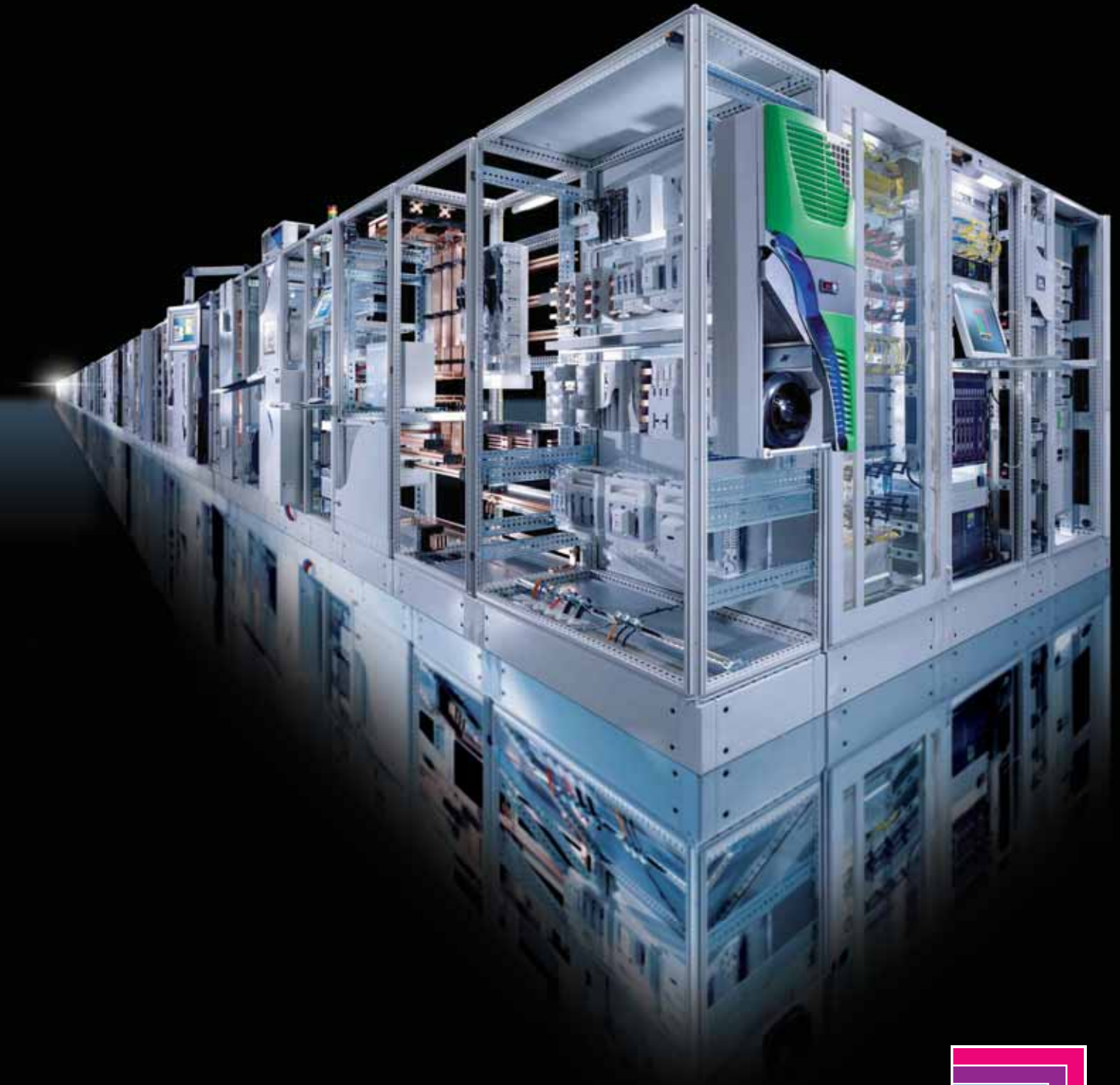


ISSUE TWO

Rittal - Industrial Enclosure Solutions



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL



FRIEDHELM LOH GROUP



Rittal - The System

Faster - Better - Worldwide

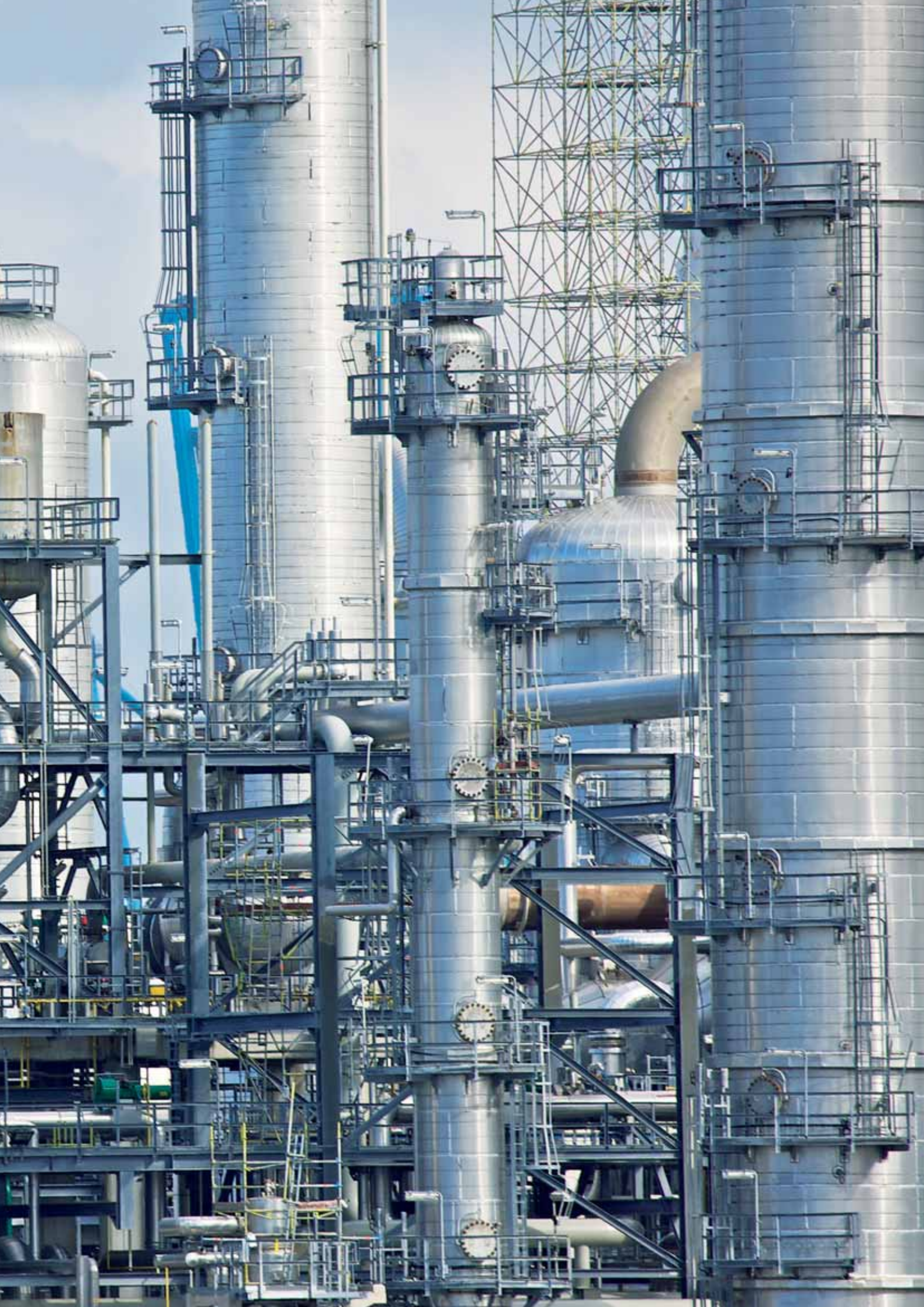
What if one name provided a solution for every industrial application...
From mining, manufacturing, petrochemical, energy, water, power
distribution, automation and building installation.

Rittal presents The System. Every one of Rittal's 10,000 products fits into
the modular, flexible and logical structure to give you maximum efficiency,
reduced costs, energy saving, and superior quality in one complete
solution. The Rittal range includes product designs for hazardous areas,
hygienic and stainless steel applications and climate control to ensure
your valuable assets are perfectly protected.

Industrial Enclosure Solutions presents you with a complete
overview of the Rittal Industrial System, find the right protection
for your application.

Peter Mellino
Managing Director
Rittal Australia and New Zealand





What's Inside...

Rittal - Industrial Enclosure Solutions takes a succinct selection from over 10,000 products to provide an easy reference point for your industrial applications... whatever they may be.

See the latest solutions for...

Industrial Enclosures: The TS8 is the number one selling enclosure system in the world. With an ingenious range of profiles, system punchings, coordinated design features, and accessories, the range of installation possibilities for the TS8 system platform is limitless.

Rittal's AE series has been a success story - for many years. Millions of these robust and adaptable compact enclosures are in use all over the world. It's exceptionally high corrosion resistance remains one of its unique selling points.

Rittal's new RiMine sloped roof field enclosures are specifically designed and manufactured to suit the harsh environments of the mining and oil and gas industries. The RiMine range combines German engineered quality, reliability and leading edge technology to suit the requirements of the Australian market.

Cooling: System climate control creates the correct ambient conditions for every application, particularly for sensitive electronics and control systems, and eliminates costly shutdowns. Since our introduction of enclosure air conditioners 20 years ago Rittal has developed a complete range of cooling units, recooling systems, heat exchangers, fan and filter units, and enclosure heaters to protect your equipment against adverse physical and thermal influences. And only Rittal has RiNano – coated condensers in all cooling units to provide you with up to 45% energy savings.

Power Distribution: Rittal's low voltage power distribution range delivers innovative products with contemporary design and outstanding safety technology. Enjoy time-saving assembly, versatility and flexibility, as well as modularity. The RiLine 60 modular busbar system is up to 1600A with perfect all-round contact hazard protection.

Our Ri4Power Form 2 – 4 low voltage systems for electrical distribution and motor control up to 4000A is type tested in accordance with world- wide standard IEC 60 439-1. Ri4Power offers a reliable, fast assembly solution for low-voltage switchgear systems for machines, plant, and buildings. Configuration and design is quick and easy with Rittal Power Engineering software.



About us

Founded in 1961, Rittal has grown to become the largest enclosure manufacturer in the world and a leader in competent thermal management of electrical, electronic and IT equipment.

With over 10 000 employees, 19 production sites, 60 subsidiaries and 150 distribution and logistic centres worldwide, Rittal is your local global provider of innovative enclosure technology.

In Australia since 1983, Rittal is a market leader constantly reviewing and enhancing our systems in line with customer feedback to meet and exceed the requirements of our market. With over 10 000 products, Rittal has the largest range of innovative enclosure solutions supplemented by a vast selection of accessories. With immediate availability of products and localised modification centres, your product can be individually adapted to fit any application.

Our mission is to design and manufacture the most comprehensive solutions encapsulating the highest quality, leading edge technology and innovation. Rittal strives to continually better our service, to meet and exceed the needs and expectations of our market.

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Polycarbonate Enclosures, PK

PK enclosures are made from fibreglass reinforced polycarbonate, which ensures excellent insulating properties and a high level of resistance to chemical and mechanical influences.

Ideal for use in applications where dust-proof, water-proof, fully insulated and corrosion-free encapsulation of electrical and electronic components is required.



Light Grey Lid

Model No	Width mm	Height mm	Depth mm	Mounting Plate	Hinges for Lid	Support Rails (DIN RAIL) Fixed Horizontally		Support Rails (DIN RAIL) Fixed Vertically	
						TS 15/5.5	TS 35/7.5	TS 15/5.5	TS 35/7.5
950000	65	65	57	9540000	9580000	9560000	-	-	-
9501000	65	65	81	9540000	9580000	9560000	-	-	-
9502000	94	65	57	9541000	9580000	9561000	-	9560000	-
9503000	94	65	81	9541000	9580000	9561000	-	9560000	-
9504000	94	94	57	9542000	9580000	9561000	9564000	9561000	9564000
9505000	94	94	81	9542000	9580000	9561000	9564000	9561000	9564000
9506000	110	110	66	9543000	9580000	9562000	9564000	9562000	9564000
9507000	110	110	90	9543000	9580000	9562000	9564000	9562000	9564000
9508000	130	94	57	9544000	9580000	9563000	9565000	9561000	9564000
9509000	130	94	81	9544000	9580000	9563000	9565000	9561000	9564000
9510000	130	130	75	9545000	9580000	9563000	9565000	9563000	9565000
9511000	130	130	99	9545000	9580000	9563000	9565000	9563000	9565000
9512000	180	94	57	9546000	9580000	-	9566000	9561000	9564000
9513000	180	94	81	9546000	9580000	-	9566100	9561000	9564000
9514000	180	110	90	9547000	9581000	-	9566000	-	-
9515000	180	110	111	9547000	9581000	-	9566000	-	-
9516000	180	110	165	9547000	9581000	-	9566000	-	-
9517000	182	180	90	9548000	9581000	-	9566000	-	-
9518000	182	180	111	9548000	9581000	-	9566000	-	-
9519000	182	180	165	9548000	9581000	-	9566000	-	-
9520000	254	180	90	9549000	9581000	-	9567000	-	-
9521000	254	180	111	9549000	9581000	-	9567000	-	-
9522000	254	180	165	9549000	9581000	-	9567000	-	-
9523000	360	254	111	9550000	9581000	-	9568000	-	9567000
9524000	360	254	165	9550000	9581000	-	9568000	-	9567000

Features

Halogen free. UV rated to UL786C and DIN 53387/1000h. High impact strength to DIN 53453



