030	534	8602.100	533	8609.260	567	8611.310	571
8406.510	93	8601.040	534	8602.200	533	8609.390	569	8611.330	601
8410.510	98	8601.050	534	8602.400	533	8609.840	567	8611.340	601
8418.510	98	8601.060	534	8602.500	533	8609.850	567	8611.350	601
8426.791	634	8601.065	534	8602.600	533	8609.860	567	8611.360	601
8430.510	98	8601.080	534	8602.605	533	8610.600	581	8611.370	603
8438.510	98	8601.085	534	8602.800	533	8610.620	581	8612.000	652
8450.600	224	8601.086	534	8602.805	533	8610.680	581	8612.010	652
8450.680	225	8601.100	534	8602.905	533	8610.800	581	8612.020	652
8451.600	224	8601.110	537	8602.915	533	8610.820	581	8612.030	652
8452.600	224	8601.130	537	8602.920	533	8610.880	581	8612.040	652
8453.600	224	8601.140	537	8604.300	580	8611.010	601	8612.050	652
8454.600	224	8601.200	533	8604.500	92	8611.020	601	8612.060	652
8455.600	224	8601.300	533	8604.791	634	8611.030	601	8612.080	652
8456.600	224	8601.400	533	8605.300	580	8611.040	601	8612.090	652
8457.600	224	8601.450	544	8605.500	93	8611.045	601	8612.100	652
8484.300	580	8601.500	533	8606.300	580	8611.050	601	8612.120	652
8485.510	91	8601.600	533	8606.500	94	8611.060	601	8612.130	652
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8612.250	655	8614.640	640	8686.300	580	8800.120	707	8800.610	636
8612.260	655	8614.650	640	8686.500	92	8800.130	656	8800.620	696
8612.280	655	8614.660	640	8700.000	575	8800.150	675	8800.630	636
8612.400	664	8614.675	640	8700.060	562	8800.160	675	8800.640	658
8612.410	664	8614.680	640	8700.120	707	8800.170	578	8800.650	658
8612.500	653	8614.840	640	8700.140	578	8800.180	675	8800.660	696
8612.520	653	8614.850	640	8700.150	578	8800.190	611	8800.670	578
8612.550	653	8614.880	640	8700.160	578	8800.200	552	8800.680	696
8612.560	653	8615.500	90	8700.600	707	8800.210	553	8800.690	698
8612.580	653	8616.602	443	8700.680	562	8800.220	551	8800.710	611
8612.600	643	8616.622	443	8700.800	707	8800.230	611	8800.806	666
8612.650	654	8616.700	444	8700.840	562	8800.240	675	8800.808	666
8612.660	654	8616.710	444	8700.850	562	8800.280	637	8800.830	553
8612.680	654	8616.720	444	8701.040	539	8800.290	551	8800.840	578
8612.750	654	8616.750	444	8701.050	539	8800.300	657	8800.850	578
8612.760	654	8616.760	444	8701.060	539	8800.310	656	8800.860	578
8612.780	654	8616.761	444	8701.080	539	8800.320	657	8800.880	578
8612.960	661	8616.762	444	8701.180	611	8800.330	669	8800.892	578
8612.980	661	8616.772	444	8701.200	539	8800.340	673	8800.920	538
8613.000	753	8616.773	444	8701.600	539	8800.350	673	8800.950	611
8613.010	754	8616.802	443	8701.800	539	8800.360	668	8801.000	584
8613.020	753	8616.822	443	8702.040	539	8800.370	667	8801.010	584
8613.030	755	8625.500	95	8702.050	539	8800.380	657	8801.100	587
8613.040	755	8626.300	580	8702.060	539	8800.390	535	8801.110	587
8613.060	753	8626.547	101	8702.200	539	8800.400	574	8801.120	587
8613.070	753	8626.548	101	8702.600	539	8800.410	574	8801.140	587
8613.080	753	8626.791	634	8702.800	539	8800.420	575	8801.160	587
8613.150	765	8628.500	95	8800.020	611	8800.430	576	8801.170	587
