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CATALOGUE

ELECTRICAL PRODUCT

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Safety electrical

About Andeli

Andeli Group Co.,Ltd, founded in 1993, is located in the largest manufacturing base of low-voltage electric equipment of Liushi China, which is called "the Electric Device Metropolis of China".

Andeli Group Co., Ltd is a leading group in the electrical indutry, with production, scientific research, transport, import and export trade, investment. We are a big group without regional limited, cross-industrial in China. Andeli owns 12 share holding companies in Shanghai, Hunan, Zhejiang, UAE and over 300 cooperating companies. Andeli has over 3000 workers with total assets of USD150,000,000 in 235,000 square meters. "ANDELI" trademark is identified as one of the Chinese well-know trademarks.

Andeli regards quality of products as life. We have passed ISO9001:2000 Quality Management System, Mesure Detection System, Standardization System Certification and "CCC" for all products in the market. We have also passed ROHS, CE, CB, SIMKO, KEMA and so on international certifications. We produce and widely sell over 300 series, more than 10000 types in high-and-low voltage electrical device, complete equipment, power transformer, cable and wire, instrument and meter, welding equipment, which are praised by all users. A number of new independent intellectual property right, intelligent appliances is moving into the market.

We are keeping our business principles for "Approaching the first-class management, producing the first-class products, providing the first-class service". All Andeli staffs are working hard and constantly innovate. Honest Andeli welcome to all users to fighting a better tomorrow hand in hand.

President of ANDELI Mr. Anlin Cheng (the third one) and deputy premier of the State Council Wu Yi

President of ANDELI Mr. Anlin Cheng (on the left) and mayor of Yueqing city Pan Xiaozheng

Main leaders of managerment

Canton fair

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Quality System & Product Certifications

ISO9001:2000 Certification

International ISO9001:2000 Certification

Measurement Examination SYstem QUalified Certification

Certificate Of Zhejiang Name Brand

Quality embodies our dignity; Outstanding quality rejects mediocre; Working with the greatest care,being highly finished; Standard management system and high quality let us go off without a hitch in the world.


Verification of Conformity
Certificate
for European Product Safety
Low-voltage switchgear and controlgear.
AC contactors
Moulded Case Circuit-breakers
Test Verification of Conformity
EC DECLARATION OF CONFORMITY
CERTIFICATE OF CONFORMITY
STANDARDS ORGANISATION OF NIGERIA
Product Certificate


CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

Contents

Mould Case Circuit Breaker & Dual Power Automatic Transfer Switch
Miniature Circuit Breaker & Residual Current Circuit Breaker

AM1 Series Moulded Case Circuit Breaker

AM1-63M/3P

1. Application

AM1 series moulded case circuit breaker is one of products developed and manufactured by adopting international advanced technology. It is supplied with rated insulating voltage 550 and 800V and used for circuit of AC 50/60Hz, rated operating voltage AC 400V (or below), rated operating current up to 1600A for infrequent changing over and starting of the motors.The products conforms to IEC60947-2 standard.

AM1-63M/4P

2. Main Technical Specification

Table 1

Type	Rated current (A)	Pole	Rated insulating voltage (V)	Rated operating voltage (V)	Arcing-over distance (mm)	Ultimate short circuit breaking capacity (kA)	Servies short circuit breaking capacity (kA)	Operation performance		Utilization category
								Load	Unload	
AM1-63L	(6),10,16,20, 25,32,40,50,63	3, 4	500V	400V	0	25	18	1500	8500	A
AM1-63M					0	50	35			
AM1-100L	(10),16,20,25, 32,40,50,63, 80,100		800V		0(⩽ 50)	35	22			
AM1-100M					0(⩽ 50)	50	35			
AM1-100H					0(⩽ 50)	85	50	1000	7000	
AM1-225L	100,125,160, 180,200,225				⩽ 50	35	22			
AM1-225M					⩽ 50	50	35			
AM1-225H					⩽ 50	85	50	1000	4000	
AM1-400L	225,250,315, 350,400				⩽ 50	50	35			
AM1-400M					⩽ 100	65	42			
AM1-630L	400				⩽ 100	50	35			
AM1-630M	500				⩽ 100	65	42			
AM1-630H	630				⩽ 100	100	65			
AM1-800M	630,700,800	3			⩽ 100	75	50			
AM1-800H					⩽ 100	100	65			
AM1-1250M	1000,1250				⩽ 100	100	65			
AM1-1250H					⩽ 100	125	75			
AM1-1600M	1600				⩽ 100	150	80			

AM1-100M/3P

Note: 6A without thermal protection

The N-pole of four-poles breaker is sited at the right side of the product has four types:

Type A: Without current trip-lease on N pole which making all the time, not closing and opening with the other three poles.

Type B: Without current trip-release on N pole which closing and opening with the other poles.

Type C: With current trip-release which closing and opening with the other three poles.

Type D: With current trip-release which making all the time not closing and opening with the other three poles.

AM1-225L/3P

3. Protection Characteristic

The thermodynamic release of a circuit breaker provides the feature of inverse time-delay, while the magnetic release is the instantaneous operation as shown on table 2(distribution circuit breaker) and table 3 (motor protection circuit breaker).

AM1-225L/3P

AM1-400L/3P

Back panel connection

Plug-in

Electromagnetic operation device

Motor-driven operation device

Table 2

Rated current of release (A)	Thermodynamic release(ambient temperature land +40°C / marine +45°C)		Operating current of magnetic release (A)
	1.05In(cold state) Inoperative time(h)	1.30In(heat state) Operative time(h)	
10 ≤ In ≤ 63	≥ 1	< 1	10In±20%
63 < In ≤ 100	≥ 2	< 2	
100 < In ≤ 800	≥ 2	< 2	5In±20% 10In±20%

Table 3

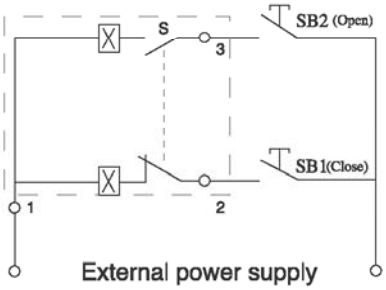
Rated current of release (A)	Thermodynamic release (ambient temperature land +40°C / marine +45°C)				Operating current of magnetic release (A)
	1.0In(cold state) non-trip time(h)	1.20In(heat state) trip time (h)	1.50In(heat state) trip time (h)	7.2In(cold state) trip time(h)	
10 ≤ In ≤ 225	≥ 2	< 2	≤ 4min	4s < Tp ≤ 10s	12In±20%
225 < In ≤ 630			≤ 8min	6s < Tp ≤ 20s	

4. Accessories of Circuit Breaker

4.1 The external accessories of the breaker

● **Motor-driven operation device**

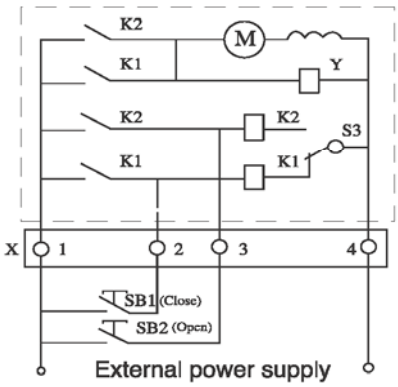
1) Wiring diagram of type CDM electromagnetic operation device(fitting AM1-63,100,225) see the following drawing (wiring diagram of the external accessories of the breaker in the dotted frame)



Code description: SB_1、SB_2 stand for push button.(provided by users themselves)
Number "1"、"2"、"3" stand for number of wiring terminals.

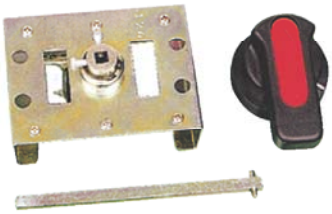
Voltage rating: AC50/60Hz 230V 400V, DC 220V

2) Wiring diagram of type CD motor-driven operation device (fitting AM1-400、630、800) see belows (wiring diagram of the external accessories of the breaker in the dotted frame)



Code description: SB_1、SB_2 stand for push button. (provided by users themselves)
"X" stands for line connection terminals

Voltage rating: AC50/60Hz 230V 400V, DC220V

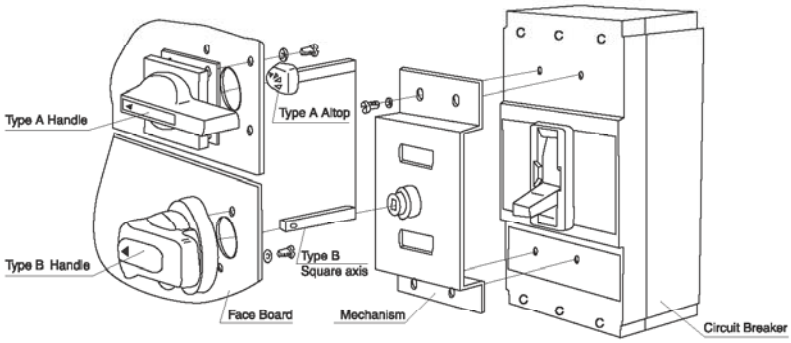


Rotary handle operation device

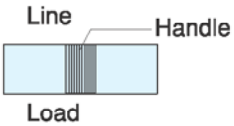
● **Rotary handle operation device**

The mechanism is used in moulded case circuit breaker to operate the draw-out panel. Power distribution panel and supply box outside the panel by turning the handle ,and to ensure the door of panel would not be openned when the breaker being on.

The hand-drive mechanism can be equiped with two types of operation, one is “A” model square handle , the other is “B” model round handle.



4.2 Release pattern and accessories code



SHT: Shunt release; UVR: Under-voltage release;
AX: Auxiliary contact; AL: Alarm contact

Release pattern and accessories code	Type / Name	AM1-63, 100, 225	AM1-400	AM1-630	AM1-800
200, 300	Without accessories	200: magnetic release (only short circuit protection) 300: thermal magnetic release(both overload and short circuit protection)			
208, 308	Alarm contact	AL	AL	AL	AL
210, 310	Shunt release	SHT	SHT	SHT	SHT
220, 320	Auxiliary contact	AX	AX	AX	AX
230, 330	Under-voltage release	UVR	UVR	UVR	UVR
240, 340	Shunt release Auxiliary contact	SHT AX	SHT AX	SHT AX	AX SHT
250, 350	Shunt release Under-voltage release	SHT UVR	SHT UVR	SHT UVR	UVR SHT
260, 360	Two group of auxiliary contact	AX AX	AX AX	AX AX	AX AX
270,370	Under-voltage release Auxiliary contact	AX UVR	AX UVR	AX UVR	UVR AX
218, 318	Shunt release Alarm contact	AL SHT	SHT AL	AL SHT	AL SHT
228, 328	Alarm contact Auxiliary contact	AL AX	AL AX	AL AX	AL AX
238, 338	Under-voltage release Alarm contact	AL UVR	AL UVR	AL UVR	AL UVR
248, 348	Shunt release, Alarm contact, Auxiliary contact	AL AX SHT	SHT AL AX	AL AX SHT	AL AX SHT
268, 368	Two group of auxiliary contact, Alarm contact	AL AX AX	AL AX AX	AL AX AX	AL AX AX
278, 378	Shunt release, Alarm contact, Under-voltage release	AL AX UVR	AL AX UVR	AL AX UVR	AL UVR AX

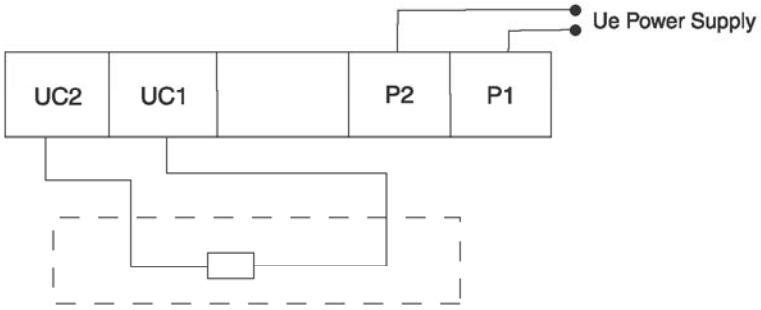
According to user's demands, accessories could lead to direct wire outcoming or line wiring terminals could be added(please mark out in case of making order).

Under-voltage release

● Under-voltage release

Wring diagram of the under-voltage module connected externally (the internal accessories in the dotted frame)

Ue: AC50/60Hz 230V, 400V



When the operation voltage is 35%~70% of the rated voltage, the under-voltage release should make the breaker trip correctly.

When the operation voltage is 85%~110% of the rated voltage, the under-voltage release should make the breaker close.

In case of the operation voltage less than 35% of the rated voltage, the under-voltage should prevent the breaker from closing.

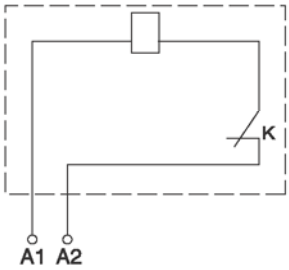
Note: Only the under-voltage release should be energized in advanced, the breaker could be recramped and turned-on, otherwise the breaker will be damaged.

Shunt release

● Shunt release

Scheme of wiring(the internal accessories in the dotted frame)

"K" is the slow motion switch normal-close contact connect the coil in series in the shunt release. It turns-on or turns-off voluntarily as soon as the breaker on or off.



Power supply

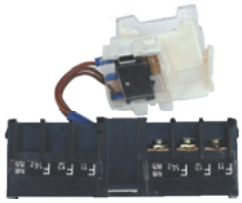
Voltage rating: AC50/60Hz 230V 400V, DC 110V 220V

The shunt release should make the breaker trip reliably when the operation voltage is 70%~110% of the rated control voltage.

Alarm contact

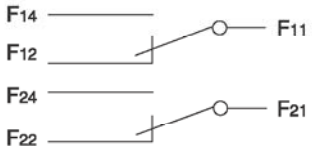
● Alarm contact

The position of the breaker in "off" or "on"	B_{14} — B_{12} — B_{11}
The position of the breaker in "free trip" (alarm)	B_{11} and B_{12} switch from "close" to "open", status of B_{11} and B_{14} switch from "open" to "close"



Auxiliary Contact

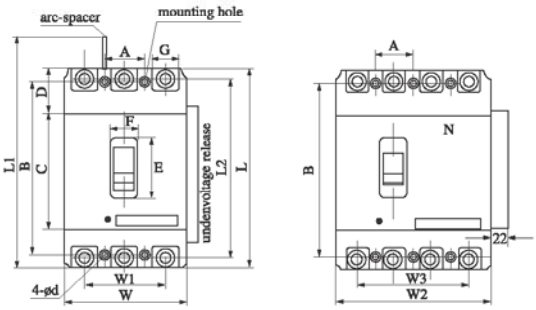
● **Auxiliary Contact**

When the breaker is in "off"		For the breaker with frame current 400A and above
		For the breaker with frame current 225A and below
When the breaker is in "on"	When the breaker is in "off", the contacts switch from "close" to "open". When the breaker is in "off", the contacts switch from "open"to close"	

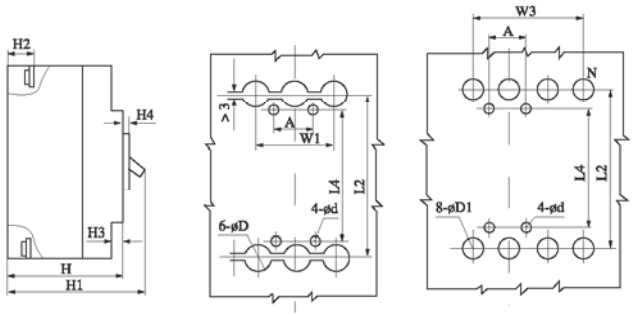
5. Outline and Installation Dimensions

Type	Outline Dimensions(mm)																															Installation Dimensions		
	Front panel connection																	Back panel connection					Plug-in connection											
	W	W1	L	L1	L2	H	H1	H2	H3	H4	C	D	E	F	G	W2	W3	L4	H5	H6	ØD	ØD1	L5	L6	H7	H8	H9	H10	J	K	Ød1	M	A	B	Ød
AM1-63L	76	50	135	170	117	74	92	20	7	4	85	28.5	48	22	14	100	75	117	44	66	8	8							60.7				25	117	3.5
AM1-63M	76	50	135	170	117	82	98.5	28	7	4	85	28.5	48	22	14	100	75	117	44	66	8	8							62				25	117	3.5
AM1-100L	92	60	150	185	132	68	86	24	7	4	88	35.5	50	22	17.5	122	90	129	68	108	26	16	92	168	50	62	74	17.5	56	60	6.5	M8	30	129	4.5
AM1-100M	92	60	150	185	132	86	104	24	7	4	88	35.5	50	22	17.5	122	90	129	68	108	26	16	92	168	50	62	74	17.5	56	60	6.5	M8	30	129	4.5
AM1-100H	92	60	150	185	132	86	104	24	7	4	88	35.5	50	22	17.5	122	90	129	68	108	26	16	92	168	50	62	74	17.5	56	60	6.5	M8	30	129	4.5
AM1-225L	107	70	165	215	144	86	110	24	5	4	102	31.5	50	22	17	142	105	126	66	110	20	20	94	183	50	69.5	84.5	17.5	54	70	6.5	M8	35	126	5
AM1-225M	107	70	165	215	144	103	127	24	5	4	102	31.5	50	22	17	142	105	126	66	110	20	20	94	183	50	69.5	84.5	17.5	54	70	6.5	M8	35	126	5
AM1-225H	107	70	165	215	144	103	127	24	5	4	102	31.5	50	22	17	142	105	126	66	110	20	20	94	183	50	69.5	84.5	17.5	54	70	6.5	M8	35	126	5
AM1-400L	150	96	257	357	224	105	155	38	8	6	128	64.5	89	65	ø26	198	144	194	60	120	33	33	169	279	60	83.5	106.5	21	129	60	8.5	M10	44	194	7
AM1-400M	182	116	270	370	234	110	160	43	8	6	134	70	89	65	ø29	198	144	200	65	125	36	36	169	299	60	92	110	21	123	100	8.5	M12	58	200	7
AM1-630L	182	116	270	370	234	110	160	43	8	6	134	70	89	65	ø29	240	174	200	65	125	36	36	169	299	60	92	110	21	123	100	8.5	M12	58	200	7
AM1-630M	182	116	270	370	234	110	160	43	8	6	134	70	89	65	ø29	240	174	200	65	125	36	36	169	299	60	92	110	21	123	100	8.5	M12	58	200	7
AM1-630H	210	140	280	380	243	106	145	33	30	128									128														70	243	7.2
AM1-800M	210	140	280	380	243	106	145	33	30	128									128														70	243	7.2
AM1-800H	210	140	280	380	243	106	145-	33	30	128									128														70	243	7.2
AM1-1250M	210	140	393			200																													
AM1-1250H	210	140	393			200																													
AM1-1600M	210	140	393			200																													

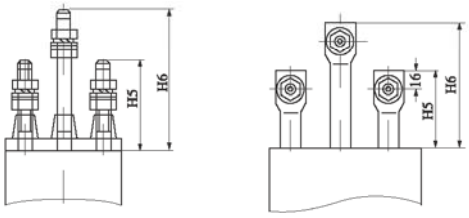
Front panel connection



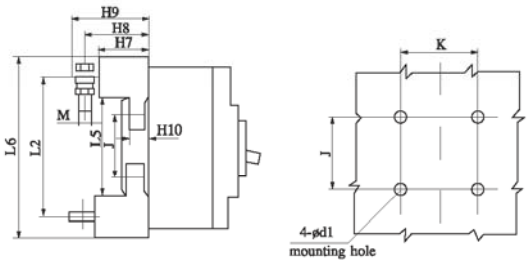
Back panel connection



Back panel connection



Plug-in connection



AM1L Series Earth Leakage Circuit Breaker

1. Application and Description

AM1L-100M/4P

AM1L series earth leakage circuit breaker are one of the new type earth leakage breakers which have been developed by the company using international advanced design and manufacturing technology. Suitable for a line of AC50/60Hz, rated voltage up to 400V, rated current 16A to 630A. and is acted as infrequent changeover of circuit or infrequent starting of motor. The breaker has overload, short-circuit and under-voltage protective function, which can protect the circuit and the power equipment against damage, meanwhile, it can provide protection to these fire dangers that caused by these long-time existed grounding fault that can not be detected by the over-current protection.

This breaker can be installed vertically(upright) or horizontally(transverse).

Wiring of the breaker can not be in adverse direction, that means power supply line must be connected to terminal 1,3 and 5,and the load line connected to terminal 2,4 and 6.

The rated residual operating current I △ n and the maximum breaking time can be adjusted on site according to practical condition.

The leakage protection module still can work normally when the phase voltage reduce to 50V. It has the same overall size with the AM1 series breakers, which make the installation more exchangeable.

AM1L-225M/3P

The breakers are suitable for isolation, its symbol are: —⁄⊢✕—

The breakers comply with the demands of the following standards:

IEC60947-1 and GB/T 14048.1 General

IEC60947-2 and GB 14048.2 Low voltage breakers

IEC60947-4 and GB 14048.4 Contactors and motor starters

IEC60947-5.1 and GB 14048.5 Electrical equipments of electromechanical control circuit

2. Main Technical Specifications

Table 1

Type		AM1L-100			AM1L-225			AM1L-400		AM1L-630	
Frame current Inm(A)		100			225			400		630	
Rated current In(A)		(10)16,20,25,32, 40,50,63,80,100			100, 125, 160, 180, 200, 225			225, 250, 315, 350,400		400, 500, 630	
Pole number		3		4	3		4	3	4	3	4
Rated iInsulation voltage Ui(V)		AC800									
Rated working voltage Ue(V)		AC 400V									
Rated impulse with stand voltage Uimp(V)		8000									
Arc-over distance(mm)		≥50									
Breaking capacity grade		M	H		M	H		M		M	
Limiting short-circuit breaking capacity Icu (kA)	AC400V	50	85	50	50	85	50	65		65	
Service short-circuit breaking capacity Ics(kA)	AC400V	35	50	35	35	50	35	42		42	
Rated residual operating current I △ n(mA)	Non-delay type	100/300/500									
	Delay type	100/300/500								300/500/1000	
Rated residual non-operatingcurrent I △ no(mA)		1/2 I △ n									
Operation performance (time)	Electrified	1500			1000			1000		1000	
	Unelectrified	8500			7000			4000		4000	

Note: According to the pole number of product, it calssifies three and four poles. The neutral pole (N-Pole) of the four-poles products has four types:

Type A: N-pole without over-current release unit, it has been connected all the time, not closing and opening with the other three poles.

Type B: N-pole without over-current release unit, which closing and opening with the other three poles.

Type C: N-pole fixed with over-current release unit, which closing and opening with the other three poles.

Type D: N-pole fixed with over-current release unit, it has been connected all the time, not closing and opening with the other three poles.

1. The limiting breaking and arc-over distance includes horizontal and vertical installation.

2. If the three-pole breaker of this series is connected with three phase load, the load can not have neutral line, otherwise the breaker will have fault action.

3. If the three-pole breaker of this series is connected with single phase load, the phase line willbe connected to the left pole, and the neutral line is connected to the right pole, the middle pole is blanket

3. Protection Characteristic

The thermal release of the breaker has again-time-limit property; the electromagnetic release is inst. Operation, its property see table 2(for distribution),table 3 (motor protection).

Table 2

Rated current of release(A)	Thermal release (ambient temperature +40℃)		Electromagnetic release tripping current(A)
	1.05In(cold state) non-trip time (h)	1.03In(hot state) trip time (h)	
10 ≤ In ≤ 63	1	1	10In ± 20%
63 ≤ In ≤ 125	2	2	
125 ≤ In ≤ 630	2	2	5In ± 20% 10In ± 20%

Table 3

Rated current of release	Thermal release (ambient temperature +40℃)				Electromagnetic release tripping current(A)
	1.0In (cold state) non-trip time (h)	1.20In(hot state) trip time(h)	1.50In(thermal state) trip time	7.2In(cold state) trip time	
10 ≤ In ≤ 400	2	2	8min	6s<Tp ≤ 20s	12In±20%

4. Residual Current Operating Time of Earth Leakage Circuit Breaker

4.1 Non-delay type operation characteristics see table 4(I△n ≤ 30mA should be Non-delay type)

Table 4

Rated current		I△n	2I△n	5I△n[a]	10I△n
Non-delay type	Max.breaking time(s)	0.3	0.15	0.04	0.04

Note: [a]to I△n ≤ 30mA earth leakage circuit breaker, 0.25A can instead of 5I△n
According to[a], adopt 0.25A, then 10 I△n is 0.5A.

4.2 Delay type operation characteristics see table 5

Limiting non-driven time of delay type earth leakage circuit breaker according to 2I△n, operation characteristics see table 5

Back panel connection

Table 5

Delay time (s)	Max. breaking time(s) at I △ n	Limiting non-driven time (s) at 2I △ n	Max. breaking time(s)	Max. breaking time(s) at 5I △ n	Max. breaking time(s) at 10I △ n
0.1	0.4	0.06	0.2	0.15	0.15
0.2	0.5	0.06	0.2	0.15	0.15
0.3	0.6	0.1	0.4	0.3	-
0.4	0.7	0.2	0.5	0.4	-
0.5	0.8	0.3	0.6	0.5	-
0.6	0.9	0.4	0.7	0.6	-
0.7	1.0	0.5	0.8	0.7	-

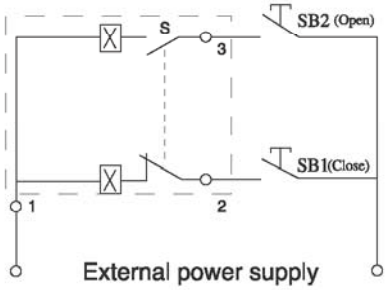
5 .Accessories of Circuit Breaker

5.1 The external accessories of the breaker

- **Motor-driven operation device**

1) Wiring diagram of type CDM electromagnetic operation device(fitting AM1L-100,225) see the following drawing (wiring diagram of the external accessories of the breaker in the dotted frame)

Electromagnetic operation device



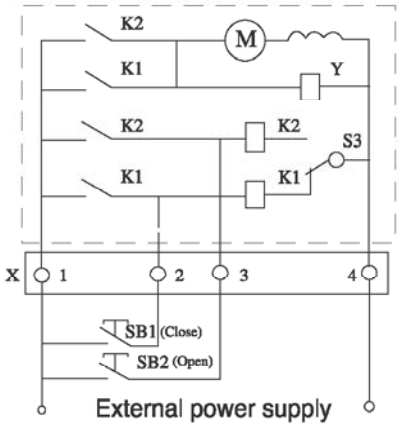
2) Wiring diagram of type CD motor-driven operation device (fitting AM1L-400,630) see belows (wiring diagram of the external accessories of the breaker in the dotted frame)

Code description: SB_1、SB_2 stand for push button.(provided by users themselves)

Number "1"、"2"、"3" stand for number of wiring terminals.

Voltage rating: AC50Hz 230V、400V, DC 220V

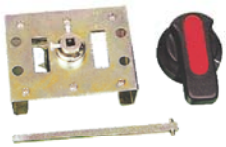
Motor-driven operation device



Code description: SB_1、SB_2 stand for push button. (provided by users themselves)

"X" stands for line connection terminals

Voltage rating: AC50Hz 230V、400V; DC220V



Rotary handle operation device

● **Rotary handle operation device**

The mechanism is used in moulded case circuit breaker to operate the draw-out panel. Power distribution panel and supply box outside the panel by turning the handle ,and to ensure the door of panel would not be openned when the breaker being on.

The hand-drive mechanism can be equiped with two types of operation one is "A" model square handle , the other is "B" model round handle.

5.2 The Internal Accessories of the Breaker

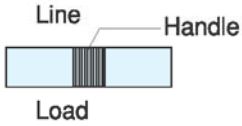
5.2.1 Release pattern and accessories code see following table

Under-voltage release

Shunt release

Alarm contact

Auxiliary contact



SHT: Shunt release; UVR: Under-voltage release;
AX: Auxiliary contact; AL: Alarm contact

Release pattern and accessories code	Type / Name	AM1L- 100, 225	AM1L-400	AM1L-630
200, 300	Without accessories	200: Magnetic release (only short circuit protection) 300: Thermal magnetic release(both overload and short circuit protection)		
208, 308	Alarm contact	AL	AL	AL
210, 310	Shunt release	SHT	SHT	SHT
220, 320	Auxiliary contact	AX	AX	AX
230, 330	Under-voltage release	UVR	UVR	UVR
228, 328	Auxiliary contact, Alarm contact	AL AX	AL AX	AL AX

5.2.2 The technical parameter and functions of the accessories

Accessory	Rated operating voltage (V)			
	AC50/60Hz		DC	
Shunt release Us	220(230)	380(400)	110	220
Under-voltage release Us	220(230)	380(400)		

Auxiliary contact and Alarm contact: Auxiliary contact is as some as Alarm contact , the technical parameter see following table

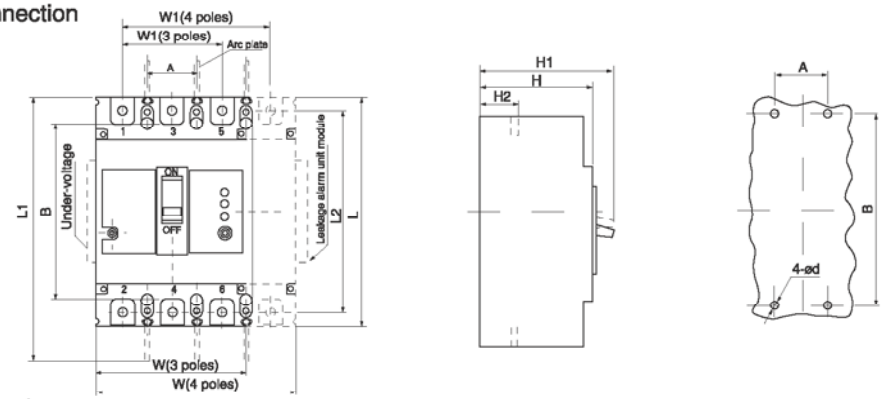
Rated thermal current Ith (A)	Rated operating current Ie(A)		Suited Frame Inm(A)
	AC380V	DC220V	
3	0.3	0.15	100, 225
3	0.4	0.15	400, 630

Accessories name	Function	Wiring connection diagram
Alarm contact	Indicate circuit breaker at tripping	B14 B12 B11 The position of breaker at opening and closing
Auxiliary contact	Indicate circuit breaker at opening or closing	B14 B12 F11 The position of breaker at opening
Shunt release	The shunt release should make the breaker trip reliably when the operatiopn voltage is 70%-110% of rated control voltage	The micro switch will cut by itself when breaker open E K A1 A2
Under-voltage release	When Ue is 35%-70% of the rated control voltage, the under voltage release should make the breaker trip correctly When Ue is 85%-110% of the rated control voltage, the under voltage release should make the breaker close In case of Ue less than 35%of the rated control voltage should prevent the breaker from closing	E K P1 P2

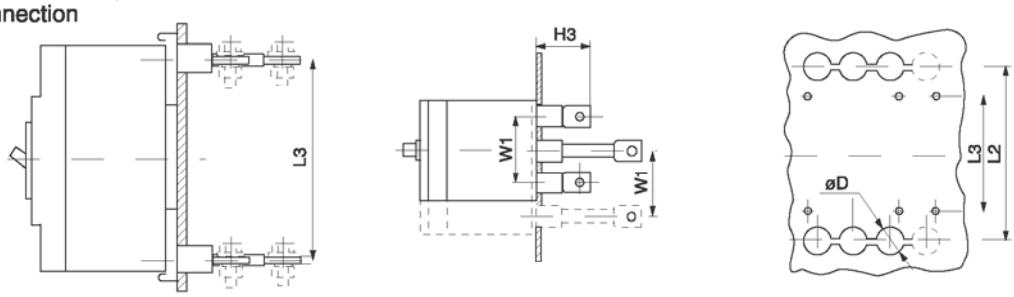
6. Outline and Installation Dimensions

Type	Outline dimensions																			Installation dimensions		
	Front panel connection								Back panel connection			Plug-in connection										
	W	L	H	W1	L1	L2	H1	H2	L3	H3	D	L4	L5	H4	H5	H6	C	D	D1	A	B	d
AM1L-100M,H/3P	92	150	92	60	200	200	132	110	28.5	90	93	168	92	50	64	76	60	56	6.5	30	129	4.5
AM1L-100M,H/4P	122	150	92	90	200	200	132	104	28.5	90	93	168	92	50	64	76	60	56	6.5	30	129	4.5
AM1L-225M,H/3P	107	165	90	70	265	265	144	110	24	93	100	183	94	50	71.5	86.5	90	54	6.5	35	126	5.5
AM1L-225M,H/4P	142	165	103	105	265	265	144	127	24	93	100	183	94	50	710.5	86.5	70	54	6.5	35	126	5.5
AM1L-400M,H/3P	150	257	106.5	96	441	441	224	146.5	38	164	108.5	279	-	60	83.5	106.5	105	129	8.5	44	194	7
AM1L-400M,H/4P	198	257	106.5	144	441	441	224	146.5	38	164	108.5	279	-	60	83.5	106.5	70	129	8.5	44	194	7
AM1L-630M,H/3P	210	280	115.5	145	480	480	243	155	45.3	158	84	296	-	61	97	148	140	143	10	70	243	7
AM1L-630M,H/4P	280	280	115.5	210	480	480	243	155	45.5	158	84	296	-	61	97	148	210	143	10	70	243	7

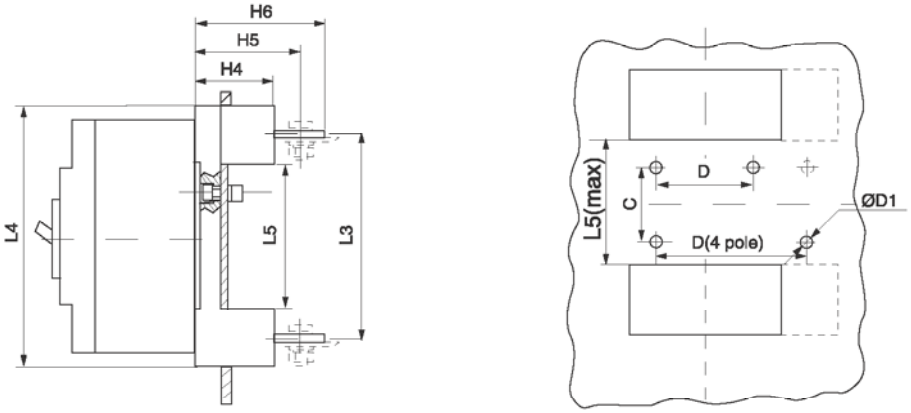
Front panel connection



Back panel connection



Plug-in connection



AM2 Series Moulded Case Circuit Breaker

AM2-100N/3P

AM2-250N/3P

AM2-400N/3P

AM2-630N/3P

1. Application

AM2 series moulded case circuit breaker is one of breaker which adopts international advanced design, manufacture technology to develop. The rated insulating voltage is 750V, suitable for AC 50/60Hz,rated working voltage 690V or below, rated working current is 12.5A to 1600A of circuit and used in distributing electric energy, and non-frequent breaking in the normal conditions , protecting the circuit & equipment from overload & under voltage, circuit breaker with rated frame current 400A or below,can be used in mousecage motor's non-frequent start, breaking during working, protecting motor from overload, short circuit & undervoltage,the product conforms to IEC60947-2 standard.

2. Main Technical Specifications

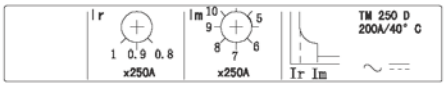
Table 1

Type	Pole	Rated insulating voltage (V)	Rated operating voltage (V)	Rated ultimate short circuit breaking capacity Icu (kA) at 380/415V	Rated service short circuit breaking capacity Ics at 380/415V(kA)	Operation performance		Utilization category
						ON	OFF	
AM2-100N	3, 4 pole	750	690 or below	25	25	1500	8500	A
AM2-100H				70	70			
AM2-100L				150	150			
AM2-160N				36	36	1000	7000	
AM2-160H				70	70			
AM2-160L				150	150			
AM2-250N				36	36	1000	7000	
AM2-250H				70	70			
AM2-250L				150	150			
AM2-400N				45	45	1000	4000	
AM2-400H				70	70			
AM2-400L				150	150			
AM2-630N				45	45	1000	4000	
AM2-630H				70	70			
AM2-630L				150	150			
AM2-1250N	3 pole			50	37.5	1000	4000	
AM2-1600N				50	37.5			

Note:1. The N-pole breaker has no protection which closing and opening with the other three poles.
2. The type of thermal magnetic for AM2-400/630 has no four poles.