Wall Mounting Brackets

Part No:
9583000



Turn-Lock Fastener -

Screw Fastening Aid
Part No: 9582000

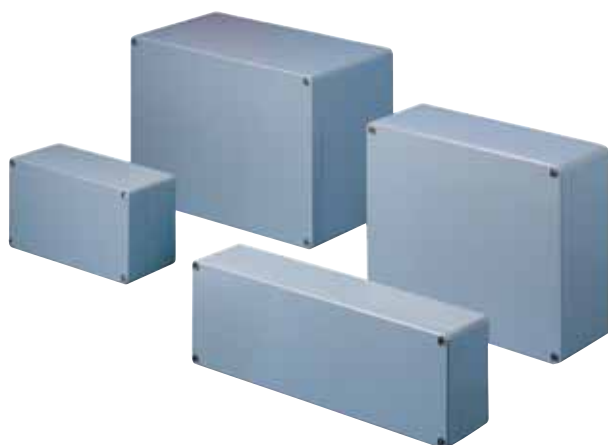


Polycarbonate Enclosures, PK

Transparent Lid

Model No	Width mm	Height mm	Depth mm	Mounting Plate	Hinges for Lid	Support Rails (DIN RAIL) Fixed Horizontally		Support Rails (DIN RAIL) Fixed Vertically	
						TS 15/5.5	TS 35/7.5	TS 15/5.5	TS 35/7.5
9504100	94	94	57	9542000	9580000	9561000	9564000	9561000	9564000
9506100	110	110	66	9543000	9580000	9562000	9564000	9562000	9564000
9507100	110	110	90	9543000	9580000	9562000	9564000	9562000	9564000
9508100	130	94	57	9544000	9580000	9563000	9565000	9561000	9564000
9509100	130	94	81	9544000	9580000	9563000	9565000	9561000	9564000
9510100	130	130	75	9545000	9580000	9563000	9565000	9563000	9565000
9511100	130	130	99	9545000	9580000	9563000	9565000	9563000	9565000
9512100	180	94	57	9546000	9580000	-	9566000	9561000	9564000
9513100	180	94	81	9546000	9580000	-	9566100	9561000	9564000
9514100	180	110	90	9547000	9581000	-	9566000	-	-
9515100	180	110	111	9547000	9581000	-	9566000	-	-
9516100	180	110	165	9547000	9581000	-	9566000	-	-
9517100	182	180	90	9548000	9581000	-	9566000	-	-
9518100	182	180	111	9548000	9581000	-	9566000	-	-
9519100	182	180	165	9548000	9581000	-	9566000	-	-
9520100	254	180	90	9549000	9581000	-	9567000	-	-
9521100	254	180	111	9549000	9581000	-	9567000	-	-
9522100	254	180	165	9549000	9581000	-	9567000	-	-
9523100	360	254	111	9550000	9581000	-	9568000	-	9567000
9524100	360	254	165	9550000	9581000	-	9568000	-	9567000

Cast Aluminium Enclosures, GA



The GA cast aluminium enclosure range provides an alternative material which is extremely robust and able to withstand the harshest industrial environments. The cast aluminium enclosures ensure high chemical and impact resistance and are highly resistant to external impact.

The range comes prepared for mounting internal equipment and rails with drilled and tapped holes. A variety of accessories including hinges and wall brackets compliment the range.



Model No. GA	Width mm	Height mm	Depth mm	Mounting Plate	Support Rails (DIN RAIL)		Wall Brackets	Exterior Hinge
					TS 15	TS 35/7.5		
9100210	50	45	30	-	-	-	-	-
9101210	58	64	36	-	-	-	-	-
9102210	98	64	36	-	-	-	-	-
9103210	150	64	36	-	-	-	-	-
9104210	75	80	57	-	-	-	-	-
9105210	125	80	57	9105700	9105150	-	-	9123100
9106210	175	80	57	-	-	-	-	9123100
9107210	250	80	57	-	-	-	-	9123100
9108210	122	120	80	9108700	-	9108350	9121122	9123000
9110210	220	120	90	9110700	-	9110350	9121122	9123000
9111210	360	122	80	-	-	9111350	9121122	9123000
9112210	160	160	90	9112700	-	9112350	9121160	9123000
9113210	260	160	90	9113700	-	9113250	9121160	9123000
9114210	360	160	90	9114700	-	9111350	9121160	9123000
9116210	200	230	110	9116700	-	9116350	9121230	9123000
9117210	280	230	110	9117700	-	9117350	9121230	9123000
9118210	330	230	110	9118700	-	9118350	9121230	9123000
9119210	330	230	180	9118700	-	9118350	9121230	9123000

Features

Good resistance (including seal) to oil, diesel, alcohol and petrol. Tapped holes for securing DIN rail and mounting plate.

Accessories

Hinges for Lid

Cutouts

Colours



Terminal / Junction Box, KL

The KL Terminal Box has been developed and refined with constant feedback that has resulted in a terminal box range comprising of 44 different alternatives. Available in mild steel with a powder coated finish as well as stainless steel for corrosive environments.

With a screw fastening lid, integrated mounting rails and a practical depth (80 mm or 120 mm) to suit terminal strips, this enclosure is ideal for any junction or marshalling application. Accessories include mounting plates, support rails, cable gland plates and exterior cover hinges.



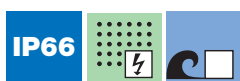
Mild Steel

KL (RAL 7035)		Width mm	Height mm	Mounting Plate	Support Rail (DIN RAIL)	
D=80mm	D=120mm				TS 35/7.5	TS 35/15
1514510	1500510	150	150	1560700	2314000	-
1528510	1529510	200	150	1575700	2315000	-
1516510	1502510	200	200	1562700	2315000	-
1515510	1501510	300	150	1561700	2316000	-
1517510	1503510	300	200	1563700	2316000	-
-	1507510	300	300	1567700	2316000	-
-	1589510	400	150	1576700	2317000	-
1518510	1504510	400	200	1564700	2317000	-
-	1508510	400	300	1568700	2317000	-
-	1511510	400	400	1571700	2317000	-
-	1505510	500	200	1565700	-	2318000
-	1509510	500	300	1569700	-	2318000
1519510	1506510	600	200	1566700	-	2319000
-	1510510	600	300	1570700	-	2319000
-	1512510	600	400	1572700	-	2319000
-	1527510	800	200	1574700	-	-
-	1513510	800	400	1573700	-	-

Features

Halogen free. UV rated to UL786C and DIN 53387/1000h. High impact strength to DIN 53453

RAL 7035
LIGHT GREY



Wall Mounting Brackets
Part No: 1590000 (zinc plated)
Part No: 1594000 (Stainless)



Cover Hinges
Part No: 1592000



Plastic Gland Plate
Part No: 1581000



Terminal / Junction Box, KL - with gland plates

Mild Steel

KL (w/ GP) D=120mm	Width mm	Height mm	Mounting Plate	Support Rail (DIN RAIL)	
				TS 35/7.5	TS 35/15
1530510	300	150	1561700	2316000	-
1531510	300	200	1563700	2316000	-
1535510	300	300	1567700	2316000	-
1532510	400	200	1564700	2317000	-
1536510	400	300	1568700	2317000	-
1539510	400	400	1571700	2317000	-
1533510	500	200	1565700	-	2318000
1537510	500	300	1569700	-	2318000
1534510	600	200	1566700	-	2319000
1538510	600	300	1570700	-	2319000
1540510	600	400	1572700	-	2319000
1542510	800	200	1574700	-	-
1541510	800	400	1573700	-	-



Stainless Steel

KL (304 SS) D=80mm	KL (316 SS) D=80mm	Width mm	Height mm	Mounting Plate	Support Rail (DIN RAIL) TS 35/7.5
1521010	1521510	150	150	1560700	2314000
1523010	1523510	200	200	1562700	2315000
1522010	1522510	300	150	1561700	2316000
1524010	1524510	300	200	1563700	2316000

KL (304 SS) D=120mm	KL (316 SS) D=120mm	Width mm	Height mm	Mounting Plate	Support Rail (DIN RAIL) TS 35/7.5
1525010	1525510	400	200	1564700	2317000
1526010	1526510	300	300	1567700	2316000

KL (IP 69K)		Width mm	Height mm	Mounting Plate	Support Rail (DIN RAIL) TS 35/7.5
D=80mm	D=120mm				
1024010	1024020	150	150	1560700	2314000
-	1024030	200	150	1575700	2315000
-	1024040	400	300	1568700	2317000

E-Box Enclosures, EB

The EB enclosure series with its shallow depths is designed to support applications where space is limited and offer protection for dense wiring and sensitive small instruments.

The range comes complete with 180° hinges and a universal lock system that can be equipped with a range of lock inserts and handles. The removable mounting plate enables simple component assembly to facilitate compact wiring in the smallest possible space.



Mild Steel

Model No. EB Standard	Width mm	Height mm	Depth mm
1551500	150	150	80
1545500	150	300	80
1546500	200	200	80
1552500	200	300	80
1547500	200	400	80
1553500	150	150	120
1548500	150	300	120
1549500	200	200	120
1554500	200	300	120
1550500	200	400	120
1557500	200	500	120
1555500	300	300	120
1556500	300	400	120
1577500	300	400	155
1578500	300	600	155
1579500	300	800	155



Accessories

Wall Mounting Brackets
 Pat No: 2508000 (10 mm D)
 Pat No: 2503000 (40 mm D)



Features

Mounting Plate included



180° hinge



Wall Mounted Enclosures, AE Mild Steel

World's biggest selling enclosure

The Rittal range of wall mounted enclosures have been on the market for over 30 years. In this time the manufacturing of these enclosures has been perfected, giving them a quality that can not be matched. The range has evolved to cater for applications where stainless steel is necessary.

Choose from 61 variants including powder coated mild steel or stainless steel, single or double door versions, glazed doors and a variety of operating panels. The AE Series is well complemented by a range of accessories that further adapt the enclosures to a given application.



Model No.AE	Width mm	Height mm	Depth mm	Rain Canopy	Door(s)
Mild Steel				Mild Steel	
1032500	200	300	120	-	1
1035500	200	300	155	2470000*	1
1036500	300	300	155	-	1
1033500	300	300	210	2361000*	1
1034500	300	400	210	2361000*	1
1030500	380	300	155	2471000*	1
1031500	380	300	210	2501500	1
1380500	380	380	210	2501500	1
1038500	380	600	210	2501500	1
1338500	380	600	350	-	1
1037500	400	800	300	-	1
1045500	400	500	210	-	1
1050500	500	500	210	2362000*	1
1350500	500	500	300	-	1
1057500	500	700	250	-	1
1039500	600	380	210	2502500	1
1339500	600	380	350	2511500	1
1060500	600	600	210	2502500	1
1054500	600	600	250	-	1
1360500	600	600	350	2511500	1
1076500	600	760	210	2502500	1
1376500	600	760	350	2511500	1
1058500	600	800	250	-	1
1090500	600	1000	250	-	1
1260500	600	1200	300	-	1
1077500	760	760	210	-	1
1073500	760	760	300	2474000*	1
1055500	800	600	300	-	1
1180500	800	1000	300	2475000*	1
1280500	800	1200	300	2475000*	1
1100500	1000	760	210	-	2
1130500	1000	760	300	2363000*	2
1110500	1000	1000	300	2363000*	2
1213500	1000	1200	300	2363000*	2
1114500	1000	1400	300	2363000*	2

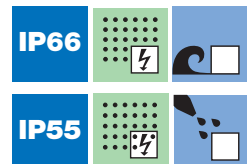
Plastic Handle
Part No: 2576000
Part No: 2533000 (no key)



Pole Clamp
Part No: 2584000



RAL 7035
LIGHT GREY



Double Door Enclosures





* All are stainless steel, and can be used on mild steel enclosures

Wall Mounted Enclosures, AE Stainless Steel

Model No.AE		Width mm	Height mm	Depth mm	Rain Canopy Stainless Steel	Door(s)
304 SS	316 SS					
1001600	1001500	200	300	120	-	1
1002600	1002500	200	300	155	2470000	1
1003600	1003500	300	300	210	2361000	1
1004600	1004500	380	300	155	2471000	1
1011600	1011500	380	300	210	2472000	1
1006600	1006500	380	380	210	2472000	1
1009600	1009500	600	380	210	2473000	1
1008600	1008500	380	600	210	2472000	1
1005600	1005500	300	380	210	2361000	1
1015600	1015500	400	500	210	-	1
1007600	1007500	500	500	210	2362000	1
1013600	1013500	500	500	300	-	1
1010600	1010500	600	600	210	2473000	1
1012600	1012500	600	760	210	2473000	1
1068600	1068500	600	800	300	-	1
1014600	1014500	760	760	300	2474000	1
1016600	1016500	800	1000	300	2475000	1
1017600	1017500	800	1200	300	2475000	1
1018600	1018500	1000	1000	300	2363000	2
1019600	1019500	1000	1200	300	2363000	2

Accessories

Exterior Installations

Wall Mounting	Material	Pack of	Suitable For	Wall Distance (mm)	Model No.
	Nickel plated brass	4	KL, EB, AE	8	1580000
	Zinc-plated mild steel, passivated	4	KL, EB, AE	8	1590000
	Stainless steel	4	KL, EB, AE	8	1594000
	Zinc-plated mild steel, passivated	4	KL, EB, AE, EL, DK	40	2503000
	Zinc-plated mild steel, passivated	4	KL, EB, AE, EL, DK	10	2508000
	Stainless steel	4	KL, EB, AE, EL, DK	10	243300
	Cross rails - zinc plated mild steel	2	KL, EB, AE, KS	na	2584000
	Clamping strap - stainless steel	2	KL, EB, AE, KS	na	2584000
	Powdercoated mild steel	1	KL, EB, AE	0	2505200
	Stainless steel	1	KL, EB, AE	0	2583000

Mining Enclosures



Specifically designed for the harsh mining environment, the mining range of field enclosures are able to withstand the most rugged conditions.