8613.160	765	8628.547	101	8800.030	611	8800.470	577	8801.180	587
8613.180	765	8628.548	101	8800.040	581	8800.490	575	8801.230	586
8613.300	754	8645.500	90	8800.050	636	8800.500	574	8801.240	586
8613.360	754	8645.791	634	8800.060	707	8800.510	722	8801.250	586
8614.040	640	8665.500	91	8800.070	604	8800.520	722	8801.260	588
8614.050	640	8665.791	634	8800.071	563	8800.540	722	8801.310	478
8614.060	640	8684.300	580	8800.075	553	8800.560	686	8801.320	478
8614.100	641	8684.500	91	8800.080	707	8800.570	722	8801.330	478
8614.240	640	8684.791	634	8800.090	636	8800.580	686	8801.340	478

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8801.450	584	8806.547	100	8901.430	94	9094.002	564	9202.600	242
8801.500	587	8806.548	100	8901.440	95	9094.006	564	9203.600	242
8801.510	587	8806.580	102	8901.600	96	9094.008	564	9204.600	242
8801.520	587	8806.750	243	8901.610	97	9095.002	564	9205.600	242
8801.540	587	8808.500	94	8901.620	96	9095.006	564	9206.600	242
8801.560	587	8808.547	100	8901.630	97	9095.008	564	9207.600	242
8801.570	587	8808.548	100	8901.640	97	9100.210	34	9208.600	242
8801.580	587	8808.750	243	8901.650	97	9101.210	34	9209.600	242
8801.590	587	8815.500	90	8901.660	97	9102.210	34	9214.000	702
8801.630	587	8825.500	95	8901.670	97	9103.210	34	9266.000	630
8801.715	588	8826.500	95	8901.680	97	9104.210	34	9301.000	240
8801.735	621	8826.547	101	8901.690	97	9105.210	34	9302.000	240
8801.745	621	8826.548	101	8901.930	533	9105.700	35	9303.000	240
8801.755	621	8826.791	634	8901.960	634	9106.210	34	9304.000	240
8801.765	621	8828.500	95	8901.970	634	9107.210	34	9304.214	303
8801.775	621	8828.547	101	8901.980	634	9108.210	34	9305.000	240
8801.830	587	8828.548	101	8901.990	634	9108.700	35	9306.000	240
8801.915	588	8845.500	90	8905.500	97	9110.210	34	9320.020	300
8802.060	708	8845.791	634	8906.500	97	9110.700	35	9320.030	300
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8802.080	708	8865.791	634	8926.500	97	9112.210	34	9320.050	282
8802.085	709	8880.500	92	8945.500	96	9112.700	35	9320.060	301
8802.100	708	8880.791	634	8945.580	96	9113.210	34	9320.070	301
8802.105	709	8881.500	92	8945.791	634	9113.700	35	9320.080	280
8802.120	708	8884.500	91	8958.500	97	9114.210	34	9320.120	311
8802.125	709	8885.500	91	8965.500	96	9114.700	35	9340.000	262
8802.160	708	8886.500	92	8966.500	96	9115.210	34	9340.004	262
8802.165	709	8900.050	572	8980.500	97	9116.210	34	9340.010	262
8802.220	638	8900.060	572	8984.500	96	9116.700	35	9340.030	296
8802.260	638	8900.840	572	8985.500	96	9117.210	34	9340.040	296
8802.280	638	8900.850	572	8995.500	97	9117.700	35	9340.050	262
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8804.500	93	8901.220	92	9055.310	798	9118.700	35	9340.074	263
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9340.200	303	9340.870	276	9342.240	267	9342.780	310	9344.010	284
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9346.050	292	9512.000	30	9581.000	32	9640.380	320	9650.271	318
9346.110	293	9512.100	30	9582.000	32	9640.433	319	9650.281	318