3 Trip Units Main Technical Parameter

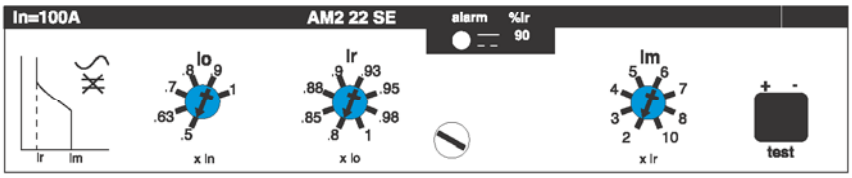
Thermal magnetic release



Type	Rated current In(A)	Note
AM2-100	12.5,16,20,25,32,40,50,63,80,100	T adjustable (0.8~1In) M adjustable (5~10In)
AM2-160	16,20,25,32,40,50,63,80,100,125,160	
AM2-250	160、180、200、225、250	
AM2-400	315、350、400	
AM2-630	400、500、630	
AM2-1250	800、1000、1250	T adjustable (0.8~1In) M fixed
AM2-1600	1000、1250、1600	

● Electronic release

AM2 22SE: protection of low-voltage distribution networks for AM2-100\160\250

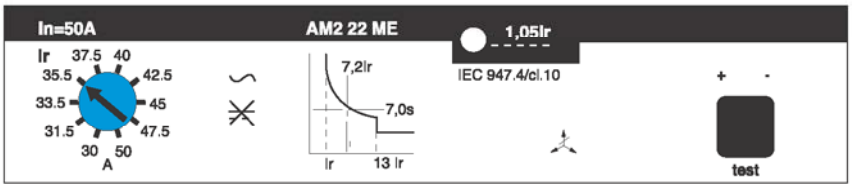


AM2-250N/4P

1. Overload protection with adjustable threshold
2. Short-circuit protection with adjustable threshold
3. Load indication : light at 90% of Ir setting threshold;
   Flashing at 105% or more of Ir setting threshold

Type	Rated current In(A)	Note
AM2-100	40、100	Ir=0.4…1 × In(adjustable 48 setting) Tripping between 1.05…1.3 × Ir (IEC60947-2) **(Long-time overload protection)** Im=2-3-4-5-6-7-8-10 × Ir **(Short-circuit protection)**
AM2-160	40、100、160	
AM2-250	40、100、160、250	

AM2 22ME: protection of motor for AM2-100\160\250

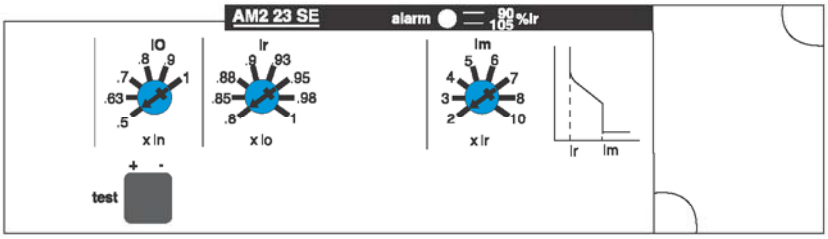


AM2-630N/4P

1. Overload protection with adjustable threshold, as defined by IEC60947-4 (2) tripping class 10
2. Short-circuit protection with fixed threshold (13xIr)
3. phase failure protection (tripping time delay between 3.5s-6s)
4. Load indication : dark less than 105% of Ir setting threshold;
   Flashing at 105% or more of Ir setting threshold

Type	Rated current In(A)	Note
AM2-100	40、50、80、100	Ir=0.6-0.63-0.67-0.71-0.75-0.80-0.85-0.90-0.95-1 × In
AM2-160	40、50、80、100、150	
AM2-250	40、50、80、100、150、220	

AM2 23SE: protection of low-voltage distribution networks for AM2-400\630

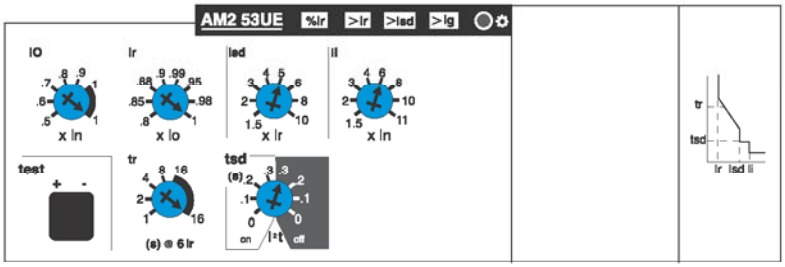


AM2-1600N

1. Overload protection with adjustable threshold
2. Short-circuit protection with adjustable threshold
3. Load indication : light at 90% of Ir setting threshold;
   Flashing at 105% or more of Ir setting threshold

Type	Rated current In(A)	Note
AM2-400	400	Ir=0.4…1 × In(adjustable 48 setting) Tripping between 1.05…1.3 × Ir (IEC60947-2) **(Long-time overload protection)** Im=2-3-4-5-6-7-8-10 × Ir **(Short-circuit protection)**
AM2-630	630	

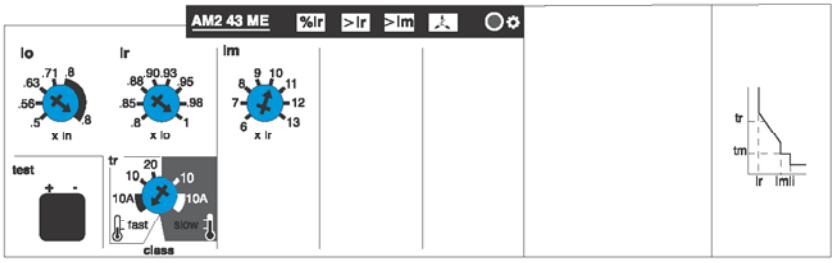
AM2 53UE: protection of low-voltage distribution networks for AM2-400\630



1. Overload protection with adjustable threshold, as defined by IEC60947-2
2. Short-circuit protection with adjustable threshold
3. Instantaneous short-circuit protection
4. Earth fault protection with adjustable threshold
5. Load indication : light at 90% of Ir setting threshold;
   Flashing more than Ir setting threshold
6. Fault indication
   LEDs indicates the type of fault that caused tripping
   Overload (**LT** protection) or abnormal component temperature **(>Ir)**;
   Short-circuit (**ST** or instantaneous protection)**(>Im)**;
   Earth fault (if earth fault protection option is present)**(Ig)**;
   Microprocessor malfunction (both **(>Ir)** and **(>Im)** LEDs go on ,plus the **(Ig)** LEDs if earth fault protection option is present)
   Battery powered. Spare battery are supplied in an adapter box. When a fault occurs , the LED indicating the type of fault ,lights for about 10 minutes . The information is however stored in memory . The LED can be illuminated by pressing the test pushbutton. The LED automatically goes off and the memory is cleared when the circuit breaker is reset .

Type	Rated current In(A)	Note
AM2-400	400	Ir=0.4…1 × In(adjustable 48 setting) Tripping between 1.05…1.3 × Ir (IEC60947-2) at 6 × Ir Trip time: 1s, 2s, 4s, 8s, 16s(adjustable) **(Long-time overload protection)** Isd=1.5-2-3-4-5-6-7-8-10 × Ir Trip time: 0s, 0.1s, 0.2s, 0.3s adjustable+I^2t **(Short-circuit short time delay protection)** Ii=1.5-2-3-4-6-7-8-10-11 × Ir **(Instantaneous short-circuit protection)** Ig=0.1-0.2-0.3-0.4-0.5-0.6-0.7-0.8-1 × Ir Trip time: 0.1s, 0.2s, 0.3s, 0.4s adjustable+I^2t **(Earth fault protection) (If option is present)**
AM2-630	630	

AM2 43ME: protection of motor for AM2-400\630



1. Overload protection with adjustable threshold, as defined by IEC60947-4 (2) tripping class 10A,10 and 20
2. Short-circuit protection with adjustable threshold (6...13xIr)
3. Phase failure protection (built-in electronic release: operates unbalanced single-phase currentat 40% and more than)(tripping time delay 4s±10%),as defined by IEC60947-4.1
4. Load indication : Flashing more than Ir setting threshold
5. Fault indication

LEDs indicates the type of fault that caused tripping

Overload (**LT** protection) or abnormal component temperature **(>Ir)**;

Short-circuit (**ST** or instantaneous protection)**(>Im)**;

Phase failure **(right LED)**;

Microprocessor malfunction (**(>Ir) (>Im)** and phase failure LEDs all go on)

Battery powered. Spare battery are supplied in an adapter box. When a fault occurs ,the LED indicating the type of fault ,lights for about 10 minutes . The information is however stored in memory . The LED can be illuminated by pressing the test pushbutton. The LED automatically goes off and the memory is cleared when the circuit breaker is reset .

Type	Rated current In(A)	Note
AM2-400	400	Ir=0.4…1 × In(adjustable 48 setting) Trip degree: class 10A, 10,20(IEC60947-4) **(Long-time overload protection)** Im=6-7-8-9-10-11-12-13 × Ir **(Short-circuit protection)**
AM2-630	630	

Under-voltage release
Shunt release

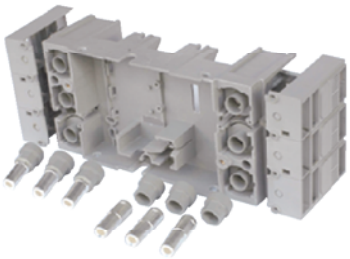
Auxiliary contact
Alarm contact

4. Accessories

Accessories	Rated operating voltage	Consumption		For type
		Pick-up	Seal-in	
Shunt release (MX)	24V 100V 220/230V 380/400V	<10VA	<5VA	AM2-100~630
Under-voltage release(UN)	220/230V 380/400V	<10VA	<5VA	

Accessories	Rated operating voltage	Rated operating current		For type
		AC12	AC15	
Auxiliary contact (OF)	380/400V	6	3	AM2-100~630
Alarm contact(AL)	380/400V	6	3	

Rotary handle



Plug-in base

Rotary handle

● **Direct rotary handle**

Degree of protection:IP40

Function: 1) suitability for isolation

2) indication of three positions 0(off) I(on) and tripped

3) press "push to trip" button, can trip-free

4) visibility of and access to trip unit settings

5) the circuit breaker can be locked in the off position by one to three padlocks , diameter 5 to 8mm(not supplied)

● **Extended rotary handle**

Degree of protection:IP55

Function: 1) Suitability for isolation

2) Indication of three positions 0(off) I(on) and tripped

3) Visibility of and access to trip unit settings when the door is open

4) Door opening prevented when circuit breaker is on

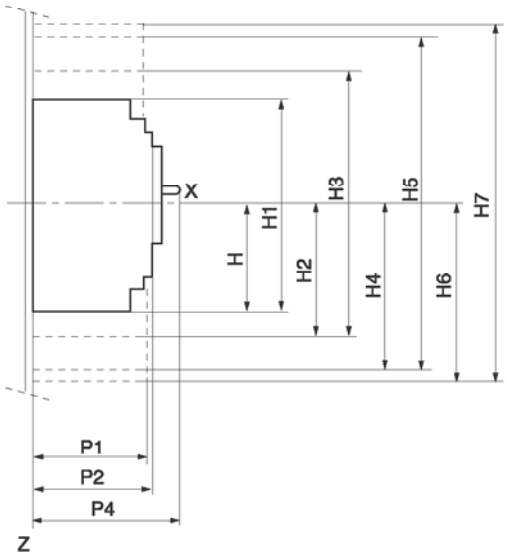
5) The circuit breaker can be locked in the off position by one to three padlocks , diameter 5 to 8mm(not supplied).Locking prevents opening of the switchboard door

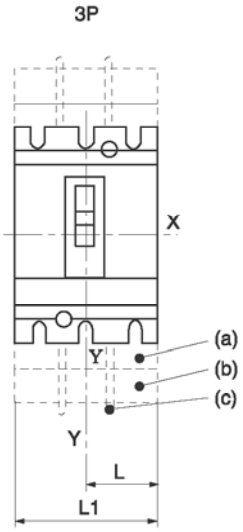
5. Installation: Circuit breaker may be mounted vertically, horizontally or flat on their back without any derating of characteristics.

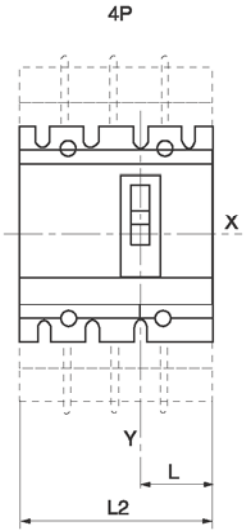
6. Fix: Mounting on backplate , mounting on rails

7. Connection: Front panel connection , back panel connection , plug-in connection

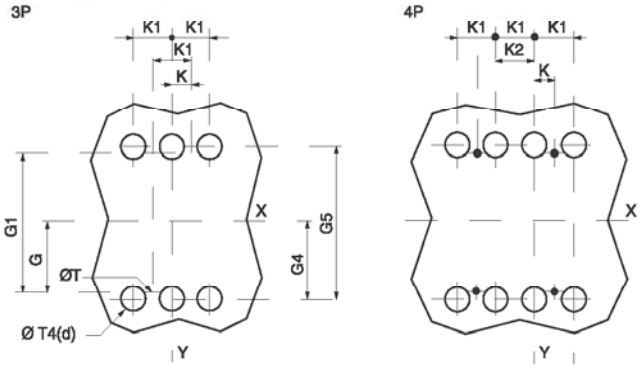
8. Outline and Installation Dimension



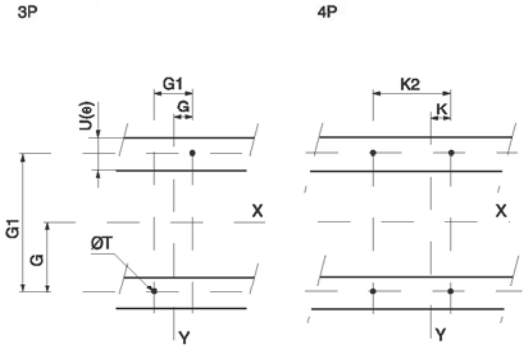




Mounting on backplate

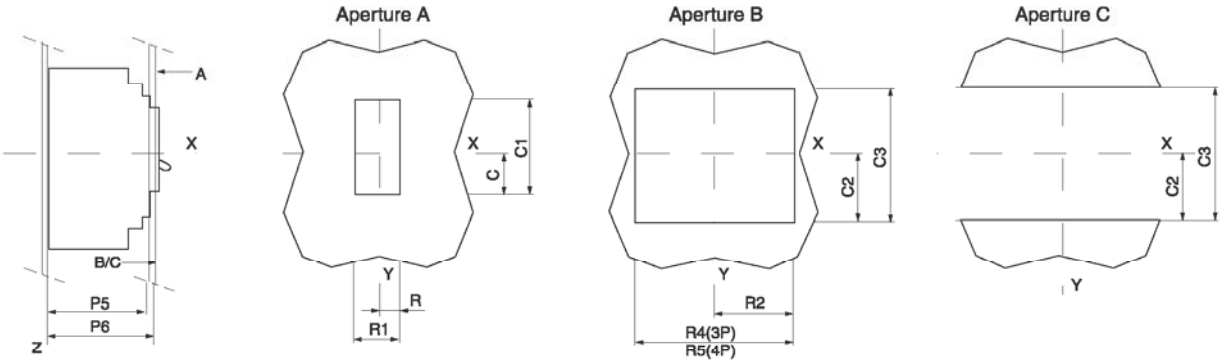


Mounting on rails



Aperture on a front panel

Fitting to fixed and plug-in circuit breaker



AM2-100~630

mm	C	C1	C2	C3	G	G1	G4	G5	H	H1	H2
AM2 100/160/250N/H/L	29	76	54	108	62.5	125	70	140	80.5	161	94
AM2 400/630N/H/L	41.5	116	92.5	184	100	200	113.5	227	127.5	255	142.5
AM2 1250/1600N									100	255	

mm	H3	H4	H5	H6	H7	K	K1	K2	L	L1	L2	P1	P2	P4	P5
AM2 100/160/250N/H/L	188	160.5	321	178.5	357	17.5	35	70	52.5	105	140	81	86	111*	83
AM2 400/630N/H/L	285	240	480	237	474	22.5	45	90	70	140	185	95.5	110	168	107
AM2 1250/1600N						99.5	199	209	99.5	199	269	107.5		205	

mm	P6	R	R1	R2	R4	R5	ØT	ØT4	(Ue)
AM2 100/160/250N/H/L	88	14.5	29	54	108	143	6	22	≤ 32
AM2 400/630N/H/L	112	31.5	63	71.5	143	188	6	32	≤ 32
AM2 1250/1600N							6.5		

* P4=126 is suitable for AM2 250N/H/L

AM2C Series Moulded Case Circuit Breaker

AM2C-100B

AM2C-250D

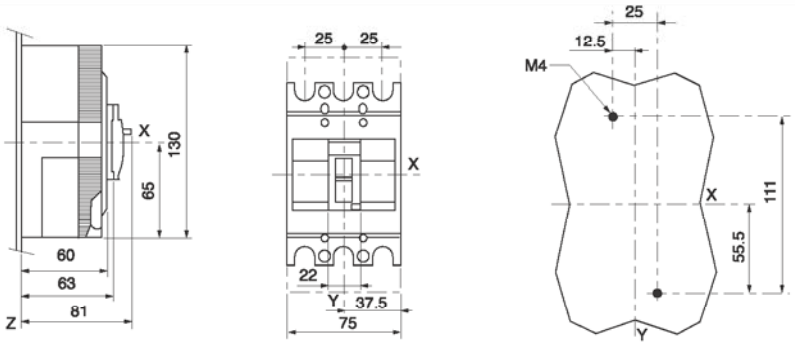
1. Application

AM2C series moulded case circuit breaker is one of breakers which adopts international adavanced design, manufacture technology to develop. The rated insulating voltage is 500V, suitable for AC 50Hz(60Hz), rated working voltage 500V or below, rated working current is 15A to 250A of circuit and use in distributing electric energy. The product conforms to IEC60947-2 stardand.

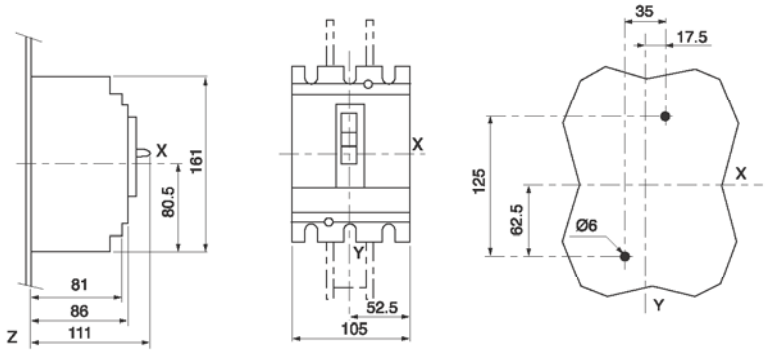
2. Specifications

Type		AM2C60E	AM2C100B	AM2C100D	AM2C160D	AM2C250D
Poles number		3	3	3	3	3
Rated current In(A)		15,20,25,30, 40,50,60	15,20,25,30, 40,50,60,75, 80,100	15,20,25,30, 40,50,60,75, 80,100	125,160	200,225,250
Rated operating voltage Ue(V) (50/60Hz)		500	500	500	500	500
Rated insulation voltage Ui(V)		500	500	500	500	500
Rated impulse voltage Uimp(KV)		6	6	6	6	6
Utilisation category		A	A	A	A	A
Rated limited breaking capacity Icu(KA)	220/240V	7.5	25	25	85	85
	380V	7.5	10	18	18	18
	400V	7.5	10	15	15	15
Rated used breaking capacity Ics(%Icu)		25	50	50	50	50

3. Outline and Installation Dimensions



AM2C-60E,100B,100D



AM2C-160D,250D

AM3 Series Moulded Case Circuit Breaker

AM3-125L/3P

AM3-250L/3P

AM3-250L

AM3-400L

1. Application

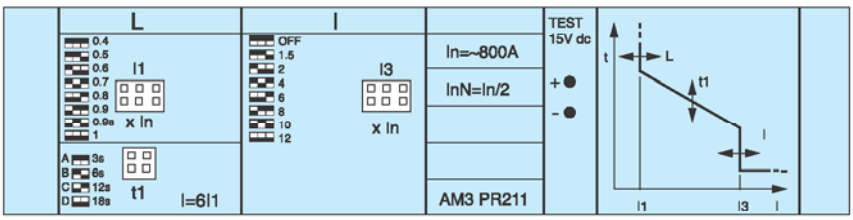
AM3 series moulded case circuit breaker , it's applicable circuit of AC 50/60Hz,rated insulation voltage 690V(AM3-125 500V),rated operating voltage AC 690V or below ,rated operating current 12.5-1600A, for distribute energy of electric and infrequent making and breaking circuit in normal condition. The circuit-breakers are provided with the function of the protection against overload and short circuit and under-voltage. The circuit breakers comply with standard of IEC60947-2.The circuit-breakers are double insulating (Inm=250A or above), the control circuit of the accessories is set apart with the main circuit , and doesn't need to open the cover of the circuit breaker when install the accessories.

2. Specification

Table 1

Type	Pole number	Rated insulating voltage (V)	Rated operating voltage (V)	Ultimate short circuit breaking capacity Icu(kA)		Rated short-circuit serrice breaking capocity Ics(%icu)	Utilization category
				AC380V (400)	AC660V (690)		
AM3-125L	1,2, 3,4	500	500	25	-	50%	A
AM3-160L	3, 4	690	690 and below	35	8	75%	
AM3-160M				50	10	75%	
AM3-250L		800		35	14	100%	
AM3-250M				65	18	75%	
AM3-250H				85	20	75%	
AM3-400L				35	18	100%	
AM3-400M				65	22	100%	
AM3-400H				100	30	75%	
AM3-630L				35	20	100%	
AM3-630M				50	22	100%	
AM3-630H				65	25	100%	
AM3-800L				35	20	100%	
AM3-800M				50	22	100%	
AM3-800H				65	25	100%	
AM3-1250L	3			50	20	100%	
AM3-1600L							

3. Trip Units Main Technical Parameter (See Table 2)



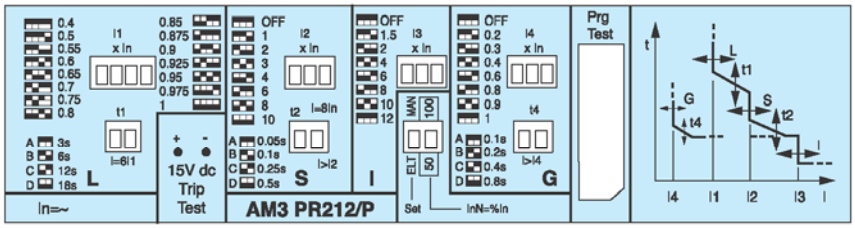


Table 2

Type	Thermal magnetic release		Electronic release	
	Rated current In(A)	Note	Rated current In(A)	Note
AM3-125	12.5,16,20,25,32,40, 50,63,80,100,125	T fixed M fixed	-	
AM3-160	16,20,25,32,40,50, 63,80,100,125,160	T adjustable (0.7~1In) M fixed	-	
AM3-250	100,125,160,180, 225,250	T adjustable (0.7~1In) M fixed	-	
AM3-400	225,250,315, 350,400	T fixed or adjustable (0.7~1In) M fixed	320,400	I1=0.4…1 × In AM3 PR211(L-LI) I1=0.4…1 × In AM3 PR212(LSI-LSIG) Tripping between 1.05…1.3 × I1 (IEC60947-2) I^2t=constant **(Long-time overload protection)** I2=1-2-3-4-6-8-10 × In t2=0.05s, 0.1s, 0.25s, 0.5s adjustable **(Short-circuit short time delay protection)** I3=1.5-2-4-6-8-10-12 × In **(Instantaneous short-circuit protection)** I4=0.2-0.3-0.4-0.6-0.8-0.9-1 × In t4= 0.1s, 0.2s, 0.4s, 0.8s adjustable **(Earth fault protection)**
AM3-630	400,500,630	T fixed M fixed	630	
AM3-800	630,700,800	T fixed M fixed	800	
AM3-1250	-	-	800,1000, 1250	
AM3-1600	-	-	1000,1250, 1600	

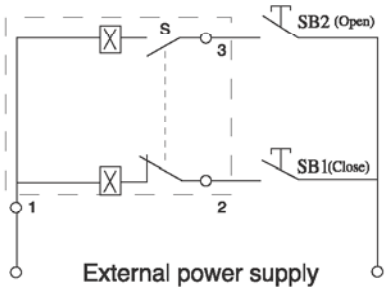
Note: T-thermal M-magnetic L-long time S-short time relay I-instantaneous G-earth fault
AM3-125/160 In=12.5,16,20,32,40 magnetic protection that is fixed at 500A.

4. Accessories

4.1 The external accessories of the breaker

- **Motor-driven operation device**

1) Wiring diagram of type CDM electromagnetic operation device(fitting AM3-125,160,250) see the following drawing (wiring diagram of the external accessories of the breaker in the dotted frame)



Code description: SB_1、SB_2 stand for push button.(provided by users themselves)
Number "1"、"2"、"3" stand for number of wiring terminals.
Voltage rating: AC50Hz 230V、400V, DC 220V

2) Wiring diagram of type CD motor-driven operation device (fitting AM3-400、630、800) see belows (wiring diagram of the external accessories of the breaker in the dotted frame)

Plug-in base

Electromagnetic operation device

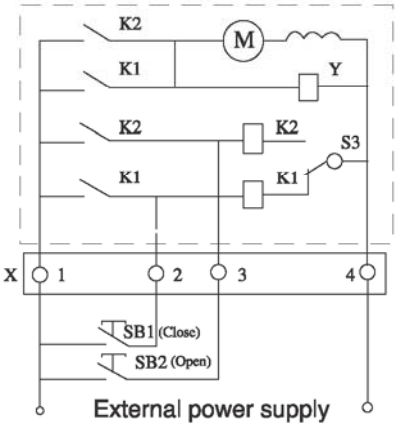
Motor-driven operation device

Rotary handle

Shunt release

Under-voltage release

Alarm contact



Code description: SB_1、SB_2 stand for push button. (provided by users themselves)
"X" stands for line connection terminals
Voltage rating: AC50Hz 230V、400V; DC220V

● **Rotary handle**

Economic extended rotary handle
Degree of protection:IP30
Function: 1) With indication of isolation
2) Indication of three positions 0(off) I(on) and tripped
3) Door opening prevented when circuit breaker is on

4.2 The internal accessories of the breaker

● **Under-voltage release**

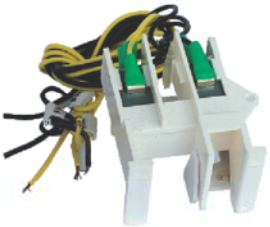
Us: AC50/60Hz 400V, 230V
When the operation voltage is 35%~70% of the rated voltage, the under-voltage release should make the breaker trip correctly.
When the operation voltage is 85%~110% of the rated voltage, the under-voltage release should make the breaker close.
In case of the operation voltage less than 35% of the rated voltage, the under-voltage should prevent the breaker from closing.
Note: Only the under-voltage release should be energized in advanced, the breaker could be recramped and turned-on, otherwise the breaker will be damaged.

● **Shunt release**

Us: AC50/60Hz 230V 400V; DC110V 220V
The shunt release should make the breaker trip reliably when the operation voltage is 70%~110% of the rated control voltage

● **Auxiliary Contact**

When the breaker is in "off"	F14, F12, F11 F24, F22, F21	Size 2N/O+2N/C 1N/O+1N/C
	F14, F12, F11	
When the breaker is in "on"	When the breaker is in "off", the contacts switch from "close" to "open". When the breaker is in "off", the contacts switch from "open"to close"	



Auxiliary Contact

● **Alarm contact**

The position of the breaker in “off” or “on”	B_{14} — B_{11} — B_{12}
The position of the breaker in “free release” (alarm)	B_{11} and B_{12} switch from “close” to “open”, status of B_{11} and B_{14} switch from “open” to “close”

Auxiliary contact and Alarm contact: Auxiliary contact is as same as Alarm contact , the technical parameter(see table 3)

Table 3

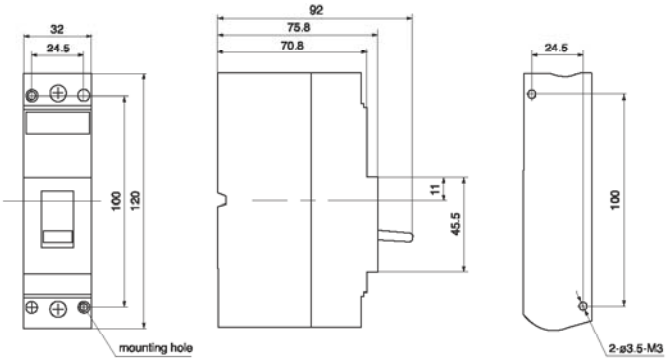
Rated heating current Ith (A)	Rated operating current Ie(A)		Suited Frame Inm(A)
	AC 380V	DC 220V	
3	0.3	0.15	125, 160
3	0.4	0.15	250, 400
3	0.4	0.15	630, 800,1250, 1600

5. Installation: Circuit breaker may be mounted vertically, horizontally or flat on their back without any derating of characteristics.

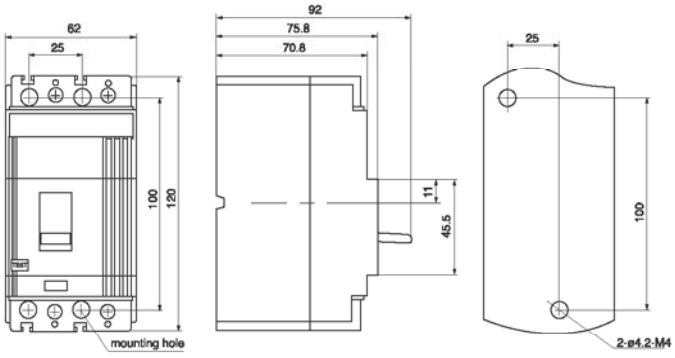
6. Fix: Mounting on backplate.

7. Connection: Front panel connection , black panel connection , plug-in connection

8. Outline and Installation Dimension

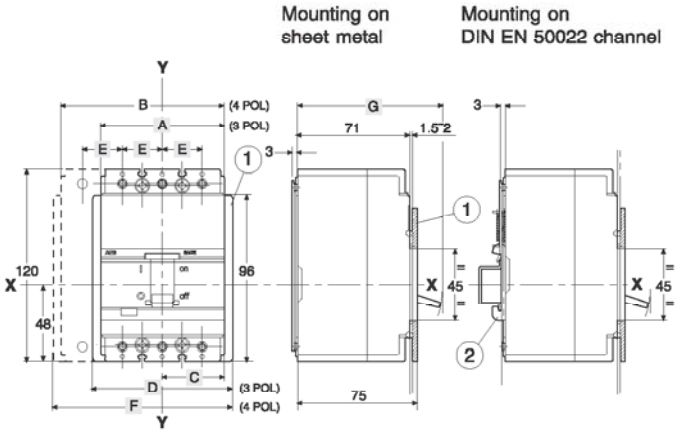


AM3-125 1P

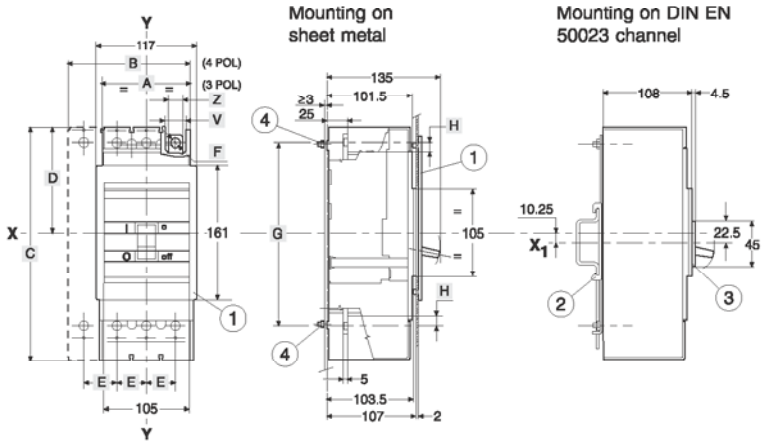


AM3-125 2P

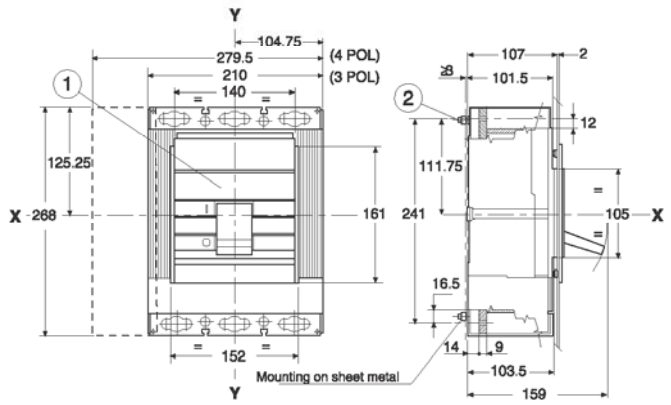
8. Outline and Installation Dimension



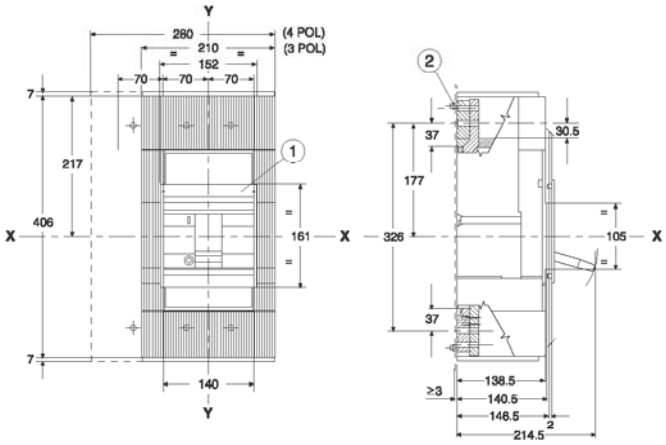
	A	B	C	D	E	F	G
AM3-125	78	103	39	91	25	116	91
AM3-160	90	120	45	103	30	133	93



	A	B	C	D	E	F	G	H
AM3-250	105	140	170	87.25	35	ø8	143	10
AM3-400	140	183.75	254	125.25	143.75	ø10	218	12



AM3-630/AM3-800



AM3-1250/AM3-1600

AM3T Series Moulded Case Circuit Breaker

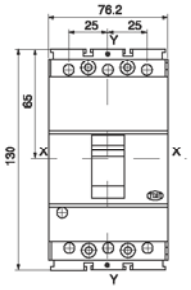
1. Application

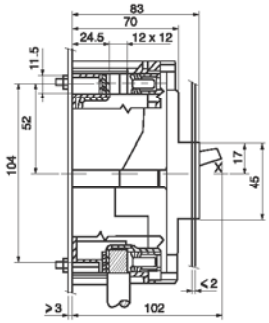
AM3T moulded case circuit breaker is suitable for circuit AC 50/60Hz, rated voltage up to AC 690V, rated operating current up to 630A.It features normal structure, reliable performance, high breaking capacity, used for power distribution and protecting the circuit and electrical equipment against overload and short circuit. It complies with standard of IEC60947-2.

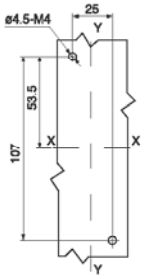
2. Specification

Type		AM3T-160	AM3T-250	AM3T-400	AM3T-630
Poles number		3	3	3	3
Rated current In(A)		16~160	100~250	250~400	400~630
Rated operating voltage Ue(V) (AC50/60Hz)		690	690	690	690
Rated insulation voltage Ui(V)		800	800	1000	1000
Rated impulse withstand voltage Uimp(kV)		8	8	8	8
Utilisation category		A	A	A	A
Frequency withstand voltage 1 Minute		3000	3000	3500	3500
Rated limited short-circuit breaking capacity Icu(kA)	220/230V	25	50	70	70
	380/415V	16	36	36	36
	400V	10	25	30	30
	500V	8	20	25	25
	690V	3	5	20	20
Rated operating short-circuit breaking capacity Ics(100%Icu)	220/230V	100%	75%	100%	100%
	380/415V	100%	75%	100%	100%
	400V	100%	75%	100%	100%
	500V	100%	75%	100%	100%
	690V	100%	75%	100%	100%
Rated short-circuit closing capacity Icn(kA)	220/230V	52.5	105	154	154
	380/415V	32	75.6	75.6	75.6
	400V	17	52.5	63	63
	500V	13.6	40	52.5	52.5
	690V	4.3	7.7	40	40
Mechanical life	Operating recycle times	25000	25000	20000	20000
	Operating recycle times per hour	240	240	240	120
Eectrical life	Operating recycle times	8000	8000	6000	5000
	Operating recycle times per hour	120	120	120	60

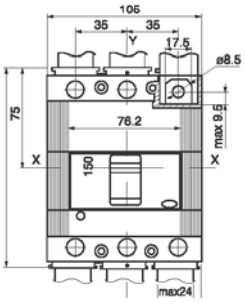
3. Outline and Installation Dimension

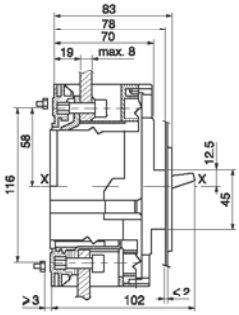


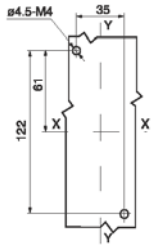




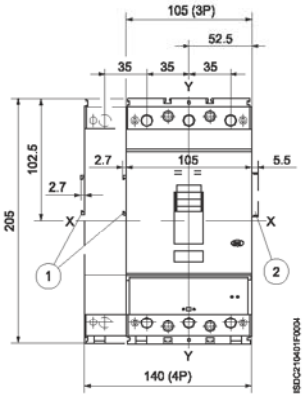
AM3T-160

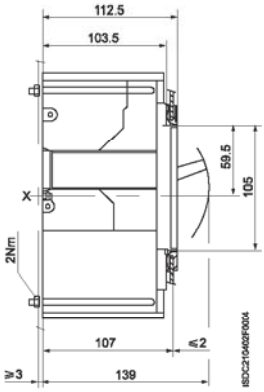


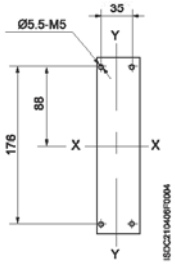




AM3T-250







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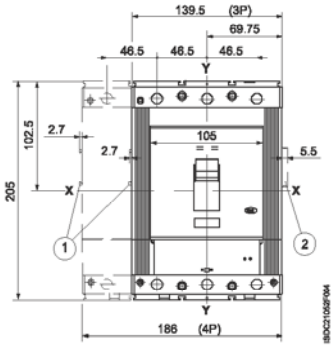
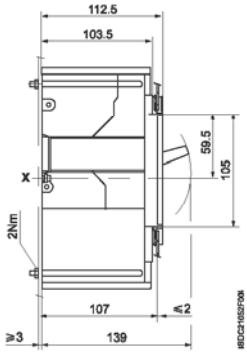
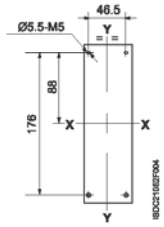
AM3T-400







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AM3T-630

AM4 Series Moulded Case Circuit Breaker

1. Aapplication

AM4 series MCCB is applicable circuit of AC 50/60Hz, rated current up to 400A, for distribute energy of electricity & infrequent making & breaking circuit in normal conditions. The products conforms to IEC60947-2.