Rittal, the world leader in industrial enclosures, advance their German design and engineering expertise to produce a series of sloped roof enclosures for the mining and petrochemical industries.

- IP66 rating
- 2mm thickness
- Maximum door opening
- Optimum mounting area
- 30° sloped roof with generous overhang
- Triple point locking system (Available in 700H + sizes)
- Pad lockable
- Foamed in gaskets
- Depth adjustable mounting
- Door stay plate
- Gland plate included

Dimensions and Drawings page 17

Mild Steel Painted X15 Orange

Cost effective solution for inland applications

Mild Steel	Height mm	Width mm	Depth mm
RM4425S	400	400	270
RM7535S	700	500	370
RM10840S	1000	800	420

Stainless Steel 316 Uncoated

Robust design for mining and petrochemical environments

Stainless Steel	Height mm	Width mm	Depth mm
RM4425SS	400	400	270
RM7522SS	700	500	220
RM7535SS	700	500	370
RM10822SS	1000	800	220
RM10840SS	1000	800	420

Stainless Steel 316 Painted X15 Orange

Robust design for mining and petrochemical environments

Stainless Steel 316 painted X15 Orange	Height mm	Width mm	Depth mm
RM4425SSX15	400	400	270
RM7522SSX15	700	500	220
RM7535SSX15	700	500	370
RM10822SSX15	1000	800	220
RM10840SSX15	1000	800	420



Mounting plate
Depth adjustable



Stainless steel enclosure comes with stainless steel, padlockable, swivel handle

Mild steel enclosure comes with chrome, padlockable swivel handle

Mining Accessories

Rittal's complete range of accessories are designed to maximize the functionality of your enclosure.

Accessories include:

Hinged inner doors for control equipment mounting, customised gland plate modifications, and a wide variety of climate control solutions.

Hinged Inner Doors

Part Number	To Suit Enclosure	Height mm	Width mm
RM44HID	RM4425S/SS	375	325
RM75HID	RM7522-35S/SS	675	425
RM18HID	RM10822-40S/SS	975	725

Brass Gland Plates

3 mm

RM4425BG3

RM7522BG3

RM7535BG3

RM1082BG3

RM1084BG3

6mm

RM4425BG6

RM7522BG6

RM7535BG6

RM1082BG6

RM1084BG6



Hinged Inner Doors

To compliment the depth adjustable mounting plate, hinged inner doors are available for all mining enclosures



Customised gland plate

Options include:

- Pre-drilling for custom glanding requirements

Mining Enclosure - Climate Control

Part Number SK	Description/Air Throughput (50Hz)	Height mm	Width mm	Depth mm
3321107	Fan Unit 240V 20m3/h	116.5	116.5	52
3321207	Outlet Filter	116.5	116.5	52
3321800	IP56 Stainless Steel Hose Proof Fan/Filter Cover	260	150	40
3322107	Fan Unit 240V 55m3/h	148.5	148.5	67.5
3322207	Outlet Filter	148.5	148.5	67.5
3322800	IP56 Stainless Steel Hose Proof Fan/Filter Cover	270	176	55
3323107	Fan Unit 240V 105m3/h	204	204	95
3323207	Outlet Filter	204	204	95
3323800	IP56 Stainless Steel Hose Proof Fan/Filter Cover	410	233	55
3324107	Fan Unit 240V 180m3/h	255	255	117.5
3325207	Outlet Filter	255	255	117.5
3324800	IP56 Stainless Steel Hose Proof Fan/Filter Cover	500	282	55
3106120	Enclosure Heater 110-240V 20w	173	70	47
3116140	Enclosure Heater 110-240V 50w	215	93	80
3102170	Enclosure Heater 110-240vac	250	195	80
3110000	Thermostat 24-240v ac	71	71	33.5
3118000	Hygostat 24-230v ac/dc	71	71	33.5



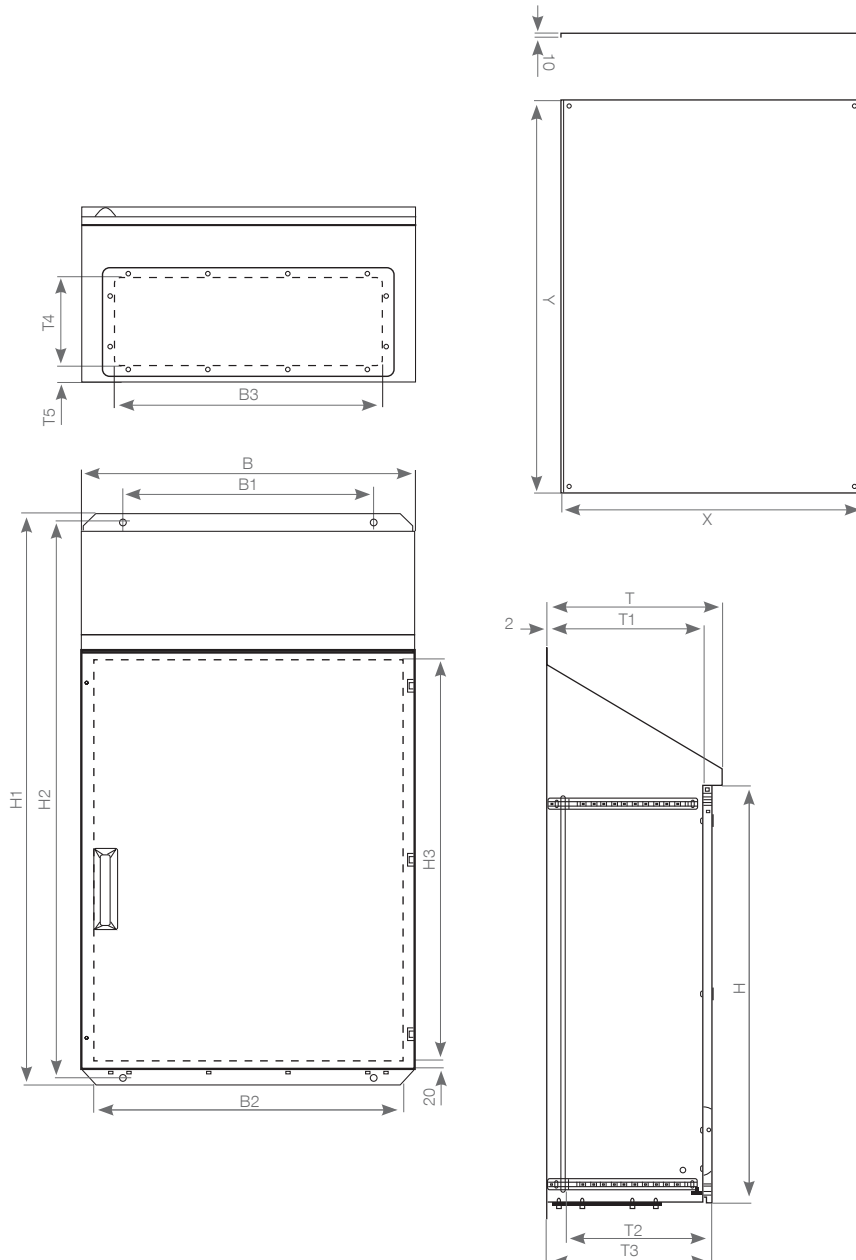
Mining Enclosure Specifications

H = Overall height at front
H1 = Overall height at rear
H2 = Fixing height
H3 = Opening height

B = Overall width
B1 = Fixing width
B2 = Opening width
B3 = Width of gland plate

T = Overall depth
T1 = Depth of the enclosure
T2 = Maximum mounting depth
T3 = Depth of the enclosure with the door
T4 = Depth of gland plate
T5 = Position of gland plate

Nominal Dimensions HxWxD	Height mm				Width mm				Depth mm					Mounting Plate		
	H	H1	H2	H3	B	B1	B2	B3	T	T1	T2	T3	T4	T5	X	Y
400 x 400 x 270	400	681	641	362	400	300	340	320	270	225	200	245	140	40	325	340
700 x 500 x 220	700	952	912	662	500	400	440	440	220	175	150	195	120	27.5	425	640
700 x 500 x 370	700	1039	999	662	500	400	440	440	370	325	300	345	240	40	425	640
1000 x 800 x 220	1000	1252	1212	962	800	600	740	740	220	175	150	195	120	27.5	725	940
1000 x 800 x 420	1000	1367	1327	962	800	600	740	740	420	375	350	395	210	40	725	940



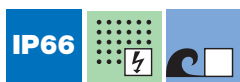
Fibreglass Enclosures, ks

KS Fibreglass Enclosures are made from lightweight and non-corrosive Fibreglass reinforced unsaturated polyester. These fully insulated enclosures are appropriate for outdoor and tough industrial applications. They are available in two versions, with or without viewing windows.

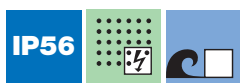
Each enclosure has built-in PVC rain strips - top and bottom, facilitating a double seal and inverted installation option. M8 brass inserts are located on the rear to maintain IP rating and simplify enclosure mounting.



Model No. KS		Width mm	Height mm	Depth mm	Mounting Plate Adjustment	Door(s)
Standard	With Window					
1423500	-	200	300	150	1481000	1
1432500	-	250	350	150	1481000	1
1434500	-	300	400	200	1481000	1
1444500	1448500	400	400	200	1481000	1
1446500	1449500	400	600	200	1481000	1
1453500	1454500	500	500	300	1491000	1
1466500	1467500	600	600	200	1481000	1
1468500	1469500	600	800	300	1491000	1
1480500	1479500	800	1000	300	1491000	1
1400500	-	1000	1000	300	1491000	2



Standard model with no viewing window



Standard model with viewing window



Wall Mounting Bracket
Part No: 1483000



KS Lock System
Part No: 1490000



M6 Threaded Inserts
Part No: 1482000



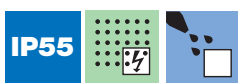
Compact Systems Enclosures, CM - Mild Steel

CM (medium size) is the latest addition to the Rittal enclosure range. The available sizes have been carefully decided based on close consultation with equipment manufacturers. This will ensure that the best possible electrical installation, characterised by maximum accessibility and space utilisation, will be achieved with an off the shelf enclosure.



Model No. CM	Width mm	Height mm	Depth mm	Base/Plinth 100 mm		Base/Plinth 200 mm		Internal Assembly Rails		Mounting Rails for Assembly on Internal Assembly Rails		Door (s)
				Front/Rear	Side	Front/Rear	Side	Vertical	Horizontal	For Depth Mounting	For Width Mounting	
5110500	600	800	400	8601600	8601040	8602600	8602040	5001051	5001050	8612140	8612060	1
5111500	600	1000	400	8601600	8601040	8602600	8602040	5001052	5001050	8612140	8612060	1
5112500	600	1200	300	8601600	8601030	8602600	8602030	5001053	5001050	8612130	8612060	1
5113500	600	1200	400	8601600	8601040	8602600	8602040	5001053	5001050	8612140	8612060	1
5114500	800	1000	300	8601800	8601030	8602800	8602030	5001052	5001051	8612130	8612080	1
5115500	800	1000	400	8601800	8601040	8602800	8602040	5001052	5001051	8612140	8612080	1
5116500	800	1200	300	8601800	8601030	8602800	8602030	5001053	5001051	8612130	8612080	1
5117500	800	1200	400	8601800	8601040	8602800	8602040	5001053	5001051	8612140	8612080	1
5118500	1000	1000	300	8601000	8601030	8602000	8602030	5001052	5001052	8612130	8612000	2
5119500	1000	1200	300	8601000	8601030	8602000	8602030	5001053	5001052	8612130	8612000	2
5120500	1000	1200	400	8601000	8601040	8602000	8602040	5001053	5001052	8612140	8612000	2
5121500	1000	1400	300	8601000	8601030	8602000	8602030	5001054	5001052	8612130	8612000	2
5122500	1000	1400	400	8601000	8601040	8602000	8602040	5001054	5001052	8612140	8612000	2
5123500	1200	1200	400	8601200	8601040	8602200	8602040	5001053	5001053	8612140	8612020	2

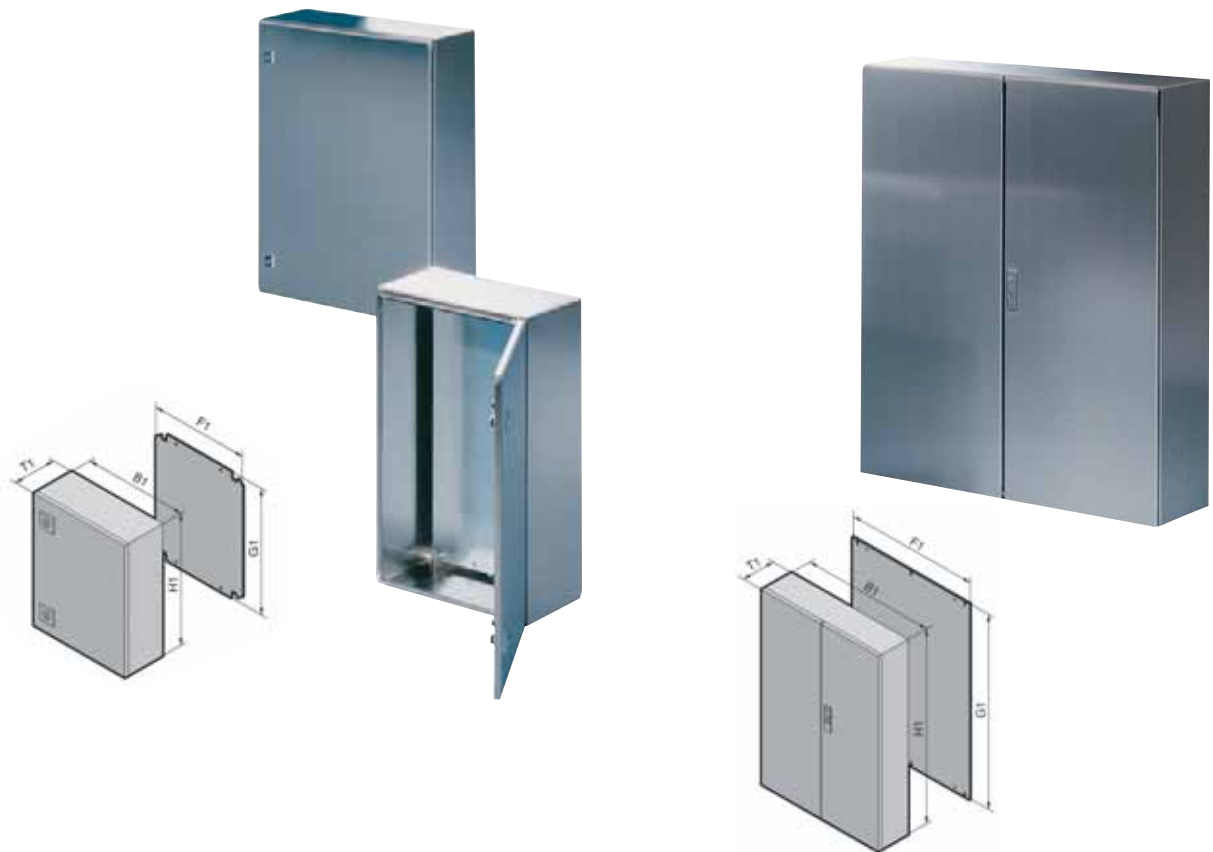
RAL 7035
LIGHT GREY



Features

Equipped with studs for mounting adapter rails to utilise TS interior installation accessories. New door handle ensures optimum space utilisation on door for cutouts and door mounted equipment due to its unique lever mechanism.