9346.210	293	9513.000	30	9583.000	33	9640.434	319	9650.291	318
9346.310	293	9513.100	30	9640.050	318	9640.443	319	9650.301	318
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9403.600	241	9520.100	31	9640.246	318	9640.980	320	9650.487	319
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9659.494	319	9661.100	705	9670.406	107	9671.134	589	9671.446	622
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9659.545	622	9661.140	705	9670.418	110	9671.140	589	9671.488	622
9659.555	622	9661.150	706	9670.426	108	9671.141	589	9671.536	622
9660.090	341	9661.160	705	9670.428	108	9671.142	589	9671.538	622
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9660.790	339	9665.760	623	9670.886	105	9671.178	589	9671.768	622
9660.880	339	9665.770	623	9671.004	591	9671.180	589	9671.786	622
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9672.008	591	9673.086	342	9673.562	344	9673.920	663	9674.325	354
9672.010	590	9673.155	342	9673.640	349	9673.940	663	9674.326	354
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9672.016	590	9673.185	342	9673.643	349	9673.951	663	9674.340	353
9672.018	590	9673.186	342	9673.644	349	9673.953	663	9674.342	353
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9672.026	590	9673.406	345	9673.660	349	9673.983	663	9674.352	353
9672.028	590	9673.408	345	9673.661	349	9673.995	663	9674.356	353
9672.030	590	9673.426	345	9673.662	349	9674.003	351	9674.358	353
9672.032	590	9673.428	345	9673.663	349	9674.004	351	9674.362	355
9672.034	590	9673.436	348	9673.664	349	9674.006	351	9674.364	355
9672.036	590	9673.438	348	9673.666	349	9674.008	351	9674.366	355
9672.038	590	9673.444	347	9673.667	349	9674.036	350	9674.368	355
9672.040	590	9673.445	347	9673.668	349	9674.038	350	9674.372	355
9672.042	590	9673.448	347	9673.671	349	9674.046	350	9674.376	355
9672.044	590	9673.454	347	9673.672	349	9674.048	350	9674.380	355
9672.046	590	9673.456	348	9673.673	349	9674.056	664	9674.381	356
9672.048	590	9673.458	348	9673.674	349	9674.058	664	9674.400	358
9672.050	590	9673.464	347	9673.677	349	9674.102	324	9674.405	358
9672.052	590	9673.465	347	9673.680	349	9674.104	324	9674.406	358
9672.054	590	9673.468	347	9673.681	349	9674.152	324	9674.408	358
9672.056	590	9673.474	347	9673.682	349	9674.154	324	9674.410	357
9672.058	590	9673.475	347	9673.683	349	9674.162	324	9674.415	357
9673.004	346	9673.476	348	9673.684	349	9674.164	324	9674.416	357
9673.006	346	9673.478	348	9673.686	349	9674.172	324	9674.418	357
9673.008	346	9673.484	347	9673.687	349	9674.174	324	9674.420	358
9673.051	342	9673.485	347	9673.688	349	9674.182	324	9674.425	358
9673.052	342	9673.488	347	9673.691	349	9674.184	324	9674.426	358
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9674.438	357	9675.133	352	9675.535	330	9676.002	324	9676.807	328
9674.441	359	9675.136	352	9675.536	330	9676.004	324	9676.808	328
9674.442	359	9675.140	352	9675.537	330	9676.006	326	9676.809	328
9674.443	359	9675.143	352	9675.543	330	9676.020	324	9676.810	328