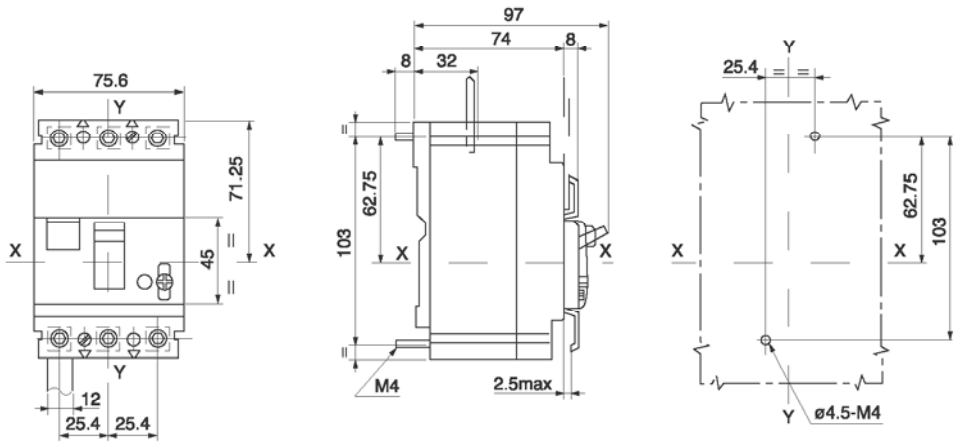
AM4-125

AM4-250

2. Specification

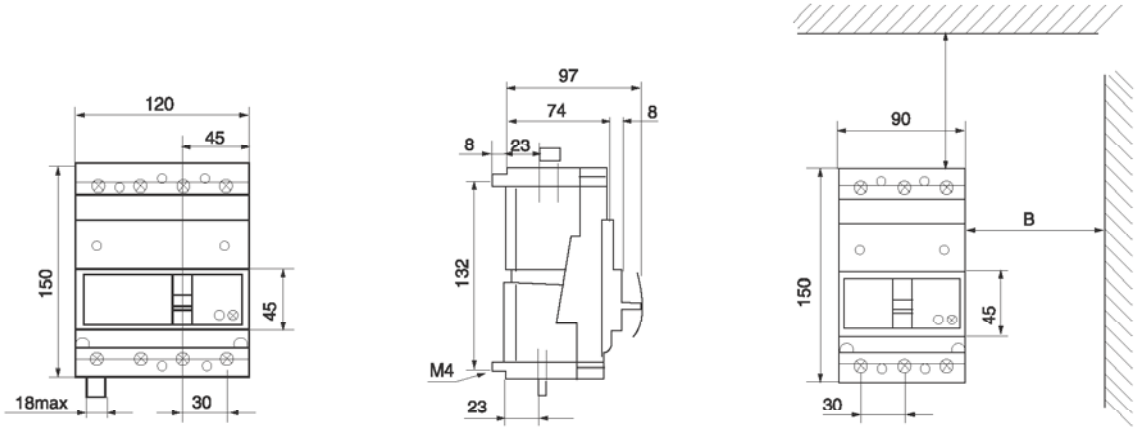
Type		AM4-125	AM4-160	AM4-250	AM4-400
Poles number		3	3	3	3
Rated current In(A)		25~125	25~160	125~250	125~400
Rated working voltage Ue(V) (50/60Hz)		500	500	600	600
Rated working voltage Ue⎓(V)		250	250	250	250
Rated insulation voltage Ui~(V)		500	500	690	690
Rated impulse voltage Uimp(kV)		6	6	8	8
Utilisation category		A	A	A	A
Rated limited short-circuit breaking capacity Icu(kA)	230/240V~	22	50	60	70
	400/415V~	16	36	36	40
	440V~	10	20	30	36
	480/500V~	8	14	25	30
	600V~	-	-	20	-
	690V~	-	-	16	-
	250V⎓	16	-	36	-
Rated short-circuit breaking service capacity Ics(%Icu)		100	100	100	100
Mechanical life		7000	7000	7000	5000
Electrical life		1000	100	1000	800

3. Outline and Installation Dimension

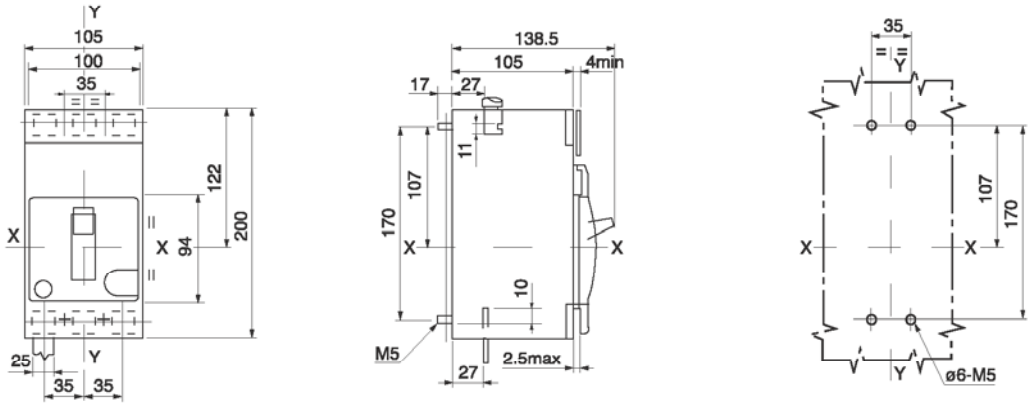


AM4-125

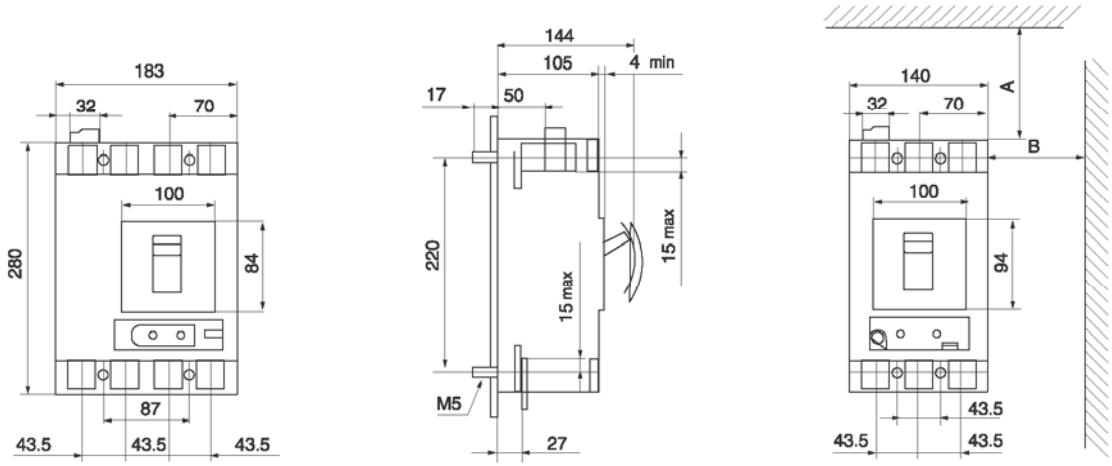
3. Outline and Installation Dimension



AM4-160



AM4-250



AM4-400

AM5 Series Moulded Case Circuit Breaker

1. Application

AM5 series MCCB is applicable circuit of AC 50/60Hz, rated insulation voltage 690V, rated current 16-250A, for distribute energy of electricity & infrequent making & breaking circuit in normal conditions, protecting when circuit is overloaded, short circuit. The products conforms to IEC60947-2 standard.

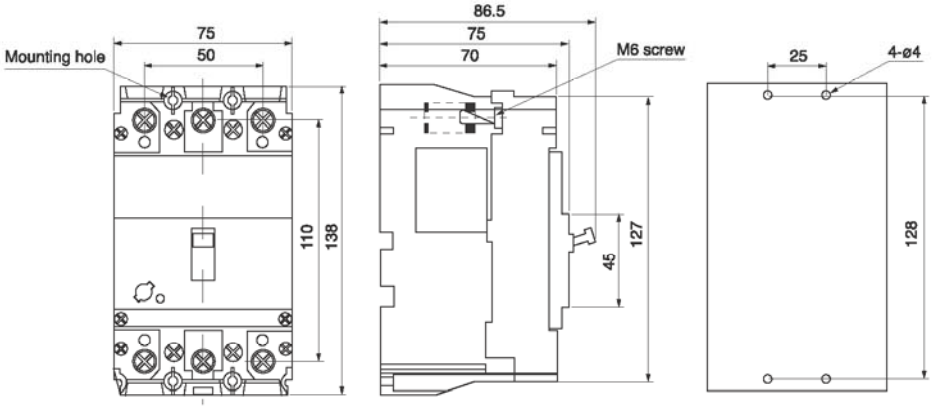
AM5-125

2. Specification

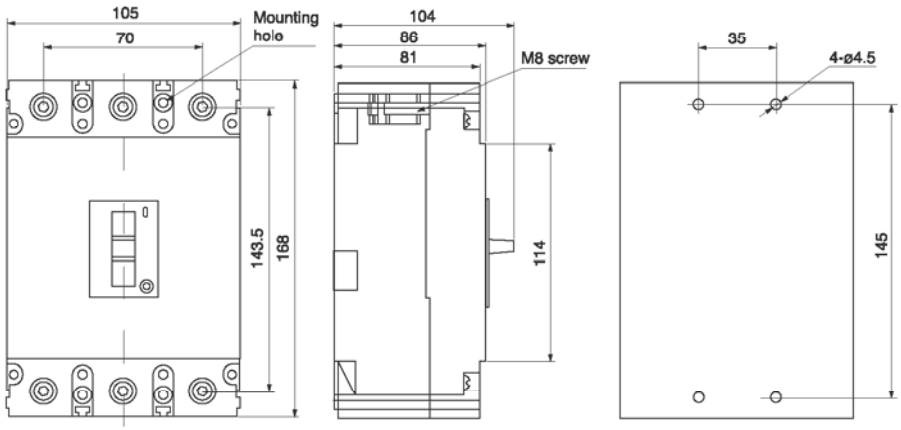
Type	AM5-125	AM5-250
Poles number	3	3
Rated current In(A)	16, 20, 32, 40, 50, 63, 80, 100, 125	100, 160, 180, 200, 250
Utilisation category	A	A
Rated ultimate short-circuit breaking capacity Icu(kA) at 415V	16	25
Rated short-circuit service breaking capacity Ics(%Icu) at 415V	100	100

AM5-250

3. Outline and Installation Dimension



AM5-125



AM5-250

AM6 Series Moulded Case Circuit Breaker

1. Application

AM6 Series Moulded Case Circuit Breaker is available in two frame sizes from 25 to 800 amps, loadline series of moulded case circuit breakers provide overload and short-circuit protection for the full range of transformer sizes encountered in normal service. The overload and instantaneous tripping elements, adjustable over all wide band, make these MCCBs ideal for many distribution application.

AM6-100/1P

2. Specification

Type	AM6-100	AM6-160	AM6-250	AM6-400	AM6-630	AM6-800
Poles number	1,3	3	3	3	3	3
Rated current In(A)	25,32,40,50, 60,80,100	125,160	160,200 250	300,400	500,630	700,800
Rated insulation voltage Ui(V) Utilisation category	AC500 A	AC660 A	AC660 A	AC660 A	AC660 A	AC660 A
Rated ultimate short-circuit breaking capacity Icu(kA) at 415V	25	65	65	65	65	65
Rated short-circuit service breaking capacity Ics(%Icu) at 415V	75%	75%	75%	75%	75%	75%

Tripping Elements

Overload front adjustable 0.7-1.0 times rated current

Instantaneous: non-adjustable AA 25~63=400A

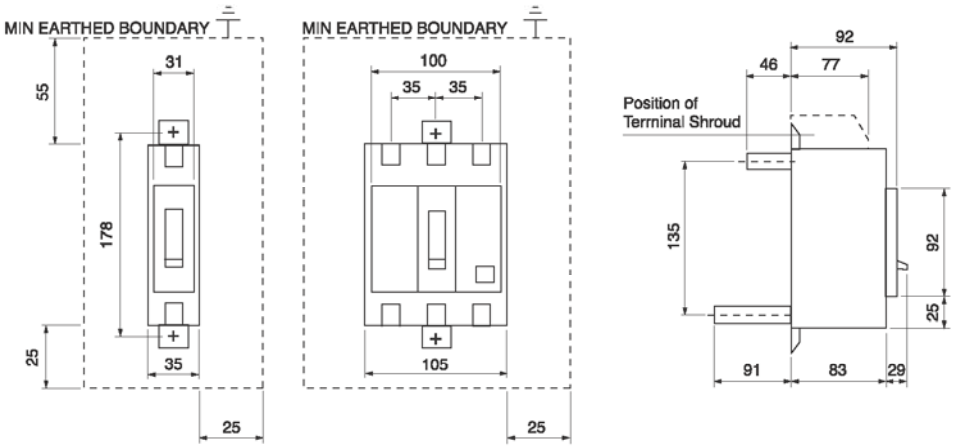
AA 80~250=10In

Switch Disconnector

Current rating In(A): 250 3pold

AM6-250/3P

3. Outline and Installation Dimension



AM6-100/1P AM6-250/3P

AM6-400/3P

AM7 Series Moulded Case Circuit Breaker

AM7-100

AM7-225

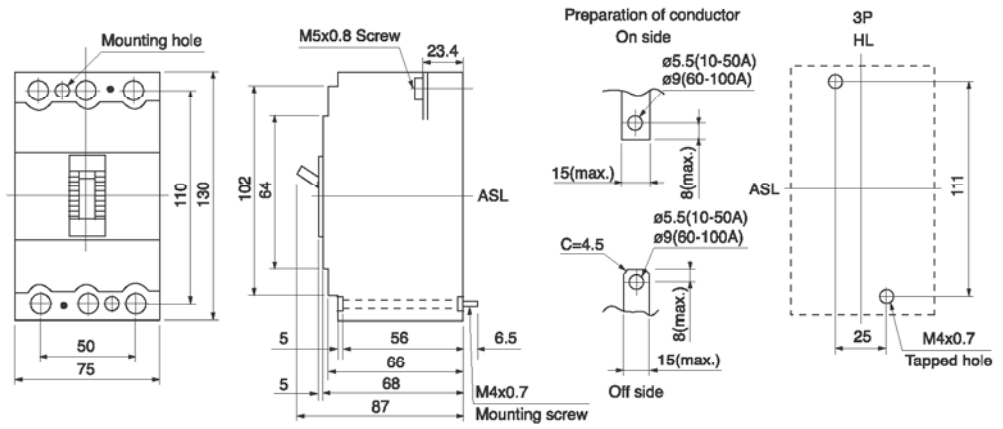
1. Application

AM7 series MCCB is applicable circuit of AC 50/60Hz, rated insulation voltage 690V, rated operating current 15-225A, for distribute energy of electricity and infrequent making & breaking circuit in normal conditions. The products conforms to IEC60947-2 standard.

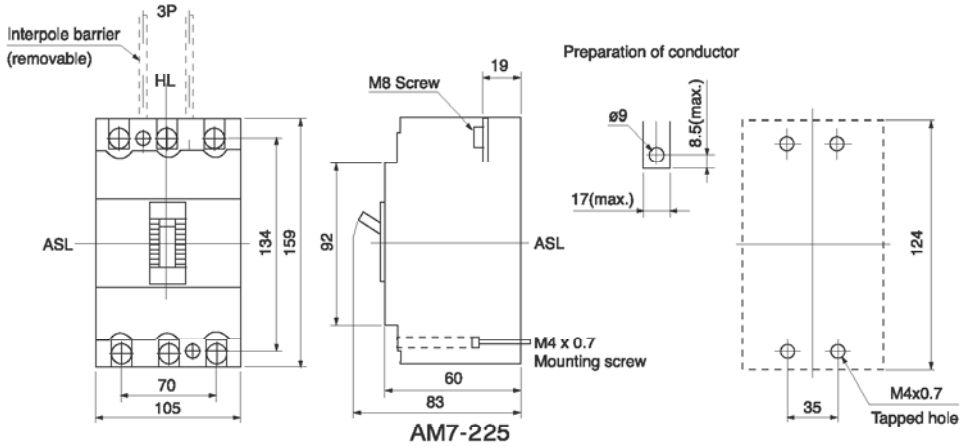
2. Specification

Type		AM7-100	AM7-225
Poles number		3	3
Rated current In(A)		15~100	100~225
Rated operating voltage Ue(V)		AC 600V DC 250V	AC 660V
Rated insulation voltage Ui~(V)		AC 690V	AC 690V
Utilisation category		A	A
Rated ultimate short-circuit breaking capacity Icu(kA)	AC 500V	2	5
	AC 440V	5	7.5
	AC 415V	5	7.5
	AC 380V	5	7.5
	AC 240V	7.5	15
Rated short-circuit service breaking capacity Ics(kA)	AC 500V	1	2.5
	AC 440V	2.5	3.8
	AC 415V	2.5	3.8
	AC 380V	2.5	3.8
	AC 240V	3.8	7.5

3. Outline and Installation Dimension



AM7-100



AM7-225

AM8 Series Moulded Case Circuit Breaker

1. Application

AM8-160

AM8 series MCCB is one of new products developed and manufactured by adopting international advanced technology. It is supplied with rated insutating voltage 690V and used for circuit of AC 50/60Hz, rated operating voltage AC 415V or below, rated opereating current from 16A to 630A. It is designed for protection of electric circuit, motors, transformers and other equipments. The products conforms to IEC60947-2 standard.

2. Specification

Type		AM8-160X	AM8-160	AM8-250	AM8-400	AM8-630
Poles number		3	3	3	3	3
Rated current In(A)		20~160A	50~160A	100~250A	200~400A	315~400A
Rated operating voltage Ue(V) AC 50/60Hz		690	690	690	690	690
Rated insulation voltage Ui(V)		800	800	800	800	800
Rated impulse withstand voltage Uimp(kV)		8	8	8	8	8
Utilisation category		A	A	A	A	A
Rated ultimate short-circuit breaking capacity Icu(kA)	AC 220/240V	65	65	65	65	65
	AC 380/415V	40	40	40	40	40
	AC 690V	8	12	12	12	12
Rated short-circuit service breaking capacity Ics(kA)	AC 220/240V	65	65	65	65	65
	AC 380/415V	40	40	40	40	40
	AC 690V	4	6	6	6	6

AM8-250

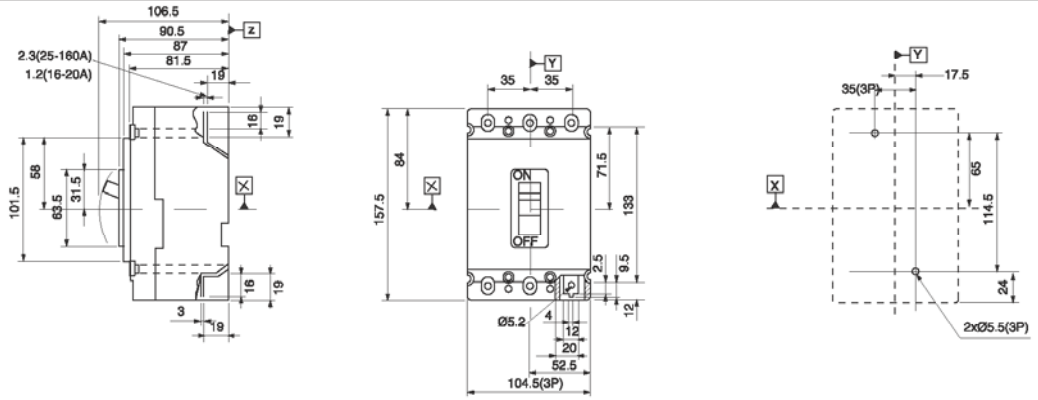
Thermomagnetic
T(thermal)
M(magnetic)

AM8-160X			AM8-160			AM8-250		
In	T adjustable (0.8~1.0In)	M fixed	In	T adjustable (0.8~1.0In)	M adjust-able	In	T adjustable (0.8~1.0In)	M adjustable
20A	16~20A	300A	50A	40~50A	300~600A	200A	160~200A	1000~2000A
32A	25~32A	300A	63A	50~63A	300~600A	250A	200~250A	1200~2500A
40A	32~40A	600A	80A	63~80A	400~800A			
50A	40~50A	600A	100A	80~100A	500~1000A			
63A	50~63A	600A	125A	100~125A	625~1250A			
80A	63~80A	1000A	160A	125~160A	800~1600A			
100A	80~100A	1000A						
125A	100~125A	1000A						
160A	125~160A	1500A						

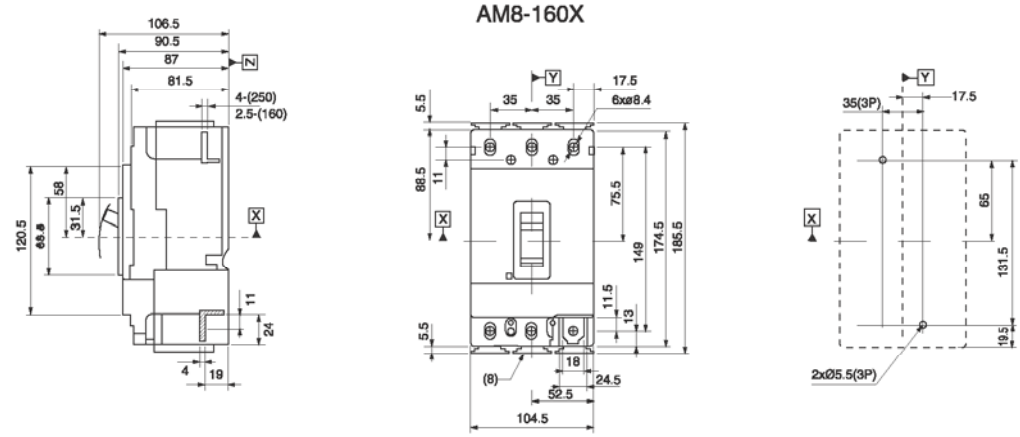
AM8-400

AM8-400			AM8-630		
In	T adjustable(0.8~1.0In)	M adjustable	In	T adjustable(0.8~1.0In)	M adjustable
200A	160~200A	1000~2000A	315A	250~315A	1575~3150A
250A	200~250A	1200~2500A	400A	315~400A	2000~4000A
315A	250~315A	1575~3150A	500A	400~500A	2500~5000A
400A	315~400A	2000~4000A	630A	500~630A	3250~6500A

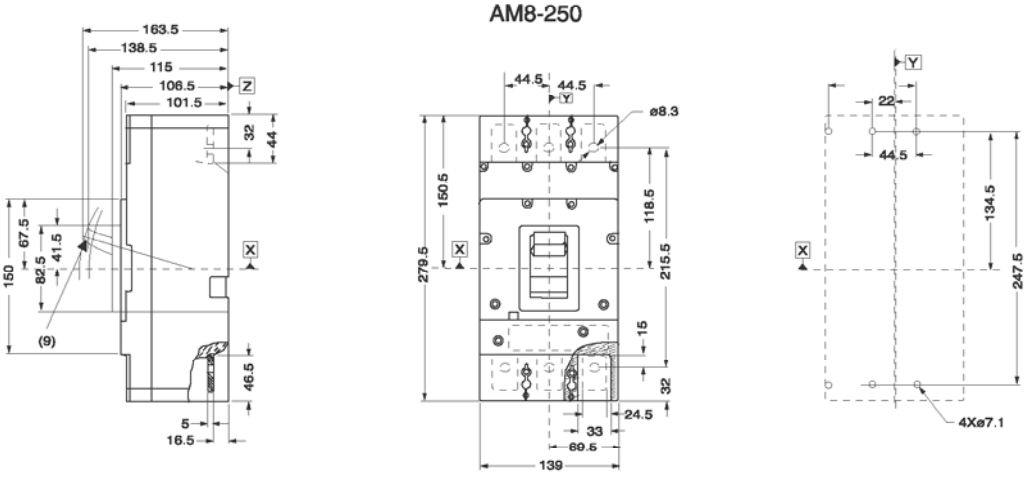
3. Outline and Installation Dimension



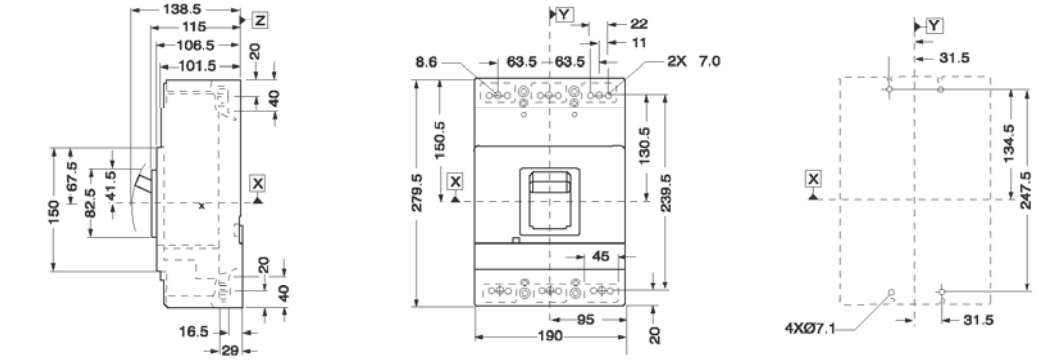
AM8-160X



AM8-250



AM8-400



AM8-630

AM9 Series Moulded Case Circuit Breaker

AM9-63S

1. Application

AM9 series MCCB is suitable for industrial or commercial power and lighting with AC50/60Hz, rated working voltage up to AC600V/DC250V, rated current up to 630A. It's a kind of economical breaker with the characters of stable and reliable function, beautiful appearance, small size and long life. It can be used for conversion of line and infrequent starting motor. It can also be attached to install the accessories which have protection function for avoiding loss-voltage, undervoltage. The product can install connection line with front board and back board, it also can equip hand-operating apparatus or motor-operating apparatus to control in a remote distance.

AM9-103S

2. Specification

The rated insulation voltage for this series of circuit breaker is 690V, the rated operating voltage is 600V, the rated frequency is 50Hz, the other rated values for the main circuit.

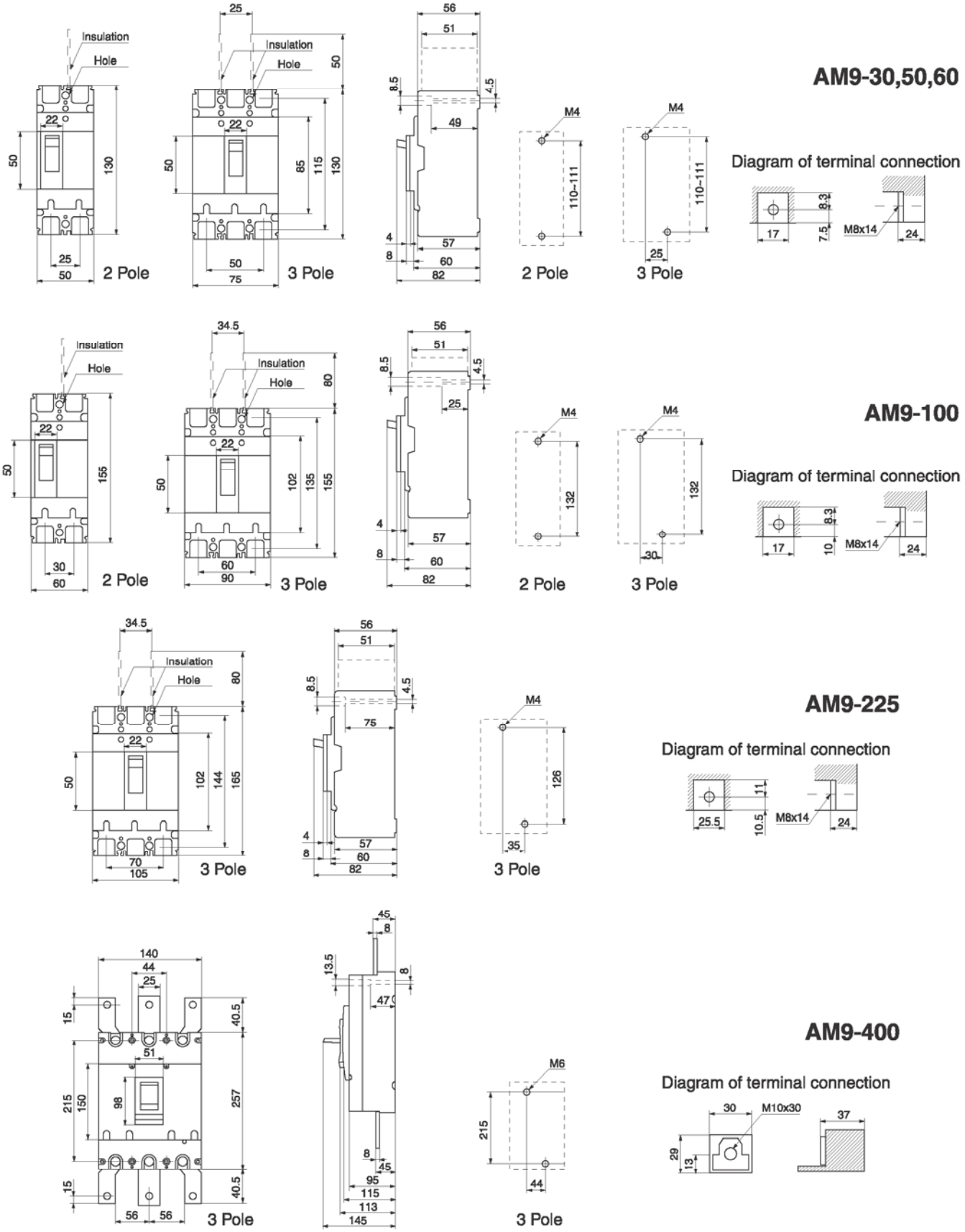
Type	2pole	AM9-32E	AM9-52E	AM9-52S	AM9-62E	AM9-62S
	3pole	AM9-33S	AM9-53E	AM9-53S	AM9-63E	AM9-63S
Frame size(AF)		30	50		60	
Rated current(A)		5,10,15,20,30	5,10,15,20,30,40,50		60	
Rated operational voltage(V)Ue (50/60Hz)		600	600	600	600	600
Rated insulation voltage(V)Ui(50/60Hz)		690	690	690	900	900
Rated impulse withstand voltage(kV)Uimp		6	6	6	6	6
Utimate breaking capacity (kA,Icu AC 50/60Hz)	220V/240V	10	10	25	10	25
	380V	7.5/5	7.5/5	14/10	7.5/5	14/10
	415V	7.5/5	7.5/5	14/10	7.5/5	14/10
	440/460V	5	5	10	5	10
	480/500V	2.5	2.5	7.5	2.5	7.5
	600V	2.5	2.5	5	2.5	5
Utilisation category		A	A	A	A	A
Endurance	Mechanical	8500	8500	8500	8500	8500
	Electrical	1500	1500	1500	1500	1500

AM9-203S

Type	2pole	AM9-102E	AM9-102S				
	3pole	AM9-103E	AM9-103S	AM9-203E	AM9-203S	AM9-403E	AM9-403S
Frame size(AF)		100		225		400	
Rated current(A)		5,10,15,20, 30,40,50, 60,75,100	15,20,30, 40,50,60, 75,100	100,125,150,175, 200,225		250,300,350,400	
Rated operational voltage(V)Ue (50/60Hz)		600	600	600	600	600	600
Rated insulation voltage(V)Ui(50/60Hz)		690	690	690	690	690	690
Rated impulse withstand voltage(kV)Uimp		6	6	6	6	6	6
Uitimate breaking capacity (kA,Icu AC 50/60Hz)	220V/240V	10	50	35	50	35	50
	380V	7.5/5	25	18	25	30	42
	415V	7.5/5	25	18	25	25	35
	440/460V	5	25	18	25	25	35
	480/500V	2.5	25	10	14	18	25
	600V	2.5	14	7.5	10	18	22
Utilisation category		A	A	A	A	A	A
Endurance	Mechanical	8500	8500	7000	7000	4000	400
	Electrical	1500	1500	1000	1000	1000	1000

AM9-403S

3. Outline and Installation Dimensions



AM10 Series Moulded Case Circuit Breaker

1. Application

AM10 series MCCB is applicable circuit of AC 50/60Hz, rated insulation voltage 690V, rated current 16-250A, for distribute energy of electricity & infrequent making & breaking circuit in normal conditons, protecting when circuit are overload or short circuit. The product conforms to IEC60947-2 standard.

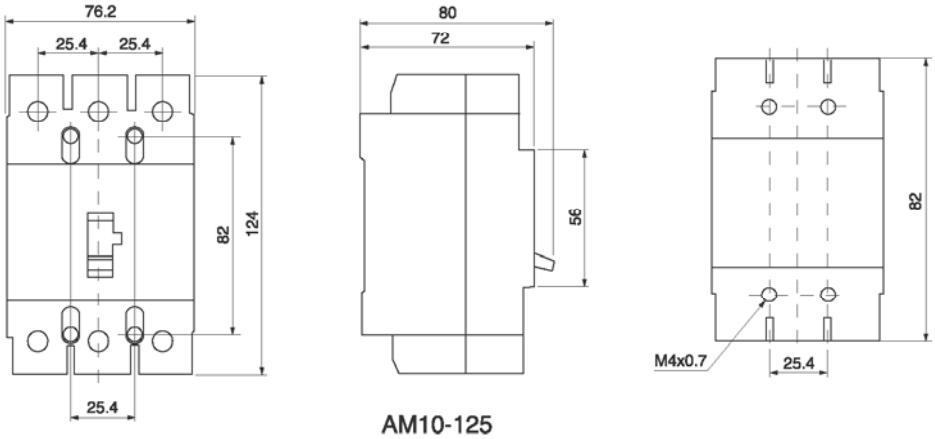
AM10-125

2. Specification

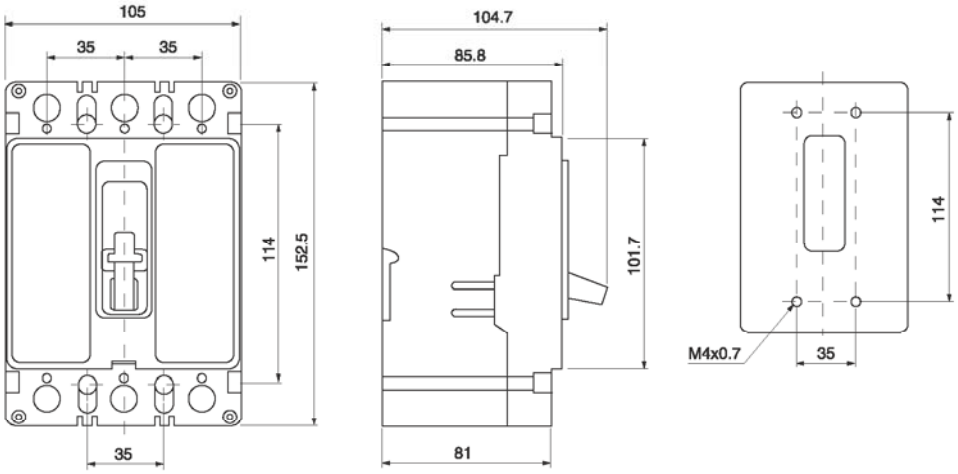
Type		AM10-125	AM10-250
Poles number		3	3
Rated current In(A)		16,20,25,32,40,50,60,80, 100,125	63,80,100,125,160,200, 225,250
Rated insulation voltage Ui(V)		690V	690V
Utilisation category		A	A
Rated impulse withstand voltage(kV)		6	8
Rated breaking capacity (kA) Icu/Ics	220/240VAC	25/7	40/40
	380/415VAC	18/5	25/25
	660/690VAC	-	12/6

AM10-250

3. Outline and Installation Dimension



AM10-125



AM10-250

AM11 Series Moulded Case Circuit Breaker

1. Application

AM11 series circuit breaker is features of reliable working out and steady performance, reasonable structure, beautiful appearance and small volume etc. It can be used in the circuit of 50/60Hz, rated voltage up to 600V. It is used to distribute electric energy in distribution network and be overload or short circuit protection power equipment, and also can be used in transformation of circuit unfrequency under the normal conditions.

AM11-30CS

AM11-100CS

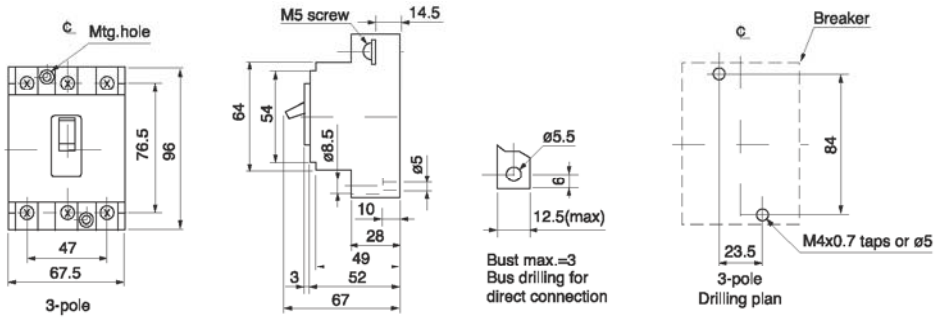
AM11-50SS

AM11-250CW

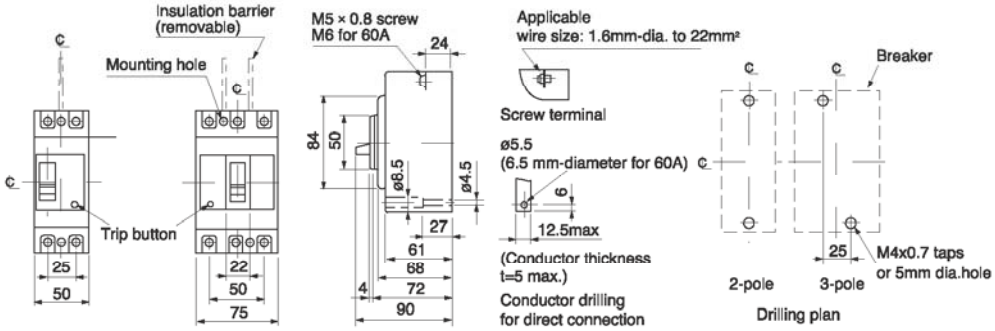
2. Specification

Type	Poles number	Rated current(A)	Utilization category	Rated breaking capacity(kA)					
				240V	380V	415V	500V	600V	600V
AM11-30CS	2,3	3,5,10,15,20,30	A	5/2	5/2	2.5/1	2.5/1	-	-
AM11-50CS	2,3	10,15,20,30,40,50	A	5/2	5/2	2.5/1	2.5/1	-	-
AM11-60CS	3	60	A	5/2	5/2	2.5/1	2.5/1	-	-
AM11-100CS	2,3	60,70,100	A	25/13	10/5	10/5	7/4	-	-
AM11-250CS	3	125,150,175,200,225,250	A	30/15	18/9	15/8	10/5	-	-
AM11-400CS	3	250,300,350,400	A	50/25	36/18	25/13	15/8	-	-
AM11-630CS	3	500,600,630	A	50/35	36/18	25/13	15/8	-	-
AM11-30SS	3	3,5,10,15,20,30	A	5/5	5/2.5	2.5/1.5	2.5/1.0	-	-
AM11-50SS	3	10,15,20,30,40,50	A	5/10	10/7.5	7.5/5	7.5/5	2.5/1.5	-
AM11-60SS	3	60	A	50/10	10/7.5	7.5/5	7.5/5	2.5/1.5	-
AM11-100SS	3,4	60,70,100	A	50/42	30/20	7.5/5	15/10	10/5	5/2.5
AM11-250SS	3,4	125,150,175,200,225,250	A	50/42	30/22	25/15	18/15	15/10	5/2.5
AM11-400SS	3,4	250,300,350,400	A	85/60	50/35	25/20	35/25	25/18	15/10
AM11-630SS	3,4	500,600,630	A	85/60	50/35	50/30	35/25	25/18	15/10
AM11-800SS	3	600,700,800	A	85/60	50/35	50/30	35/25	25/18	15/10
AM11-50CP	3	5,10,15,20,30,40,50	A	5/2	5/2	2.5/1	2.5/1	-	-
AM11-60CP	3	60	A	5/2	5/2	2.5/1	2.5/1	-	-
AM11-100CP	3	60,75,100	A	25/13	10/5	10/5	7/4	-	-
AM11-250CP	3	125,150,175,200,225,250	A	30/15	18/9	15/8	10/5	-	-
AM11-400CP	3	250,300,350,400	A	50/25	36/18	25/13	15/8	-	-
AM11-60CW	3	10,20,30,40,50,60	A	5/5	5/2.5	2.5/1.5	2.5/1.0	-	-
AM11-125CW	3	60,75,100,125	A	50/42	30/20	7.5/5	15/10	10/5	5/2.5
AM11-250CW	3	125,150,175,200,225,250	A	50/42	30/22	25/15	18/15	15/1	5/2.5

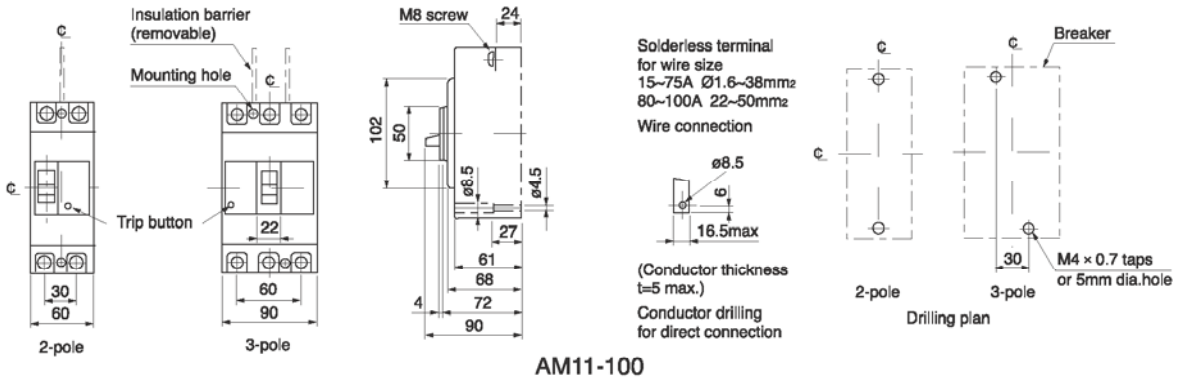
3. Outline and Installation Dimension



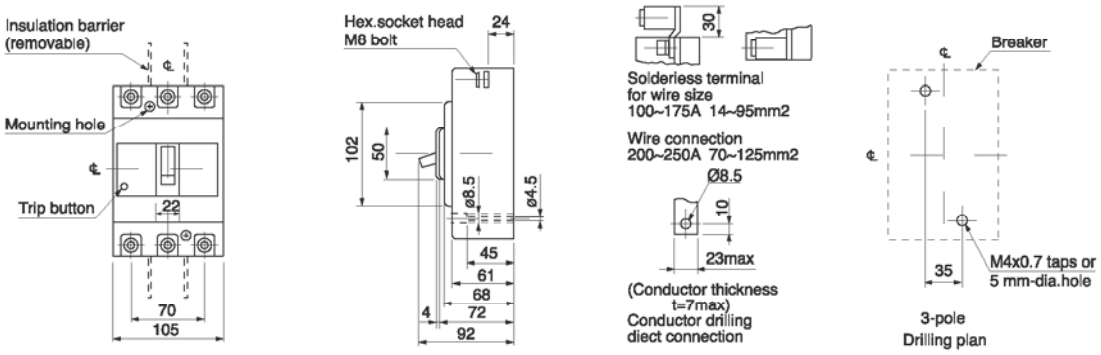
AM11-30



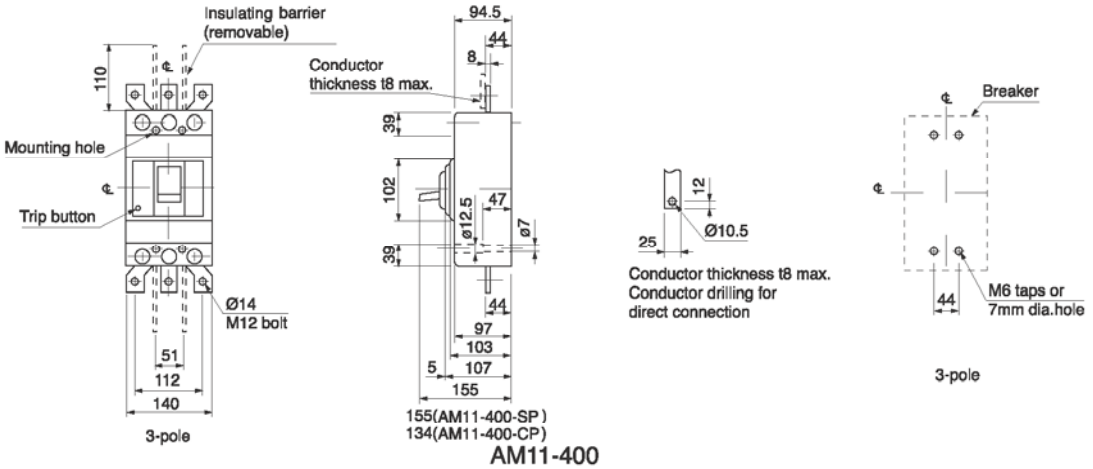
AM11-60



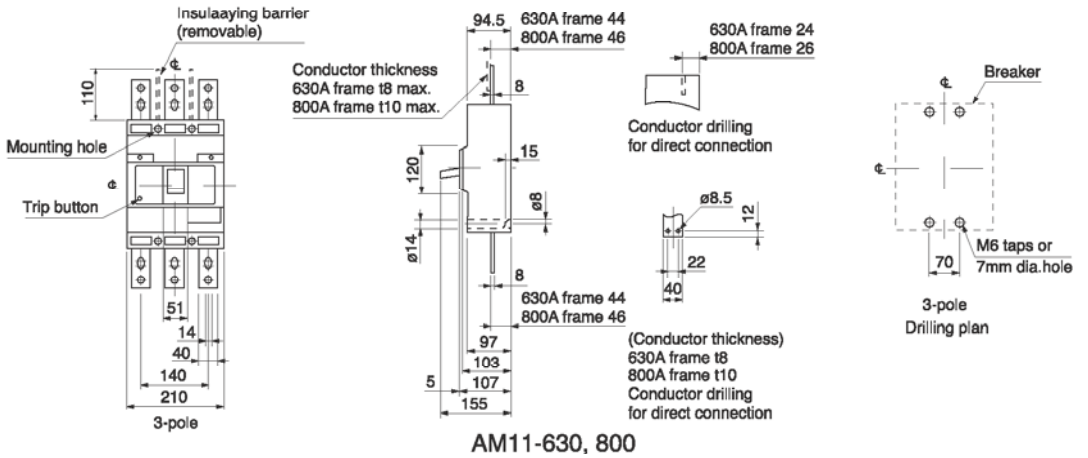
AM11-100



AM11-250



AM11-400



AM11-630, 800

AM12 Series Moulded Case Circuit Breaker

AM12-125

AM12-250

AM12-400

AM12-630

1. Application

The ANDELI principle of innovation and future security of investment has been implemented by the new circuit-breaker series up to 630A.