Compact Systems Enclosures, CM - Stainless Steel


Material:

Enclosure and door:
Stainless Steel

Rittal service:

Other sizes available on request.
Cut-outs and drilled holes to your specifications.

Model No. (S/S 316)	Width mm	Height mm	Depth mm	Mounting Plate Width mm	Mounting Plate Height mm	Doors
1684999	600	800	400	550	770	1
1884999	800	800	400	740	755	1
1804999	800	1000	400	740	960	1
1824999	800	1200	400	735	1155	1
1024999	1000	1200	400	935	1155	2
1224999	1200	1200	400	1140	1155	2
1663999	600	600	300	550	570	1
1063999	600	1000	300	540	955	1

Freestanding Enclosures, ES - Mild Steel

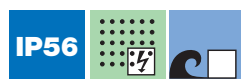


ES enclosures provide a high-strength, cost effective solution for virtually any freestanding application where modularity is not required. The strength of these enclosures comes from a 10 fold profile. The body is made from a single piece providing exceptional rigidity, load bearing capacity and tensile force distribution during crane lifting.

Available in mild steel and stainless steel where hygiene and corrosion resistance is required. Compact for electronics, ideal for machine control, generously proportioned for climate control, flexible and cost-effective with a good IP rating.



Model No. ES Mild Steel	Width mm	Height mm	Depth mm	Base / Plinth		Door(s)
				100 mm	200 mm	
5665500	600	1600	500	2807200	2808200	1
5684500	600	1800	400	2804200	2805200	1
5605500	600	2000	500	2807200	2808200	1
5865500	800	1600	500	2829200	2830200	1
5884500	800	1800	400	2823200	2824200	1
5805500	800	2000	500	2829200	2830200	1
5084500	1000	1800	400	2909200	2910200	1
5080500	1000	1800	400	2909200	2910200	2
5265500	1200	1600	500	2839200	2840200	2
5284500	1200	1800	400	2836200	2837200	2
5205500	1200	2000	500	2839200	2840200	2
5784500	1600	1800	400	2905200	2906200	2
5905500	1800	2000	500	2903200	2904200	2



Single door



Double door



Application



Castors

Part No: 4611000 (40 kg ea.)
Part No: 1490000 (120 kg ea.)



180° Hinge

Part No: 4189000 (Aluminium)
Part No: 1490000 (Stainless)



Freestanding Enclosures, ES - Stainless Steel



Model No. ES Stainless	Width mm	Height mm	Depth mm	Base / Plinth		Door(s)
				100 mm	200 mm	
5450600	600	1600	400	2865000	2875000	1
5451600	600	1800	500	2868000	2876000	1
5452600	800	1800	500	2866000	2879000	1
5453600	800	2000	600	2856000	2880000	1
5454600	1000	1800	400	2867000	2885000	1
5455600	1200	2000	500	2860000	2887000	2

Freestanding Bayable Enclosures, TS8 - Mild Steel

The TS 8 freestanding enclosure represents an exciting evolution of electrical enclosure systems. Its symmetrical frame allows any number of individual units to be bayed side by side, one in front of the other, and even in a corner at right angles to each other. Once bayed in chosen arrangement, accessibility options are equally flexible. Doors can be installed on any side of the frame ensuring maximum access to the enclosure interior.

**OVER
1,800,000
SOLD
WORLDWIDE**



- Bayable on all sides
- Universal interior installation
- Mild & stainless steel



Model No. TS Mild Steel	Width mm	Height mm	Depth mm	Side Panels	Base / Plinth				Door
					Front/Rear (100 mm)	Front/Rear (200 mm)	Sides (100 mm)	Sides (200 mm)	
8645500	600	1400	500	8145235	8601600	8602600	8601050	8602050	1
8665500	600	1600	500	8165235	8601600	8602600	8601050	8602050	1
8684500	600	1800	400	8184235	8601600	8602600	8601040	8602040	1
8685500	600	1800	500	8185235	8601600	8602600	8601050	8602050	1
8686500	600	1800	600	8186235	8601600	8602600	8601060	8602060	1
8604500	600	2000	400	8104235	8601600	8602600	8601040	8602040	1
8605500	600	2000	500	8105235	8601600	8602600	8601050	8602050	1
8606500	600	2000	600	8106235	8601600	8602600	8601060	8602060	1
8608500	600	2000	800	8108235	8601600	8602600	8601080	8602080	1
8626500	600	2200	600	8126235	8601600	8602600	8601060	8602060	1
8845500	800	1400	500	8145235	8601800	8602800	8601050	8602050	1
8865500	800	1600	500	8165235	8601800	8602800	8601050	8602050	1
8884500	800	1800	400	8184235	8601800	8602800	8601040	8602040	1
8885500	800	1800	500	8185235	8601800	8602800	8601050	8602050	1
8886500	800	1800	600	8186235	8601800	8602800	8601060	8602060	1
8804500	800	2000	400	8104235	8601800	8602800	8601040	8602040	1
8805500	800	2000	500	8105235	8601800	8602800	8601050	8602050	1
8806500	800	2000	600	8106235	8601800	8602800	8601060	8602060	1
8808500	800	2000	800	8108235	8601800	8602800	8601080	8602080	1
8826500	800	2200	600	8126235	8601800	8602800	8601060	8602060	1
8084500	1000	1800	400	8184235	8601000	8602000	8601040	8602040	1

Freestanding Bayable Enclosures, TS8 - Mild Steel



Model No. TS Mild Steel	Width mm	Height mm	Depth mm	Side Panels	Base / Plinth				Doors
					Front/Rear (100 mm)	Front/Rear (200 mm)	Sides (100 mm)	Sides (200 mm)	
8880500	800	1800	500	8185235	8601800	8602800	8601050	8602050	2
8881500	800	1800	600	8186235	8601800	8602800	8601060	8602060	2
8080500	1000	1800	400	8184235	8601000	8602000	8601040	8602040	2
8005500	1000	2000	500	8105235	8601000	8602000	8601050	8602050	2
8006500	1000	2000	600	8106235	8601000	8602000	8601060	8602060	2
8245500	1200	1400	500	8145235	8601200	8602200	8601050	8602050	2
8265500	1200	1600	500	8165235	8601200	8602200	8601050	8602050	2
8284500	1200	1800	400	8184235	8601200	8602200	8601040	8602040	2
8285500	1200	1800	500	8185235	8601200	8602200	8601050	8602050	2
8286500	1200	1800	600	8186235	8601200	8602200	8601060	8602060	2
8204500	1200	2000	400	8104235	8601200	8602200	8601040	8602040	2
8205500	1200	2000	500	8105235	8601200	8602200	8601050	8602050	2
8206500	1200	2000	600	8106235	8601200	8602200	8601060	8602060	2
8208500	1200	2000	800	8108235	8601200	8602200	8601080	8602080	2
8226500	1200	2200	600	8126235	8601200	8602200	8601060	8602060	2



Other Accessories

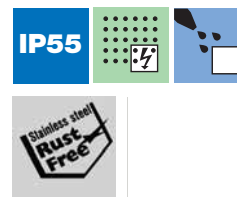
180° Hinges for Side Panels

Part No: 8701180 (Stainless)

Part No: 8800110 (RAL 7035)



Freestanding Bayable Enclosures, TS8 - Stainless Steel



Model No. TS 304 Stainless Steel	Width mm	Height mm	Depth mm	Side Panels	Base / Plinth				Door(s)
					Front/Rear (100 mm)	Front/Rear (200 mm)	Sides (100 mm)	Sides (200 mm)	
8457600	600	1800	500	8700850	8701600	8702600	8701050	8702050	1
8452600	600	2000	600	8700060	8701600	8702600	8701060	8702060	1
8454600	800	1800	400	8700840	8701800	8702800	8701040	8702040	1
8455600	800	1800	500	8700850	8701800	8702800	8701050	8702050	1
8450600	800	2000	600	8700060	8701800	8702800	8701060	8702060	1
8456600	1200	1800	400	8700840	8701200	8702200	8701040	8702040	2
8453600	1200	1800	500	8700850	8701200	8702200	8701050	8702050	2
8451600	1200	2000	600	8700060	8701200	8702200	8701060	8702060	2

Models available in 316 stainless steel

Part No.	For Baying at the Installation Site	
8800500	Quick fit baying clamps	
8800400	Baying clamp, horizontal section	
8800410	Baying clamp, vertical section	
8800490	Base / Plinth Baying Bracket	

Part No.	For Baying when Transporting	
8800430	Angular Baying Bracket	
4582500	Baying Bracket	
4540000	Combination Angle	
8601100	Base / Plinth Baying Bracket	



Plinth Fixing Plate
Part No: 2817000



Cover for Baying Seal

For Enclosure Depth:	RAL 7035	304 SS
400	8800840	8700140
500	8800850	8700150
600	8800860	8700160
800	8800880	-

Accessories, TS8



TS8 Accessories

For Enclosure Width / Depth:	Punched Section with Mounting Flange (for TS)		
	17 mm x 73 mm for Inner Mounting Level	17 mm x 73 mm for Outer Mounting Level	23 mm x 73 mm for Inner Mounting Level
400	8612040	8612140	-
500	8612050	8612150	8612550
600	8612060	8612160	8612560
800	8612080	8612180	8612580
900	8612090	-	-
1000	8612000	8612100	8612500
1200	8612020	8612120	8612520

TS8, ES, AP Accessories





For Enclosure Width / Depth:	Punched Section with Mounting Flange (for TS, ES, AP)		Punched Rail (for TS)
	23 mm x 23 mm	23 mm x 73 mm	18 mm x 38 mm
400	4169000	4374000	8612240
500	4170000	4375000	8612250
600	4171000	4376000	8612260
800	4172000	4377000	8612280
1000	4173000	4382000	-
1200	4174000	4378000	-
1800	4176000	4379000	-
2000	4177000	4380000	-
2200	4178000	4381000	-
Mounting Bracket	8800330	8800330	-

TS8, ES, AP Accessories



For Enclosure Width / Depth:	Door Support Strips (for TS, ES, AP)	Support Rails (for TS, ES, AP)	System Support Rails (for TS, ES)
400	4594000	4394000	-
500	4309000	4395000	-
600	4596000	4396000	4361000
800	4598000	4398000	4362000
1000	4599000	-	4347000
1200	-	-	4363000

Accessories

Door, Internal	Material	Suitable For	Wall Distance (mm)	Pocket Size	Model No.
	Sheet Steel Wiring Plan Pocket	TS, ES, PS	400	na	4114000
			500	na	4115000
			600	na	4116000
			800	na	4118000
	Wiring Pocket - with self adhesive strips	All Enclosures	na	A3 (Landscape)	2513000
			na	A4 (Portrait)	2514000
			na	A5 (Landscape)	2515000
	Wiring Plan Pocket - transparent pouch with self adhesive backing	All Enclosures	na	A4	2510000
			na	A3	2512000
	Utility Lectern - supports up to 30 kg	TS, ES, PC	600	413 W x 400 D	4638600
			800	613 W x 400 D	4638800

Polyamide Condensate Discharge
Part No. 2459000



Ride Up Roller - Closing Aid
Part No. 4538000

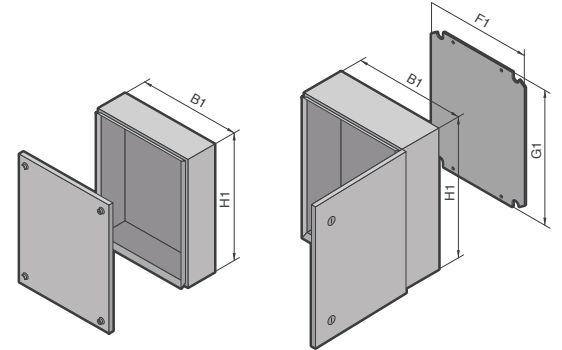


Touch Up Paint



Colour	Pen 12 ml	Spray 150 ml
5018	2436518	-
7032	2436732	2437000
7035	2436735	2440735

KEL Junction Boxes, Standard Rittal Hazardous Area



With screw fastened lid

Model No. KEL	Width (B1) mm	Height (H1) mm	Depth mm	Weight kg	Mounting Plates
9301000	150	150	80	1.3	1560700
9303000	200	200	80	1.8	1562700
9302000	300	150	80	1.8	1561700
9304000	300	200	80	2.4	1563700
9306000	300	300	120	3.9	1567700
9305000	400	200	120	3.6	1564700

To order Ex enclosures in stainless steel 1.4404 (AISI 316L), please add extension .500 to the Model No. Delivery times available on request.