9674.444	359	9675.146	352	9675.544	330	9676.021	324	9676.811	328
9674.445	359	9675.210	351	9675.546	330	9676.022	324	9676.812	328
9674.447	359	9675.212	351	9675.547	330	9676.023	324	9676.813	328
9674.448	359	9675.218	351	9675.553	330	9676.024	324	9676.814	328
9674.451	359	9675.220	351	9675.554	330	9676.025	324	9676.815	328
9674.452	359	9675.230	351	9675.556	330	9676.026	324	9676.816	328
9674.453	359	9675.232	351	9675.557	330	9676.027	324	9676.817	328
9674.454	359	9675.238	351	9675.563	330	9676.041	326	9676.819	328
9674.455	359	9675.240	351	9675.564	330	9676.042	326	9676.832	328
9674.457	359	9675.242	351	9675.566	330	9676.043	326	9676.910	333
9674.458	359	9675.501	330	9675.567	330	9676.046	326	9676.912	333
9674.461	359	9675.502	330	9675.573	330	9676.047	326	9676.961	331
9674.462	359	9675.503	330	9675.574	330	9676.048	326	9676.962	331
9674.463	359	9675.504	330	9675.576	330	9676.052	326	9676.963	331
9674.464	359	9675.505	330	9675.577	330	9676.053	326	9676.966	331
9674.467	359	9675.506	330	9675.842	329	9676.054	326	9676.967	331
9674.468	359	9675.507	330	9675.843	329	9676.056	326	9676.968	331
9674.473	359	9675.508	330	9675.846	329	9676.058	326	9751.015	252
9674.474	359	9675.511	330	9675.847	329	9676.059	326	9751.025	252
9674.477	359	9675.513	330	9675.848	329	9676.186	332	9751.035	252
9674.478	359	9675.514	330	9675.849	329	9676.188	332	9751.045	253
9674.485	359	9675.515	330	9675.876	329	9676.196	331	9751.055	253
9674.488	359	9675.516	330	9675.877	329	9676.198	331	9751.075	252
9674.701	344	9675.517	330	9675.878	329	9676.503	352	9751.085	253
9674.702	344	9675.521	330	9675.882	329	9676.504	352	9752.015	253
9674.703	344	9675.522	330	9675.883	329	9676.505	352	9752.025	253
9674.704	344	9675.523	330	9675.886	329	9676.700	328	9753.015	252
9674.706	344	9675.524	330	9675.887	329	9676.704	328	9753.035	252
9674.707	344	9675.525	330	9675.888	329	9676.710	328	9753.045	252
9674.761	350	9675.526	330	9675.889	329	9676.714	328	9753.055	252
9674.762	350	9675.527	330	9675.892	329	9676.730	328	9753.075	252
9674.764	350	9675.528	330	9675.893	329	9676.747	328	9753.085	252
9674.782	350	9675.531	330	9675.896	329	9676.748	328	9753.095	252
9674.784	350	9675.533	330	9675.897	329	9676.749	328	9753.115	252

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9753.135	252	9774.105	251	9961.333	770	9963.536	541	9963.715	137
9753.155	252	9774.205	251	9961.334	773	9963.537	541	9963.716	135
9753.165	252	9774.305	251	9961.453	366	9963.538	541	9963.717	135
9753.175	252	9774.405	251	9961.458	393	9963.539	541	9963.718	135
9753.185	252	9776.102	466	9961.459	393	9963.540	541	9963.719	135
9753.195	252	9776.152	466	9961.504	548	9963.541	541	9963.720	135
9753.205	252	9776.500	466	9961.779	739	9963.542	541	9963.721	135
9754.015	252	9776.550	466	9961.780	739	9963.543	541	9963.722	135
9754.025	252	9783.510	249	9961.868	482	9963.544	541	9963.723	135
9755.015	252	9783.520	249	9961.869	482	9963.545	541	9963.724	135
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9756.015	252	9783.540	249	9962.166	140	9963.601	603	9963.726	135