Four switches with four universal levels of switching capacity form a comprehensive range, from the competitively priced 25kA for small sub-distribution boards, up to 150kA switching capacity for complex high-power systems. The compact construction of the new small 160A switch saves space as a main switch in machine control schemes, as an incomer in service distribution boards or as an outgoer in power distribution boards. Additional device levels are 300A, the particularly compact 630A circuit-breaker.

2. Specification

Circuit-breaker	AM12-1	AM12-2	AM12-3
Short-circuit switching capatity $I_{cu}=I_{cs}$ at 415V			
25kA	X	X	X
36kA	X	X	X
50kA	X	X	X
100/150kA	X/-	X/-	X/-
Ranges of application, in A	25-160	32-300	125-630
Number of poles	3	3	3
Rated voltage, in V	690	690	690
Overload releases			
Thermomagnetic	X	X	X
Electronic	-	X	X
Switch-disconnector	PN1/N1	PN2/N2	PN3/N3
Ranges of application, in A	63-160	160-250	400-630
Number of poles	3	3	3
Rated voltage, in V	690	690	690
Dimensions in mm			
Width	90/120	105/140	140/165
Height	145	184	275
Depth	68	103	120.5

The new range with its compact mounting form features consistency, with the same function, mounting and operation for switches and accessories.
All have different, competitively priced releases with thermostatic bimetals or communication-capable digital electronics for a wide range of protective tasks: Both for AC and DC voltage networks ranging from cable protection and motor/generator protection to transformer protection. Applications such as main-, Emergency-Stop and coupling switches can be implemented via the switch-disconnectors up to 630A.

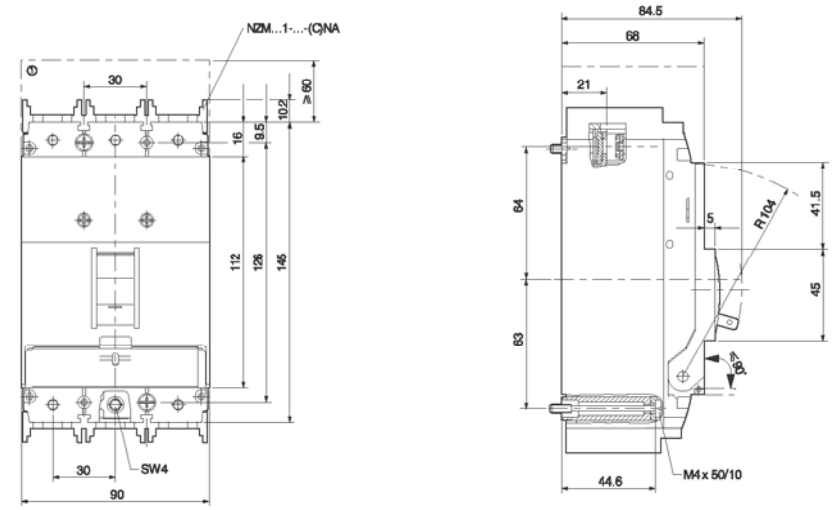
Highest level of performance in a compact spacel

The circuit-breakers AM12-1 and AM12-2 can be loaded with up to 160A/300A rated current and safely switch off short-circuit currents up to 150kA even with their narrowest design.

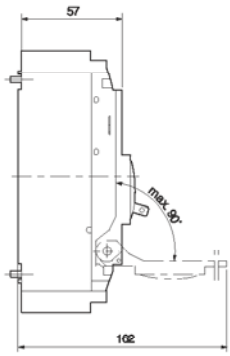
Ideas for greater performance-the contact system, for example

Innovative switching technology with a double-break contact system speed up the switching process. In the event of a short circuit, the special shape and materials selected produce repelling magnet power that pushes the contacts apart in a fraction of a sine wave. Switching capacities up to 150kA and operational voltages up to 690V can be managed without difficulty. The simultaneous reduction in heat dissipation creates benefits for use in control panels.

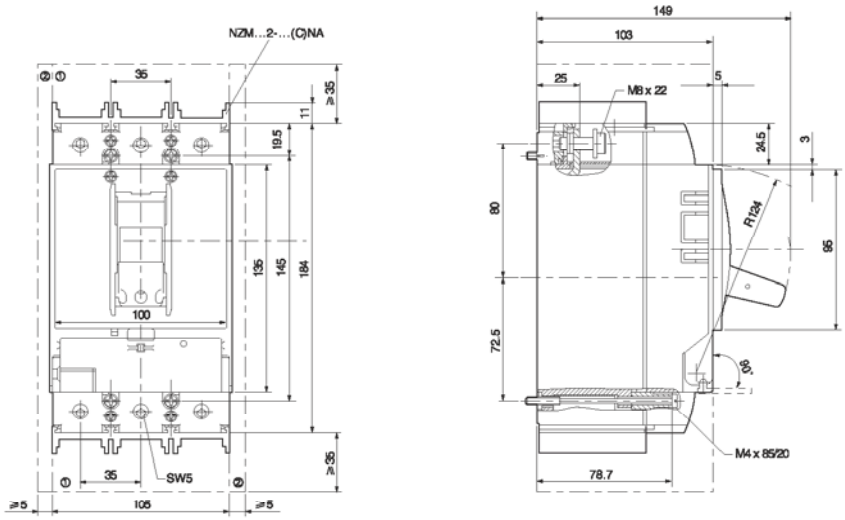
3. Outline and Installation Dimension



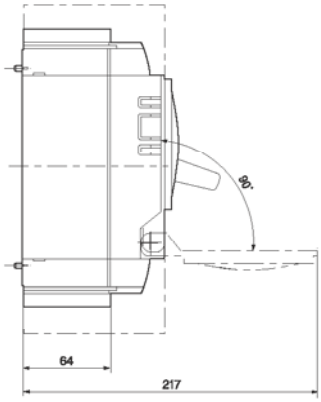
AM12-1



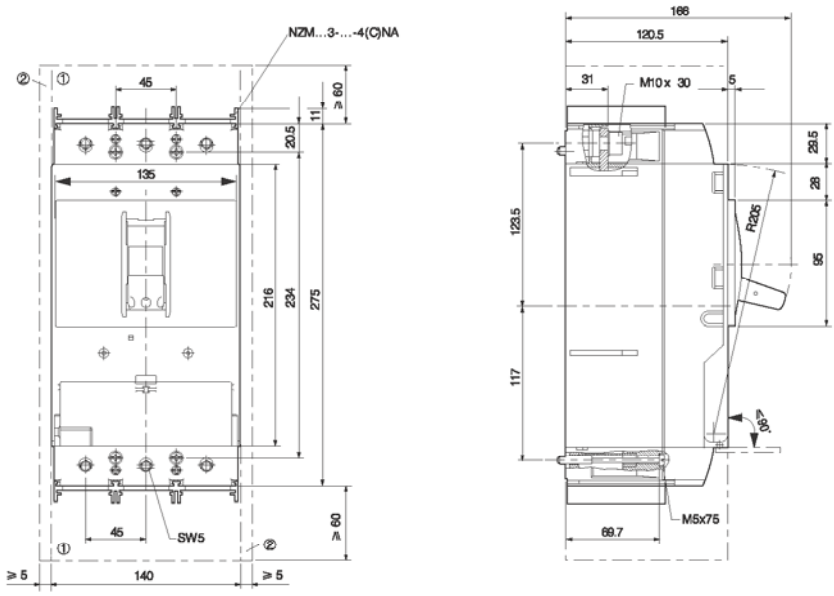
① Blow out area, minimum clearance to other parts ≥60mm



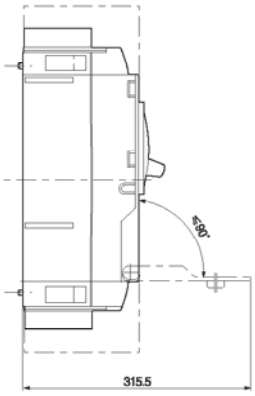
AM12-2



① Blow out area, minimum dearance to other partsf ≥35mm
② Minimum clearance from adjacent parts ≥5mm



AM12-3



① Blow out area, minimum clearance to other partsf ≥60mm
② Minimum clearance from adjacent parts ≥5mm

AW45 Intelligent Circuit Breaker

1. Application

AW45-2000

AW45 series intelligent circuit breaker (hereinafter referred to as breaker) is suitable for the circuit of AC 50/60Hz with rated voltage 400V, 690V and rated current up to 6300A .It is mainly used to distribute electric energy and protect circuit and power supply equipment from overload, under-voltage short-circuit ,and single-phase earthing .With intelligent and selective protection functions, the breaker can improve the reliability of power supply, and avoid unnecessary power failure . The breaker is applicable for power stations, factories , mines(for 690V) and modern high-building, especially for the distribution system of intelligent building.

The breaker conforms to IEC60947-2. The whole series have past CCC certification and CE certification.

2. Environment Conditions for Operation

Temperature condition: -5℃~+40℃; the average value within 24h not exceed +35℃.

Elevation: altitude of installation place shall not exceed 2000m.

Atmosphere condition: relative humidity at +40℃shall not exceed 50%. Higher humidity is permissible at lower temperature condition. When the higher monthly average relative humidity is 90% in the humiddest month , the lowest monthly average temperature of this month is +25℃. And consider the influence of dew on product surface due to temperature changes.

Pollution grade: gradeIII.

The breaker should be installed according to the requirement on the instruction manual: the vertical inclination degree shall not exceed 5°.

AW45-3200

3. Specification

Type		AW45-2000	AW45-3200	AW45-4000	AW45-6300
Frame rated current Inm (A)		2000	3200	4000	6300
Number of poles		3,4	3,4	3,4	3,4
Rated current In (A)		630,800,1000, 1250,1600,2000	2000,2500, 3200	2000,2500, 3200,4000	4000,5000, 6300
Icu (kA)	400V	80	100	100	120
	690V	50	65	65	80
Ics = Icw (kA)	400V	50	80	80	100
	690V	40	50	50	65
Rated current at N-pole In (A)		50%In, 100%In			
Inherent making & breaking time		23-32ms			
Operational performance (operations)	Electric life	500			
	Mechanical life	Maintenance-free2500 Maintenance 10000			
Mounting mode		Fixed withdrawable			
Arcing distance(mm)		0			
Intelligent controller		Standard type(M) telecommunication type (H)			

AW45-6300

4. Intelligent Controller

Intelligent controller is one of the core components of the circuit breaker

4.1 properties of the intelligent controller

a. Protective function of over-load long time-delay and inverse time limit, short time-delay and inverse time limit, short time-delay definite time limit instantaneous operation protection;

b. Single-phase earthing failure protection;

c. Display of setting current Ir and operational current;

d. Ampere meter;

e. Over-load alarm;

f. Short-circuit alarm

g. Testing of operational properties

Note: The breakers with telecommunication port are available to realize remote control to breaker through master computer.

4.2 Protection performances of over-current release

a. Ir and its inaccuracy of the controller

Inm(A)	Long time-delay		Short time-delay		Instantaneous		Earthing failure	
	Ir1	Error	Ir2	Error	Ir3	Error	Ir4	Error
⩾ 2000	(0.4~1)In	±10%	(0.4~15)In	±10%	1.0In~15kA	±15%	Inm ⩽ 4000A(0.2-0.8) In (Max.1200A.Min.200A) Inm ⩽ 6300A(0.2-1.0) In	± 10%

Note: 1.When the breaker could realize over-load with long time delay .short-circuit with short time-delay and short-circuit instantaneous protections, the setting ratings can not be over-lapped ,and Ir1< Ir2< Ir3

2. When the frame is 3200A and above ,the setting ratings range from 1.01In to 75kA.

b. Characteristics of long time-delay protection

1.05 Ir1	1.3 Ir1	1.5 Ir	2.0 Ir1
>2h non-tripping	<1h tripping	15s,30s,60s,120s,240s,480s	8.4s,16.9s,33.7s,67.5s,135s,270s

c. Characteristics of short time-delay protection.

For low over-current ,inverse time-limit protection could be realized; when the over-current is >8 Ir1, it will automatically change to be definite time-limit protection properties.

Refer to table below for time-limit properties.

Setting delay time (s)	Returnable time (s)
0.1, 0.2, 0.3, 0.4	0.06, 0.14, 0.23, 0.35

5. Standard Composition

To facilitate your ordering and utilization, the AW45 intelligent with basic electric accessories as follows.

Standard composition of the breaker	Fixed type	Withdrawable type
Body	▬	▬
Drawer base	▬	▬
Intelligent controller	▬	▬
Electric motor	▬	▬
Closing electro-magnet	▬	▬
Shunt release	▬	▬
Under-voltage	▬	▬
Auxiliary contact	▬	▬
Door frame	▬	▬

6. Accessories

6.1 Shunt release

a. Shunt release is for remote breaking of circuit breaker so as to enhance security of the operator;

b. Ratings of shunt release

Rated operational voltage (V)	AC220V	AC380V	DC110V	DC220V
Operational voltage range	(70%~110%) Ue			
Power consumption	24VA	24VA		40W

6.2 Under-voltage release

a. It is an optional accessory;

b. Mainly used to protection apparatus from damage due to lowering of the operational voltage to a certain value;

c. Two types of release are available: instantaneous release and time-delay release;

d. For breakers appended with the release, it should be electrified continuously;

e. Ratings of under-voltage release.

f. Operation properties of under-voltage release

Rated operational voltage (V)	AC220V	AC380V	DC110V	DC220V
Operational voltage range	(35%~110%) Us			
Power consumption	24VA	24VA		40W

Category		Under-voltage time-delay release	Under-voltage instantaneous release
Operation time of the release		Time-delay: 1s,3s,5s	Instantaneous
Operational voltage of the release	35% Us ~70% Us	Break the breaker	Break the breaker
	⩽ 35% Us	Can not make the breaker	Can not make the breaker
	⩾ 85% Us~110% Us	Reliably make the breaker	Reliably make the breaker
Within 1/2 delay time, voltage of power supply recovers to 85% Us		Can not trip the breaker	

Note: Error the time of time-delay is ±10%

6.3 Closing electro-magnet

a. The magent is for remote making of circuit breaker so as to enhance security of the operator.

b. The mangent could not be electrified for a long time.

c. Ratings of the magnet.

Rated operational voltage (V)	AC220V	AC380V	DC110V	DC220V
Operational voltage range	(85%~110%) Us			
Power consumption	40VA	40VA		40W

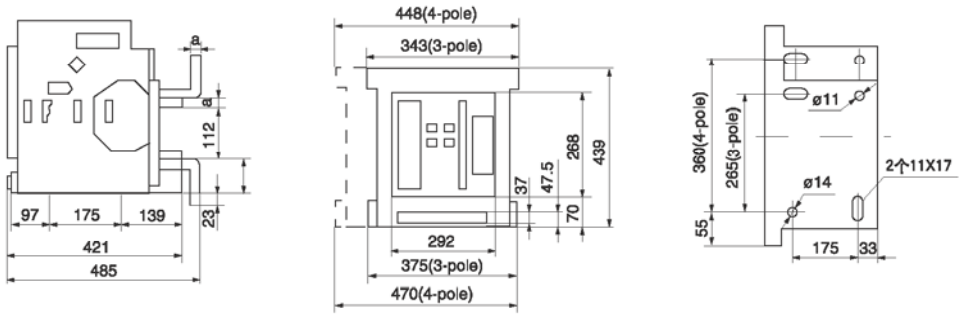
6.4 Auxiliary contact

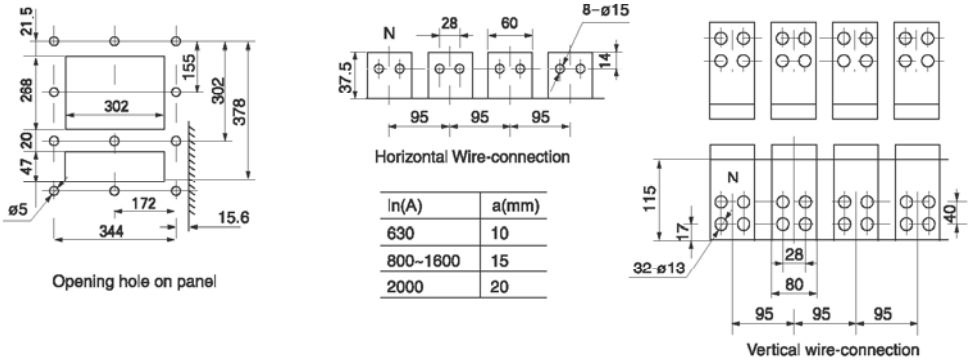
a. Conventional heating current of auxiliary contact: 6A

b. Auxiliary contacts: 4NO+4NC, 3NO+NC, 5NO+5NC(customization)

7. Outline and Installation Dimensions

DW45-2000 Drawer-type





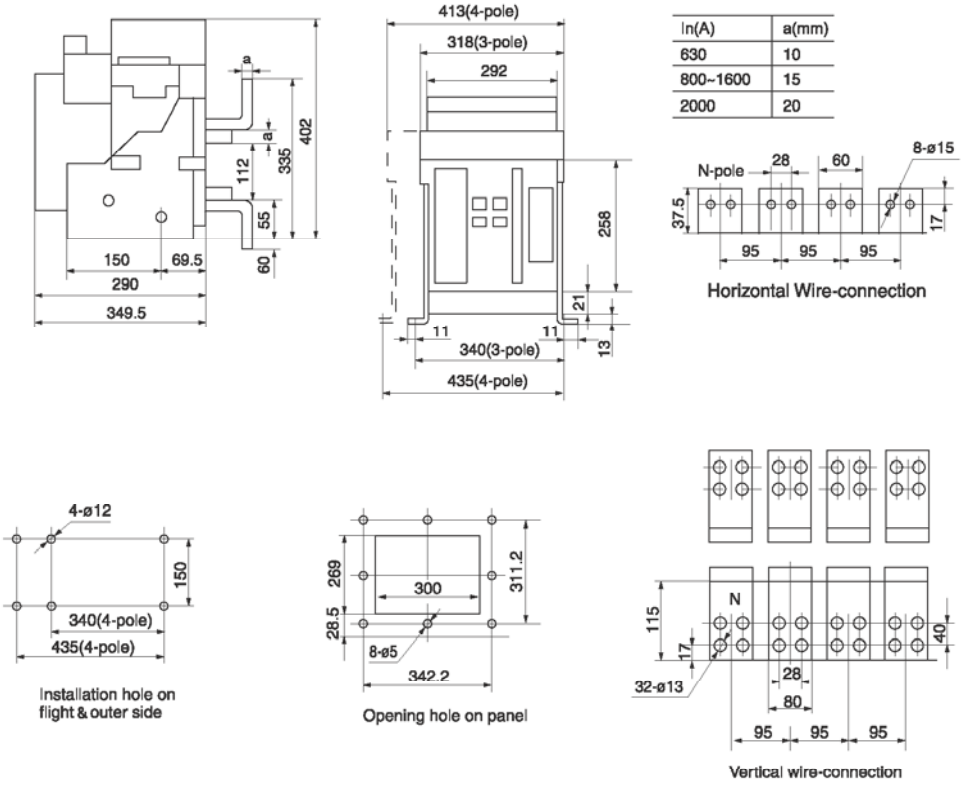
Opening hole on panel

Horizontal Wire-connection

In(A)	a(mm)
630	10
800~1600	15
2000	20

Vertical wire-connection

AW45-2000 Fixed type



In(A)	a(mm)
630	10
800~1600	15
2000	20

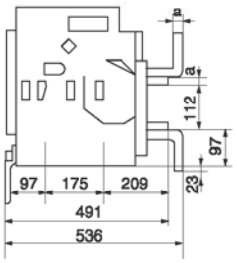
Horizontal Wire-connection

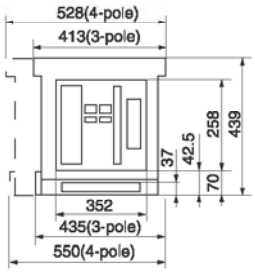
Installation hole on flight & outer side

Opening hole on panel

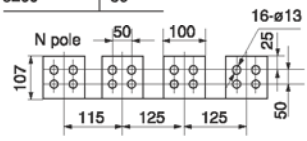
Vertical wire-connection

AW45-3200 Drawer type

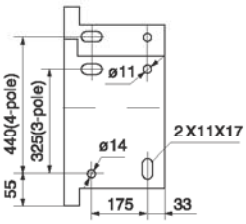


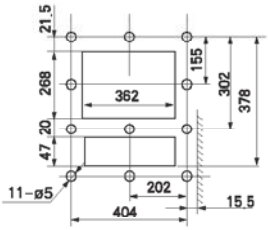


In(A)	a(mm)
2000-2500	20
3200	30

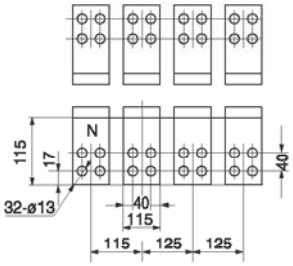


Horizontal Wire-connection



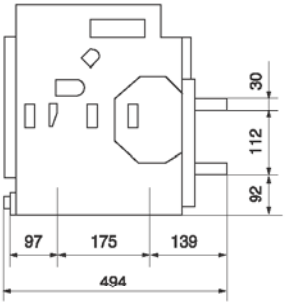


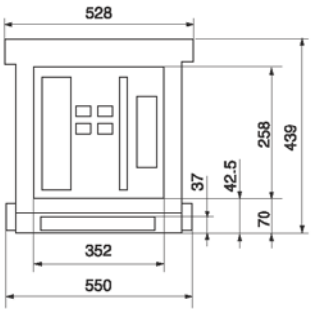
Opening hole on panel

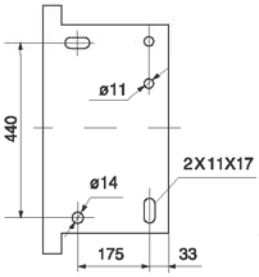


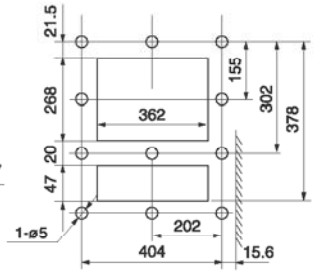
Vertical wire-connection

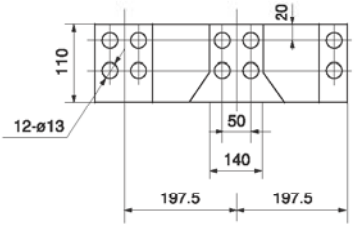
AW45-4000 Drawer type (3-pole)



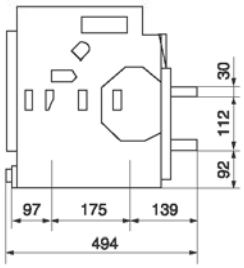


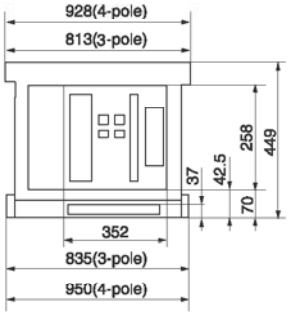


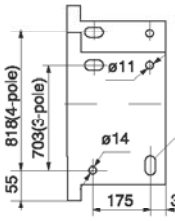


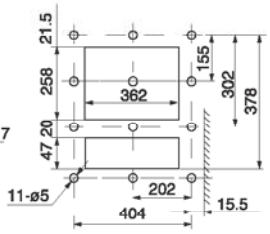


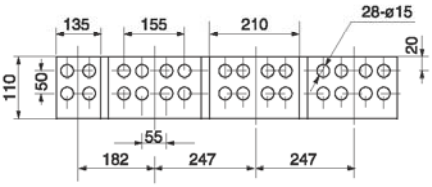
AW45-4000,5000 Drawer-type



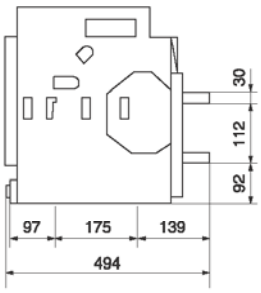


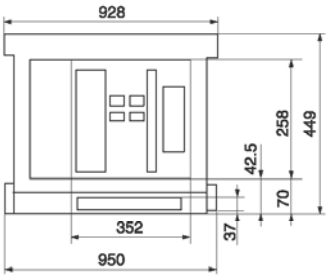


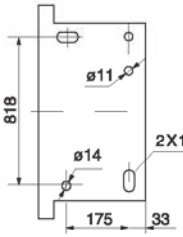


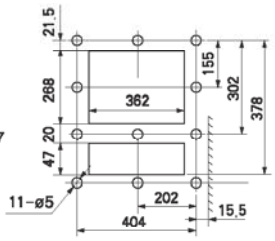


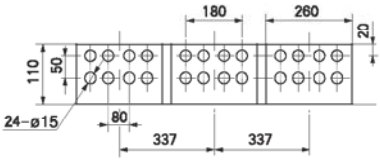
AW45-6300 Drawer type (3-pole)



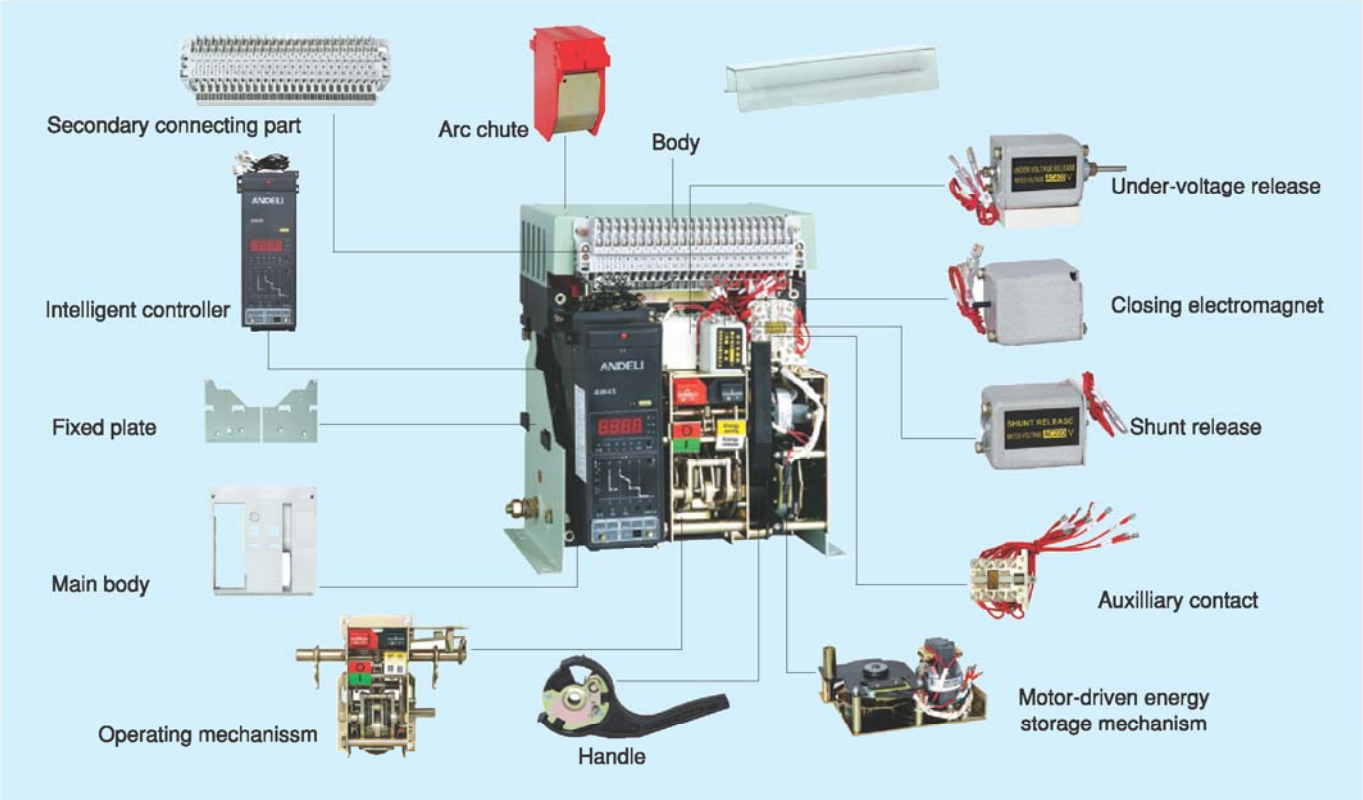




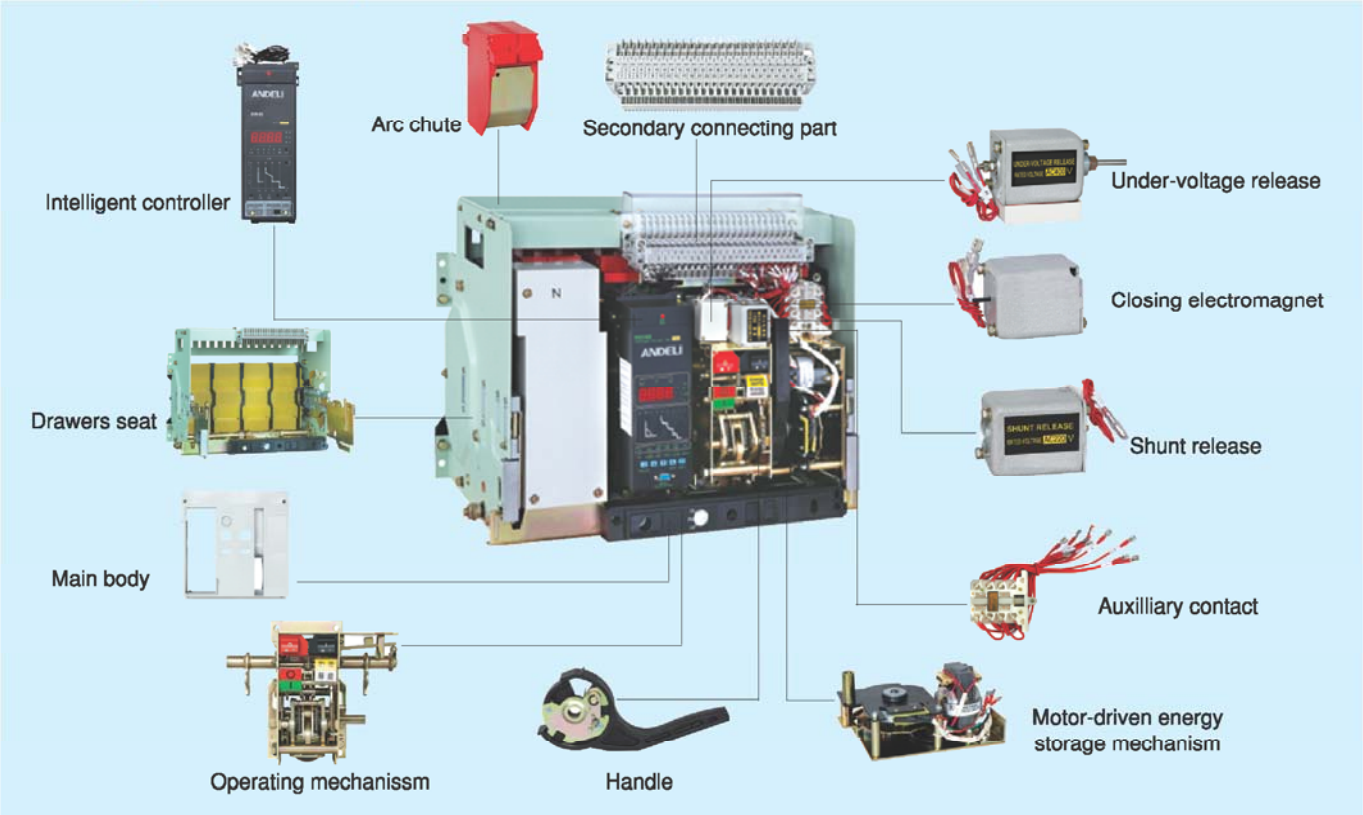




Fixed Type Structure Explosion



Drawer Type Structure Explosion



DZ47-63 Series Miniature Circuit Breaker

DZ47-63 1P

DZ47-63 2P

DZ47-63 3P

DZ47-63 4P

1. Application

DZ47-63 is applicable to a line of AC 50/60Hz, 230V in single pole, 400V in double, three, four poles for protecting overload and short circuit, and rated current up to 63A. It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to lighting distribution system in industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898.

2. Main Technical Parameter

Type	DZ47-63			
Pole	1P		2P, 3P, 4P	
Rated current (A)	6,10,16,20,25,32,40,50,63			
Rated voltage(V)	230		400	
Ambient temperature	-5˚C~+40˚C			
Type of instantaneous release	C	D	C	D
Rated short circuit breaking capacity Icn(kA)	1-32A: 6 50-63A: 4	4	1-32A: 6 50-63A: 4	4

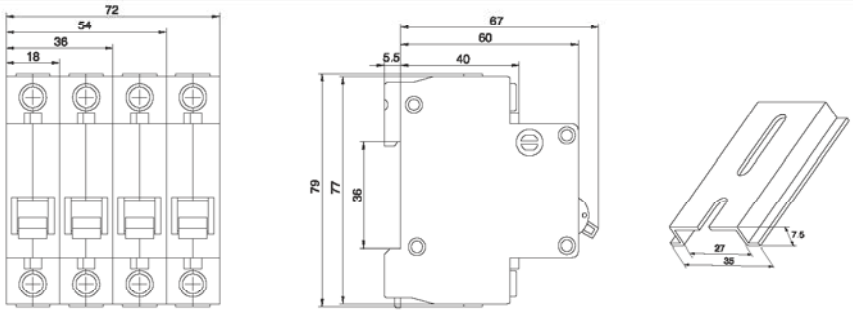
3. Applicable Conducting Wire

Rated current(A)	Norminal cross section of wire mm²
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ≤ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ≤ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ≤ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ≥ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

5. Dimension



DZ47N-63 Series Miniature Circuit Breaker

DZ47N-63 1P

DZ47N-63 2P

DZ47N-63 3P

DZ47N-63 4P

1. Application

DZ47N-63 is applicable to a line of AC 50/60Hz, 230V in single pole, 400V in double, three, four poles for protecting overload and short circuit, and rated current up to 63A. It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to lighting distribution system in industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898.

2. Main Technical Parameter

Type	DZ47N-63			
Pole	1P		2P, 3P, 4P	
Rated current (A)	6,10,16,20,25,32,40,50,63			
Rated voltage(V)	230		400	
Ambient temperature	-5˚C~+40˚C			
Type of instantaneous release	C	D	C	D
Rated short circuit breaking capacity Icn(kA)	1-32A: 6 50-63A: 4	4	1-32A: 6 50-63A: 4	4

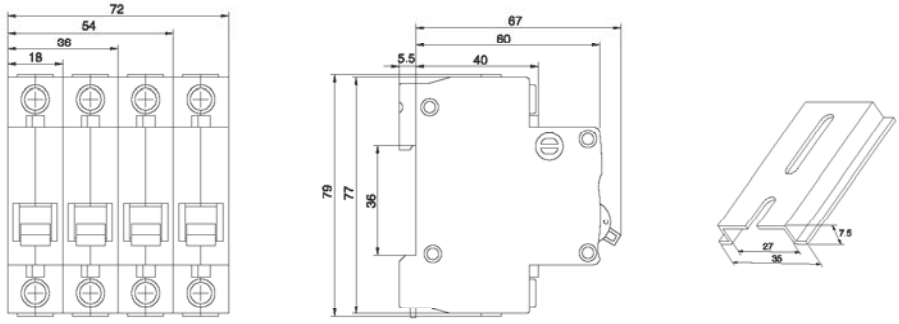
3. Applicable Conducting Wire

Rated current(A)	Norminal cross section of wire mm²
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ⩽ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ⩽ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ⩽ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ⩾ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ⩾ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

5. Dimension



ANDELI

DZ47LE-63

DZ47LE-63 Residual Current Operated Circuit Breaker With Over-current Protection

DZ47LE-63 1P+N

1. Application

DZ47LE-63 is applicable to a line of AC 50/60Hz, rated voltage 230V for single pole two-wire, 2-pole or 400V for 3-pole, 3-pole 4-wire, 4-pole and rated current up to 40A. It can protect the line and motor from overload and short circuit. It can also be used for infrequent line conversion and infrequent motor start. It conforms with the standards of IEC61009.