With screw-fastened lid

Material: Stainless steel 1.4301 (AISI 304)

Surface finish: Brushed, grain 240

Protection category: IP 66 to EN 60 529/09.2000

Supply includes: Enclosure, lid with all-round foamed-in PU seal.

Certificates: PTB 03 ATEX 1013U

With hinged door

Material: Stainless steel 1.4301 (AISI 304)

Mounting plate: Sheet steel

Surface finish: Brushed, grain 240

Mounting plate: Zinc-plated

Protection category: IP 66 to EN 60 529/09.2000

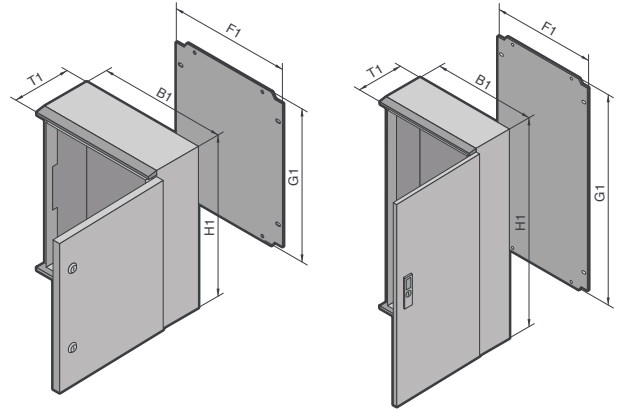
Supply includes: Enclosure, door with all-round foamed-in PU seal, mounting plate.

Certificates: PTB 02 ATEX 1082U

With hinged door

Model No. KEL	Width (B1) mm	Height (H1) mm	Depth mm	Mounting Plate Width (F1) mm	Mounting Plate Height (G1) mm	Number of cams	Weight kg
9401600	200	300	155	162	275	1	3.8
9409600	300	380	210	334	275	1	7.7
9402600	380	300	155	334	275	1	7.4
9403600	380	380	210	334	355	1	9.7
9404600	380	600	210	334	570	2	13.3
9405600	600	600	210	549	570	2	15.6
9406600	600	760	210	549	730	2	22.3
9407600	760	760	300	704	730	2	30.5
9408600	800	1000	300	739	955	2	36.3

KEL Junction Boxes, Standard Rittal Hazardous Area



Material:

Enclosure: Fibreglass-reinforced unsaturated polyester
 Surface resistance: <math> < 10^9 \Omega </math>
 Mounting plate: Sheet steel, zinc-plated, passivated

Colour:

RAL 9011

Protection category:

IP 66 to EN 60 529/09.2000
 KEL 9209.600:
 IP 56 to EN 60 529/09.2000

Supply includes:

Enclosure, door with all-round foamed-in PU seal, mounting plate.

Certificates:

PTB 03 ATEX 1011U

Model No. KEL	Width (B1) mm	Height (H1) mm	Depth mm	Mounting Plate Width (F) mm	Mounting Plate Height (G1) mm	Number of cams	Weight kg
9201600	200	300	150	145	250	1	3.7
9202600	250	350	150	195	300	1	4.6
9203600	300	400	200	245	350	2	6.0
9204600	400	400	200	345	350	2	6.5
9205600	400	600	200	345	550	2	11.5
9207600	500	500	300	417	450	2	12.9
9206600	600	600	200	545	550	2	15.9
9208600	600	800	300	517	750	1)	24.3
9209600	800	1000	300	717	950	1)	39.0

1) 3-point lock system

Rittal and partner, Phoenix Contact offer a wide range of customised integrated hazardous area junction box solutions. Solutions are engineered to customer specified requirements in conjunction with international hazardous area standards.



Baying system TS 8,

prepared for Ex pressurisation
 Available on request

NEMA 4x Baying Systems TS 8, Protection Category IP 66

NEW:

- As an alternative to enclosures with fitted side panels.
- Now bayable for larger enclosure combinations.

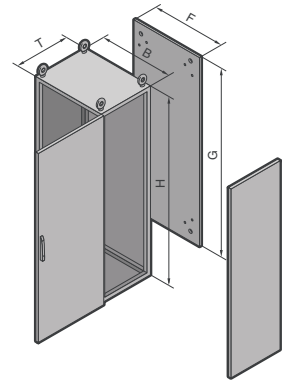
Protection category:

IP 66 to EN 60 529 (complies with NEMA 4x)

Supply includes:

Enclosure frame with door, roof/base plate, rear panel, side panels, mounting plate.

Baying frame required when baying enclosures



Mild Steel

Material:

Mild steel, spray finished
Enclosure frame, roof, base/plinth, rear panel, side panels: 1.5 mm, door: 2.0 mm.
Mounting plate: 3.0 mm (mild steel)

Surface finish:

Enclosure frame, door, roof, base, rear panel, side panels: Dip coat primed and powder coated in textured RAL 7035 on the outside.
Mounting plate: Zinc-plated

Model No.	Width (B) mm	Height (H) mm	Depth (T) mm	Mounting Plate Width (F) mm	Mounting Plate Height (G) mm	Door(s)	Pack of
8686540	600	1800	600	499	1696	1	1
8886540	800	1800	600	699	1696	1	1
8606540	600	2000	600	499	1896	1	1
8806540	800	2000	600	699	1896	1	1

Stainless Steel

Material:

Stainless steel 1.4301 (AISI 304)
Enclosure frame, roof, base/plinth, rear panel, side panels: 1.5 mm, door: 2.0 mm.
Mounting plate: 3.0 mm (mild steel)

Surface finish:

Enclosure frame: Uncoated. Door, roof, base, rear panel: Brushed on the outside, grain size 400. Mounting plate: Zinc-plated

Model No.	Width (B) mm	Height (H) mm	Depth (T) mm	Mounting Plate Width (F) mm	Mounting Plate Height (G) mm	Door(s)	Pack of
8458640	600	1800	600	499	1696	1	1
8459640	800	1800	600	699	1696	1	1
8452640	600	2000	600	499	1896	1	1
8450640	800	2000	600	699	1896	1	1

Most standard TS8 sizes available on request

Punched rail:

25 x 38 mm Model No.

Lock systems:

Standard double-bit lock insert may be exchanged for lock inserts, type F, and comfort handle.



Rittal service:

Enclosures, single-door, with depth/width up to 800 mm on request.

IP66

Please refer to rittal.com.au for further details

One-Piece Consoles, TP

The one piece console TP boasts exceptional functionality in terms of its modular interior installation, assembly-friendliness and system accessories. It integrates perfectly into the system platform TS 8, utilising the extensive, assembly friendly range of TS8 system accessories.

Supply includes:

Enclosure, solid rear and sides, door or double door at the front, with locking rod, console lid hinged at rear, 2 stays with automatic latching and unlatching, base open for individual cable entry.



Model No. AP (Mild Steel)	Width mm	Height mm	Depth mm	Mounting Plate		Front & Rear 100mm	Front & Rear 200mm	Sides 100mm	Sides 200mm
				W	H				
6746500	600	960	400/520	499	900	8201600	8602600	8601040	8602040
6746500	800	960	400/520	699	900	8601800	8602800	8601040	8602040
6740500	1000	960	400/520	899	900	8601000	8602000	8601040	8602040
6742500	1200	960	400/520	1099	900	8601200	8602200	8601040	8602040

Application



Levelling Feet

Part No: 2889000 (M12)
Part No: 2890000 (M16)



Twin Castors

Part No: 4611000 (40 kg each)
Part No: 4634500 (120 kg each)



Top Console System, TP

Easy selection of your desired combination

The TP TopConsole System components can be combined in many user specific versions as shown in the diagrams below. The table opposite allows you to immediately find the model number for your selection. In addition to this, the IW and Command Panel range make the new TopConsole system TP combination options virtually infinite.

1. Select plinth and pedestal
2. Select centre part, console or trim panel
3. If using centre part, now select a console or trim panel



Small operating units are easily integrated into separate Command Panels.

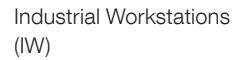
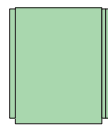
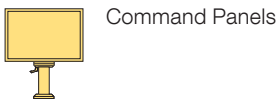


Completely new options with regard to space utilisation are available when used in conjunction with our range of IW enclosures.

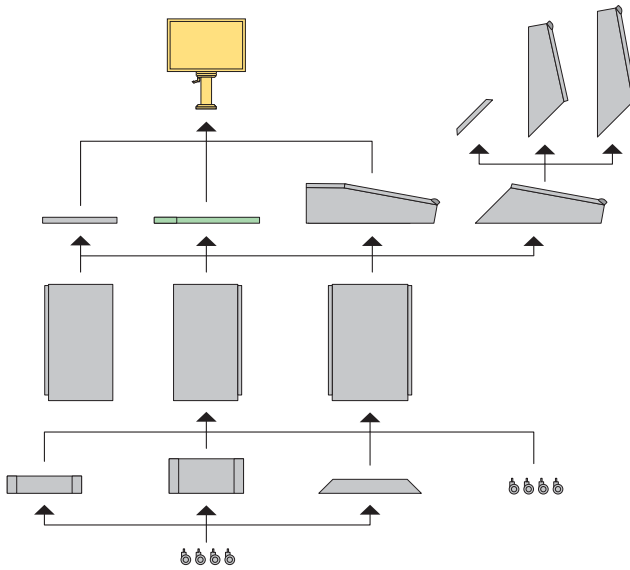


The TS modular base/plinth system also ensures more cable entry flexibility even when used with consoles.

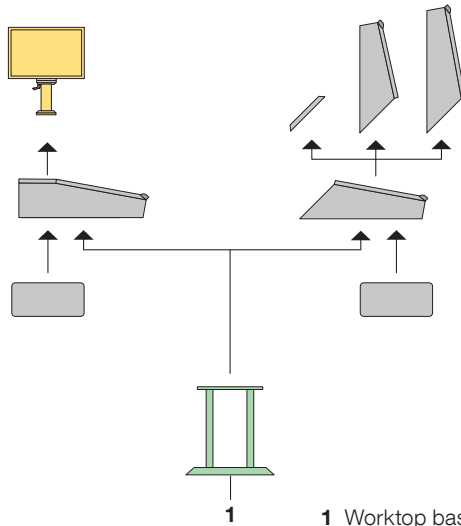
Rittal human/machine interface family



Combination with console base sections

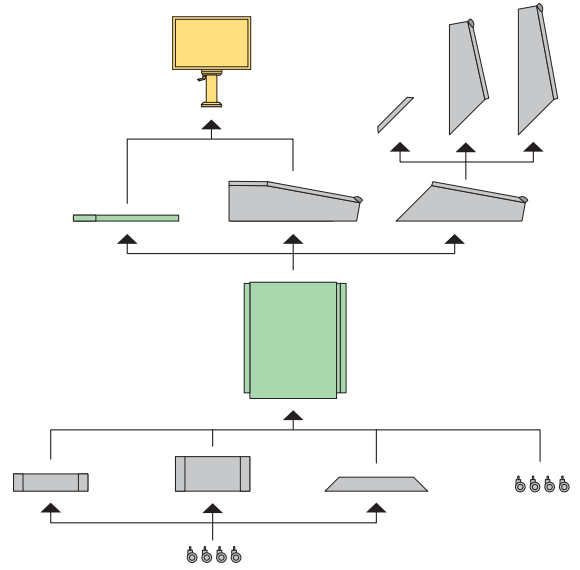


Combination with worktop base

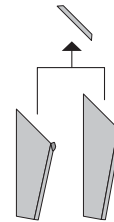


1 Worktop base for 800 mm width

Combination with IW enclosures











Upper section used as wall enclosure



Please refer to rittal.com.au for further details





Top Console System, TP

Overview Table

Width mm		600 Model No.	800 Model No.	1200 Model No.	1600 Model No.				
Console, Upper Section									
	Height 750 mm	6720500	6721500	6722500	6723500				
	Height 650 mm	6724500	6725500	6726500	6727500				
Desk Unit Already Prepared for an Upper Section									
	Depth 755 mm	6714500	6715500	6716500	6717500				
Console/Desk Unit Trim Panel									
	For Height 650/ 750 mm	6730200	6730210	6730220	6730230				
Rear of Desk Unit, with Hinged Lid									
	Depth 755 mm	6710500	6711500	6712500	6713500				
Gland Plate for Desk Unit									
	Size	4	5	4	5				
	Qty.	1	1	2	2				
Trim Panel									
	D mm	400	500	400	500	400	500	400	500
		6730000	6730100	6730010	6730110	6730020	6730120	6730030	6730130
Pedestal									
	D mm	400	500	400	500	400	500	400	500
	Height 675 mm	6700500	6704500	6701500	6705500	6702500	6706500	6703500	6707500

Top Console System, TP

Overview Table

Width mm		600 Model No.	800 Model No.	1200 Model No.	1600 Model No. Model No.				
Base/Plinth Components, Front and Rear									
	Height 200 mm	8602600	8602800	8602200	8602920				
	Height 100 mm	8601600	8601800	8601200	8601920				
Base/Plinth Trims, Side									
	D mm	400	500	400	500	400	500	400	500
	Height 200 mm	8602040	8602050	8602040	8602050	8602040	8602050	8602040	8602050
	Height 100 mm	8601040	8601050	8601040	8601050	8601040	8601050	8601040	8601050
Cross Member, Adjustable									
	Height 75 mm	8601450	8601450	8601450	8601450				
Castors									
	Height 125 mm	4634500	4634500	4634500	4634500				









Wall Mount Enclosure, DK 3-Part 19”

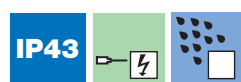
The three-part wall mount enclosure is ideal as a corridor distributor or for small network applications. Due to the hinged body design, the access to the rear section of the wall box offers a versatile solution. This enclosure has a higher environmental protection rating than standard wall boxes. Individually keyed door and rear sections offer a high level of security to prevent unauthorised access.