9756.065	252	9783.550	249	9962.167	140	9963.608	129	9963.727	135
9757.015	252	9783.610	249	9962.168	140	9963.609	129	9963.728	137
9757.065	252	9784.520	250	9962.169	140	9963.670	368	9963.729	137
9758.015	252	9784.540	250	9963.442	368	9963.671	368	9963.730	135
9761.212	467	9784.620	250	9963.443	368	9963.672	368	9963.731	135
9762.212	467	9784.640	250	9963.444	368	9963.673	368	9963.732	135
9764.040	467	9785.040	602	9963.487	128	9963.674	368	9963.733	136
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9765.084	541	9785.512	560	9963.492	129	9963.679	368	9963.736	136
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9765.086	541	9785.514	560	9963.498	129	9963.681	368	9963.738	136
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9765.088	541	9791.025	248	9963.522	540	9963.701	137	9963.740	136
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9765.090	643	9791.045	248	9963.524	540	9963.703	134	9963.742	136
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9765.095	643	9960.301	129	9963.526	540	9963.705	134	9963.744	136
9765.096	643	9960.303	129	9963.527	540	9963.706	134	9963.745	136
9765.097	643	9960.552	773	9963.528	540	9963.707	134	9963.746	136
9765.120	631	9960.676	776	9963.529	540	9963.708	134	9963.747	136
9765.150	695	9961.326	773	9963.530	540	9963.709	134	9963.748	136
9765.166	541	9961.328	770	9963.531	541	9963.710	134	9963.749	136
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9963.763	138	9967.462	565	9968.221	244	9969.599	726	9969.936	390
9963.770	139	9967.463	565	9968.222	244	9969.600	739	9969.937	390
9963.771	139	9967.464	565	9968.223	244	9969.601	729	9969.938	390
9963.772	139	9967.465	565	9968.224	244	9969.639	390	9969.939	390
9963.800	763	9967.466	565	9968.225	244	9969.640	390	9969.940	390
9963.936	393	9967.467	565	9968.226	244	9969.641	390	9969.941	390
9963.937	393	9967.468	565	9968.227	244	9969.658	390	9969.942	390
9963.938	393	9967.469	565	9968.228	244	9969.736	740	9969.943	390
9963.939	393	9967.470	565	9968.261	245	9969.858	128	9969.944	390
9963.940	393	9967.471	565	9968.262	245	9969.860	128	9969.945	390
9963.943	393	9967.472	565	9968.421	683	9969.861	128	9969.946	390
9963.944	392	9967.473	565	9968.422	683	9969.862	129	9969.947	390
9963.945	392	9967.474	565	9968.556	683	9969.863	129	9969.948	561
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9963.947	392	9967.476	565	9968.586	683	9969.865	129	9969.955	561
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9963.949	392	9967.478	565	9968.593	561	9969.867	129	9969.957	561
9963.950	392	9967.479	565	9968.594	561	9969.868	129	9969.958	561
9963.951	393	9967.480	551	9968.595	561	9969.874	128	9970.016	776
9963.952	393	9967.481	551	9968.596	561	9969.875	128	9970.017	776
9963.953	392	9967.482	551	9968.597	561	9969.876	128	9970.164	462
9963.954	392	9967.483	551	9968.751	550	9969.877	128	9970.165	462
9963.955	393	9967.484	551	9969.302	129	9969.880	129	9970.240	776
9963.956	393	9967.485	551	9969.309	561	9969.881	129	9970.241	776