2. Main Technical Parameter

Type	DZ47LE-63	
Pole	1P+N, 2P	3P, 3P+N, 4P
Rated current (A)	6,10,16,20,25,32,40,50,63	
Rated voltage (V)	230	400
Rated short circuit breaking capacity Icn(kA)	6-32A :6 / 40-63: 4.5	
Rated residual making/breaking capacity IΔm(A)	2000	
Rated residual action current IΔn(A)	0.03,0.05,0.1,0.3	
Rated residual non-action current IΔno(A)	0.5IΔn	

DZ47LE-63 2P

3. Applicable Conducting Wire

Rated current(A)	1-6A	10A	16,20A	25A	32A	40,50A	63A
Norminal cross section of wire mm^2	1	1.5	2.5	4	6	10	16

4. Residual Current Breaking Time

In (A)	IΔn (A)	Breaking time(s) when equals to rating following				
		IΔn	2IΔn	5IΔn	5,10,20,50,100,200,500[a](A)	IΔt[b]
6-63	0.03, 0.05, 0.1, 0.3	0.1	0.06	0.04	0.04	0.04

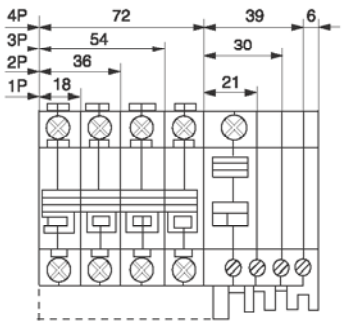
5. The Over-current Protection Property

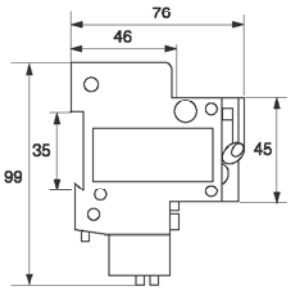
Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ≤ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ≤ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ≤ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ≥ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

DZ47LE-63 3P

6. Dimension

DZ47LE-63 4P





4P:72+45
3P+N: 54+45
3P: 54+36
2P: 36+27
1P: 18
27

DZ47-100 Series Miniature Circuit Breaker

1. Application

DZ47-100 1P

DZ47-100 is such features as delicate appearance, light weight, excellent and reliable performance, high breaking capacity, rapid tripping and mounted by rail. Its enclosure and components adopts high fire-retarding and shock-resistance plastic of long durability. It mainly serves for protecting the circuits of AC 50/60Hz, 230V of single pole, 400V of two poles or three or four poles from overload or short-circuit, and also for unfrequent making and breaking electrical apparatus and lighting circuit.It conforms with the standards of IEC60947-2.

2. Main Technical Parameter

Type	DZ47-100	
Pole	1P	2P, 3P, 4P
Rated current (A)	63,80,100	
Rated voltage (V)	230	400
Ambient temperature	-5˚C~+40˚C	
Type of instantaneous release	C, D	
Rated short circuit breaking capacity Icn(kA)	6	

DZ47-100 2P

3. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
40±2˚C	Cold position	1.05In(In ≤ 63A)	t ≤ 1h	Non-release	–
	Cold position	1.05In (In>63A)	t ≤ 2h	Non-release	–
	Carried out immediately after previous test	1.30In(In ≤ 63A)	t<1h	Release	Current smoothly rises to specified value within 5s
		1.30In (In>63A)	t<2h	Release	
-5~+40˚C	Cold position	8.00In	t ≤ 0.2s	Non-release	–
	Cold position	12.00In	t<0.2s	Non-release	–

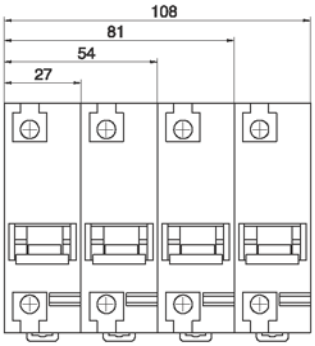
DZ47-100 3P

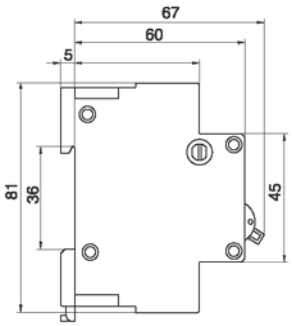
4. Applicable Conducting Wire

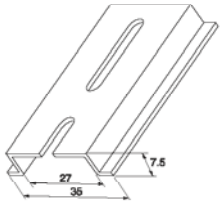
Rated current(A)	Nominal cross section of wire mm²
63A	16
80A	25
100A	35

5. Dimension

DZ47-100 4P







DZ47LE-100 Residual Current Operated Circuit Breaker with Over-current Protection

DZ47LE-100 1P+N

1. Application

DZ47LE-100 is applicable to a line of AC 50/60Hz, rated voltage 230V for single pole two-wire, 2-pole or 400V for 3-pole, 3-pole 4-wire, 4-pole and rated current up to 40A. It can protect the line and motor from overload and short circuit. It can also be used for infrequent line conversion and infrequent motor start. It conforms with the standards of IEC60947-2.

2. Main Technical Parameter

Type	DZ47LE-100	
Pole	1P+N, 2P	3P, 3P+N, 4P
Rated current (A)	63,80,100	
Rated voltage(V)	230	400
Rated short circuit breaking capacity Icn(kA)	6	
Rated residual making/breaking capacity IΔm(A)	2000	
Rated residual action current IΔn(A)	0.03,0.1,0.3	
Rated residual non-action current IΔno(A)	0.5IΔn	
Over voltage protection grade	280V±5%	

DZ47LE-100 2P

3. Applicable Conducting Wire

Rated current(A)	63	80	100
Nominal cross section of wire mm^2	16	25	35

4. Residual Current Breaking Time

In (A)	IΔn (A)	Breaking time(s) when equals to rating following				
		IΔn	2IΔn	5IΔn	5,10,20,50,100,200,500[a](A)	IΔt[b]
6-63	0.03, 0.05, 0.1, 0.3	0.1	0.06	0.04	0.04	0.04

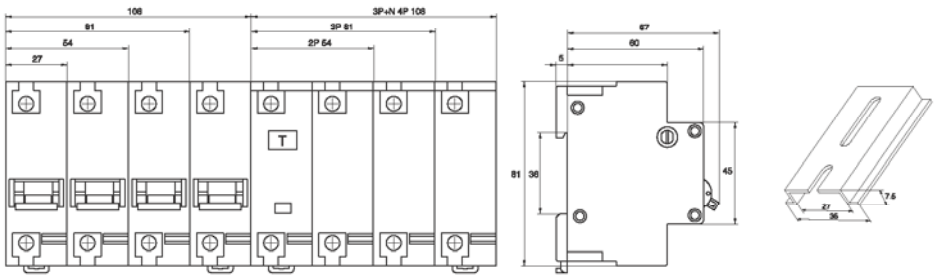
DZ47LE-100 3P

5. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
40±2˚C	Cold position	1.05In(In ≤ 63A)	t ≤ 1h	Non-release	–
	Cold position	1.05In (In>63A)	t ≤ 2h	Non-release	–
	Carried out immediately after previous test	1.30In(In ≤ 63A)	t<1h	Release	Current smoothly rises to specified value within 5s
		1.30In (In>63A)	t<2h	Release	
-5~+40˚C	Cold position	8.00In	t ≤ 0.2s	Non-release	–
	Cold position	12.00In	t<0.2s	Non-release	–

6. Dimension

DZ47LE-100 3P+N



DZ30-32 Series Miniature Circuit Breaker

DZ30-32

1. Application

DZ30-32 is used in the single phase circuit of AC 50/60Hz, rated voltage 230V or below for protecting circuit from overload and short circuit. This product has advantages of high breaking capacity, small volume, width is only 18mm. It conforms with the standards of IEC60898.

2. Main Technical Parameter

Type	DZ30-32
Pole	1P+N
Rated current (A)	6,10,16,20,25,32
Rated voltage(V)	230
Type of instantaneous release	C
Rated short circuit breaking capacty Icn(A)	4500

DZ30N-32

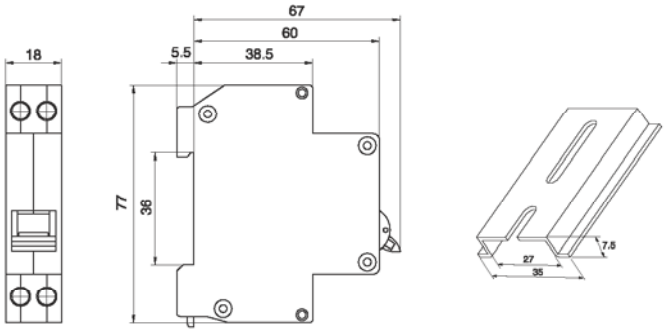
3. Applicable Conducting Wire

Rated current(A)	Norminal cross section of wire mm²
In ≤ 6	1
6<In ≤ 13	1.5
13<In ≤ 20	2.5
20<In ≤ 25	4
25<In ≤ 32	6

4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2°C	Cold position	1.13In	t ≤ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s	Release	Current smoothly rises to specified value within 5s
-5~+40°C	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C

5. Dimension



DZ30LE-32 Residual Current Operated Circuit Breaker With Over-current Protection

DZ30LE-32

1. Application

DZ30LE-32 is used in the single phase circuit of AC 50/60Hz, rated voltage 230V, used as electron shock protection. It can protect circuit form overload and short circuit. This product has advantages of small volume, high breaking capacity, live and zero wire are cut off at the same time, also protecting person from electric shock when the live wire connected opposite. It conforms with the standards of IEC61009.

2. Main Technical Parameter

Type	DZ30LE-32
Pole	1P+N
Rated current (A)	6,10,16,20,25,32
Rated voltage(V)	230
Rated residual action current IΔn(A)	0.03
Rated residual non-action current IΔno(A)	0.015
Rated residual making/breaking capacity IΔm(A)	500
Type of instantaneous release	C
Rated making/breaking capacity Im(A)	4500

DZ30LE-32

3. Applicable Conducting Wire:

Rated current(A)	Norminal cross section of wire mm²
In ≤ 6	1
6<In ≤ 13	1.5
13<In ≤ 20	2.5
20<In ≤ 25	4
25<In ≤ 32	6

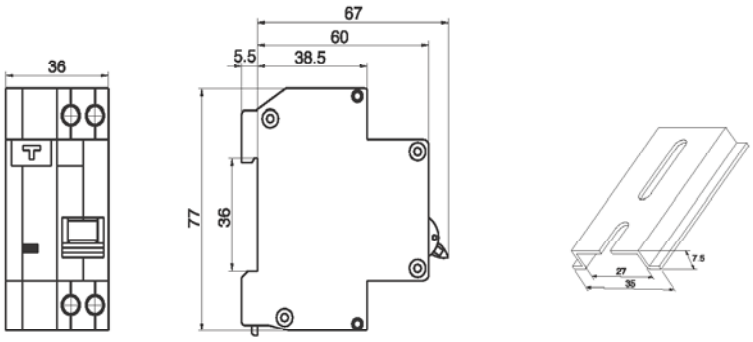
4. Residual Current Breaking Time

In (A)	IΔn (A)	Breaking time(s) when equals to rating following				
		IΔn	2IΔn	5IΔn	5,10,20,50,100,200,500[a](A)	IΔt[b]
6-32	0.03	0.1	0.06	0.04	0.04	0.04

5. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2°C	Cold position	1.13In	t ≤ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s	Release	Current smoothly rises to specified value within 5s
-5~+40°C	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C

6. Dimension



DZ48N-63 Series Miniature Circuit Breaker

DZ48N-63 1P

DZ48N-63 2P

DZ48N-63 3P

DZ48N-63 4P

1. Application

DZ48N-63 miniature circuit breaker is applicable to a line of AC 50/60Hz, 230V in single pole, 400V in double, three, four poles for protecting overload and short circuit, and rated current up to 63A. It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to lighting distribution system in industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898.

2. Main Technical Parameter

Type			DZ48N-63			
Pole			1P		2P, 3P, 4P	
Rated current (A)			6,10,16,20,25,32,40,50,63			
Rated voltage(V)			230		400	
Type of instantaneous release			C	D	C	D
Rated short circuit breaking capacity Icn(kA)			1-40A: 6 50-63A: 4.5	4.5	1-40A: 6 50-63A: 4.5	4.5
Life (times)	1-32A	Electric life	4000			
		Mechanical life	6000			
		Operation frequency	240 times per hour			
	40-63A	Electric life	4000			
		Mechanical life	6000			
		Operation frequency	120 times per hour			

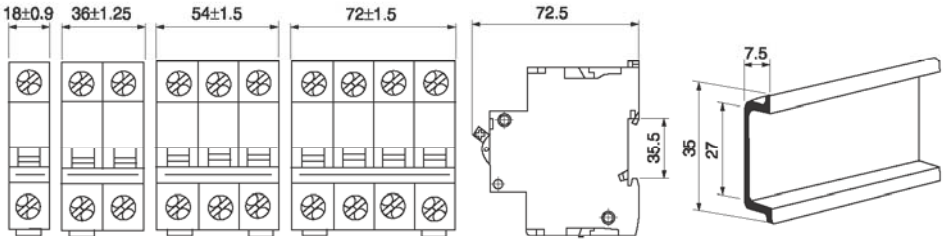
3. Applicable Conducting Wire

Rated current(A)	Nominal cross section of wire mm²
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ≤ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ≤ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ≤ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ≥ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

5. Dimension



DZ49-63 Series Miniature Circuit Breake

DZ49-63 1P

DZ49-63 2P

DZ49-63 3P

DZ49-63 4P

1. Application

DZ49-63 is applicable to a line of AC 50/60Hz, 230V in single pole, 400V in double, three, four poles for protecting overload and short circuit, and rated current up to 63A. It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to lighting distribution system in industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898.

2. Main Technical Parameter

Type	DZ49-63			
Pole	1P		2P, 3P, 4P	
Rated current (A)	6,10,16,20,25,32,40,50,63			
Rated voltage(V)	230		400	
Ambient temperature	-5˚C~+40˚C			
Type of instantaneous release	C	D	C	D
Rated short circuit breaking capacity(kA)	1-32A: 6 50-63A: 4	4	1-32A: 6 50-63A: 4	4

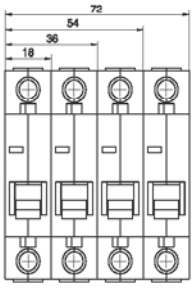
3. Applicable Conducting Wire

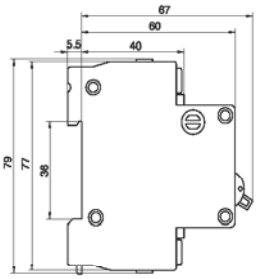
Rated current(A)	Nominal cross section of wire mm^2
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

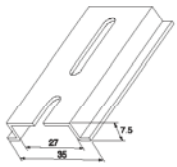
4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ≤ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ≤ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ≤ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ≥ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

5. Dimension







DZ50-63 Series Miniature Circuit Breaker

DZ50-63 1P

DZ50-63 2P

DZ50-63 3P

DZ50-63 4P

1. Application

DZ50-63 high switch-off ability miniature circuit breaker is applicable to a line of AC 50/60Hz, rated voltage 230/400V and rated current up to 63A, used for overload and short circuit protection. It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898.

2. Main Technical Parameter

Type			DZ50-63	
Pole			1P	2P, 3P, 4P
Rated current (A)			1,2,3,4,6,10,16,20,25,32,40,50,63	
Rated voltage(V)			230	400
Type of instantaneous release			B,C,D	
Rated short circuit breaking capacity Icn(kA)			10	
Life (times)	1-32A	Electric life	8000	
		Mechanical life	20000	
		Operation frequency	240 times per hour	
	40-63A	Electric life	8000	
		Mechanical life	20000	
		Operation frequency	120 times per hour	

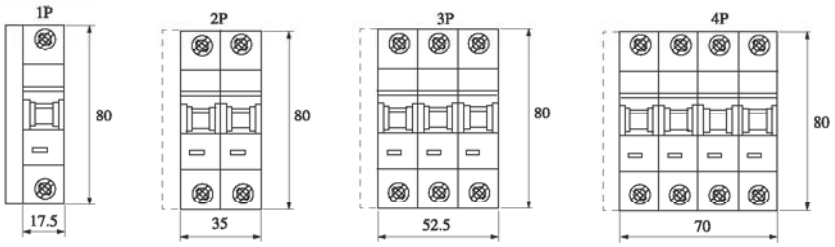
3. Applicable Conducting Wire

Rated current(A)	Nominal cross section of wire mm²
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2°C	Cold position	1.13In	t ≤ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ≤ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40°C	Cold position	3In	t ≤ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ≥ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

5. Dimension



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DZ50N-63

DZ50N-63 Series Miniature Circuit Breaker

DZ50N-63 1P

DZ50N-63 2P

DZ50N-63 3P

DZ50N-63 4P

1. Application

DZ50N-63 high switch-off ability miniature circuit breaker is applicable to a line of AC 50/60Hz, rated voltage 23/400V and rated current up to 63A, used for overload and short circuit protection. It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898.

2. Main Technical Parameter

Type			DZ50-63	
Pole			1P	2P, 3P, 4P
Rated current (A)			1,2,3,4,6,10,16,20,25,32,40,50,63	
Rated voltage(V)			230	400
Type of instantaneous release			B,C,D	
Rated short circuit breaking capacity Icn (kA)			10	
Life (times)	1-32A	Electric life	8000	
		Mechanical life	20000	
		Operation frequency	240 times per hour	
	40-63A	Electric life	8000	
		Mechanical life	20000	
		Operation frequency	120 times per hour	

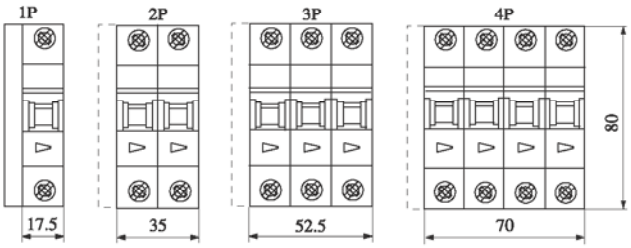
3. Applicable Conducting Wire

Rated current(A)	Nominal cross section of wire mm²
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ≤ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ≤ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ≤ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ≥ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

5. Dimension



DZ53-63 Series Miniature Circuit Breaker

1. Application

DZ53-63 is applicable to a line of AC 50/60Hz, 230V in single pole, 400V in double, three, four poles for protecting overload and short circuit, and rated current up to 63A. It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to lighting distribution system in industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898.

DZ53-63 1P

DZ53-63 2P

DZ53-63 3P

DZ53-63 4P

2. Main Technical Parameter

Type	DZ53-63	
Pole	1P	2P, 3P, 4P
Rated current (A)	1,2,3,4,6,10,16,20,25,32,40,50,63	
Rated voltage(V)	230	400
Ambient temperature	-5˚C~+40˚C	
Type of Instantaneous release	B,C,D	
Rated short circuit breaking capacity Icn(kA)	10	

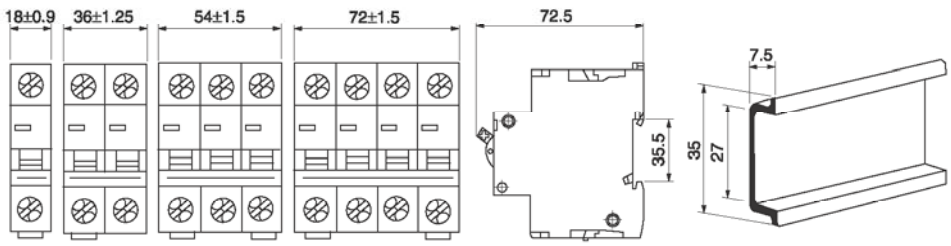
3. Applicable Conducting Wire

Rated current(A)	Norminal cross section of wire mm²
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ⩽ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ⩽ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ⩽ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ⩾ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ⩾ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

5. Dimension



DZ55-63 Series Miniature Circuit Breaker

1.Application

DZ55-63 is applicable to a line of AC 50/60HZ,rate voltage 400V and DC rate voltage 250V for protecting overload and shot circuit,and rated current up to 63A.It can also be used for infrequent line conversion under ther normal condition.The breaker is applicable to lighting distribution system in industrial enterprise,commercially district,high-rise building and dwelling,It conforms with the standards of IEC60898.

DZ55-63 1P

DZ55-63 2P

DZ55-63 3P

DZ55-63 4P

2.Main Technical Parameter

Type	DZ55-63			
Pole	1P	2P	3P	4P
Rated voltage(AC)	230	400	400	400
Rated voltage(DC)	<60V	125V	125V	250V
Rate short circuit breaking(AC)	1-40A:6KA 50-63A:4.5KA			
Rate short circuit breaking(DC)	10KA	15KA	25KA	25KA

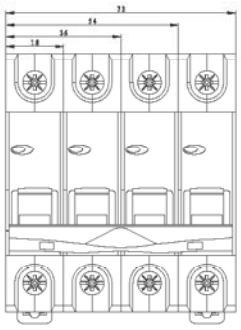
3.Applicaboe Conducting Wire

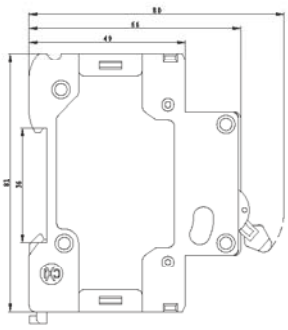
Rated current(A)	Norminal cross section of wire mm²
1-6A	1
10A	1. 5
16, 20A	2. 5
25A	4
32A	6
40, 50A	10
63A	16

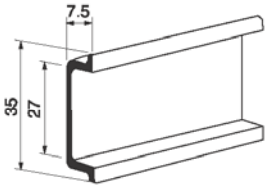
4.The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2℃	Cold plsition	1. 13In	t≤1h	Non-release	-
	Carried out immediately after previous test	1. 45In	t<1h	Release	-
	Cold plsition	2. 55In	1s<t<60s (In≤32A)	Release	Current smoothly rises to specified value within 5s
	Cold plsition	2. 55In	1s<t<120s (In>32A)	Release	
-5~+40℃	Cold plsition	3In	t≤0.1s	Non-release	Type B
	Cold plsition	5In	t<0.1s	Release	Type B
	Cold plsition	5In	t≥0.1s	Non-release	Type C
	Cold plsition	10In	t<0.1s	Release	Type C
	Cold plsition	10In	t≥0.1s	Non-release	Type D
	Cold plsition	20In	t<0.1s	Release	Type D

5.Dimension







ANDELI

DZ55LE-63

DZ55LE-63 Residual Current Operated Circuit Breaker With Over-current Protection

DZ55LE-63 1P+N

DZ55LE-63 2P

DZ55LE-63 3P

DZ55LE-63 3P+N

DZ55LE-63 4P

1. Application

DZ55LE-63 is applicable to a line of AC 50/60Hz, rated voltage 230V for single pole two-wire, 2-pole or 400V for 3-pole, 3-pole 4-wire, 4-pole and rated current up to 40A. It can protect the line and motor from overload and short circuit. It can also be used for infrequent line conversion and infrequent motor start. It conforms with the standards of IEC61009.

2. Main Technical Parameter

Type	DZ55LE-63	
Pole	1P+N, 2P	3P, 3P+N, 4P
Rated current (A)	6,10,16,20,25,32,40,50,63	
Rated voltage (V)	230	400
Rated short circuit breaking capacity Icn(kA)	6-32A :6 / 40-63: 4.5	
Rated residual making/breaking capacity IΔm(A)	2000	
Rated residual action current IΔn(A)	0.03,0.05,0.1,0.3	
Rated residual non-action current IΔno(A)	0.5IΔn	

3. Applicable Conducting Wire

Rated current(A)	1-6A	10A	16,20A	25A	32A	40,50A	63A
Norminal cross section of wire mm²	1	1.5	2.5	4	6	10	16

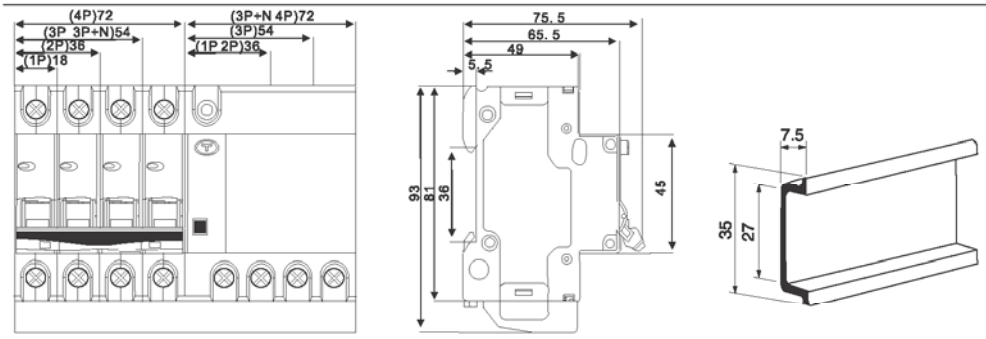
4. Residual Current Breaking Time

In (A)	IΔn (A)	Breaking time(s) when equals to rating following				
		IΔn	2IΔn	5IΔn	5,10,20,50,100,200,500[a](A)	IΔt[b]
6-63	0.03, 0.05, 0.1, 0.3	0.1	0.06	0.04	0.04	0.04

5. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ≤ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ≤ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ≤ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ≥ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ≥ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

6. Dimension



ANDELI

DZ56-125

DZ56-125 Series Miniature Circuit Breaker

DZ56-125 1P

1.Application

DZ56-125 is such features as delicate appearance,light weight.excellent and reliableperformance, high breaking capacity,rapid tripping and mounted by rail.Its enclosure and components adopts high fire-retarding and shock-resistance plastic of long durability. It mainly servesfor protecting the circuits of AC 50Hz-60Hz,230V of single pole,400V of two poles or three or four poles from overload or short-circuit, and also for unfrequent making and breaking electrical apparatus and lighting circuit. It conforms with the standards of IEC60947-2.

2.Main Technical Parameter

Type	DZ56-125	
Pole	1P	2P,3P,4P
Rated current(A)	63,80,100,125	
Rated voltage(V)	230	400
Ambient temperature	~5℃~+40℃	
Type of instantaneous release	C,D	
Rated short circuit breaking capacity Icn(kA)	10	

DZ56-125 2P

3.The Over-current Protection Property

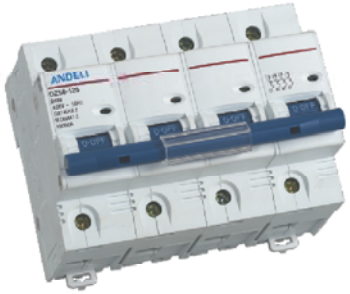
Ambient temperature	Initial status	Test current	Test time	Expected result	Note
40±2℃	Cold plsition	1.05In(In≤63A)	t≤1h	Non-release	-
	Cold plsition	1.05In(In>63A)	t≤2h	Non-release	-
	Carried out immediately after previous test	1.30In(In≤63A)	t<1h	Release	Current smoothly rises to specified value within 5s
		1.30In(In>63A)	t<2h	Release	
-5~+40℃	Cold plsition	8.00In	t≤0.2s	Non-release	-
	Cold plsition	12.00In	t<0.2s	Non-release	-

DZ56-125 3P

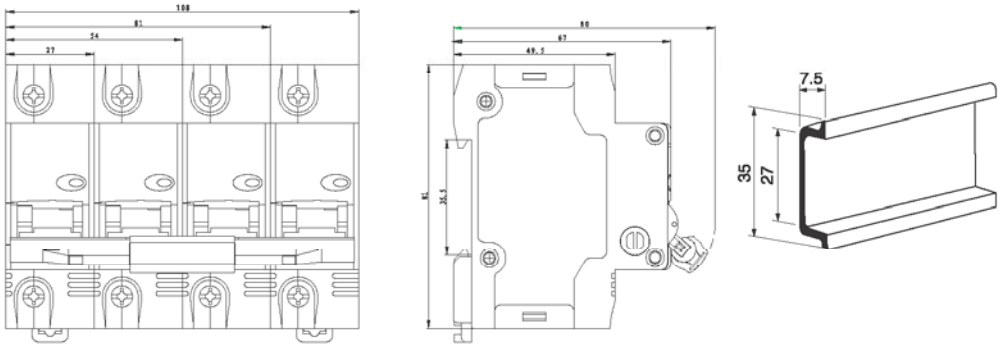
4.Applicable Conducting Wire

Rated current(A)	Norminal cross section of wire mm²
63A	16
80A	25
100A	35
125A	50

5.Dimension



DZ56-125 4P



DZ60-63 Series Miniature Circuit Breaker

DZ60-63 1P

DZ60-63 2P

DZ60-63 3P

DZ60-63 4P

1. Application

DZ60-63 is applicable to a line of AC 50/60Hz, 230V in single pole, 400V in double, three, four poles for protecting overload and short circuit, and rated current up to 63A. It can also be used for infrequent line conversion under the normal condition. The breaker is applicable to lighting distribution system in industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898.

2. Main Technical Parameter

Type	DZ60-63	
Pole	1P	2P, 3P, 4P
Rated current (A)	1,2,3,4,6,10,16,20,25,32,40,50,63	
Rated voltage(V)	230	400
Ambient temperature	-5˚C~+40˚C	
Type of instantaneous release	B,C,D	
Rated short circuit breaking capacity Icn(KA)	6	

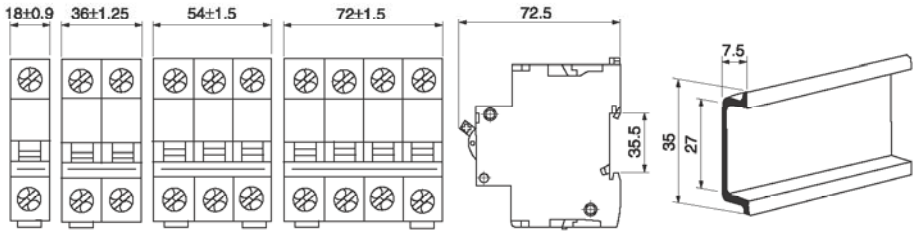
3. Applicable Conducting Wire

Rated current(A)	Norminal cross section of wire mm^2
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ⩽ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ⩽ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ⩽ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ⩾ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ⩾ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

5. Dimension



DZ65-63 Series Miniature Circuit Breaker

DZ65-63 1P

DZ65-63 2P

DZ65-63 3P

DZ65-63 4P

1. Application

DZ65-63 is applicable to a line of AC 50/60Hz, 230V in single pole, 400V in double, three, four poles for protecting overload and short circuit, and rated current up to 63A. It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to lighting distribution system in industrial enterprise, commercially district, high-rise building and dwelling house. It conforms with the standards of IEC60898.

2. Main Technical Parameter

Type	DZ65-63	
Pole	1P	2P, 3P, 4P
Rated current (A)	1,2,3,4,6,10,16,20,25,32,40,50,63	
Rated voltage(V)	230	400
Ambient temperature	-5˚C~+40˚C	
Type of Instantaneous release	B,C,D	
Rated short circuit breaking capacity Icn(KA)	10	

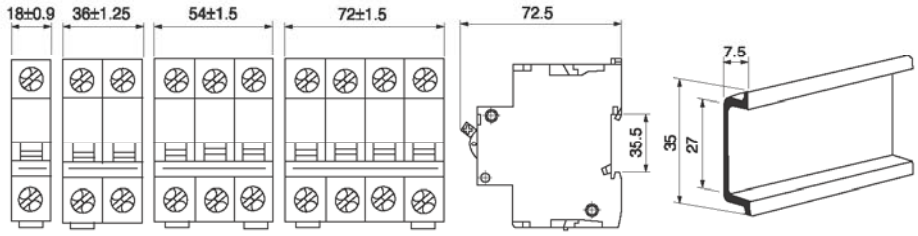
3. Applicable Conducting Wire

Rated current(A)	Nominal cross section of wire mm²
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

4. The Over-current Protection Property

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2˚C	Cold position	1.13In	t ⩽ 1h	Non-release	–
	Carried out immediately after previous test	1.45In	t<1h	Release	–
	Cold position	2.55In	1s<t<60s (In ⩽ 32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40˚C	Cold position	3In	t ⩽ 0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t ⩾ 0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t ⩾ 0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

5. Dimension



ANDELI

BH,SX1

Hydraulic Magnetic Miniature Circuit Breaker

BH 1P

BH 2P

BH 3P

BH-P 1P

BH-P 2P

BH-P 3P

SX1

SX2

SX3

SA1-G3

SA2-G3

SA3-G3

H7 Isolating Switch

H7-1P

H7-2P

H7-3P

H7-4P

Number of Poles	1P, 2P, 3P, 4P
Rated Current (A)	16, 25, 40, 63, 80, 125
Rated Voltage (V)	AC 230/240, 400/415(4P)
Frequency	50/60Hz
Endurance	⩾ 10000
Protection degree	IP20

HL32-100 Isolating Switch

HL32-100 1P

HL32-100 2P

HL32-100 3P

HL32-100 4P

Number of Poles	1P, 2P, 3P, 4P
Rated Current (A)	16, 20, 25, 32, 40, 63, 80, 100
Rated Voltage (V)	AC 230/240, 400/415(4P)
Frequency	50/60Hz
Endurance	⩾ 10000
Protection degree	IP20

SF Isolating Switch

SF-140

SF-240

SF-340

SF-440

Number of Poles	1P, 2P, 3P, 4P
Rated Current (A)	16, 20, 25, 32, 40, 63, 80, 100
Rated Voltage (V)	AC 230/240, 400/415(4P)
Frequency	50/60Hz
Endurance	⩾ 10000
Protection degree	IP20

Miniature Circuit Breaker Accessories


AL7-N


SU213


SU213N


TSBY-8

Modular Indicator


C45D


SV1


SV3


C45DN

Modular Socket


ADC-1


ADC-2


ADC-3


ADC-4


ADC-5

RCCB

DZL9


DZL10


PG 2P


PG 4P

DZL3 Residual Current Circuit Breaker

DZL3 2P

DZL3 4P

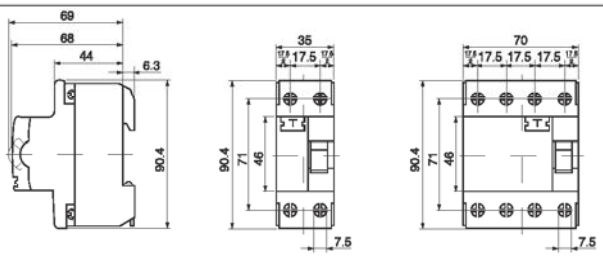
1. Application

DZL3 residual current circuit breaker is in conformity with the standards of IEC61008. It can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk line. Thus it is suitable to avoid the shock hazard and fire caused by earth leakage. It can be used in circuits up to single phase 240V,three phases 415V, 50/60Hz.

2. Main Technical Parameter

Type	DZL3	
Pole	2P	4P
Rated current In(A)	10, 16, 25,32,40,63	10, 16, 25,32,40,63
Rated residual operating current IΔn(mA)	10,30,100,300	30,100,300
Rated residual non-operating current IΔno(mA)	0.5IΔn	
Rated voltage Un(V)	240(220), 415(380)	
Tripping time	<0.1s	
Ambient temperature	-5˚C~+40˚C	
Vibration resistance	Minimum 5g 30min, 0~8Hz	

3. Dimension



DZL3N Residual Current Circuit Breaker

DZL3N 2P

DZL3N 4P

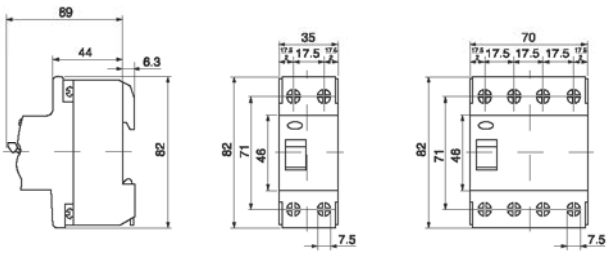
1. Application

DZL3N residual current circuit breaker is in conformity with the standards of IEC61008. It can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk line. Thus it is suitable to avoid the shock hazard and fire caused by earth leakage. It can be used in circuits up to single phase 240V,threephase 415V, 50/60Hz.

2. Main Technical Parameter

Type	DZL3N	
Pole	2P	4P
Rated current In(A)	10, 16, 25,32,40,63	10, 16, 25,32,40,63
Rated residual operating current IΔn(mA)	10,30,100,300	30,100,300
Rated residual non-operating current IΔno(mA)	0.5IΔn	
Rated voltage Un(V)	240(220), 415(380)	
Tripping time	<0.1s	
Ambient temperature	-5˚C~+40˚C	
Vibration resistance	Minimum 5g 30min, 0~8Hz	

3. Dimension



DZL4 Residual Current Circuit Breaker

1. Application

DZL4 2P

DZL4 RCCB is in conformity with the standard of IEC61008. The RCCB can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk. Thus, it is suitable to avoid the shock hazard and fire caused by earth leakage.

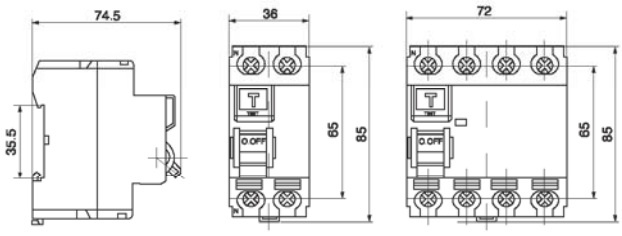
The RCCB is mainly suitable for use in varieties of plants and enterprises, building construction 1 phase 230V and 3 phase 400V 50/60Hz. RCCB is not suitable for use on DC pulse system.

2. Specification

DZL4 4P

Number of Poles	2P, 4P
Rated Current (A)	16, 20, 25, 40, 50, 63
Rated Residual Operating Current (IΔn)(mA)	30, 100, 300, 500
Rated Voltage (V)	AC 230/240
	AC 400/415
Residual Operating Current Scope	0.5IΔn~IΔn
Residual Current Off-time	≤ 0.3S
Short Circuit Capacity (Icu)	6000A
Endurance(times)	4000
Protection Degree	IP20

3. Dimension



DZL5 Residual Current Circuit Breaker

1. Application

DZL5 2P

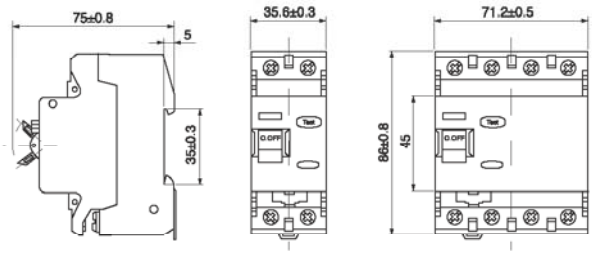
DZL5 residual current breaker is used in circuits up to single phase 230V, three phase 400V 50/60 Hz. RCCB is not suitable for use on DC pulse system. The RCCB can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk Thus it is suitable to avoid the shock hazard and fire caused by earth leakage. The RCCB is mainly suitable for use in variety of plants and enterprises,building construction, commerce, guesthouses and families. It conforms with the standards of IEC61008.