Model DK Glazed Door Standard	RU	Dimensions		
		Width mm	Height mm	Depth mm
7706135	6	600	345	473
7709135	9	600	478	473
7709735	9	600	478	573
7712135	12	600	612	473
7715135	15	600	746	473
7715735	15	600	746	573
7718135	18	600	878	473
7721135	21	600	1012	473
7721735	21	600	1012	573



Accessories for Standard or Pre-configured Wall Box

	Gland plate blank	2235135
	Gland plate with brush insert	7705035
	Gland plate for cable glands	2235005
	Wall mount brackets, 40 mm	2503000
	Earth rail, horizontal	7113000
	Shelf 2U, static installation or fully extendible, 300 mm	7148035
	Shelf 2U, static installation 250 mm	7119250
	Shelf 1U, static installation 140 mm	7119140
	Lock insert No. 3524E	8611180
	Lock insert No. 12321	8611200



Pre-configured


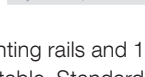


Standard wall box with cable gland plates

(Glazed door frames are RAL7035/7015)

**RAL
7035**
LIGHT GREY

Accessories for Standard or Pre-configured Wall Box

	Fan Kit, 240V	7980100
	Spare filter mats	3322700

Supply includes 2 vertical mounting rails and 1 C rail, mounted horizontally for cable clamping. 4 wall mounting brackets, 10 mm. 2 x 19” mounting rails fully depth adjustable. Standard Wall Box IP55 fitted with blank cable gland plate top and bottom. Pre-configured Wall Box IP43 fitted with blank gland plate on top and brushed cable entry plate on bottom. 1 earth rail with star earthing. 2 outlet filters that can accept optional fan unit. Door and rear access individually keyed for higher level of security.

Outdoor Enclosure, cs

Rittal has the ideal enclosure solution, thanks to its platform strategy. With single-walled or twin-walled enclosures of aluminium or coated MILD steel, as well as an extensive range of accessories.

With constant interior temperatures and perfect climate, thanks to in-house development and production of cooling units, heat exchangers and heaters.

We offer a complete custom solution to suit your application and unique requirements. Call our service team to discuss your outdoor enclosure.



Features dependant on model



Eyebolts, concealed by the rain canopy, for crane transportation of the fully fitted unit.



The hinged roof is screw fastened to the enclosure body.



The base/plinth trim is secured with safety screws.



Batteries for emergency power back-up are securely housed in the pull-out drawer of the battery base/plinth.



Enclosure platform TS 8 TS 8 vertical sections and system punchings are the key to the comprehensive range of accessories.



Twin-walled doors Chimney effect – The twin wall minimises the influence of sunlight and prevents condensation.



Multifunctional rain canopy protects the side panel from removal, while ventilation prevents condensation and the sloping roof stops rainwater from accumulating.



Protection against vandalism – These features will protect your equipment against unauthorised access: No point of access for lever-type tools, because the double side panel seamlessly conceals the door hinges.

Wall Mount Outdoor Enclosure, cs

Material:

Aluminium AIMg³

Enclosure:

Exterior 2.0 mm

Interior 1.5 mm/2.0 mm

Doors 2/0 mm

Mounting plate/rotating frame 2.0 mm clear chromated

Colour:

RAL 7035

Supply includes:

Inner enclosure with door, aluminium mounting plate or rotating frame, security lock (CS 9791045 and CS 9791145 with 2 security locks), foamed in door seals, gland plate at bottom, mounting bracket for thermostat, outer enclosure with integral vent louvres, designer cover with security lock, C rails on the rear panel.



Model No CS Standard	Dimensions mm		
	Width mm	Height mm	Depth mm
9791015	370/300	522.5/400	210/170
9791025	420/350	560.5/440	210/170
9791035	530/460	700/565	265/220
9791045	630/580	780/580	380/333
9791145¹⁾	630/580	780/580	380/333

1) With 5U rotating frame instead of mounting plate

Accessories for Standard or Pre-configured Wall Box

9765120	Wall mount brackets
9765125	Pole clamp
3115000	Heater, 30 W
3110000	Thermostat

Enclosure Climate Control

Cooling units are an integral component of an effective electrical enclosure system. They create the ideal environment for the consistent operation of electrical equipment. A correctly sized Rittal cooling unit will efficiently and reliably maintain a consistent internal temperature by countering the ambient conditions and/or heat generated by equipment within the enclosure.

The difference is Nanotechnology

Only Rittal has RiNano=coated condensers in all cooling units to give you:

- Clean heat exchanger
- Easy to clean
- Longer maintenance intervals
- No filter mats required
- More consistent cooling performance
- Energy efficient - requires up to 35% less



Selection Procedure

A heat load calculation will allow the most appropriate cooling unit to be implemented for your given application. Heat load calculations can be undertaken using "Rittal Therm" software. This program asks you to consider and input:

- The size and layout of the enclosure(s).
- The temperature you would like to maintain in the enclosure.
- The maximum temperature of the environment where the enclosure is located.
- The heat loss of the equipment in the enclosure in Watts*. Alternatively, if your equipment is already installed and overheating, you will only need to input the current enclosure temperature compared to the ambient temperature.



Software available from rittal.com.au

* 1 Watt = 3.412 BTU/hr

Intelligent Control

Two controller Variants for optional reliability offer a comprehensive range of functions.



Basic Controller features

- Red and Green fault and status LED's
- Integrated icing protection
- Two auxiliary alarm contacts
- Phase loss detection on all 3 phase units
- Set-point adjustable via a potentiometer (20°C - 55°C)
- Control switching hysteresis: 5K



Comfort Controller features

- Digital temperature display
- Master/slave control for up to 10 units
- Two programmable auxiliary alarm contacts
- Data logging and upload/download capability
- Icing alarm and cooling loss signal
- Condensate warning with roof mounted units
- Phase loss detection on all 3 phase units
- Control switching hysteresis: Adjustable to 2K

Wall Mounted Cooling Units, sk

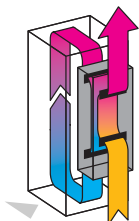
Wall Mounted Cooling Units offer top design, quality and performance with a host of assembly benefits. With the added option to mount the units partially or fully internally of the enclosure, the available space is maximised.

There are seven models to choose from with nominal cooling outputs ranging from 300 to 4000 watts. They are also available in stainless steel for use with stainless steel enclosures. Additional accessories include door switches, which deactivate the unit when the doors are open, thereby helping to prevent condensation.

Supply includes:

Nano-coated condenser. Fully wired ready for connection, including drilling template and assembly parts.

**For Approvals,
Detailed drawing and
Performance diagrams
refer to rittal.com.au**



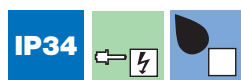
Mild Steel		Stainless Steel		Dimensions (mm)			Operating Voltage (V) (50/60Hz)	Watts Nominal Cooling Output W @ 50Hz
Basic Control	Comfort Control	Basic Control	Comfort Control	W	H	D		
3302100	-	3302200	-	280	550	140	230	300
3302110	-	3302210	-	280	550	140	115	300
3303100	3303500	3303200	3303600	280	550	140	230	500
3303110	3303510	3303210	3303610	280	550	200	115	500
3361100	3361500	3361200	3361600	280	550	200	230	750
3361110	3361510	3361210	3361610	280	550	200	115	750
3361140	3361540	3361240	3361640	280	550	200	400	750
3304100	3304500	3304200	3304600	400	950	260	230	1000
3304110	3304510	3304210	3304610	400	950	260	115	1000
3304140	3304540	3304240	3304640	400	950	260	400/460	1000
3305100	3305500	3305200	3305600	400	950	260	230	1500
3305110	3305510	3305210	3305610	400	950	260	115	1500
3305140	3305540	3305240	3305640	400	950	260	400/460	1500
3328100	3328500	3328200	3328600	400	1580	290	230	2000
3328110	3328510	3328210	3328610	400	1580	290	115	2000
3328140	3328540	3328240	3328640	400	1580	290	400/460	2000
3329100	3329500	3329200	3329600	400	1580	290	230	2500
3329110	3329510	3329210	3329610	400	1580	290	115	2500
3329140	3329540	3329240	3329640	400	1580	290	400/460	2500
3332140	3332540	3332240	3332640	500	1580	340	400/460	4000

Features

Mounting Options

Door Switch

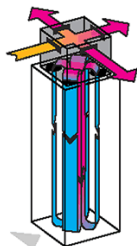
Part No: 4127000



Roof Mounted Cooling Units, sk

Roof Mounted Cooling Units offer top design, quality and performance with a host of assembly benefits and sophisticated air routing. These units allow maximum utilisation of the available space above the enclosure.

There are four models to choose from with nominal cooling outputs ranging from 500 to 4000 watts. They are also available in stainless steel for applications where corrosion resistance is required. Additional accessories including ducting kits and door switches aim to further maximise the efficiency of heat dissipation from the enclosure.



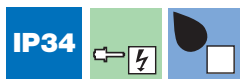
Mild Steel		Stainless Steel		Dimensions (mm)			Operating Voltage (V) (50/60Hz)	Nominal Cooling Output W
Basic Control	Comfort Control	Basic Control	Comfort Control	Width mm	Height mm	Depth mm		
3382100	3382500	3382200	3382600	595	415	375	230	500
3382110	3382510	3382210	3382610	595	415	375	115	500
3383100	3383500	3383200	3383600	595	415	475	230	1000
3383110	3383510	3383210	3383610	595	415	475	115	1000
3383140	3383540	3383240	3383640	595	415	475	400	1000
3384100	3384500	3384200	3384600	595	415	475	230	1500
3384110	3384510	3384210	3384610	595	415	475	115	1500
3384140	3384540	3384240	3384640	595	415	475	400	1500
3385100	3385500	3385200	3385600	595	415	475	230	2000
3385110	3385510	3385210	3385610	595	415	475	115	2000
3385140	3385540	3385240	3385640	595	415	475	400	2000
3386140	3386540	3386240	3386640	795	470	580	400/460	3000
3387140	3387540	3387240	3387640	795	470	580	400/460	4000

Accessories

Bus System - Efficient control of multiple units.
Part No: 3124100

Ducting Kits

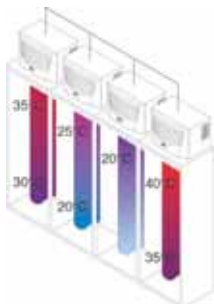
Part No: 3286870 (3382 - 3385)
Part No: 3286970 (3386 & 3387)



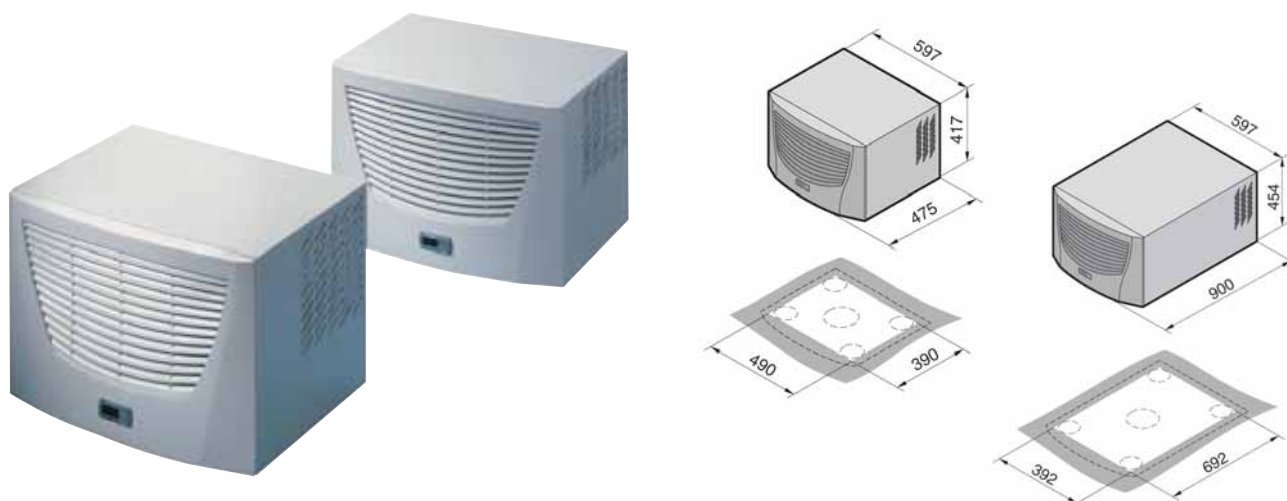
External Circuit



Internal Circuit



Roof Mounted Cooling Units, Special applications



Especially for office applications.

Low noise level (considerably quieter than cooling units for industrial applications).

Supply includes:

Nano-coated condenser and integral electronic condensate evaporation.

Fully wired ready for connection, including drilling template and assembly parts.