9963.957	391	9967.490	533	9969.311	561	9969.882	129	9970.253	730
9963.958	391	9967.491	533	9969.312	561	9969.883	129	9970.254	730
9963.959	391	9967.492	533	9969.351	561	9969.884	128	9970.255	730
9963.960	391	9967.493	534	9969.352	561	9969.886	128	9970.256	730
9963.961	391	9967.494	534	9969.355	561	9969.887	128	9970.257	730
9963.962	391	9967.495	534	9969.488	128	9969.892	129	9970.258	730
9963.963	391	9967.526	432	9969.580	82	9969.893	129	9970.259	731
9963.964	391	9967.528	461	9969.581	82	9969.894	129	9970.260	731
9967.361	743	9967.972	130	9969.582	82	9969.895	129	9970.261	731
9967.362	743	9967.973	130	9969.593	730	9969.896	129	9970.262	731
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9967.364	739	9968.108	693	9969.595	730	9969.898	129	9970.264	731
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9970.270	731	9971.058	366	9978.417	362	9978.471	370	9979.445	473
9970.271	730	9971.066	763	9978.418	362	9978.472	370	9979.446	473
9970.435	540	9971.067	763	9978.420	225	9978.473	370	9979.447	473
9970.771	371	9971.104	369	9978.421	225	9978.474	371	9979.448	473
9970.772	371	9971.105	369	9978.422	225	9978.475	370	9979.449	473
9970.773	370	9971.106	369	9978.423	225	9978.476	371	9979.450	473
9970.774	370	9971.107	369	9978.429	226	9978.477	370	9979.451	473
9970.775	371	9971.110	369	9978.430	226	9978.478	370	9979.452	473
9970.776	371	9971.111	369	9978.431	226	9978.479	370	9979.453	473
9970.777	370	9971.112	369	9978.432	226	9978.480	370	9979.454	473
9970.778	370	9971.113	369	9978.433	226	9978.481	370	9980.135	790
9970.811	372	9971.115	797	9978.440	367	9978.482	371	C080807H4	230
9970.812	372	9976.424	562	9978.441	367	9978.483	370	C080807HC	144
9970.813	372	9976.425	562	9978.445	369	9978.486	371	C081207H4	230
9970.814	372	9976.426	562	9978.446	369	9978.487	370	C081207HC	144
9970.815	372	9978.352	770	9978.447	369	9978.488	371	C081607H4	230
9970.816	372	9978.353	770	9978.448	369	9978.489	370	C081607HC	144
9970.843	367	9978.354	770	9978.449	369	9978.490	371	C082007H4	230
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9970.845	367	9978.356	770	9978.451	369	9978.498	456	C121209H4	230
9970.846	367	9978.357	770	9978.452	369	9978.499	456	C121209HC	144
9970.847	367	9978.360	735	9978.453	369	9978.500	456	C121609H4	230
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9970.986	760	9978.362	533	9978.455	369	9978.502	456	C122009H4	230
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9971.036	140	9978.366	534	9978.459	369	9978.506	790	C161611H4	230
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9971.041	566	9978.377	566	9978.461	369	9978.508	790	C162011H4	230
9971.042	566	9978.378	566	9978.462	369	9978.509	790	C162011HC	144
9971.043	566	9978.379	566	9978.463	369	9978.510	546	C162411H4	230
9971.044	566	9978.380	566	9978.464	369	9978.511	546	C162411HC	144
9971.045	566	9978.381	566	9978.465	370	9978.512	546	C163011H4	230
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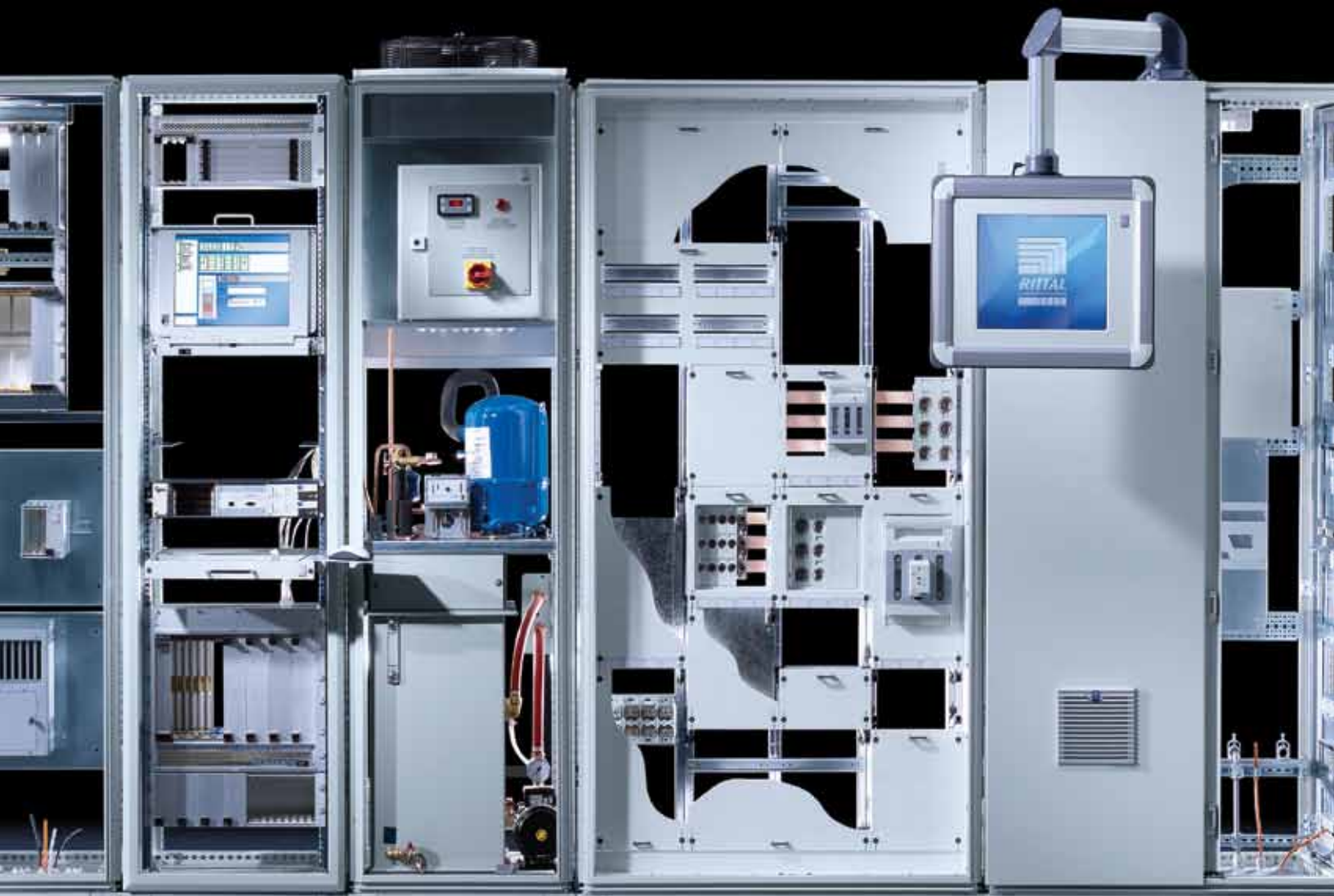
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