2. Main Technical Parameter

DZL5 4P

Type	DZL5
Pole	2P, 4P
Rated current In(A)	25,40,63,80,100
Rated residual operating current (IΔnA)	10,30,100,300,500
Rated non-operating current for earth leakage IΔn(A)	0.5IΔn
Rated voltage Un(V)	240(220) 415(380)
Residual current off-time:	<0.1s
Minimum value of rated making and breaking capacity	1kA
Rated conditional short-circuit current (Inc)	In=25,40A Inc=1500A In=63A Inc=3000A

3. Dimension



DZL6N Residual Current Circuit Breaker

DZL6N 2P

DZL6N 4P

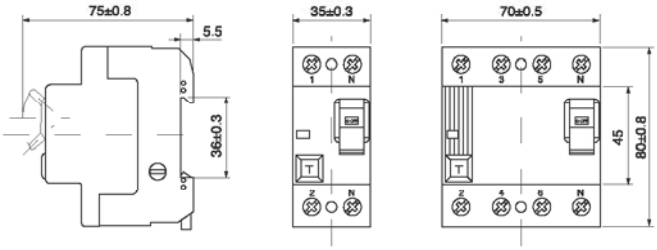
1. Application

DZL6N residual current circuit breaker is in conformity with the standards of IEC61008. It can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk line. Thus it is suitable to avoid the shock hazard and fire caused by earth leakage. It can be used in circuits up to single phase 240V,threephase 415V, 50/60Hz.

2. Main Technical Parameter

Type	DZL6N
Number of poles	2P, 4P
Rated current In(A)	10, 16, 20, 25,32, 40, 50, 63
Rated residual operating current IΔn(mA)	30,100,300
Rated residual non-operating current IΔno(mA)	0.5IΔn
Rated voltage Un(V)	240(220)/415(380)
Residual current off-time	<0.1s
Ultimate short circuit current Inc (A)	3000A

3. Dimension



DZL6 Residual Current Device

DZL6 2P

DZL6 4P

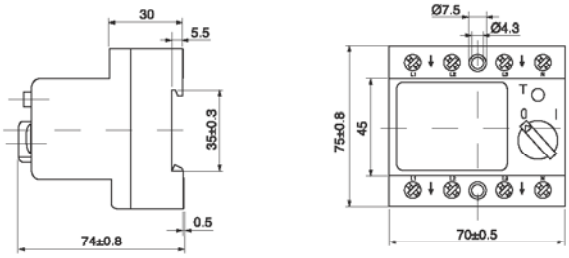
1. Application

Residual Current Device(RCD) FIN is in conformity with the standard of IEC61008. It can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk line. Thus it is suitable to avoid the shock hazard and fire caused by earth leakage. FIN ELCB is mainly suitable for varieties of plants and enterprises, buildings, construction, commerce, hotels and families. It can be used in circuits of 1 phase 230V and 3 phase 400V 50/60Hz.

2. Specification

Number of Poles	2P, 4P
Rated Current (A)	16, 20, 25, 32, 40, 50, 63
Rated Residual Operating Current (IΔn)(mA)	30, 100, 300, 500
Rated Residual Non-operation Current (IΔno)(mA)	≤ 0.5IΔn
Rated Voltage (V)	AC 230/400
Residual Current Off-time	≤ 0.1S
Short Circuit Capacity (Icu)	3000A
Endurance	≥ 4000
Protection Degree	IP20

3. Outline and Mounting Dimension (Unit: mm)



AFIM-1 Residual Current Device

AFIM-1 2P

AFIM-1 4P

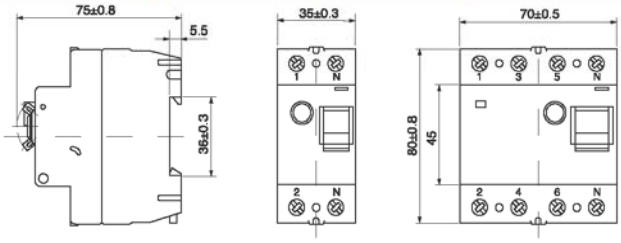
1. Application

The Residual Current Device AFIM-1 is in conformity with the standard of IEC61008.It can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk line. Thus it is suitable to avoid the shock hazard and fire caused by earth leakage. PFIM RCD is mainly suitable for using in varieties of plants, enterprises, buildings, constructions, commerce, guesthouses and families. It can be used in circuits of 1 phase 230V and 3 phases 400V 50/60Hz.

2. Specification

Number of Poles	2P, 4P
Rated Current (A)	16, 20, 25, 40, 50, 63
Rated Residual Operating Current (IΔn)(mA)	30, 100, 300, 500
Rated Residual Non-operation Current (IΔno)(mA)	≤ 0.5IΔn
Rated Voltage (V)	AC 230/400
Residual Current Off-time	≤ 0.1S
Short Circuit Capacity (Icu)	3000A
Endurance(times)	≥ 4000
Protection Degree	IP20

3. Overall And Mounting Dimension (Unit: mm)



AFIM-2 Residual Current Device

AFIM-2 2P

AFIM-2 4P

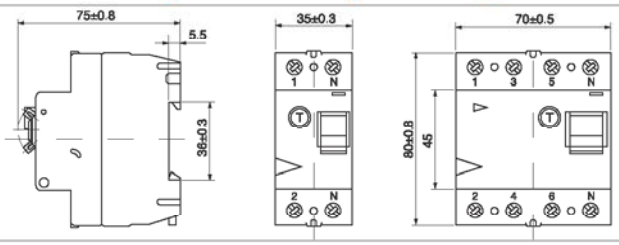
1. Application

The Residual Current Device AFIM-2 is in conformity with the standard of IEC61008.It can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk line. Thus it is suitable to avoid the shock hazard and fire caused by earth leakage.PFIM RCD is mainly suitable for using in varieties of plants, enterprises, buildings, constructions, commerce, guesthouses and families. It can be used in circuits of 1 phase 230V and 3 phases 400V 50/60Hz.

2. Specification

Number of Poles	2P, 4P
Rated Current (A)	16, 20, 25, 40, 50, 63
Rated Residual Operating Current (IΔn)(mA)	30, 100, 300, 500
Rated Residual Non-operation Current (IΔno)(mA)	≤ 0.5IΔn
Rated Voltage (V)	AC 230/400
Residual Current Off-time	≤ 0.1S
Short Circuit Capacity (Icu)	3000A
Endurance(times)	≥ 4000
Protection Degree	IP20

3. Overall and Mounting Dimension (Unit: mm)



DZL7 Residual Current Circuit Breaker

1. Application

DZL7 2P

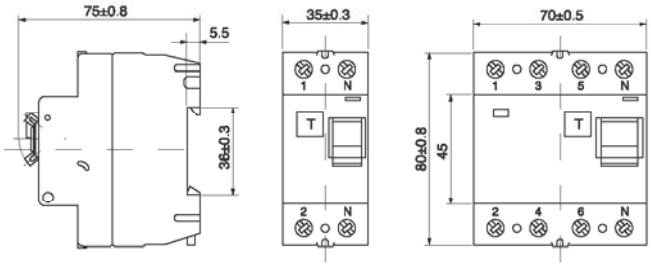
DZL7 residual current device is in conformity with the standards of IEC61008. It can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk line. Thus it is suitable to avoid the shock hazard and fire caused by earth leakage. It can be used in circuits up to single phase 240V,threephase 415V, 50/60Hz.

2. Main Technical Parameter

Type	DZL7
Pole	2P, 4P
Rated current In(A)	25,40,63,80,100
Rated residual operating current (IΔnA)	10,30,100,300,500
Rated non-operating current for earth leakage IΔn(A)	0.5IΔn
Rated voltage Un(V) Residual current off-time:	240(220) 415(380) <0.1s
Minimum value of rated making and breaking capacity	1kA
Rated conditional short-circuit current (Inc)	In=25,40A Inc=1500A In=63A Inc=3000A

DZL7 4P

3. Dimension



DZL7N Residual Current Circuit Breaker

1. Application

DZL7N 2P

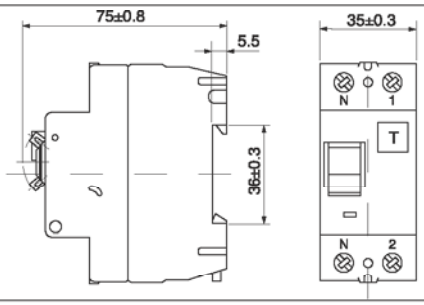
DZL7N residual current device is in conformity with the standards of IEC61008. It can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk line. Thus it is suitable to avoid the shock hazard and fire caused by earth leakage. It can be used in circuits up to single phase 240V,threephase 415V, 50/60Hz.

2. Main Technical Parameter

Type	DZL7N
Pole	2P, 4P
Rated current In(A)	25,40,63,80,100
Rated residual operating current (IΔnA)	10,30,100,300,500
Rated non-operating current for earth leakage IΔn(A)	0.5IΔn
Rated voltage Un(V)	240(220) 415(380)
Residual current off-time:	<0.1s
Minimum value of rated making and breaking capacity	1kA
Rated conditional short-circuit current (Inc)	In=25,40A Inc=1500A In=63A Inc=3000A

DZL7N 2P

3. Dimension



DZL8 Residual Current Device

1. Application

The Residual Current Device DZL8 is in conformity with the standard of IEC61008. It can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk line. Thus it is suitable to avoid the shock hazard and fire caused by earth leakage.TSL8 RCD is mainly suitable for using in varieties of plants, enterprises, buildings, constructions, commerce, guesthouses and families. It can be used in circuits of two pole 230V 50/60Hz.

DZL8

2. Specification

Type	DZL8
Number of Poles	2P, 4P
Rated Current (A)	16, 20, 25, 40, 50, 63
Rated Residual Operating Current (IΔn)(mA)	30, 100, 300
Rated Residual Non-operation Current (IΔno)(mA)	≤ 0.5IΔn
Rated Voltage (V)	AC 230
Residual Current Off-time	≤ 0.1S
Short-circuit Capacity (Icu)	3000A
Endurance(times)	≥ 4000
Protection Degree	IP20

DZL9-100 Residual Current Circuit Breaker

1. Application

DZL9-100 RCCB is in conformity with the standard of IEC61008. The RCCB can cut off the fault circuit immediately on the occasion of shock hazard or earth leakage of trunk. Thus, it is suitable to avoid the shock hazard and fire caused by earth leakage.

The RCCB is mainly suitable for use in varieties of plants and enterprises, building construction 1 phase 230V and 3 phase 400V 50/60Hz. RCCB is not suitable for use on DC pulse system.

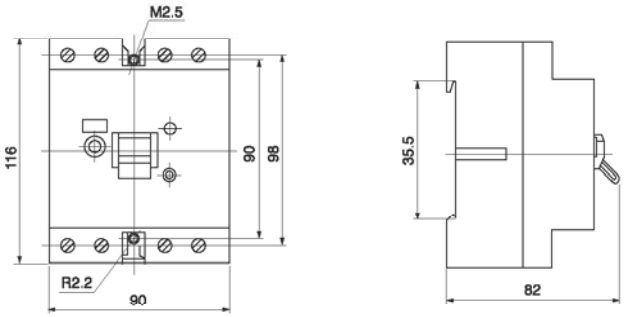
DZL9-100 2P

2. Specification

Type	DZL9-100
Number of Poles	2P, 4P
Rated Current (A)	25, 32, 40, 63, 80, 100, 125
Rated Residual Operating Current (IΔn)(mA)	100, 300, 500
Rated Residual Non-operation Current (IΔno)(mA)	≤ 0.5IΔn
Rated Voltage (V)	AC 230/400
Residual Current Off-time	≤ 0.1S
Short Circuit Capacity (Icu)	3000A
Endurance(times)	≥ 4000
Protection Degree	IP20

DZL9-100 4P

3. Outline and Mounting Dimension (Unit: mm)



AQC45 Dual Power Automatic Transfer Switch

AQC45

1. Application

AQC45 automatic transfer switch is suitable for the dual power supply system of AC50Hz , rated operational voltage 400V/230V, rated operational current up to 63A. Automatically transfer one or multi-load circuits from one power to the other power, to protect power supplied normally to load circuit.

The device mainly used for industry, shopping center, bank, high building and so on.

The device comply with IEC60947-6-1.

2. Environment conditions for operation

Temperature condition: -5℃~+40℃; the average value within 24h not exceed +35℃.

Elevation: altitude of installation place shall not exceed 2000m.

Atmosphere condition: relative humidity at +40℃ shall not exceed 50%. Higher humidity is permissible at lower temperature condition. When the higher monthly average relative humidity is 90% in the humiddest month , the lowest monthly average temperature of this month is +25℃. And consider the influence of dew on product surface due to temperature changes.

Pollution grade: gradeIII

Apparatus grade: grade CB.

3. Structure

AQC45 automatic transfer switch is made up of MCB(DZ47)single motor mechanism、control circuit, all parts are installed on a backplate. Control power voltage of automatic transfer switch is AC230V, mechanical life is 5000 times.

4. Performance

AQC45 automatic transfer switch(only R type that is automatically entry and automatically reset) monitor phase voltage of double power supply(is named common power supply and standby power supply) at the same time. When common power supply is malfunction ,that is to say ,A phase of MCB is voltage failure or phase failure, automatic transfer switch automatically transfer standby power supply with non-time delay; when common power supply returns to normal , automatically transfer common power supply with non-time delay. Both power supply are malfunction are not allowed.

5. Main specifications and table for choosing of settled breakers

Type	Settled breakers	Number of poles	Type of instantaneuos release	Rated current of breakers In (A)	Rated operational voltage of breakers Ue	Operational voltage of control circuit
AQC45	DZ47	3P 4P	Type C:for distribution Tripping current range:5In~10In Type D:for motor protection Tripping current range:10In~14In	6,10,16,25, 32,40,50,63	AC400V/AC230	AC230

6. Matters need attention

1. Phase sequence of the input terminals of one MCB must be same as the other, N-pole of double power supply can not be connected wrongly.

2. Earthing protection should be reliable, assure service safe.

3. When checks load circuit normally or malfunction maintenance, must close automatic control function.

HATS Dual Power Automatic Transfer Switch

HATSA-400/4P

1. Application

HATS series automatic transfer switch is one new ATS of our company developed by the microcomputer control technology . This series ATS is settled AM2 circuit breaker as the executive element, and along with the mechanotrons, the new control mechanism with electromechanical double interlock, which is especially applied in the important places not allowed power off. To meet actual demand, three different operation methods are available such as automatic entry automatic reset, automatic entry non automatic reset and commutative standby.

The device conforms to IEC60947-6-1.The whole series have past CCC certification.

2. Environment conditions for operation

Temperature condition: -5℃~+55℃;relative humidity<95% at 55℃.

Elevation: altitude of installation place shall not exceed 2000m.

Pollution grade: grade III.

3. Type and meaning

Standard product | Non-standard product

HATS □–□/□ **CB** □–□

- X: with fire protection linkage function
- Operation methods:
  - R: automatic entry automatic reset
  - S: automatic entry non automatic reset
  - I: commutative standby
- CB type ATS, with short circuit, overload protection
- Switching poles: 3P, 4P
- Current Grade: 100, 160, 250, 400, 630
- Controller model: A type, B type, No controller no mark
- ANDELI GROUP CO.,LTD.

Note: To the nonstandard products, the specific type of fire protection signal should be noted. Without note, the default be considered DC24V.

4. Main features

Three available operation methods

1. Automatically entry and automatically reset
2. Automatically entry and non automatically reset
3. Commutative standby

Three steady operating positions

1. The grid power supply is making, the standby power supply is breaking.
2. The grid power supply is breaking, the standby power supply is making.
3. The grid power supply is breaking, the standby power supply is breaking.

Compact size, single structure, beautiful outlook , 12.5~630A available, convenient operation and long operating life,3P,4P can be supplied.

The transfer is drived by single motor, single structure, reliable transfer, no noise and small wallop.

The device is with electromechanical interlock protection, which can ensure the two power supplies working normally, no disturbance.

The device can be along with load automatic transfer , on urgent situation, it can be transferred by handle.

Advantages comparative to other products:

1. The breaking capacity of the control protecting fuse is 50kA, which increases the distribution safety.

2. There is interlock between manual and automatic operation, this can avoid the manual operation on the automatic operation.

3. When the executive handle of circuit breaker is broken, the contact is felted or the load is in problem(overload, short circuit), the ATS do not transfer, the is called the real electromechanical interlock.

4. The wrong wire connection indication can be supplied. When the phase wire and zero wire is connected wrong, the sound-photo device will alarm, it ensures the reliability.

5. Function of controller in HATS automatic transfer switch

Contrller	Type A (built-in)	Type B (panel)
Operational voltage	AC230V	AC230V
Frequency	50/60Hz	50/60Hz
Three operational positions		
Common power supply making	◆	◆
Standby power supply making	◆	◆
Both common power supply and standby power supply breaking	◆	◆
Automatic operation	◆	◆
Manual remote control		
Handle operation	◆	◆
Automatic operation		
To monitor common power supply and automatic transfer	◆ Check phase lacking, voltage losing	◆ Check phase lacking,undervoltage, overvoltage and voltage losing
To monitor standby power supply and automatic transfer		◆ Check phase lacking,undervoltage, overvoltage and voltage losing
To control generator		◆
Fire fighting linkage	□	□
Automatic entry automatic reset	◆	◆
Automatic entry non automatic reset	◆	◆
Commutative standby	◆	◆
Manually remote control		
Compel it to work at common power supply		◆
Compel it to work at standby power supply		◆
Compel it to word at "0" prosition		◆
Test		
By test pushbutton on panel or control pushbutton	◆	◆
Indications		
Operation status indication: making or breaking	◆	◆
Common power supply indication and standby power supply indication	◆	◆
Malfunction tripping indication		
Parameters setting indication		
Other functions		
Transfer time delay	0s,5s,15s,30s inaccuracy ≤ 5%	0-255s
Recovery time delay	0s,5s,15s,30s inaccuracy ≤ 5%	0-255s
Protective function when neutral line is wrong connection (sound and light alarm)	◆	◆
Overtime malfunction-breaking function after transfer signal sent out	◆	◆

◆ Standard configuration □ Selective function

Note:

1. If operational voltage is the same as power voltage, the common power supply and standby power supply can supply power directly. If not ,it must use equivalent isolation transformer.

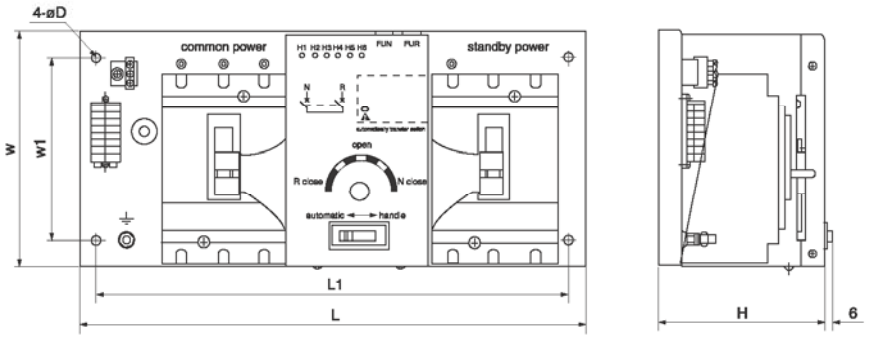
2. Under the situation of handle operation, if the control of electrical manipulating device is open, automatic controlling function will be invalid.

3. On conditions both common power supply and standby power supply are normal, if common power supply is malfunction and automatically transfer to standby power supply (transfer time delay adjustable), when the common power supply returns to normal, it will automatically return(return time delay adjustable).

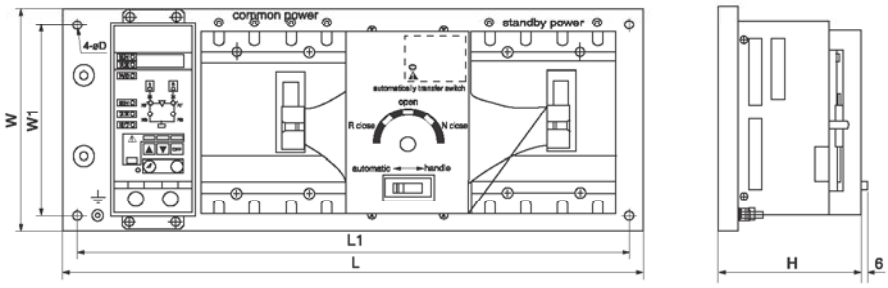
4. Under the situation both common power supply and standby power supply are normal and common power supply is working, if common power supply is malfunction and automatically transfer to standby power supply. Controller will stop transferring. Even if common power supply return to normal, switch will not return. Please press reset pushbutton, controller returns to normal.

5. Under the situation both common power supply and standby power supply are normal, to get through electricity(or reset), the common power supply will work prior. If the working power has some malfunction during operation and automatically transfer to another power supply(type B switching transfer time delay adjustable), both power supply will have the same priority and will be standby power supply of each other.

6. Outline and installation dimension



HATSA-100-250



HATSB-100~630

Type	Outline dimensions(mm)			Installation dimensions(mm)		
	L(3P/4P)	W(3P/4P)	H(3P/4P)	L1(3P/4P)	W1(3P/4P)	H1(3P/4P)
HATSA-100	430/500	200	140	400/470	155	6.5
HATSA-160	430/500	200	140	400/470	155	6.5
HATSA-250	430/500	200	140	400/470	155	6.5
HATSB-100	500/570	200	140	470/540	170	6.5
HATSB-160	500/570	200	140	470/540	170	6.5
HATSB-250	500/570	200	140	470/540	170	6.5
HATSB-400	620/710	275	190	590/680	245	9
HATSB-630	620/710	275	190	590/680	245	9

AMQ5 Dual Power Automatic Transfer Switch

1. Application

AMQ5-100/4P

AMQ5 Series automatic transfer switch (transfer switch) is developed successfully with the help of the most advanced ATS technology in the world. This kind of transfer switch and intelligent display mated with it are mainly applied in the occasions required uninterrupted power supply like building, posts and telecommunications, mine industry, shipping and military industry. Under the necessary trend of urban power service increasing, it can meet the higher requirements of the reliable power service. This product has many features like reliable performance, small volume and simple operating etc.

2. Main function

With safe and reliable interlocking function, when the breaker is under closing state, the breaker cannot be glugged in or drawn out, you must open the breaker first to plug in or pull out. With function of reliable making and breaking main circuit and secondary circuit, besides, the device possesses self-locking function.

When you draw out the breaker, the device has safe insulating isolation (your finger will not touch with the charged parts).

The breaker can be mounted with various rotating manual operating mechanism and motor operating mechanism.

AMQ5-250/4P

3. Specification

Type				AMQ5											
Type AMQ5(Three-step type)				AMQ5-100			AMQ5-250			AMQ5-400			AMQ5-630	AMQ5-800	
Rated voltage				AC690V DC125V											
Rated current				100A			250A			400A			630A	800A	
Number of cutting in				Double cut-in											
Connecting * mode				In front of panel and at back of panel (Non standard * product)											
Operating current	DC110V (A)			3	3	4	3	4	5	5	5	7	6	6	6
	AC100V/110V (A)			3	3	4	3	4	5	5	5	7	6	6	6
	AC200V/220V (A)			1.5	1.5	2	1.5	2	2.5	2.5	2.5	3.5	3	3	3
Trip current	DC110V			1A						1.5A			2A		
	AC100V/110V			1A						1.5A			2A		
	AC200V/220V			0.5A						0.7A			1A		
Performance	Short-time withstanding current			5kA			10kA			12kA			15kA		
	Rated conditional short-circuit current			12.5kA			25kA			30kA			37.5kA		
	Making and breaking capacity			AC-33B(10Ie making 8Ie opening) cosØ=0.35 DC-33B 1.1Ie making 1.1Ie opening L/R=1ms											
	Changeover time	A power side	Cut in	55ms			55ms			60ms			100ms		
			Cut off	20ms			20ms			25ms			30ms		
		B power side	Cut in	80ms			80ms			90ms			135ms		
			Cut off	20ms			20ms			25ms			30ms		
	Service life			With 2500 times of electric life with 10000 times(120 times/hour) of mechanical life											
	Operation circle time			120 time/hour											
Auxiliary switch				A source 1C B source 1C switch capacity AC100V5A AC200V2.5A DC100V0.5A											
Accessory				Protective cover breakthough absorber manual handle											

Type				AMQ5														
Tyep AMQ5 (Three-step type)				AMQ5-1000			AMQ5-1250			AMQ5-1600			AMQ5-2000			AMQ5-3150		AMQ5-4000
Rated voltage				AC690V DC125V									AC690V					
Rated current				1000A			1250A			1600A			2000A			3150A		4000A
Number of cutting in				Double cut-in														
Connecting * mode				At the back of panel in the front of panel									At the back of panel					
Number of pole				2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	3P
Weight(kg)				30(40)	39(54)	49(64)	31(45)	40(56)	51(66)	36(50)	47(62)	59(74)	95	115	135	110	150	190	207
Operat-ing current	DC110V (A)			6	6	8	6	6	8	7	8	9	8	10	12	10	12	14	16
	AC100V/110V (A)			6	6	8	6	6	8	7	8	9	8	10	12	10	12	14	16
	AC200V/220V (A)			3	3	4	3	3	4	3.5	4	4.5	4	5	6	7	8	7	8
Trip current	DC110V			2A									4A						
	AC100V/110V			2A									4A						
	AC200V/220V			1A									1A						
Perfor-mance	Short-time withstanding current			22kA						25kA			35kA			50kA		50kA
	Rated conditional short-circuit current			50kA						55kA			55kA			80kA		100kA
	Making and breaking capacity			AC-33B(10Ie making 8Ie opening) cosØ=0.35 DC-33B 1.1Ie making 1.1Ie openingL/R=1ms									AC2(Ie making Ie opening) cosØ=0.65					
	Changeover time	A power side	Cut in	115ms						115ms			180ms			140ms		200ms(190)
			Cut off	25ms						25ms			25ms			30ms		30ms(30)
		B power side	Cut in	145ms						150ms			220ms			190ms		220ms(240)
			Cut off	25ms						25ms			25ms			30ms		30ms(30)
	Service life																	
	Operation circle time			120 times/hour									30 times/hour					
Auxiliary switch				A source 1C B source 1C switch capacity AC100V5A AC200V2.5A DC100V0.5A														
Accessory				Protective cover breakthough absorber manual handle														

Note: At DC operating occasion, the construction of circuit is almost same. Please operate according to DC operating order.

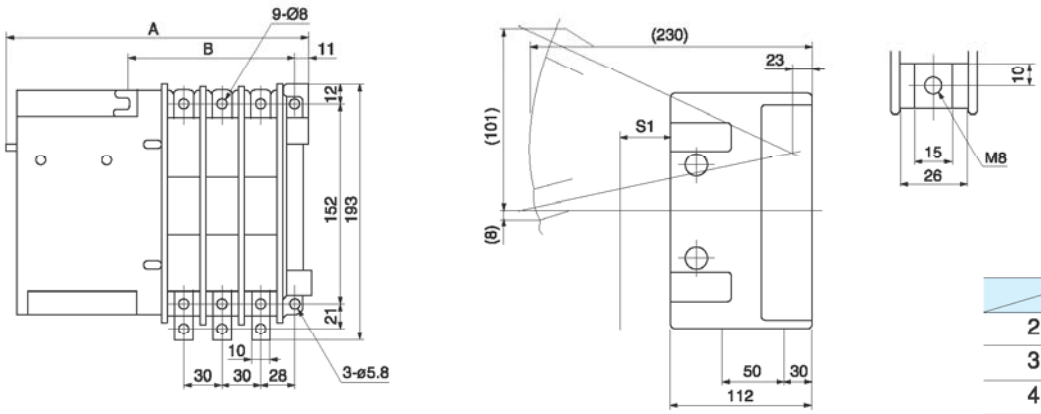
1. The weight in the bracket is stuck on the product surface.
2. The capacity of N pole contact is 2000A for product with 4000A and 4P.

Main technical index of AMQ5 with two steps

Type				AMQ5								
Tyep AMQ5 (Two-step type)				AMQ5-125			AMQ5-250			AMQ5-400		
Rated voltage				AC690V DC125V								
Rated current				40A,63A,100A,125A			160A,200A,225A,250A			350A,400A		
Number of cutting in				Double cut-in								
Connecting * mode				In front of panel and at back of panel								
Operating current	DC110V (A)			3	3	4	3	4	5	5	5	7
	AC100V/110V (A)			3	3	4	3	4	5	5	5	7
	AC200V/220V (A)			1.5	1.5	2	1.5	2	2.5	2.5	2.5	3.5
Trip current	DC110V			1A						1.5A		
	AC100V/110V			1A						1.5A		
	AC200V/220V			0.5A						0.7A		
Perfor-mance	Short-time withstanding current			5kA			10kA			12kA		
	Rated conditional short-circuit current			12.5kA			25kA			30kA		
	Making and breaking capacity			AC-33B(10Ie making 8Ie opening) cosØ=0.35 DC-33B 1.1Ie making 1.1Ie openingL/R=1ms								
	Changeover time	A power side	Cut in	55ms			55ms			60ms		
			Cut off	20ms			20ms			25ms		
		B power side	Cut in	80ms			80ms			90ms		
			Cut off	20ms			20ms			25ms		
	Service life											
	Operation circle time			120 times/hour								
Auxiliary switch				A source 1C B source 1C switch capacity AC100V5A AC200V2.5A DC100V0.5A								
Accessory												

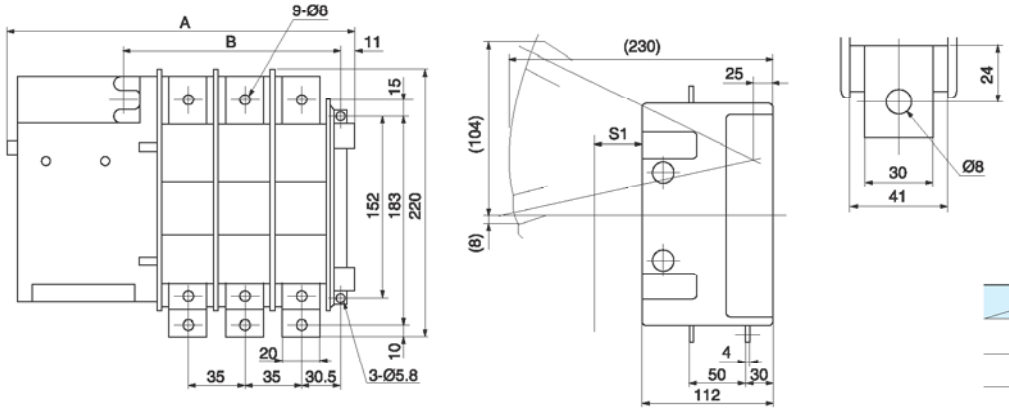
Note: The occasion for DC operation has the same circuit, only little different. Please operate it according to Dc operation direction.
The two-step type belongs to an economic type, and
The outline size of 100A and 125A grades has the same size with three-step.
The outline size of 160A,200A,225A and 250A grades has the same sie with three-step.
The outline size of 350A amd 400A grades has the same size with three-step.

4. Outline and Installation Dimensions



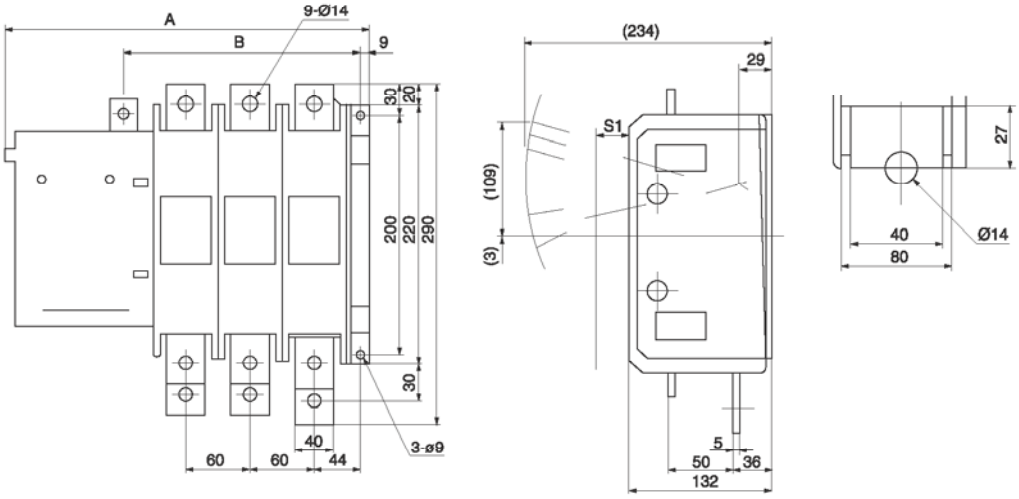
	A	B
2P	209	103
3P	239	133
4P	269	163

AMQ5-100A



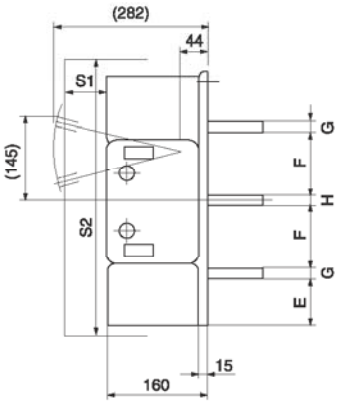
	A	B
2P	219	113
3P	254	148
4P	289	183

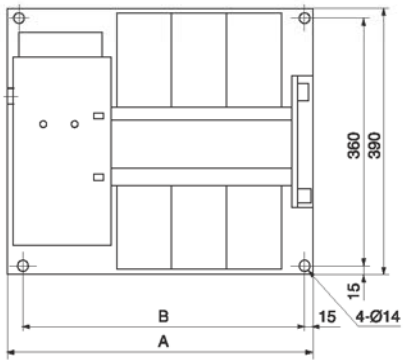
AMQ5-250A



	A	B
2P	280	164
3P	340	224
4P	400	284

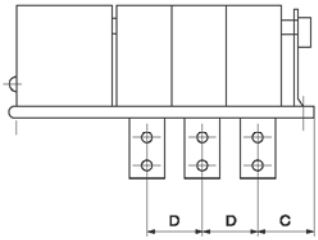
AMQ5-400A

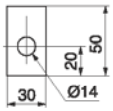




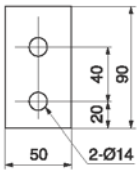
S1: 45mm(400V), 90mm(690V)
A2: 430mm(400V), 450mm(690V)

Type		630A,800A	1000A,1250A	1600A
A	2P	340	370	410
	3P	405	450	510
	4P	470	530	610
B	2P	310	340	380
	3P	375	420	480
	4P	440	500	580
C		80	88	97.5
D		65	80	100
E		60	60	57
F			117.5	
G		10/15	12/15	15
H			15	

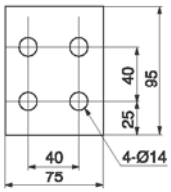




630A
800A

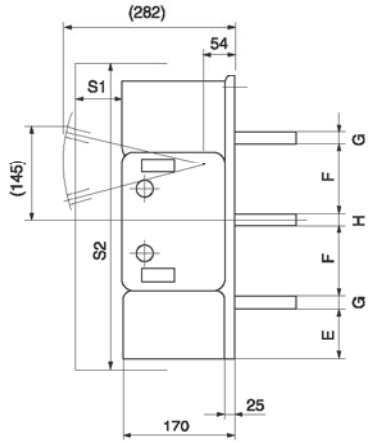


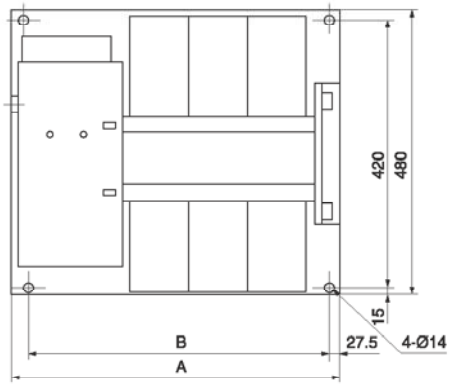
1000A
1250A



1600A

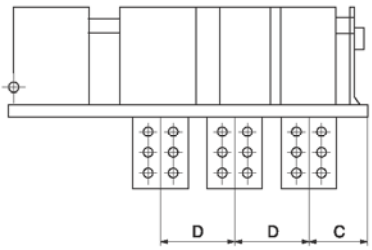
AMQ5-630~1600A

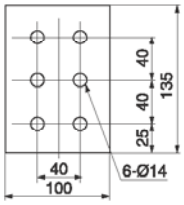




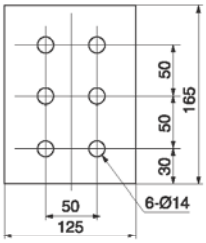
S1: 50mm(400V), 100mm(690V)
A2: 560mm(400V), 600mm(690V)

Type		2000A	2500A	3150A	4000A
A	2P	540	540	640	
	3P	650	650	915	915
	4P	845	850	1155	1155
B	2P	500	500	600	
	3P	595	585	860	860
	4P	790	790	1100	1100
C		130	130	135	135
D		135	135	240	240
E		75	75	75	75
F		117.5	117.5	117.5	117.5
G		15	20	20	20
H		15	20	20	20

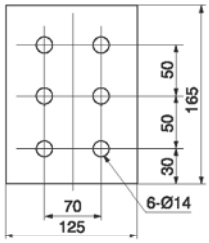




2000A



3150A



4000A

AMQ5-2000~4000A

SGLD Series Automatic Change-over Switch

1. Product Outline

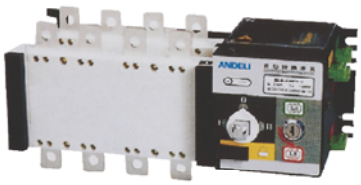
SGLD-100A

SGLD automatic change-over switch(ATSE) integrates switch and logic control, thus it is not necessary to provide external controller. This truly electromechanically integrated automatic change-over switch has the following functions such as voltage detection, frequency detection, communication interface, electrical and mechanical interlocking etc.,so, automatic control, electrical remote control and emergency manual control can be performed.

The operation is carried out through the logic control board, which gives various commands to control the motor and gear-box. the motor drives the accelerator which can take switch-spring power accmulating and instantaneous release, swiftly turns making and breaking the circuit or makes circuit switching, the visible operation status can help you to perform safe separation, increasing extremely the various electrical and mechanical performance.

Which the shell of switch SGLD is made of different materials: the control section is made of metal, but the switching section is made of glass-fibre unsaturated polyester resin, having stronger dielectric property and protective capability as well as safe operation performance.

This kind of switch is suitable for the automatic changeover of the main power source and the secondary power source of the power supply system of the automatic change-over and safe separation of the 2 sets of load-equipment.



SGLD-160~1600A

This kind of switch has a beautiful, novel and simple structure, a small volume but complete functions, being the best choice among congeneric of products.

SGLD series had been already passed the detection of EMC.

2. Main Technical Parameters

Conventional thermal current Ith(A)			100A					160A	
Rated current In(A)			20A	40A	63A	80A	100A	125A	160A
Rated impulse withstand voltage Ui(V)			500	500	500	500	500	500	500
Dielectric strength(V)			5000	5000	5000	5000	5000	5000	5000
Rated surge-resistant voltage Uimp kV(installed category IV)			8	8	8	8	8	8	8
Rated working current	380V	AC-31	20	40	63	80	100	125	160
		AC-33	20	32	40	63	80	125	160
		AC-35	20	40	63	80	100	125	160
	220V	DC-31	20	40	63	80	100	125	160
		DC-33	20	32	40	63	80	100	125
		DC-35	20	40	63	80	100	125	160
Moter power P(380V) kW			10	20	25	30	32	63	80
Rated short-time withstand current(kA Rms)0.1S/1.0S			9/5	9/5	9/5	9/5	9/5	20/10	20/10
Rated breaking capbility(A Rms)AC33 380V			160	320	500	640	800	1000	1000
Rated making capability(A Rms)AC33 380V			200	400	630	800	1000	1250	1250
Rated short-current making capability Icm(kA peak value)			8	8	10	10	10	12	12
Mechanical durability(number of cyclic operation)			8000	8000	8000	8000	8000	5000	5000
Electric durability	COSØ=0.65 AC33		1500	1500	1500	1500	1500	1000	1000
Change-oner time	I-0-II or II-0-1(s)		0.5	0.5	0.5	0.5	0.5	1.0	1.0
	I-0 or II-0(s)		0.3	0.3	0.3	0.3	0.3	0.6	0.6
Power consumption of electrical control	24V(DC)(w)		50	50	50	50	50	75	75
	220V(AC)(w)		50	50	50	50	50	75	75
Moment of operation(Nm)			15	15	15	15	15	22	22
Weight(kg)	3 Poles							8.2	8.2
	4 Poles		4.2	4.3	4.4	4.5	4.5	8.7	8.7

GV Motor Protection Circuit Breaker

GV series motor protection circuit breaker are mainly used fo the overload and short circuit protection of the motor in AC 50/60Hz, up to 660V, 0.1-80A power circuit, as a full-voltage starter to start and cut off the motor, under the AC3 load or for the overload and short circuit protection of the circuit and power equipment in the power distribution network.