Material

Mild Steel Exterior

Property rights:

(Not with SK 3301800)

German registered design no. 402 02 324

German registered design no. 402 02 325

For Approvals, Detailed drawing and Performance diagrams refer to rittal.com.au

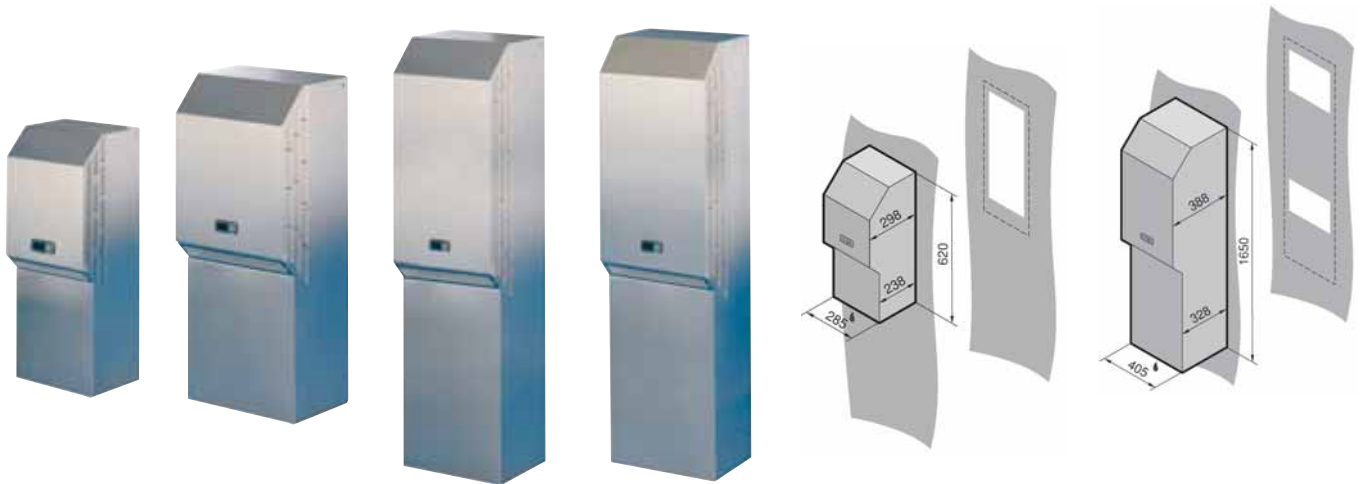
Model No. SK with Comfort Controller	Rated Operating Voltage V, Hz	Dimensions in mm			Nominal cooling output @ 50Hz L 35 L35 W
		W	H	D	
3273500	230, 1~, 50/60	597	417	475	1100
3273515	115, 1~, 60	597	417	475	1100
3301800	230, 1~, 50	515/597	400/454	990/900	3100

Accessories

Model No.	Filter Mats	Metal Filters	Door Operated Switch	SK Bus System for Comfort Controller	RiDiag II Inc. Cables for Comfort Controller	Interface Card for Comfort Controller	Air Ducting System	Cover Stoppers for Interior Air Outlet	Condensate Hose
3273500	3286500	3286510	4127000	3124100	3159100	3124200	3286870	3286880	3301612
3273515	3286500	3286510	4127000	3124100	3159100	3124200	3286870	3286880	3301612
3301800	3286600	3286610	4127000	3124100	3159100	3124200	3286970	3286980	3301612
Packs of	3	1	1	1	1	1	1	2	1

Special voltages available on request. We reserve the right to make technical modifications.

Design NEMA 4x, Useful Cooling Output 500/1000/1500/2000/2500 W



Supply includes:

Nano-coated condenser and integral electronic condensate evaporation. Fully wired ready for connection, including drilling template and assembly parts.

Material,
Stainless Steel Exterior

For Approvals, Detailed drawing and Performance diagrams refer to
rittal.com.au

Model No. SK with Basic Controller	Model No. SK with Comfort Controller	Rated Operating Voltage V, Hz	Dimensions in mm			Useful cooling output Q _K to DIN 3168 L35 L 35 @ 50Hz
			W	H	D	
3303104	3303504	230, 1~, 50/60	285	620	298	500 W
3303114	3303514	115, 1~, 60	285	620	298	500 W
3304104	3304504	230, 1~, 50/60	405	1020	358	1000 W
3304114	3304514	115, 1~, 50/60	405	1020	358	1000 W
3304144	3304544	400, 3~, 50/460, 3~, 60	405	1020	358	1000 W
3305104	3305504	230, 1~, 50/60	405	1020	358	1500 W
3305114	3305514	115, 1~, 50/60	405	1020	358	1500 W
3305144	3305544	400, 3~, 50/460, 3~, 60	405	1020	358	1500 W
3328104	3328504	230, 1~, 50/60	405	1650	388	2000 W
3328114	3328514	115, 1~, 50/60	405	1650	388	2000 W
3328144	3328544	400, 3~, 50/460, 3~, 60	405	1650	388	2000 W
3329104	3329504	230, 1~, 50/60	405	1650	388	2500 W
3329114	3329514	115, 1~, 50/60	405	1650	388	2500 W
3329144	3329544	400, 3~, 50/460, 3~, 60	405	1650	388	2500 W

Accessories

Door Operated Switch	SK Bus System for Comfort Controller	RiDiag II Including Cables for Comfort Controller	Interface Card for Comfort Controller	Condensate Hose
4127000	3124100	3159100	3124200	3301610

Special voltages available on request. We reserve the right to make technical modifications.

Heaters, sk

Enclosure heaters protect your equipment from condensation and corrosion. Rittal heaters are designed to produce the necessary heat, while maintaining their compact and robust black anodised aluminium construction.

This series is made up of seven different capacity heaters, with thermal outputs ranging from 10 to 800 watts. Surface temperature and power consumption are minimised through the use of thermistors (PTCs), which regulate the thermal output according to the enclosure internal temperature.

Supply includes:

PTC heater with quick-fit terminal and assembly parts.

Note:

- Thermostat SK 3110000 (see below) is recommended for precise temperature control in the enclosure.
- In order to prevent condensation on assemblies, hygrostat SK 3118000 (see below) 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, even when using heat exchangers and cooling units, in order to prevent condensation.



Heater Sizing

In order to install the appropriate capacity heater, the required thermal output can be calculated as:



Example:

Calculate the enclosure surface area in m ²	A	4
Select the minimum internal temperature that you wish to maintain in the enclosure in °C	Ti	15
Select the minimum ambient temperature of the enclosure surrounds in °C	Tu	5
Calculate the temperature difference $T_i - T_u = \Delta T$	ΔT	10
Heat transfer coefficient of steel $k = 5.5 \text{ W/m}^2\text{K}$	K	5.5
Thermal output calculated as: $Q_H = A \times \Delta T \times k$	Q_H	220W

Without fan, continuous thermal output 10 -150 W

Model no. SK	Dimensions (mm)			Operating Voltage (50/60Hz)	Continuous Thermal Output (W @ T _u =10°C)	Pre-fuse T
	W	H	D			
3105310	45	120	46	110-240V AC/DC	8 - 10	2 A
3105320	45	120	46	110-240V AC/DC	18 - 20	2 A
3105330	64	155	56	110-240V AC/DC	23 - 30	4 A
3105340	64	155	56	110-240V AC/DC	49 - 50	4 A
3105350	64	230	56	110-240V AC/DC	63 - 75	4 A
3105360	90	165	75	110-240V AC/DC	86 - 100	4 A
3105370	90	180	75	110-240V AC/DC	130 - 150	4 A

Features

Easily installed using supplied screw and fastening bracket (35mm DIN Rail)



Accessories

Thermostat
Part No: 3110000

With fan, continuous thermal output 250 -800 W

Model no. SK	Dimensions (mm)			Operating Voltage (50/60Hz)	Continuous Thermal Output (W @ T _u =10°C)	Pre-fuse T
	W	H	D			
3105210	142	170	101	110 AC/DC	250	4 A
3105220	142	170	101	110 AC/DC	400	6 A
3105230	142	170	101	110 AC/DC	800	10 A
3105180	142	170	101	230V AC/DC	250	4 A
3105190	142	170	101	230V AC/DC	400	6 A
3105200	142	170	101	230V AC/DC	800	6 A



Hygrostat - prevent condensation
Part No: 3118000

Fans and Filter Units, sk

Fan and filter units are an ideal cost-effective solution for dissipating heat loads provided the allowable internal temperature is higher than the ambient temperature. In their standard form, fans direct air into the enclosure via a filter - pressurising it and thereby further preventing the ingress of unfiltered ambient air. The fans can also be easily reversed so that they extract the warmer air from the enclosure.

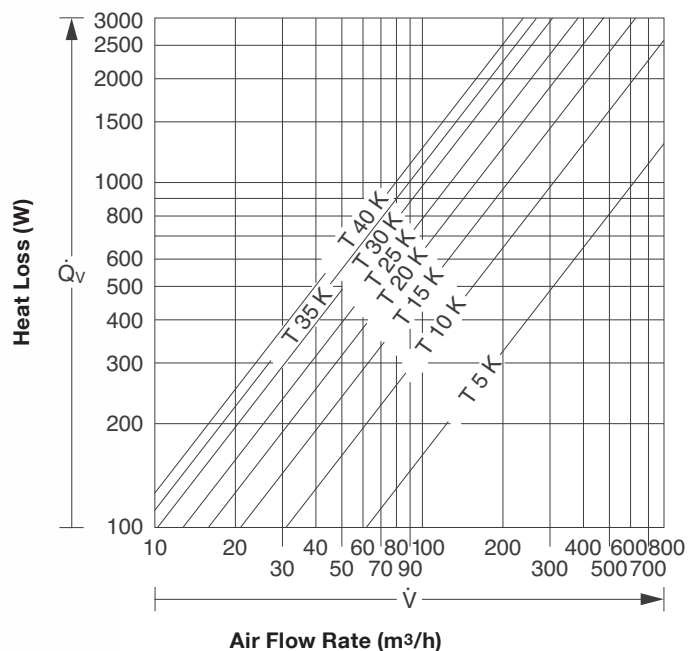
The units are available in a variety of sizes and voltages with an air flow rate range of 20 to 700m³/h. All fan and filter units have an IP 54 protection rating and include dense polyester filter mats.



Selection Procedure

Use the following method to help select the most appropriate capacity fan.

Calculate the heat loss of the equipment to be installed in the enclosure in Watts (W)	Qv	Example: 300
Select the maximum internal temperature that you wish to maintain in the enclosure in °C	Ti	50
Select the maximum ambient temperature and calculate the difference (DT) $T_i - T_u = \Delta T$	Tu	40
Refer to the graph and draw a horizontal line that coincides with the heat loss in Qv		See below
Stop at the appropriate gradient line that corresponds with your DT	ΔT	10
Project a line straight down that matches the required air flow rate of the fan in m ³ /h	m ³ /h	90



Fans and Filter Units, sk



Fan and Filter Mat	Outlet Filter	Dimensions (mm)			Air Flow Rate (m3/h)	Voltage (V) (50/60Hz)	Current (mA)	Spare Filter Mats		Hose Proof Hood
		Width mm	Height mm	Depth mm				Spare Filter Mats	Fine	
3321027	3321207	116.5	116.5	52.0	20	24 (DC)	125	3321700	-	3321800
3321047	3321207	116.5	116.5	52.0	20	48 (DC)	90	3321700	-	3321800
3321117	3321207	116.5	116.5	52.0	20/25	115	138/115	3321700	-	3321800
3321107	3321207	116.5	116.5	52.0	20/25	230	69/58	3321700	-	3321800
3322027	3322207	148.5	148.5	67.5	55	24 (DC)	150	3322700	-	3322800
3322047	3322207	148.5	148.5	67.5	55	48 (DC)	90	3322700	-	3322800
3322117	3322207	148.5	148.5	67.5	55/66	115	240/230	3322700	-	3322800
3322107	3322207	148.5	148.5	67.5	55/66	230	120/110	3322700	-	3322800
3323027	3323207	204.0	204.0	95.0	105	24 (DC)	150	3171100	3181100	3323800
3323047	3323207	204.0	204.0	95.0	105	48 (DC)	90	3171100	3181100	3323800
3323117	3323207	204.0	204.0	95.0	105/120	115	240/230	3171100	3181100	3323800
3323107	3323207	204.0	204.0	95.0	105/120	230	120/110	3171100	3181100	3323800
3324027	3325207	255.0	255.0	117.5	180	24 (DC)	300	3172100	3182100	3324800
3324047	3325207	255.0	255.0	117.5	180	48 (DC)	340	3172100	3182100	3324800
3324117	3325207	255.0	255.0	117.5	180/160	115	380/400	3172100	3182100	3324800
3324107	3325207	255.0	255.0	117.5	180/160	230	190/200	3172100	3182100	3324800
3325027	3325207	255.0	255.0	117.5	230	24 (DC)	590	3172100	3182100	3324800
3325047	3325207	255.0	255.0	117.5	230	48 (DC)	310	3172100	3182100	3324800
3325117	3325207	255.0	255.0	117.5	230/265	115	530/490	3172100	3182100	3324800
3325107	3325207	255.0	255.0	117.5	230/265	230	280/240	3172100	3182100	3324800
3326117	3326207	323.0	323.0	137.5	500/560	115	580/700	3173100	3183100	3326800
3326107	3326207	323.0	323.0	137.5	500/560	230	290/350	3173100	3183100	3326800
3327117	3326207	323.0	323.0	157.5	700/720	115	1500/2000	3327700	3183100	3326800
3327107	3326207	323.0	323.0	157.5	700/720	230	650/950	3327700	3183100	3326800
3327147	3326207	323.0	323.0	157.5	700/720	400/460	270/330	3327700	3183100	3326800



Standard fan/filter



Fan/filter with fine filter



Fan/filter with fine filter mat and hose proof hood



Speed control

Temperature dependent speed control for Rittal fan-and-filter units and air/air heat exchangers with the rated operating voltage of 230V AC, for noise reduction and to save energy in part load operation.



Hose Proof Hoods for fan-and-filter units/outlet filters

When the hose-proof hood is mounted above the fan-and-filter unit and outer filter in conjunction with a fine filter mat, a protection category of IP56 to EN 60 529/10.91 is achieved.

Material: Stainless steel

Protection category: In conjunction with the fan-and-filter units/outlet filters, NEMA 3R + 12 is met.

TopTherm Fan and Filter Units



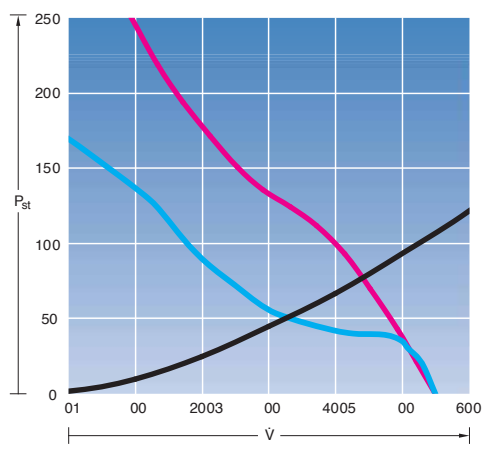
More pressure. Higher flow rates

Assembly without tools

- Straightforward assembly, exchange and maintenance with no need for tools of any kind
- Simple reversal of the air flow direction by turning the fan module
- Individual positioning of the power connection
- Spring clamp terminals for electrical connection without tools
- Louvred grille latch for fast filter mat replacement without tools



Performance diagram



- V = Volumetric flow (m³/h)
- ΔPst = Stat. pressure difference (Pa)
- = Resistance curve
Outlet filter SK 3243.200
- = old 50 Hz
Fan-and-filter unit SK 3326.xxx
- = new 50 Hz
Fan-and-filter unit SK 3243.xxx

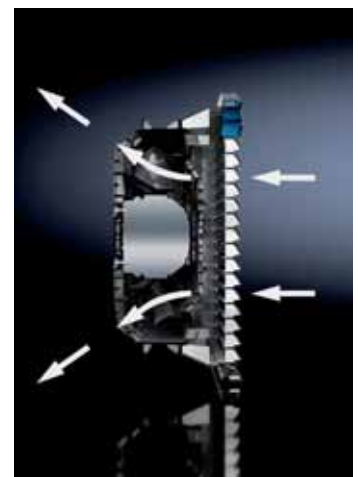
Efficient technology

- Air throughput from 20 to 700 m³/h
- New diagonal fan technology for greater pressure stability and constant air flows in use, even with a contaminated filter mat
- Minimum installation depth
- Flow-optimised air routing
- Extended service life of filter mats and thus longer maintenance intervals



Air routing

- Intelligent symbiosis of radial and axial fan technology
- Air flow spreads diagonally from the fan, promoting a more even air distribution in the enclosure



New, State-of-the-Art, Rittal TopTherm Fan and Filter Units - Available Quarter Two 2011

TopTherm Fan and Filter Units

Air throughput

SK Fan and Filter Mat	Outlet filter	Dimensions (mm)			Air Flow Rate (m ³ /h) Unimpeded	Voltage (V) (50/60Hz)	Rated Current A	Spare Filter Mats		Hose Proof Hood
		Width mm B1	Height mm H1	Depth mm T2				Spare Filter Mats	Fine	
3237100	3237200	116.5	116.5	43	20/25	230	0.065/0.052	3321700	-	3237080
3237110	3237200	116.5	116.5	43	20/25	115	0.14/0.12	3321700	-	3237080
3237124	3237200	116.5	116.5	43	20	24 (DC)	0.14	3321700	-	3237080
3238100	3238200	148.5	148.5	58.5	55/66	230	0.12/0.11	3322700	3238055	3238080
3238110	3238200	148.5	148.5	58.5	55/66	115	0.24/0.23	3322700	3238055	3238080
3238124	3238200	148.5	148.5	58.5	55	24 (DC)	0.28	3322700	3238055	3238080
3239100	3239200	204	204	90	105/120	230	0.12/0.11	3171100	3181100	3239080
3239110	3239200	204	204	90	105/120	115	0.24/0.23	3171100	3181100	3239080
3239124	3239200	204	204	90	105	24 (DC)	0.28	3171100	3181100	3239080
3240100	3240200	255	255	107	180/160	230	0.19/0.18	3172100	3182100	3240080
3240110	3240200	255	255	107	180/160	115	0.38/0.36	3172100	3182100	3240080
3240124	3240200	255	255	107	180	24 (DC)	0.07	3172100	3182100	3240080
3241100	3240200	255	255	107	230/250	230	0.27/0.28	3172100	3182100	3240080
3241110	3240200	255	255	107	230/250	115	0.54/0.52	3172100	3182100	3240080
3241124	3240200	255	255	107	230	24 (DC)	0.2	3172100	3182100	3240080
3243100	3243200	323	323	118.5	550/600	230	0.37/0.48	3173100	3183100	3243080
3243110	3243200	323	323	118.5	550/600	115	0.75/0.80	3173100	3183100	3243080
3244100	3243200	323	323	130.5	700/770	230	0.59/0.81	3173100	3183100	3243080
3244110	3243200	323	323	130.5	700/770	115	1.0/1.4	3173100	3183100	3243080
3244140	3243200	323	323	130.5	700/770	400/460	0.22/0.24	3173100	3183100	3243080

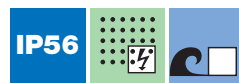
Special voltages available on request. We reserve the right to make technical modifications.



Standard fan/filter



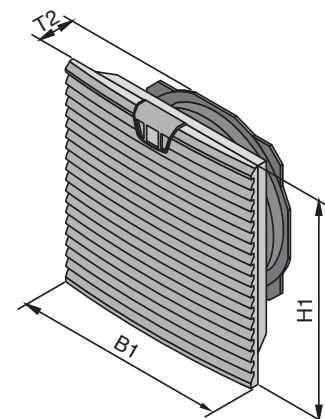
Fan/filter with fine filter



Fan/filter with fine filter mat and hose proof hood



Hose proof hood



TopTherm Fan and Filter Units

Conversion table new/old

Output class		20/25 m³/h	55/66 m³/h	105/120 m³/h	180/160 m³/h	230/250 m³/h	550/600 m³/h	700/770 m³/h
Cut-out dimensions (old = new)		92 x 92	124 x 124	177 x 177	224 x 224		292 x 292	
24V	new	3237124	3238124	3239124	3240124	3241124	-	-
	old	3321.027	3322.027	3323.027	3324.027	3325.027	-	-
230V	new	3237100	3238100	3239100	3240100	3241100	3243100	3244100
	old	3321.107	3322.107	3323.107	3324.107	3325.107	3326.107	3327.107
115V	new	3237110	3238110	3239110	3240110	3241110	3243110	3244110
	alt	3321.117	3322.117	3323.117	3324.117	3325.117	3326.117	3327.117
400V	new	-	-	-	-	-	-	3244140
	old	-	-	-	-	-	-	3327.147
EMC fan-and-filter unit, 230V	new	3237600	3238600	3239600	3240600	3241600	3243600	3244600
	old	3321.607	3322.607	3323.607	3324.607	3325.607	3326.607	3327.607
Outlet filter	new	3237200	3238200	3239200	3240200		3243200	
	old	3321.207	3322.207	3323.207	3325.207		3326.207	
EMC outlet filter	new	3237060	3238060	3239060	3240060		3243060	
	old	3321.267	3322.267	3323.267	3325.267		3326.267	
Hose-proof hood	new	3237080	3238080	3239080	3240080		3243080	
	old	3321.800	3322.800	3323.800	3324.800		3326.800	
Blanking cover	new	3237020	3238020	3239020	3240020		3243020	
	old	-	-	-	-	-	-	-
Standard filter mat (IP54)	new	3321700	3322700	3171100	3172100		3173100	
	old	3321.700	3322.700	3171.100	3172.100		3173.100	3327.700
Fine filter mat (IP55)	new	-	3238055	3181100	3182100		3183100	
	old	-	-	3181.100	3182.100		3183.100	

TopTherm Fan and Filter Units, Accessories

Hose-proof hood

For fan-and-filter units/outlet filters. When the hose-proof hood is mounted above the fan-and filter unit and outlet filter in conjunction with a fine filter mat, a protection category of IP56 to EN 60 529 is achieved.

Material:

Stainless steel, silicone

Protection category:

In conjunction with the fan-and-filter units/outlet filters, NEMA 3R + 12 is met.

Model No. SK	For fan-and-filter unit	Dimensions mm
3237080	SK 3237. . . .	150 x 230 x 40
3238080	SK 3238. . . .	176 x 245 x 55
3239080	SK 3239. . . .	233 x 330 x 55
3240080	SK 3240. . . ./SK3241. . . .	282 x 390 x 85
3243080	SK 3243. . . ./SK 3244. . . . SK 3245. . . .	350 x 480 x 110



Blanking cover

If existing mounting cut-outs for fan-and-filter units/outlet filters need to be closed to achieve a higher protection category, the filter mat of the fan-and-filter unit/outlet filter can simply be replaced with a blanking cover; welding or other mechanical modification of the enclosure is not necessary.

Material:

Plastic

Protection category:

IP 55

Model No. SK	For fan-and-filter unit
3237020	SK 3237. . . .
3238020	SK 3238. . . .
3239020	SK 3239. . . .
3240020	SK 3240. . . ./SK3241. . . .
3243020	SK 3243. . . ./SK 3244. . . . SK 3245. . . .



Spare filter mats

Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 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 fibre

Model No. SK	For fan-and-filter unit	Filter class to DIN EN 779
3321700	SK 3237. . . .	G2
3322700	SK 3238. . . .	G2
3171100	SK 3239. . . .	G3
3172100	SK 3240. . . ./SK3241. . . .	G3
3173100	SK 3243. . . ./SK 3244. . . .	G3



Fine filter mats

Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 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 fibre

Model No. SK	For fan-and-filter unit	Filter class to DIN EN 779
3238055	SK 3238. . . .	F5
3181100	SK 3239. . . .	F5
3182100	SK 3240. . . ./SK3241. . . .	F5
3183100	SK 3243. . . ./SK3244. . . .	F5



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Appendix

Appendix 1: The Three Stage Coating Process

Coating process	Technical properties	Technical specifications	
1. Degreasing and nanoceramic coating	<ul style="list-style-type: none"> • Improved corrosion protection through the provision of a closed, inorganic layer of high density in which nanoparticles are embedded • Optimum paint adhesion as result of the increased surface area • Free from phosphates, solvents and toxic heavy metals • Lower energy requirement because no heating is necessary for the application • Long term better protected devices 		
2. Anodic dipcoat priming	<p>Formation of even layers on all surfaces, edges and in cavities, which creates a high degree of corrosion protection during the build-up process.</p> <p>The primer is readily overpainted and is free from heavy metals, chromate and silicone.</p>	Coat thickness	approx. 20 µm
		Cupping index DIN53 156	≥ 4 mm
		Buchholz hardness DIN 53 153	≥ 80
		Cross cutting DIN 53 151	Gt 0
Stove enamelling			
3. Textured powder coating	<p>The distinguishing features of powder coating include a high level of mechanical resistance, excellent corrosion protection, good resistance to chemicals, temperature and weather, and its facility for decontamination.</p> <p>The primer is readily overpainted and is free from heavy metals, chromate and silicone.</p>	Coat thickness (external hardness)	approx. 50-70µm
		Cupping index DIN53 156	≥ 4 mm
		Buchholz hardness DIN 53 153	≥ 80
		Cross cutting DIN 53 151	Gt 0
Stove enamelling			

Protection Categories to IEC 60 529 (EN 60 529)
















The IP protection category is characterised by two numbers.

Example of protection category e.g. IP 43:

IP Code Letters

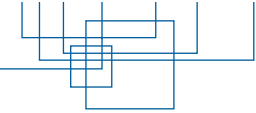
4 First Characteristic Numeral

3 Second Characteristic Numeral

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	Explanation		Description	Explanation
	Protected against solid foreign objects with a diameter of 50 mm and greater	The object probe, a sphere 50 mm in diameter, must not penetrate fully*		Protected against vertically falling water	Vertically falling drops shall have no harmful effects.
	Protected against solid foreign objects with a diameter of 12.5 mm and greater	The object probe, a sphere 12.5 mm in diameter, must not penetrate fully* The articulated test finger may penetrate up to its length of 80 mm, but adequate distance must be adhered to		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
	Protected against solid foreign objects with a diameter of 2.5 mm and greater	The object probe, a sphere 2.5 mm in diameter, must not penetrate at all*		Protected against spraying water	Water sprayed at an angle of up to 60° on either side of the vertical must have no harmful effects
	Protected against solid foreign objects with a diameter of 1.0 mm and greater	The object probe, a sphere 1.0 mm in diameter, must not penetrate at all*		Protected against splashing water	Water splashed on the enclosure from every direction must not have any adverse effects
	Dust-protected	The ingress of dust at a partial vacuum of 20 mbar inside the enclosure		Protected against water jets	Water directed at the enclosure from every direction in a jet must not have any harmful effects
	Dust-tight	No ingress of dust at a partial vacuum of 20 mbar inside the enclosure		Protected against powerful water jets	Water directed at the enclosure from every direction in a powerful jet must not have any harmful effects
				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 standardised pressure and time conditions
				Protected against the effects of continuous immersion in water	Water must not penetrate to such an extent as to cause adverse effects when the enclosure is permanently immersed in water under conditions which must be agreed between the manufacturer and the user. However, the conditions must be more difficult than for characteristic numeral 7
				9K**	Water directed at the enclosure from every direction under greatly increased pressure must not have any adverse effects

* The full diameter of the object probe must not pass through an opening of the enclosure.

** This test is not regulated by IEC 60529/09.2000 (EN 60 529/09.2000), 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 from BSI Customer Services, 889 Chiswick High Road, London W4 4AL



Literature List



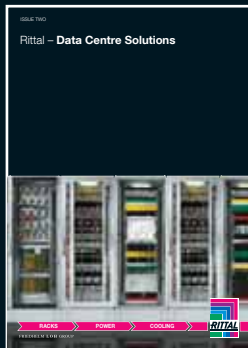
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