GV2

GV2-N

GV3

GV3-N

Specification

Type	Standard power ratings of 3-phase motors 50/60Hz in category AC-3						Current setting range (A)
	220V	380V	415V	440V	500V	660V	
	kW	kW	kW	kW	kW	kW	
GV1-M01	--	--	--	--	--	--	0.1-0.16
GV1-M02	--	--	--	--	--	--	0.16-0.25
GV1-M03	--	--	--	--	--	--	0.25-04
GV1-M04	--	--	--	--	--	0.37	0.4-0.63
GV1-M05	--	--	--	0.37	0.37	0.55	0.63-1
GV1-M06	--	0.37	--	0.55	0.75	1.1	1-1.6
GV1-M07	0.37	0.75	1.1	1.1	1.1	1.5	1.6-2.5
GV1-M08	0.75	1.5	1.5	1.5	2.2	3	2.5-4
GV1-M10	1.1	2.2	2.2	3	3.7	4	4-6
GV1-M14	2.2	4	4	4	5.5	7.5	6-10
GV1-M20	4	7.5	7.5	7.5	10	11	10-16
GV1-M21	5.5	10	9	9	11	15	16-20
GV1-M22	5.5	11	11	11	15	18.5	20-25
GV2-M01	--	--	--	--	--	--	0.1-0.16
GV2-M02	--	--	--	--	--	--	0.16-0.25
GV2-M03	--	--	--	--	--	--	0.25-0.4
GV2-M04	--	--	--	--	--	0.37	0.4-0.63
GV2-M05	--	--	--	0.37	0.37	0.55	0.63-1
GV2-M06	--	0.37	--	0.55	0.75	1.1	1-1.6
GV2-M07	0.37	0.75	0.75	1.1	1.1	1.5	1.6-2.5
GV2-M08	0.75	1.5	1.5	1.5	2.2	3	2.5-4
GV2-M10	1.1	2.2	2.2	3	3.7	4	4-6.3
GV2-M14	2.2	4	4	4	5.5	7.5	6-10
GV2-M16	3	5.5	5.5	7.5	7.5	9	9-14
GV2-M20	4	7.5	9	9	9	11	13-18
GV2-M21	5.5	11	11	11	11	15	17-23
GV2-M22	5.5	11	11	11	15	18.5	20-25
GV2-M32	7.5	15	15	15	18.5	26	24-32
GV3-M06	--	0.37	--	0.55	0.75	1.1	1-1.6
GV3-M07	0.37	0.75	1.1	1.1	1.1	1.5	1.6-2.5
GV3-M08	0.75	1.5	1.5	1.5	2.2	3	2.5-4
GV3-M10	1.1	2.2	2.2	3	3.7	4	4-6
GV3-M14	2.2	4	4	4	5.5	7.5	6-10
GV3-M20	4	7.5	7.5	7.5	10	11	10-16
GV3-M25	5.5	11	11	11	15	18.5	16-25
GV3-M40	11	18.5	22	22	25	33	25-40
GV3-M63	15	30	33	33	40	55	40-63
GV3-M80	22	40	45	45	55	63	56-80

DZ108 Motor Protection Circuit Breaker

DZ108 is suitable in AC circuit of 50/60Hz, voltage up to 660V and current up to 0.1-63A and used to prevent small capacity motor and circuit from overload and short circuit and also used as direct starter for starting the motor and a switch for changeover the circuit under normal conditions.

DZ108

Specification

Type		DZ108-1	DZ108-3	DZ108-4
Poles		3	3	3
Rated current (A)		20	32	63
Rated voltage (V)		660	660	660
Rated insulation voltage (V)		660	750	750
Current setting voltage (V)		0.1~0.16 0.16~0.25 0.25~0.4 0.4~0.63 0.63~1 1~1.6 1.6~2.5 2~3.2 2.5~4 3.2~5 4~6.3 5~8 6.3~10 8~12.5 10 ~16 14~20	1~1.6 1.6~2.5 2.5~4 4~6.3 6.3~10 8~12.5 10~16 12.5~20 16~25 22~32	6.3~10 10~16 16~25 22~32 28~40 36~50 45~63 45~56
Power of controlled motor (kW)	220V	5.5	9	18
	380V	10	16	32
	660V	13	26	58
Mechanical life(1 × 10^4)		10	10	3
Protective feature	1.05Ie	Not act within 2hrs		
	1.2Ie	Act within 2hrs		
	12Ie	Action snap		

DZ108

DZ208 Motor Protection Circuit Breaker

The product is suitable to be used in circuit of rated voltage up to AC 660V 50/60Hz, rated current form 0. 1A to 63A. It is applicable for protection of overload & short circuit of 3 phase squirrel-cage motors. It also can be used as direct starter to start the motor and a switch for changeover the circuit under normal conditions.

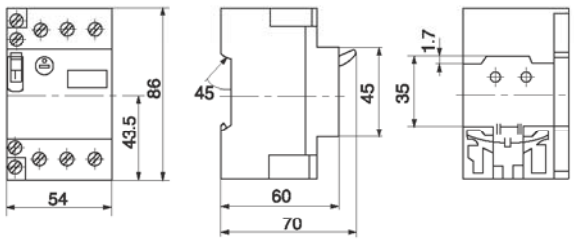
1.Specification

DZ208-13			DZ208-16		
Current setting range (A)	Power of controlled motor (kW)	Rated current (A)	Current setting range (A)	Power of controlled motor (kW)	Rated current (A)
0.1-0.16		0.16	1-1.6	0.37/0.55	1.6
0.16-0.24	0.06	0.24	1.6-2.4	0.75	2.4
0.24-0.4	0.09/0.12	0.4	2.4-4	1.1/1.5	4
0.4-0.6	0.12/0.18	0.6	4-6	2.2	6
0.6-1	0.25	1	6-10	3/4	10
1-1.6	0.37/0.55	1.6	10-16	5.5/7.5	16
1.6-2.4	0.75	2.4	16-25	11	25
2-3.2	1.1	3.2	22-23	15	32
2.4-4	1.1/1.5	4	28-40	18.5	40
3.2-5	1.5/2.2	5	36-52	22	52
4-6	2.2	6	45-63	-	63
5-8	3	8			
6-10	3/4	10			
8-13	4/4.5	13			
10-16	7.5	16			
14-20	7.5	20			
18-25	11	25			

DZ208-13

DZ208-16

2. Dimension



ANDELI

BY1-B

Surge Proctect Device for Power Distribution System

1. Application:

Expensive electronic equipment is being increasingly used in all kinds of business, industry, government and enterprise and domestic households. Electronic discharge, over voltage cause by switching or by lightning often cause these highly sensitive units to fail.

Electronic equipment is especially prone up to 1.5km way from lightning strikes due to the electromagnetic fields and cable-bome over voltages. However, effective protection is now available.

Over voltage protective devices for TN-S,TN-C,TN-C-S,TT and IT power systems and plants are subdivided into Classes A,B,C and D depending on their application area, accordingly to DIN VDE 0675-6 (11.89). Compex offers over voltage protective devices for Classes B to D, witch cover the complete installation on the low volage side.

2. Feature:

- Metal-oxide varistor Arresters still work after frequent operation
- An arrester module can be changed with the mains voltage on
- 1-4 pole Pre-wired arrester blocks Simple installation via the marked terminals
- Thermal isolating device with optical indication, permanent check of arrester serviceability
- An extremely short response time, a low protection level and a high current diversion capacity combined with long life.
- No follow-up current can be registered after the surge has decayed.
- If the surge arrester is damaged by overloading, the integral isolating device breaks the connectionto the mains. This is signalled by a red fault indicator.

3. Mounting:

The surge arrestor can easily be installed in any distribution box or switchgear cabinet by snap-fitting to any commercial 35 mm tophat rail. The multi-pole arresters are connected together by an earthing bridge at the factory, so that there is only one earth (PE) connection to make on site.

BY1-B/1P

BY1-B/2P

4. BY1-B/4-385-30 & BY1-B/4-385-40

Type	BY1-B/4-385-30	BY -40
Class	B	B
Rated voltage Un(V)	220/380	220/380
Maximum continuous operating voltage Us (V)	385	385
Protection level Up(KV)	⩽ 2.0	⩽ 2.0
Nominal discharge current (8/20uS) In (KA)	30	40
Max discharge current (8/20uS) Imax (KA)	60	80
Response time T (ns)	<25	<25
Temperature range	-40℃~ +80℃	-40℃~ +80℃
Color (module/base)	Orange red/gray	Orange red/gray
Material	PBT	PBT
Back up fuse	63A gl	63A gl
With alarm model	BY1-B/4-385-30B	BY1-B/4-385-40B
With remote control contact model	BY1-B/4-385-30X	BY1-B/4-385-40X

5. BY2-30 & BY2-60

BY2-30

BY4-80/1P

Type	BY2-30	BY2-60
Test class	I	I
class	B	B
Rated voltage Un (V)	220/380	220/380
Max continuous operating voltage Uc (V)	420	420
Insulated resistance Riso (Ω)	> 10^{10}	> 10^{10}
Protection level Up (KV)	≤ 4.0	≤ 4.0
Nominal DC spark voltage Un (KA)	2.95KV (+25%/-40%)	2.95KV (+25%/-40%)
Nominal discharge current (8/20uS) In (KA)	30	60
Charge Q (As)	15	30
Power W/R (KJ/ Ω)	225	900
Response time T (ns)	<100	<100
Air humidity	≤ 95%	≤ 95%
Temperature range	-40℃~ +80℃	-40℃~ +80℃
Protection grade	IP20	IP20
Max back up fuse	205A gl	205A gl

6. BY4-60 & BY4-80,BY4-100

BY4-80/2P

BY4-80/3P

Model	BY4-60	BY4-80	BY4-100
Test to	IEC61643-1	IEC61643-1	IEC61643-1
class	B	B	B
Rated voltage Un (V)	220/380	220/380	220/380
Max continuous operating voltage Uc (V)	385	385	385
Shock current Iimp (10/35uS) (KA)	7.5	12	15
Charge Q (As)	2.5	3.75	5
Protection level Up (KV)	≤ 2.0	≤ 2.5	≤ 3.0
Maximum discharge current Imax (8/20uS) (KA)	60	80	100
Nominal discharge current (8/20uS) In (KA)	30	40	60
Response time T (ns)	<25	<25	<25
Color (module/base)	Orange red/gray	Orange red/gray	Orange red/gray
Temperature range	-40℃~ +80℃	-40℃~ +80℃	-40℃~ +80℃
Protection grade	IP20	IP20	IP20
Max back up fuse	63~100A gl	63~100A gl	63~100A gl

7. BY1-C

BY1-C/1P

BY1-C/2P

Type	BY1-C					
Class	C					
Rated voltage Un (V)	110	220/380				
Max continuous operating voltage Uc (V)	140	275	320	385	420	550
Protection level Up (KV)	≤ 0.8	≤ 1	≤ 1.5	≤ 2.0		≤ 2.5
Max discharge current Imax (8/20uS) (KA)	40					
Nominal discharge current (8/20uS) In (KA)	20					
Response time T (ns)	<25					
Temperature range	-40℃~ +80℃					
Material	PBT					
Color (module/ base)	Grey/gray					
Max back up fuse	32A gl					
Normal model	BY1-C/4-420-20,BY1-C/4-385-20					
With alarm model	BY1-C/4-420-20B					
With remote control contact model	BY1-C/4-420-20X					
Single phase 2P combined to single phase system	BY1-C/2-320-20					

BY1-C/3P

BY1-C/4P

8. BY1-C/3+1-320-20 & BY1-C/2+1-320-20

Type	BY1-C/3+1-320-20				BY1-C/2+1-320-20
Test to	IEC61643-1				IEC61643-1
class	C				C
Rated voltage Un (V)	380				220
Max continuous operating voltage Uc (V)	320	385	420	550	320
Protection level Up (KV)	≤ 1.5	≤ 2.0	≤ 2.0	≤ 2.5	≤ 1.5
Max continuous operating current (A)	300				20
Nominal discharge current (8/20uS) In (KA)	N-PE20		N-PE40		20
Response time T (ns)	<100				<100
Color (module/N-PE)	Gray/blue				Gray/blue
Protection grade	IP20				IP20
Max back up fuse	32A gl				32A gl

9. BY1-D/2 & BY1-D/4

BY1-D/1P

BY1-D/3P

Type	BY1-D/2	BY1-D/4
Class	D	D
Rated voltage Un (V)	220	380
Max continuous operating voltage Uc (V)	320	220
Protection level Up (KV)	≤ 1.0	≤ 1.0
Max discharge current Imax (8/20uS) (KA)	10	10
Nominal discharge current (8/20uS) In (KA)	5	5
Response time T (ns)	<25	<25
Temperature range	-40℃~ +80℃	-40℃~ +80℃
Max back up fuse	16A gl	16A gl
Material	PBT	PBT
Color (module/base)	Yellow/gray	Yellow/gray
Normal model	BY1-D/2-320	BY1-D/4-320
With alarm model	BY1-D/2-320B	BY1-D/4-320B
With remote control contact model	BY1-D/2-320X	BY1-D/4-320X

10. BY3-2.5/150,BY3-4.0/320,BY3-6.0/420

BY3-4.0/1P

BY3-4.0/2P

Type	BY3-2.5/150	BY3-4.0/320	BY3-6.0/420
Class	D	D	D
Rated voltage Un (V)	110	220	220
Max continuous operating voltage Uc (V)	150	320	420
Insulated resistance risol (M Ω)	>100	>100	>100
Protection level Up (KV)	≤ 0.8	≤ 1.0	≤ 1.5
Max discharge current Imax (8/20uS) (KA)	10	10	0
Nominal discharge current (8/20uS) In (KA)	5	5	5
Response time T (ns)	<100	<100	<100
Open voltage (1.2/50uS) Uoc (kV)	2.5	4.0	6.0
Temperature range	-40℃~ +80℃	-40℃~ +80℃	-40℃~ +80℃
Protection grade	IP20	IP20	IP20
Color	Yellow	Yellow	Yellow
Material	PBT	PBT	PBT

BYX-JZ Series Signal Surge Protective Device

BYX-JZ

BYX-JZ series signal surge protect device is mainly used to protect telephone and fax machine line, DDN and ISDN special line, computer connect port and auto control equipment.
Mounting: 35mm DIN rail in series
Way: 1,4,8,12,16,24

Type	BYX-JZ GC110	BYX-JZ GD110	BYX-JZ GC48	BYX-JZ GD48	BYX-JZ GC24	BYX-JZ GD24	BYX-JZ GF48	BYX-JZ GF24
Rated voltage Un	DC110V		DC48V		DC24V		DC48V	DC24V
Maximum continuous operating voltage Uc	DC150V		DC60V		DC30V		DC60V	DC30V
Limiting voltage Up (10/700 uS)	⩽ 500V		⩽ 200V		⩽ 120V		⩽ 200V	⩽ 120V
Nominal discharge current (8/20uS) In (KA)	10KV							
Surge protected volage Ur (1kV/uS)	⩽ 600V							
Transmission Frequency	2MHz	10MHz	2MHz	10MHz	2MHz	10MHz	100MHz	
Insertion loss	<0.5db						⩽ 3db	
Connect model	Terminals							
Protect cores	1,2							
Protect method	Whole protection mode							
Response time T	<10ns							

AN-PE Series Signal Surge Protective Device

AN-PE

Type	AN-PE			
Poles number	1P+NPE		2P+NPE	3P+NPE
Maximum continuous operating voltage Uc	L/N-PE	385	385	385
	L/N	320	320	320
Protection level (Up)	L/N-PE	<1.5	<1.2	<1.2
	L/N	<1.5	<1.5	<1.5
Max dischange current (8/20uS) Imax (KA)	40			
Nominal discharge current (8/20uS) In (KA)	20			
Response time T	<25			
Chass of protection	IP20			

Relay & Contactor & Frequency Transformer

JRS1 Series Thermal Relay

JRS1-09-25

1. Application

JRS1 series thermal relay is suitable for using in the circuits rated voltage up to 660V, rated current up to 80A, AC 50/60Hz, for over-current protection of AC motor. The relay has the differential mechanism and temperature compensation and can plug in CJX2 series AC contactor. The product conforms to IEC60947-4-1 standard.

2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current(A)	Motion time			Start condition	Ambient temperature
1	1.05	>2h			Cold state	20±5° C
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10A	4s<Tp≤10s	>63A		

JRS1-40-80

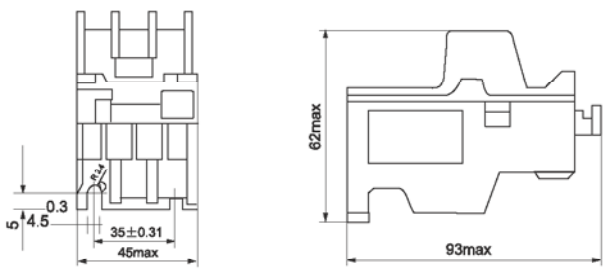
3. Phase-losing Motion Characteristic

No	Times of the setting current(A)		Motion time	Start condition	Ambient temperature
	Any two phases	Another phase			
1	1.0	0.9	>2h	Cold state	20±5° C
2	1.15	0	<2h	Heat state (Following the No.1 test)	

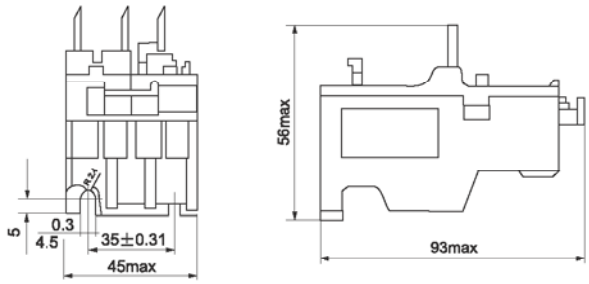
4. Specification

Type	Number	Setting range (A)	For contactor
JRS1	09301	0.1~0.16	CJX2-D09
	09302	0.16~0.25	CJX2-D09
	09303	0.25~0.4	CJX2-D09
	09304	0.4~0.63	CJX2-D09
	09305	0.63~1	CJX2-D09
	09306	1~1.6	CJX2-D09
	09307	1.6~2.5	CJX2-D09
	09308	2.5~4	CJX2-D09
	09310	4~6	CJX2-D09
	09312	5.5~8	CJX2-D09
	09314	7~10	CJX2-D12
	12316	10~13	CJX2-D18
	16321	13~18	CJX2-D18
	25322	18~25	CJX2-D25
	40353	23~32	CJX2-D32
	40355	30~40	CJX2-D40
	63357	38~50	CJX2-D50
	63359	48~57	CJX2-D65
	63361	57~66	CJX2-D80
	80363	63~80	CJX2-D80

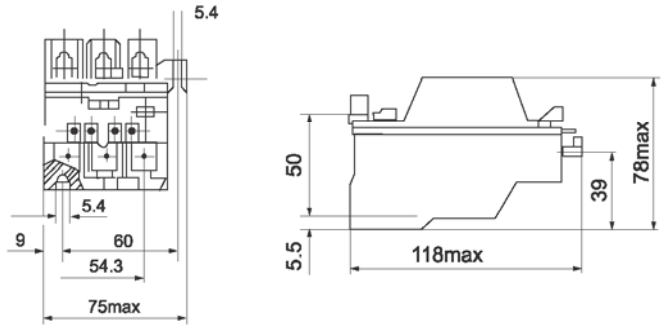
5. Outline and Mounting Dimension



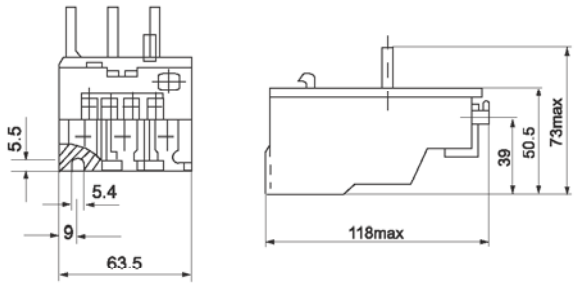
JRS1-09-25 F type



JRS1-09-25 Z type



JRS1-40-80 F type



JRS1-40-80 Z type

6. Accessories

Pic		
Description	JRS1 mounting base	JRS1 mounting base
Application	Assembled with JRS1-09~25 to form a complete set	Assembled with JRS1-40~80 to form a complete set

JRS2 Series Thermal Relay

JRS2-12.5/Z

JRS2-25/Z

JRS2-32/Z

JRS2-45/Z

JRS2-63/Z

1. Application

JRS2 thermal relay is suitable for AC 50/60Hz, voltage up to 660V and current up to 630A, general AC motor of long or discontinuous long operation, used as overload protection and has the functions of breaking phase protection, temperature compensation, and trip indication. It can automatically and manually get back. It can be fixed with contactor CJX1 together, also be independtly fixed. The product conforms to IEC60947-4-1 standard.

2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current	Motion time			Start condition	Ambient temperature
1	1.05	>2h			Cold state	20±5℃
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10A	4s<Tp≤10s	>63A		

3. Phase-losing Motion Characteristic

No	Times of the setting current		Motion time	Start condition	Ambient temperature
	Any two phases	Another phase			
1	1.0	0.9	>2h	Cold state	20±5℃
2	1.15	0	<2h	Heat state (Following the No.1 test)	

4. Specification

Type	Number	Setting range (A)	For contactor
JRS2-12.5/Z	0A	0.1~0.16	CJX1-09 CJX1-12
	0C	0.16~0.25	
	0E	0.25~0.4	
	0G	0.4~0.63	
	0J	0.63~1	
	0K	0.8~1.25	
	1A	1~1.6	
	1B	1.25~2	
	1C	1.6~2.5	
	1D	2~3.2	
	1E	2.5~4	
	1F	3.2~5	
	1G	4~6.3	
	1H	5~8	
	1J	6.3~10	
	1K	8~12.5	
	2S	10~14.5	

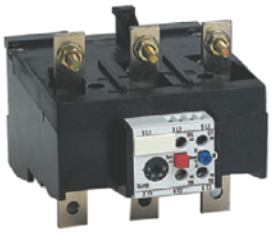
Type	Number	Setting range (A)	For contactor
JRS2-25/Z	0A	0.1~0.16	CJX1-16 CJX1-22
	0C	0.16~0.25	
	0E	0.25~0.4	
	0G	0.4~0.63	
	0J	0.63~1	
	0K	0.8~1.25	
	1A	1~1.6	
	1B	1.25~2	
	1C	1.6~2.5	
	1D	2~3.2	
	1E	2.5~4	
	1F	3.2~5	
	1G	4~6.3	
	1H	5~8	
	1J	6.3~10	
	1K	8~12.5	
	2A	10~16	
	2B	12.5~20	
	2C	16~25	

ANDELI

JRS2

JRS2-80/Z

JRS2-135



JRS2-150

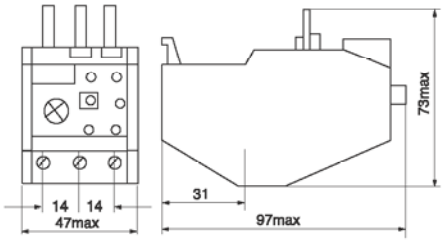
JRS2-180/F

JRS2-400/F
JRS2-630/F

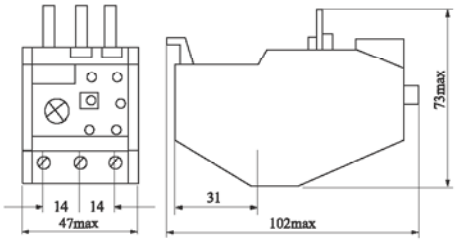
Type	Number	Setting range (A)	For contactor
JRS2-32/Z	1G	4~6.3	CJX1-32
	1J	6.3~10	
	2A	10~16	
	2B	12.5~20	
	2C	16~25	
	2D	20~32	
	2Q	25~36	
JRS2-45/Z	0A	0.1~0.16	CJX1-32 CJX1-38
	0C	0.16~0.25	
	0E	0.25~0.4	
	0G	0.4~0.63	
	0J	0.63~1	
	0K	0.8~1.25	
	1A	1~1.6	
	1B	1.25~2	
	1C	1.6~2.5	
	1D	2~3.2	
	1E	2.5~4	
	1F	3.2~5	
	1G	4~6.3	
	1H	5~8	
	1J	6.3~10	
	1K	8~12.5	
	2A	10~16	
	2B	12.5~20	
	2C	16~25	
	2D	20~32	
	2Q	25~36	
	2R	32~40	
	8M	36~45	
JRS2-80/Z	1G	4~6.3	CJX1-45 CJX1-63 CJX1-75 CJX1-85
	8A	11~17	
	2B	12.5~20	
	2C	16~25	
	2D	20~32	
	2E	25~40	
	2F	32~50	
	2T	40~57	
	2P	50~63	
	2V	57~70	
	2U	63~80	
	8W	70~88	
JRS2-63/F	0A	0.1~0.16	CJX1-09~63
	0C	0.16~0.25	
	0E	0.25~0.4	
	0G	0.4~0.63	
	0J	0.63~1	

Type	Number	Setting range (A)	For contactor
JRS2-63/F	0K	0.8~1.25	CJX1-09~63
	1A	1~1.6	
	1B	1.25~2	
	1C	1.6~2.5	
	1D	2~3.2	
	1E	2.5~4	
	1F	3.2~5	
	1G	4~6.3	
	1H	5~8	
	1J	6.3~10	
	1K	8~12.5	
	2A	10~16	
	2B	12.5~20	
	2C	16~25	
	2D	20~32	
	2E	25~40	
	2M	32~45	
	2T	40~57	
	2P	50~63	
JRS2-135	2H	55~80	CJX1-85 CJX1-110
	2W	63~90	
	2X	80~110	
	3H	90~120	
	3J	110~135	
JRS2-150	2H	55~80	CJX1-140
	2W	63~90	
	2X	80~110	
	3H	90~120	
	3J	110~135	
	3K	120~150	
JRS2-180/F	2H	55~80	CJX1-170 CJX1-205
	2W	63~90	
	2X	80~110	
	3H	90~120	
	3J	110~135	
	3K	120~150	
	3L	135~160	
	3M	150~180	
JRS2-400	2K	80~125	CJX1-110~400
	3B	125~200	
	3C	160~250	
	3D	200~320	
	3E	250~400	
JRS2-630	3F	320~500	CJX1-400
	3G	400~630	

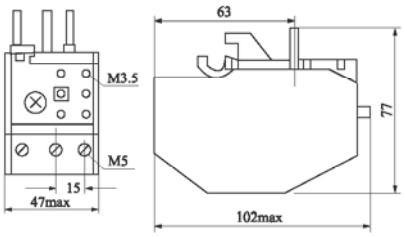
5. Outline and Mounting Dimension



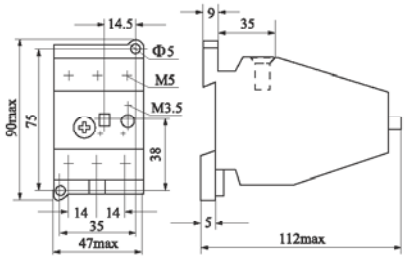
JRS2-12.5



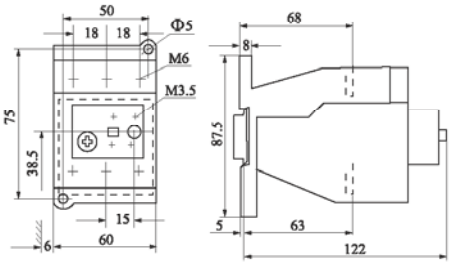
JRS2-25



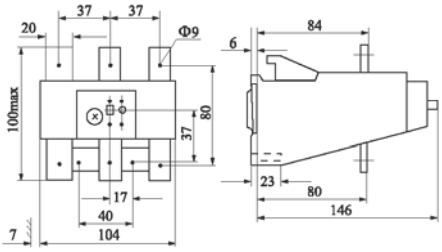
JRS2-32



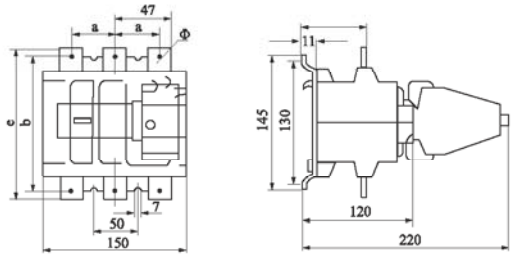
JRS2-63



JRS2-80



JRS2-180



JRS2-400~630

Type	JRS2-400	JRS2-630
a	50	52
b	146	156
c	70	71
Φ	11	11
e	171	186
f	25×4	30×5

6. Accessories

Pic				
Description	JRS2 mounting base	JRS2 mounting base	JRS2 mounting base	Terminal block box
Application	Assembled with JRS2-12.5/Z to form a complete set	Assembled with JRS2-80/Z to form a complete set	Assembled with JRS2-45/Z to form a complete set	Assembled with JRS2-135/Z to form a complete set

JR28 Series Thermal Relay

JR28-25

JR28-36

JR28-93

JR28-150

JR28-200

1. Application

JR28 series thermal relay is suitable for using in the circuit rated voltage up to 660V, rated current 93A AC 50/ 60Hz, for over-current protection of AC motor. The relay has the differential mechanism and temperature compensation and can plug in CJX2 series AC contactor. The product conforms to IEC60947-4-1 standard.

2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current(A)	Motion time			Start condition	Ambient temperature
1	1.05	>2h			Cold state	20±5℃
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10A	4s<Tp≤10s	>63A		

3. Phase-losing Motion Characteristic

No	Times of the setting current(A)		Motion time	Start condition	Ambient temperature
	Any two phases	Another phase			
1	1.0	0.9	>2h	Cold state	20±5℃
2	1.15	0	<2h	Heat state (Following the No.1 test)	

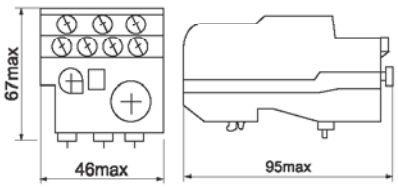
4. Specification

Type	Number	Setting range (A)	For contactor
JR28-25	1301	0.1~0.16	CJX2-D09
	1302	0.16~0.25	CJX2-D09
	1303	0.25~0.4	CJX2-D09
	1304	0.4~0.63	CJX2-D09
	1305	0.63~1	CJX2-D09
	1306	1~1.6	CJX2-D09
	1307	1.6~2.5	CJX2-D09
	1308	2.5~4	CJX2-D09
	1310	4~6	CJX2-D09
	1312	5.5~8	CJX2-D09
	1314	7~10	CJX2-D12
	1316	9~13	CJX2-D18
	1321	12~18	CJX2-D18
	1322	17~25	CJX2-D25
JR28-36	2353	23~32	CJX2-D32
	2355	30~40	CJX2-D40
JR28-93	3322	17~25	CJX2-D25
	3353	23~32	CJX2-D32
	3355	30~40	CJX2-D40
	3357	37~50	CJX2-D50
	3359	48~65	CJX2-D65
	3361	55~70	CJX2-D80
	3363	63~80	CJX2-D80
	3365	80~93	CJX2-D95
JR28-150	4365	80~104	CJX2-F115
	4367	95~120	CJX2-F150
	4369	110~140	CJX2-F150

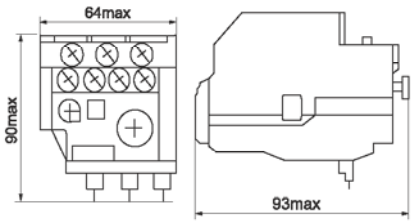
JR28-630

Type	Number	Setting range (A)	For contactor
JR28-150	5369	90~150	CJX2-F150
JR28-200	F5357	30~50	CJX2-F50
	F5363	48~80	CJX2-F80
	F5367	60~100	CJX2-F115
	F5369	90~150	CJX2-F150
JR28-630	F5371	132~220	CJX2-F225
	F7375	200~330	CJX2-F330
	F7379	300~500	CJX2-F500
	F7381	380~630	CJX2-F630

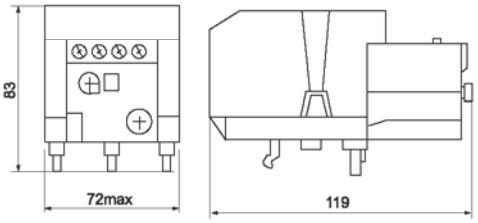
5. Outline and Mounting Dimension



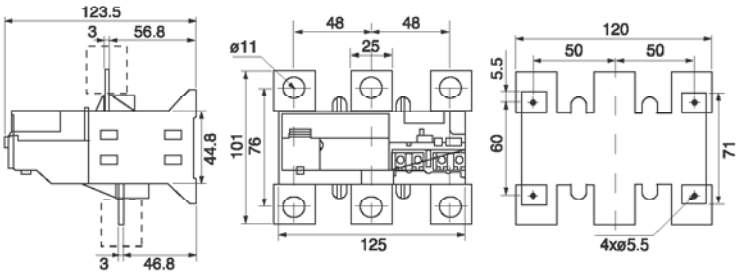
JR28-25



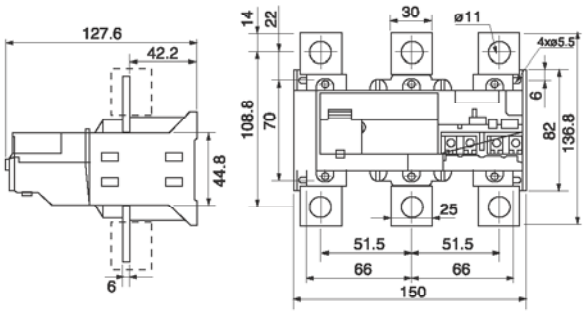
JR28-36



JR28-93



JR28-200



JR28-630

6. Accessories

Pic			
Description	JR28-25 mounting base	JR28-36 mounting base	JR28-93 mounting base
Application	Assembled with JR28-25 to form a complete set	Assembled with JR28-36 to form a complete set	Assembled with JR28-93 to form a complete set

JR28N Series Thermal Relay

1. Application

JR28N series thermal relay is suitable for using in the circuits rated voltage up to 660V, rated current 93A AC 50/60Hz, for over-current protection of AC motor. The relay has the differential mechanism and temperature compensation and can plug in CJX2N series AC contactor. The product conforms to IEC60947-4-1 standard.

JR28N-25

2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current(A)	Motion time			Start conidition	Ambient temperature
1	1.05	>2h			Cold state	20±5℃
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10A	4s<Tp≤10s	>63A		

3. Phase-losing Motion Characteristic

No	Times of the setting current(A)		Motion time	Start condition	Ambient temperature
	Any two phases	Another phase			
1	1.0	0.9	>2h	Cold state	20±5℃
2	1.15	0	<2h	Heat state (Following the No.1 test)	

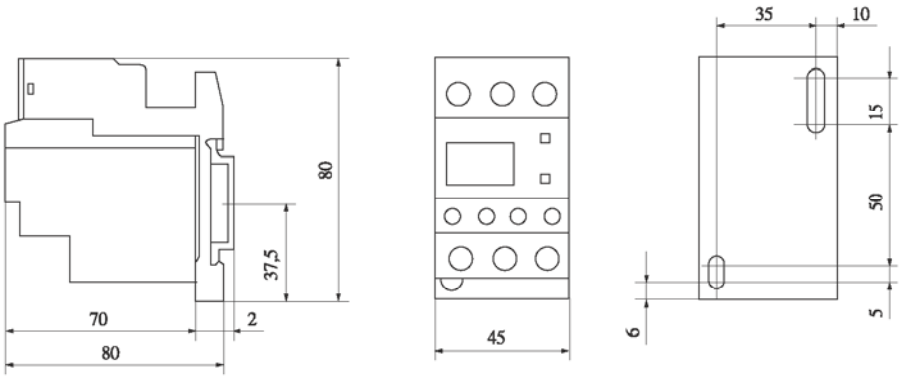
JR28N-36

4. Specification

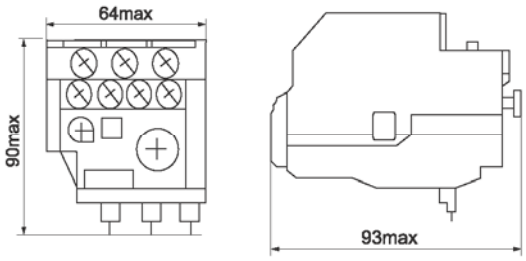
Type	Number	Setting range (A)	For contactor
JR28N-25	D01	0.10~0.16	CJX2N-D09
	D02	0.16~0.25	CJX2N-D09
	D03	0.25~0.40	CJX2N-D09
	D04	0.40~0.63	CJX2N-D09
	D05	0.63~1	CJX2N-D09
	D06	1~1.7	CJX2N-D09
	D07	1.6~2.5	CJX2N-D09
	D08	2.5~4	CJX2N-D09
	D10	4~6	CJX2N-D09
	D12	5.5~8	CJX2N-D09
	D14	7~10	CJX2N-D12
	D16	9~13	CJX2N-D18
	D21	12~18	CJX2N-D18
	D22	16~24	CJX2N-D25
	D53	30~38	CJX2N-D40
JR28N-36	2353	23~32	CJX2N-D32
	2355	30~40	CJX2N-D40
JR28N-93	3322	17~25	CJX2N-D25
	3353	23~32	CJX2N-D32
	3355	30~40	CJX2N-D40
	3357	37~50	CJX2N-D50
	3359	48~65	CJX2N-D65
	3361	55~70	CJX2N-D80
	3363	63~80	CJX2N-D80
	3365	80~93	CJX2N-D95

JR28N-93

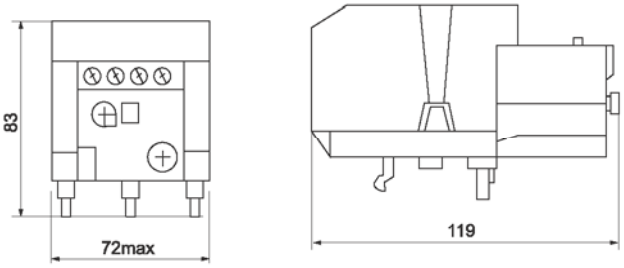
5. Outline and Mounting Dimension



JR28N-25



JR28N-36



JR28N-93

6. Accessories

Pic		
Description	JR28N-36 mounting base	JR28N-93 mounting base
Application	Assembled with JR28N-36 to form a complete set	Assembled with JR28N-93 to form a complete set

JR29 Series Thermal Relay

JR29-16

1. Application

JR29 series thermal overload relay is mainly suitable for A.C.electric power system with voltage up to 660V, current up to 500A, 50/60Hz. It is generally used for the protection of overload and phase-lacking in circuits with three-phase induce motors and is often made up electromagnetic starters with CJX8 series A.C. contactors. The product conforms to IEC60947-4-1 standard.
Noter: JR29-16 is manually reset automatic to the other.

JR29-25

2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current(A)	Motion time			Start condition	Ambient temperature
1	1.05	>2h			Cold state	20±5℃
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10A	4s<Tp≤10s	>63A		

JR29-45

3. Phase-losing Motion Characteristic

No	Times of the setting current(A)		Motion time	Start condition	Ambient temperature
	Any two phases	Another phase			
1	1.0	0.9	>2h	Cold state	20±5℃
2	1.15	0	<2h	Heat state (Following the No.1 test)	

JR29-75

4. Specification

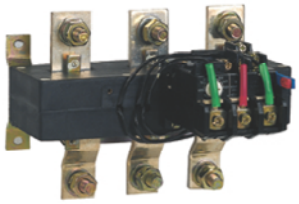
Type	Setting range (A)	For contactor
JR29-16	0.11~0.16	CJX8-09 CJX8-12 CJX8-16
	0.14~0.21	
	0.19~0.29	
	0.27~0.4	
	0.35~0.52	
	0.42~0.63	
	0.55~0.83	
	0.7~1.0	
	0.9~1.3	
	1.1~1.5	
	1.3~1.8	
	1.5~2.1	
	1.7~2.4	
	2.1~3	
	2.7~4	
	3.4~4.5	
	4~6	
	5.2~7.5	
	6.3~9	
	7.5~11	
	9~13	
	12~17.6	

Type	Setting range (A)	For contactor
JR29-25	0.1~0.16	CJX8-25 CJX8-30
	0.16~0.25	
	0.25~0.4	
	0.4~0.63	
	0.63~1	
	1~1.4	
	1.3~1.8	
	1.7~2.4	
	2.2~3.1	
	2.8~4	
	3.5~5	
	4.5~6.5	
	6~8.5	
	7.5~11	
	10~14	
	13~19	
	18~25	
	24~32	
JR29-45	0.28~4	CJX8-37 CJX8-45
	0.35~0.52	
	0.45~0.63	
	0.55~0.83	

JR29-85

JR29-105

JR29-170



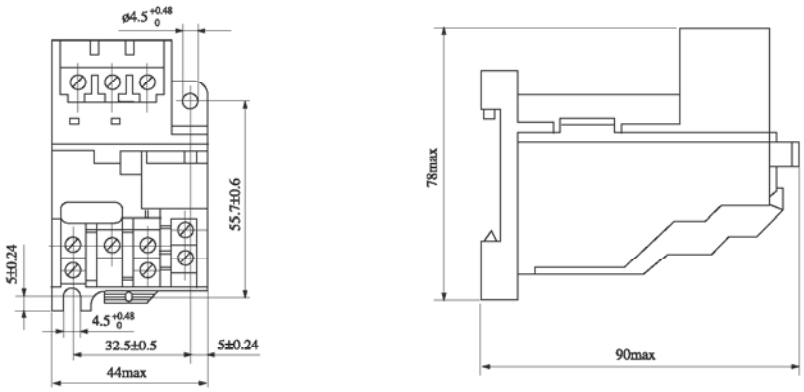
JR29-250

JR29-370

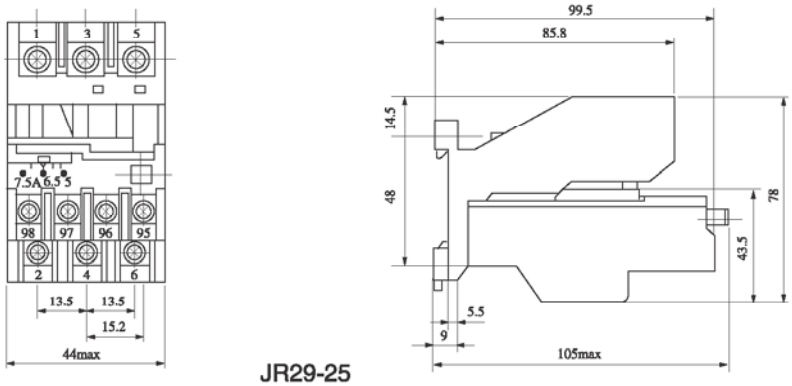
Type	Setting range (A)	For contactor
JR29-45	0.7~1	CJX8-37 CJX8-45
	0.86~1.3	
	1.1~1.6	
	1.4~2.1	
	1.8~2.5	
	2.2~3.3	
	2.8~4	
	3.2~5.2	
	4.5~6.3	
	5.5~8.3	
	7~10	
	8.6~13	
	11~16	
	14~21	
	18~27	
	25~35	
	30~45	
JR29-75	29~42	CJX8-45 CJX8-65 CJX8-85
	36~52	
	45~63	
	66~80	
JR29-85	6~10	
	8~14	
	12~20	

Type	Setting range (A)	For contactor
JR29-85	17~29	CJX8-65 CJX8-85
	25~40	
	35~55	
	45~70	
	60~100	
JR29-105	27~42	CJX8-105
	36~52	
	45~63	
	57~82	
	70~105	
	80~115	
JR29-170	90~130	CJX8-170
	110~160	
	140~200	
JR29-250	100~160	CJX8-250
	160~250	
	250~400	
JR29-370	100~160	CJX8-370
	160~250	
	250~400	
	310~500	

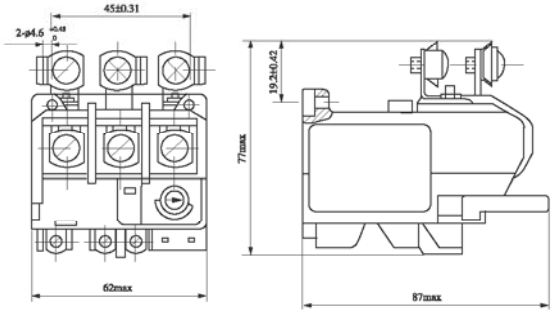
5. Outline and Mounting Dimension



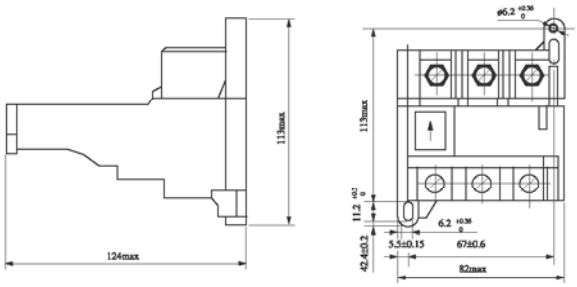
JR29-16



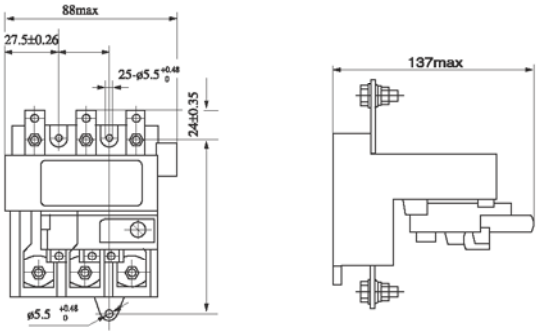
JR29-25



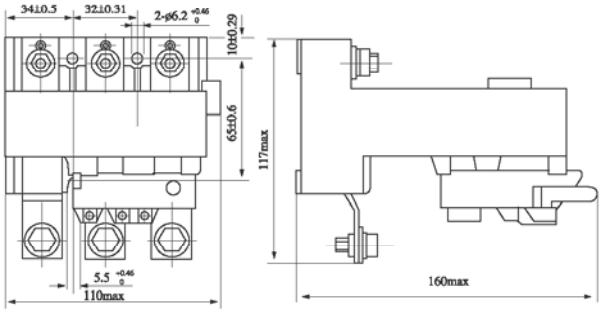
JR29-45



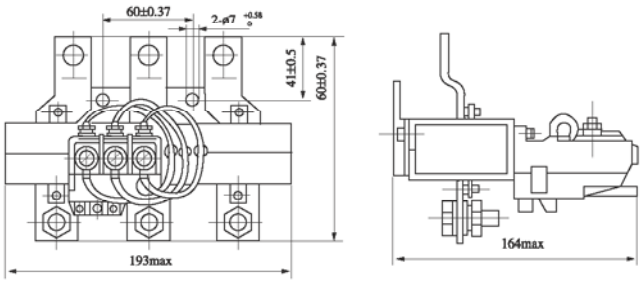
JR29-85



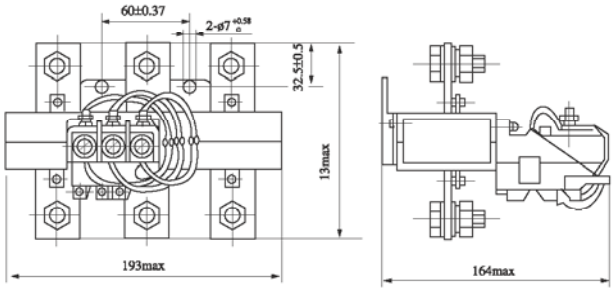
JR29-105



JR29-170



JR29-250



JR29-370

6. Accessories

Pic			
Description	JR29-16 mounting base	JR29-25 mounting base	JR29-75 mounting base
Application	Assembled with JR29-16 to form a complete set	Assembled with JR29-25 to form a complete set	Assembled with JR29-75 to form a complete set

JRS5 Series Thermal Relay

1. Application

JRS5 thermal relay is suitable for overload protection of AC motor operated on 8-houres duty or uninterupted duty. The overload protected AC motor with frequency 50Hz, voltage up to 660V, current up to 105A. Several functions provided by these relays are: phase-failure protection, temperature compensation, ON/OFF indication and manual/automatic reset. The product conforms to IEC60947-4-1 standard.

JRS5-12/Z

2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current(A)	Motion time			Start condition	Ambient temperature
1	1.05	>2h			Cold state	20±5℃
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10A	4s<Tp≤10s	>63A		

JRS5-20/F

3. Phase-losing Motion Characteristic

No	Times of the setting current(A)		Motion time	Start condition	Ambient temperature
	Any two phases	Another phase			
1	1.0	0.9	>2h	Cold state	20±5℃
2	1.15	0	<2h	Heat state (Following the No.1 test)	

4. Specification

JRS5-60/F

Type	Setting range (A)	For contactor
JRS5-12/Z	0.2~0.28	S-K10 S-K11 S-K12 S-K18 S-K20 S-K21
	0.28~0.42	
	0.4~0.6	
	0.55~0.85	
	0.7~1.1	
	1~1.6	
	1.4~2	
	1.7~2.5	
	2~3	
	2.8~4.4	
	4~6	
	5.2~8	
	7~11	
	9~13	
JRS5-20/F	0.2~0.28	S-K18 S-K20 S-K21 S-K25 S-K35
	0.28~0.42	
	0.4~0.6	
	0.55~0.85	
	0.7~1.1	
	1~1.6	
	1.4~2	
	1.7~2.5	

Type	Setting range (A)	For contactor
JRS5-20/F	2~3	S-K18 S-K20 S-K21 S-K25 S-K35
	2.8~4.4	
	4~6	
	5.2~8	
	7~11	
	9~13	
	12~18	
	16~22	
	18~26	
	24~34	
	30~40	
JRS5-60/F	12~18	S-K50 S-K65 S-K80 S-K95
	16~22	
	18~26	
	24~34	
	30~40	
	34~50	
	43~65	
	54~80	
	65~93	
	85~105	

Outline and Mounting Dimension please see page B-15

JR30 Series Thermal Relay

JR30-40

1. Application

JR30 series thermal relay is used in the circuit of 50/60Hz, rated insulation voltage 660V, rated current 0.1-85A for protecting the phase break when the electric motor is overloaded. The relay has different mechanism and temperature compensation. It can be plugged in CJX5 series AC contactor. The product conforms to IEC60947-4-1 standard.

2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current(A)	Motion time			Start conidition	Ambient temperature
1	1.05	>2h			Cold state	20±5℃
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10A	4s<Tp≤10s	>63A		

3. Phase-losing Motion Characteristic

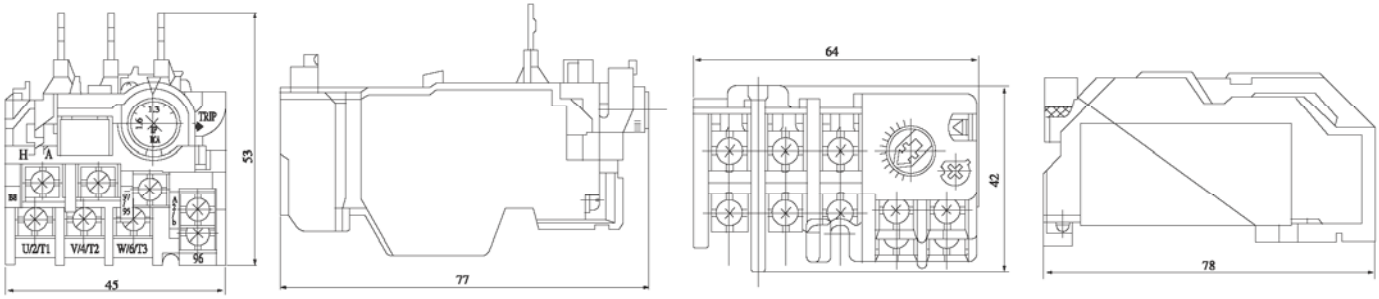
No	Times the setting current(A)		Motion time	Start condition	Ambient temperature
	Any two phases	Another phase			
1	1.0	0.9	>2h	Cold state	20±5℃
2	1.15	0	<2h	Heat state(Following the No.1 test)	

JR30-85

4. Specification

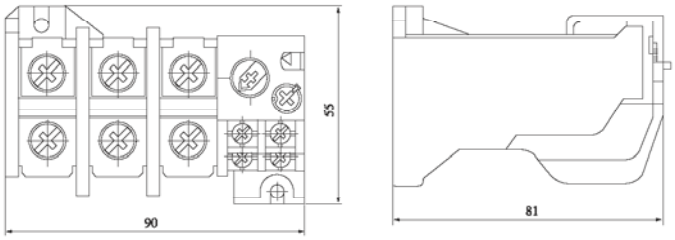
Ratings	Type	JR30-22			JR30-40			JR30-85		
	Nominal current	Ranges			Ranges			Ranges		
		Min.	Mid.	Max.	Min.	Mid.	Max.	Min.	Mid.	Max.
Rated current(A)	0.14	0.1	0.14	0.16						
	0.21	0.16	0.21	0.25						
	0.33	0.25	0.33	0.4						
	0.52	0.4	0.52	0.63						
	0.82	0.63	0.82	1						
	1.3	1	1.3	1.6						
	2.1	1.6	2.1	2.5						
	3.3	2.5	3.3	4						
	5	4	5	6	4	5	6			
	6.5	5	6.5	8	5	6.5	8			
	7.5	6	7.5	9	6	7.5	9			
	8.5	7	8.5	10	7	8.5	10	7	8.5	10
	11	9	11	13	9	11	13	9	11	13
	15	12	15	18	12	15	18	12	15	18
	19	16	19	22	16	19	22	16	19	22
	22				18	22	26	18	22	26
	30				24	30	36	24	30	36
	34				28	34	40	28	34	40
	42							34	42	50
	55							45	55	65
	65							54	65	75
	74							63	74	85
Element No.	2 heaters	Standard			Standard			Standard		
	3 heaters	Option			Option			Option		
Aux. Contact		1NO 1NC			1NO 1NC			1NO 1NC		
Reset type		Auto/Manual			Auto/ Manual			Auto/Manual		
Power consumption		1.8VA/heater			1.8VA/heater			1.8VA/heater		
Separate mounting unit		AZ-22H			AZ-40H			AZ-85H		
Other model		JR30-22/3			JR30-40/3			JR30-85/3		
		JR30-22			JR30-40			JR30-85		
		JR30-22/L			JR30-40/L			JR30-85/L		
Applied contactors		CJX5-9,12,18,22			CJX5-32,40			CJX5-50,65,75,85		

5. JRS5 Outline and Mounting Dimension



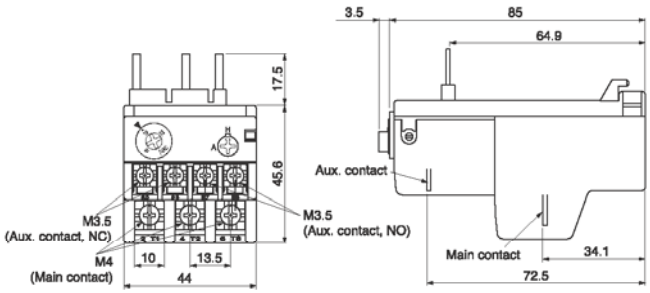
JRS5-12/Z

JRS5-20/P

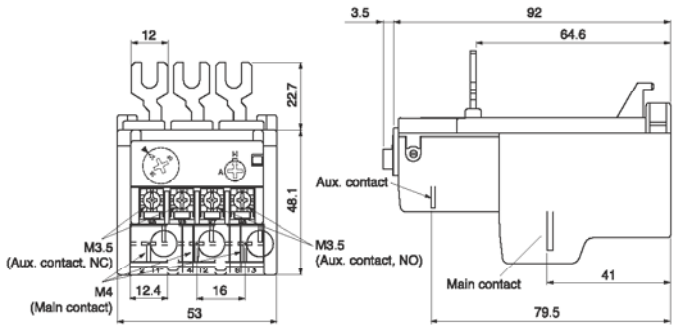


JRS5-60/F

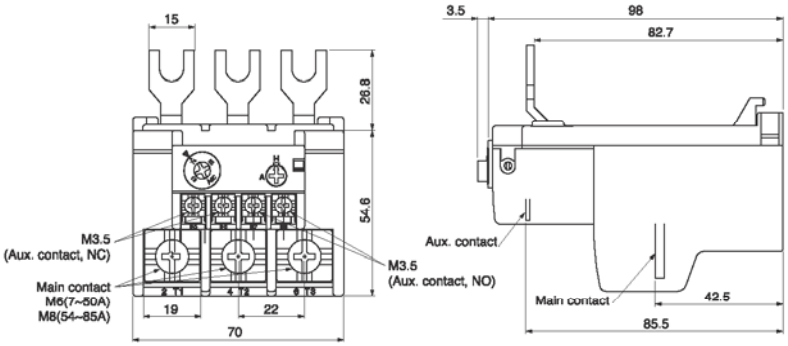
6. JR30 Outline and Mounting Dimension



JR30-22



JR30-40



JR30-85

JR56 Series Thermal Relay

1. Application

JR56 series thermal relay is used in the circuit of 50/60Hz, rated insulation voltage 660V, rated current 0.3-95A for protecting the phase break when the electric motor is overloaded. The relay has different mechanism and temperature compensation. It can be plugged in CJX3 series AC contactor. The product conforms to IEC60947-4-1 standard.

JR56-20

2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current(A)	Motion time			Start conidition	Ambient temperature
1	1.05	>2h			Cold state	20±5℃
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10A	4s<Tp≤10s	>63A		

3. Phase-losing Motion Characteristic

No	Times the setting current(A)		Motion time	Start condition	Ambient temperature
	Any two phases	Another phase			
1	1.0	0.9	>2h	Cold state	20±5℃
2	1.15	0	<2h	Heat state(Following the No.1 test)	

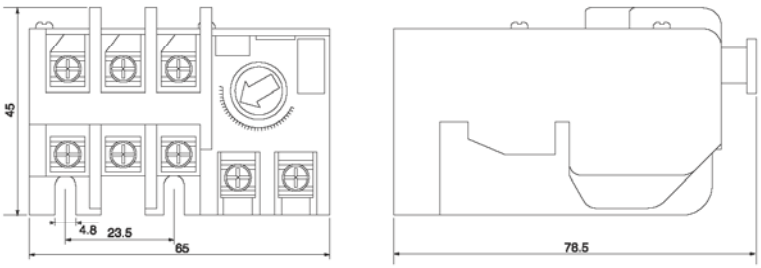
4. Specification

Type	Setting range (A)	For contactor
JR56-20	0.3~0.5	CJX3-10 CJX3-11 CJX3-12 CJX3-16 CJX3-18 CJX3-19 CJX3-25
	0.6~1	
	1~1.6	
	1.5~2.5	
	2~3	
	3~5	
	4~6	
	4.8~8	

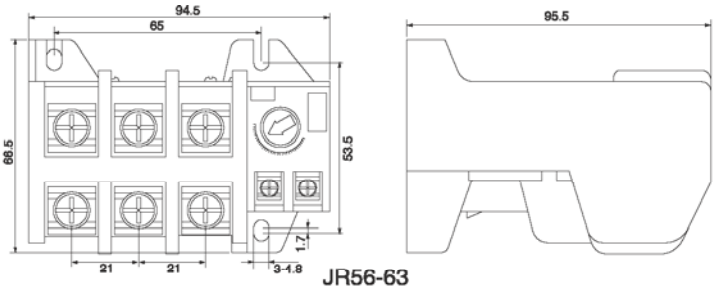
Type	Setting range (A)	For contactor
JR56-20	7.5~12	
	12~18	
	20~28	
JR56-63	24~34	CJX3-35 CJX3-50 CJX3-65 CJX3-80
	25~40	
	28~62	
	48~80	
	60~95	

JR56-63

5. Outline and Mounting Dimension



JR56-20



JR56-63

JR26 Series Thermal Relay

JR26

1. Application

JR26 thermal relay is suitable for overload protection of AC motor operated on 8-hours duty or uninterrupt duty. The overload protected AC motor with frequency 50Hz, voltage up to 660V, current up to 30A. Several functions provided by these relays are: phase-failure protection, temperature compensation. The product conforms to IEC60947-4-1 standard.

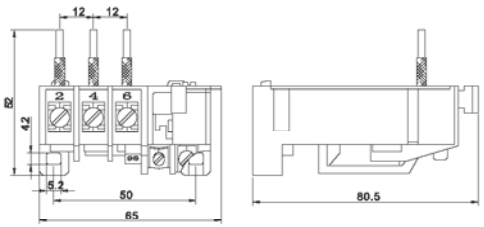
2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current(A)	Motion time			Start condition	Ambient temperature
1	1.05	>2h			Cold state	20±5℃
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10A	4s<Tp≤10s	>63A		

3. Specification

Type	Setting range (A)
JR26-25	2.4~3.8
	3.8~6
	6~9.3
	8.9~13.5
	13.5~20
	17.4~24
	22~30

4. Outline and Mounting Dimension



LR7 Series Thermal Relay

LR7

1. Application

LR7 thermal relay is suitable for overload protection of AC motor operated on 8-hours duty or uninterrupted duty. The overload protected AC motor with frequency 50Hz, voltage up to 660V, current up to 38A. Several functions provided by these relays are: phase-failure protection, temperature compensation. The product conforms to IEC60947-4-1 standard.

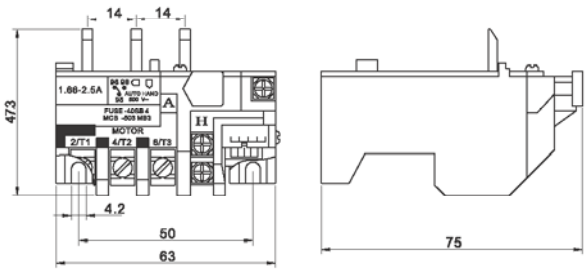
2. Motion Characteristic: Three-phase Balance Motion Time

No	Times of the setting current(A)	Motion time			Start condition	Ambient temperature
1	1.05	>2h			Cold state	20±5℃
2	1.2	<2h			Heat state (Following the No.1 test)	
3	1.5	<4min				
4	7.2	10A	2s<Tp≤10s	≤63A	Cold state	
		10	4s<Tp≤10s	>63A		

3. Specification

Type	Setting range (A)
LR7-20	0.6~1.11
	1.11~1.66
	2.5~3.7
	1.62~2.5
	3.7~5.6
	5.6~8.4
	8.4~11.9
	11.9~16
	16~23
	23~27
	27~33
	33~38

4. Outline and Mounting Dimension



JR-SS Electronic Overload Relay

1. Application

JR-SS electronic overload relay is suitable for AC 50/60Hz, voltage up to 600VAC and current up to 60A. It is used as overload and phase loss protection, independently adjustable starting and trip delay, visual current setting aid and trip indication, fail safe protection (N type) and electronic shear pin function. The product conforms to IEC60947-1 standard.

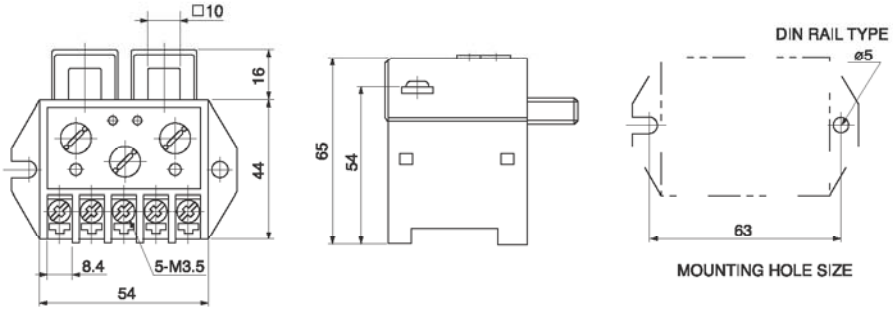
JR-SS

2. Specification

Type	JR-SS		
Current range	05) 0.5 - 5A (scale 6.5A)		
	30) 3 - 30A (scale 35A)		
	60) 5 - 60A (scale 70A)		
Rated voltage	600VAC, 50/60Hz		
Operating setting	D-TIME		0.2 - 30 seconds
	O-TIME		0.2 - 10 seconds
Accuracy	Current		±10%
	Time		±15% of max. time set value
Time characteristics	Definite time		
Control voltage	220) Voltage free(90 ~ 260)VAC, 50/60Hz 440) Voltage free(320 ~ 480)VAC, 50/60Hz Other voltage optional.		
Current sensing	2 CTs		
Output contacts	Contacts		SPDT 3A/250VAC Resistive
	Condition	N Type	Normally energized : 95 —┤ ├—98closed
		R Type	Normally De-energized : 95 —┤/├—98closed
Reset	Manual or remote electrical by interrupting supply		
Environment	Temp. Run	Run	-20 + 70 deg.℃
		Store	-30 + 80 deg.℃
	Humidity		45 ~ 85% RH, non-condsing
Insulation	Between casing and circuits : Over 10MΩ with DC 500V megger		
Dielectric strength	1)Between casing & circuits : AC 2000V, 60Hz, 1min		
	2)Between contacts : AC 1000V, 60Hz, 1min		
	3)Between circuits : AC 2000V, 60Hz, 1min		
Power consumption	Under 2W		
Mounting	35mm Din Rail(D)		

The run-up current of motor (starting current) does relay trip because overcurrent protection of JR-SS is not applied during during motor run-up time.

3. Outline and Mounting Dimension



JDB200-B Series Solid State Overload Relay

1. Application

The JDB200-B series solid state overload relay is suitable for protection of phase-failurre and overload of AC motor of AC50/60Hz, rated voltage up to 690V, rated current up to 600A. The features are reliable, lower energy comsumption and broad adjusting current. The product confirms to IEC60947-4-1 standard.

JDB200-B20J

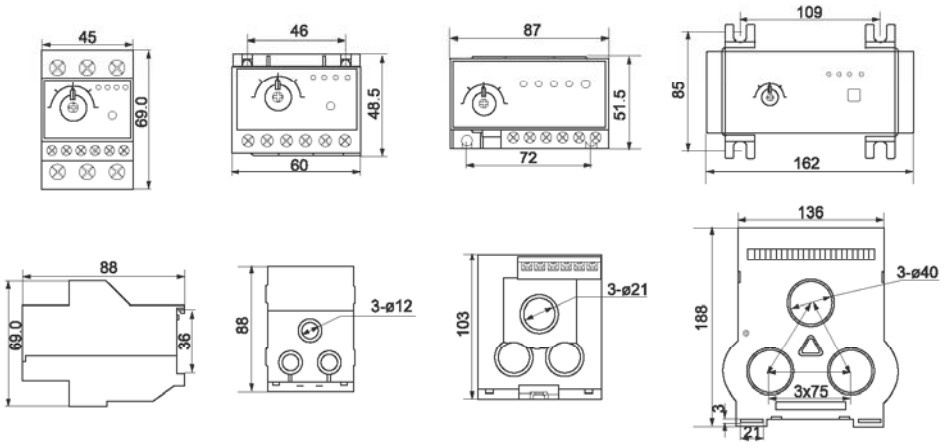
2. Specification

Type	Number	Rated current(A)	Setting current range(A)
JDB200-B20J	1.2A	20	0.3~1.2
	4A		1~4
	12A		3~12
	20A		5~20
JDB200-B60C	8A	60	2~8
	20A		5~20
	60A		15~60
JDB200-B200C	40A	200	10~40
	120A		30~120
	200A		50~200
JDB200-B600C	200A	600	50~200
	600A		150~600

JDB200-B200C

3. Outline and Mounting Dimension

JDB200-B600C



JDB200-B20J JDB200-B60C JDB200-B200C JDB200-B600C

General Relay

1. Main Technical Parameter

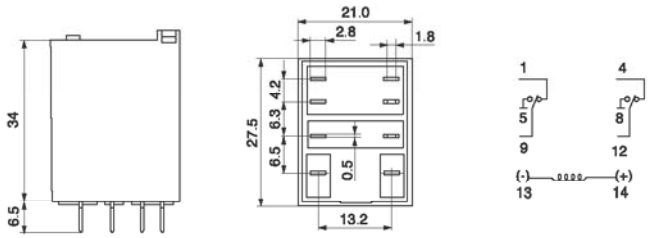
Specifications \ Model		55.02	55.04	55.32
Terminal layout		2Z	4Z	2Z
Contact capacity	AC	10A 250V	5A 250V	5A 250V
	DC	10A 30V	5A 30V	5A 30V
Contact resistance(mΩ)		≤ 50mΩ	≤ 50mΩ	≤ 50mΩ
Insulation resistance(MΩ)		≥ 100MΩ	≥ 100MΩ	≥ 100MΩ
Dielectric strength	BOC	1000VAC	1000VAC	1000VAC
	BCC	1500VAC	1500VAC	1500VAC
Coil nominal voltage	AC	6 to 240V	6 to 240V	6 to 240V
	DC	6 to 110V	6 to 110V	6 to 110V
Coil nominal power	AC	0.9VA to 1.2VA	0.9VA to 1.2VA	0.9VA to 1.2VA
	DC	≤ 0.9W	≤ 0.9W	≤ 0.9W
Electrical life(OPS)		10^5	10^5	10^5
Mechanical life(OPS)		10^7	10^7	10^7
Operating temperature(°C)		-40~+60	-4~+60	-40~+60
Weight(g)		≤ 35	≤ 35	≤ 35
Mounting methods		Printed-circuit board, Flange, Outlet	Printed-circuit board, Flange, Outlet	Printed-circuit board, Flange, Outlet

55.02

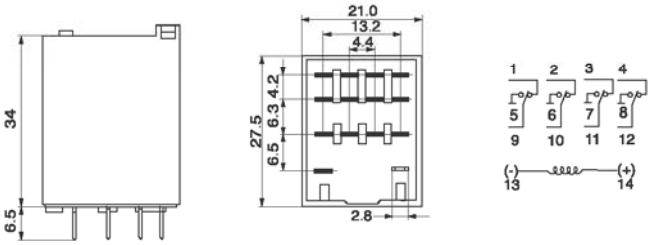
55.04

55.32

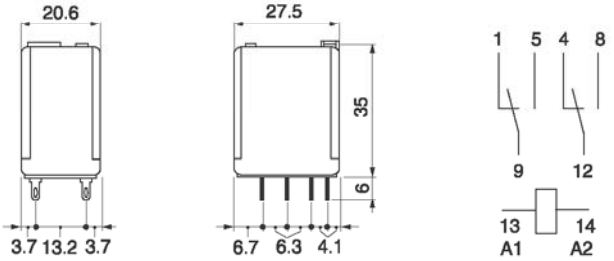
2. Dimension



55.02



55.04



55.32

General Relay

1. Main Technical Parameter

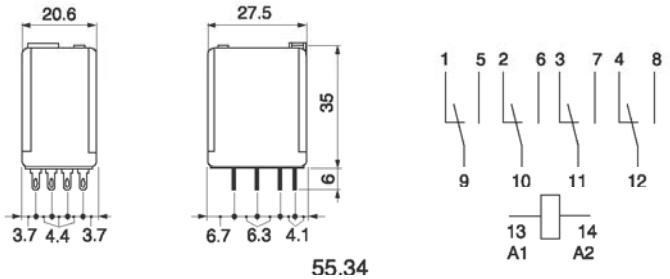
Specifications \ Model		55.34	57.02	57.04
Terminal layout		4Z	2Z	4Z
Contact capacity	AC	5A 250V	10A 250V	5A 250V
	DC	5A 30V	10A 30V	5A 30V
Contact resistance(mΩ)		≤ 50mΩ	≤ 50mΩ	≤ 50mΩ
Insulation resistance(MΩ)		≥ 100MΩ	≥ 100MΩ	≥ 100MΩ
Dielectric strength	BOC	1000VAC	1000VAC	1000VAC
	BCC	1500VAC	1500VAC	1500VAC
Coil nominal voltage	AC	6 to 240V	6 to 240V	6 to 240V
	DC	6 to 110V	6 to 110V	6 to 110V
Coil nominal power	AC	0.9VA to 1.2VA	0.9VA to 1.2VA	0.9VA to 1.2VA
	DC	≤ 0.9W	≤ 0.9W	≤ 0.9W
Electrical life(OPS)		10^5	10^5	10^5
Mechanical life(OPS)		10^7	10^7	10^7
Operating temperature(°C)		-40~+60	-40~+60	-40~+60
Weight(g)		≤ 35	≤ 35	≤ 35
Mounting methods		Printed-circuit board, Flange, Outlet	Printed-circuit board, Flange, Outlet	Printed-circuit board, Flange, Outlet

55.34

57.02

57.04

2. Dimension



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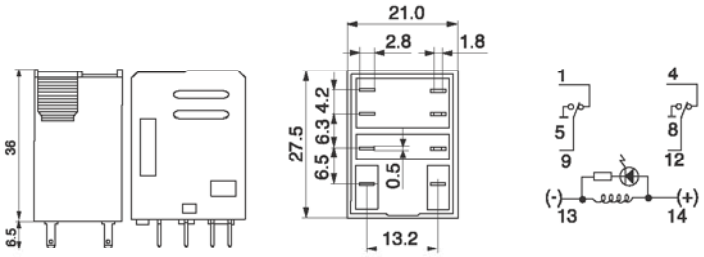

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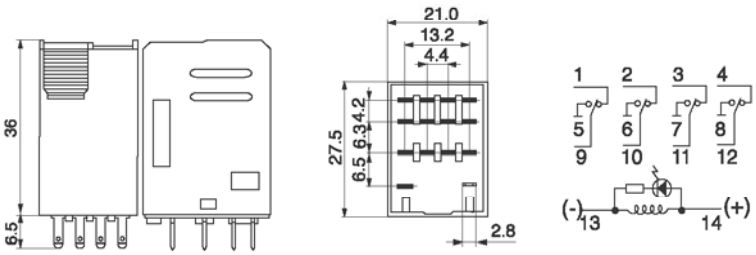


57.04

ANDELI

56.02

General Relay

1. Main Technical Parameter

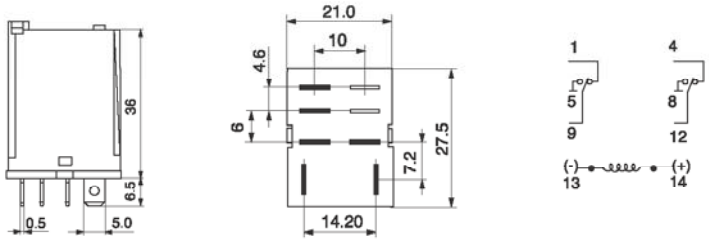
Specifications \ Model		56.02	56.04	58.02
Terminal layout		2Z	4Z	2Z
Contact capacity	AC	10A 250V	10A 250V	10A 250V
	DC	10A 28V	10A 28V	10A 28V
Contact resistance(mΩ)		≤ 50mΩ	≤ 50mΩ	≤ 50mΩ
Insulation resistance(MΩ)		≥ 100MΩ	≥ 100MΩ	≥ 100MΩ
Dielectric strength	BOC	1000VAC	1000VAC	1000VAC
	BCC	1500VAC	1500VAC	1500VAC
Coil nominal voltage	AC	6 to 240V	6 to 240V	6 to 240V
	DC	6 to 110V	6 to 110V	6 to 110V
Coil nominal power	AC	0.9VA to 1.2VA	≤ 2.5VA	0.9VA to 1.2VA
	DC	≤ 0.9W	≤ 1.6W	≤ 0.9W
Electrical life(OPS)		10^5	10^5	10^5
Mechanical life(OPS)		10^7	10^7	10^7
Operating temperature(°C)		-40~+70	-40~+70	-40~+70
Weight(g)		≤ 35	≤ 70	≤ 35
Mounting methods		Printed-circuit board, Flange, Outlet	Printed-circuit board, Flange, Outlet	Printed-circuit board, Flange, Outlet

56.02

56.04

58.02

2. Dimension



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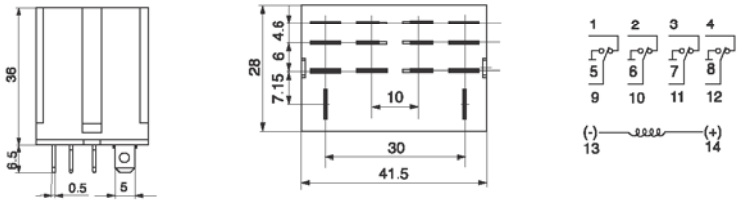

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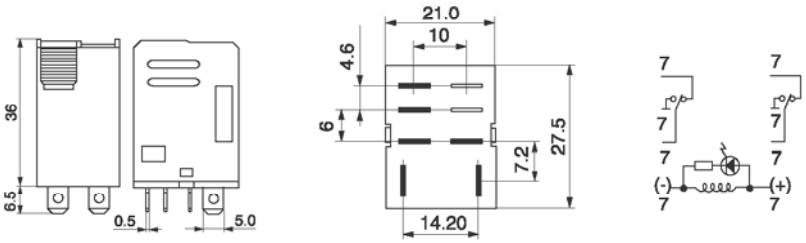


58.02

ANDELI

60.13

General Relay

1. Main Technical Parameter

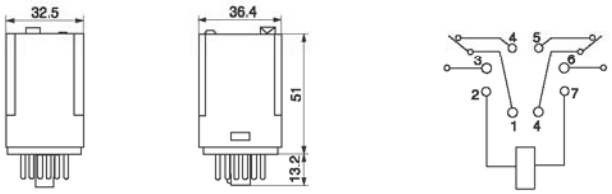
Specifications \ Model		60.12	60.13	60.12-I
Terminal layout		2Z	3Z	2Z
Contact capacity	AC	10A 220V	10A 220V	10A 250V
	DC	10A 28V	10A 28V	10A 30V
Contact resistance(mΩ)		≤ 50mΩ	≤ 50mΩ	≤ 50mΩ
Insulation resistance(MΩ)		≥ 500MΩ	≥ 500MΩ	≥ 500MΩ
Dielectric strength	BOC	2000VAC	2000VAC	1500VAC
	BCC	2000VAC	2000VAC	1500VAC
Coil nominal voltage	AC	6 to 240V	6 to 240V	6 to 380V
	DC	6 to 125V	6 to 125V	6 to 220V
Coil nominal power	AC	≤ 3.5VA	≤ 3.5VA	2.0VA to 2.8VA
	DC	≤ 2W	≤ 2W	≤ 1.5W
Electrical life(OPS)		20^5	20^5	10^5
Mechanical life(OPS)		$20^7/50^7$	$20^7/50^7$	10^7
Operating temperature(°C)		-40~+70	-40~+70	-40~+60
Weight(g)		≤ 125	≤ 125	≤ 80
Mounting methods		Outlet	Outlet	Outlet

60.12

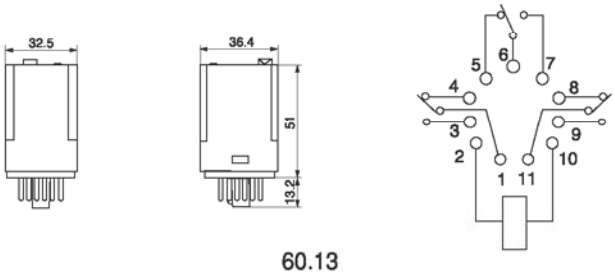
60.13

60.12-I

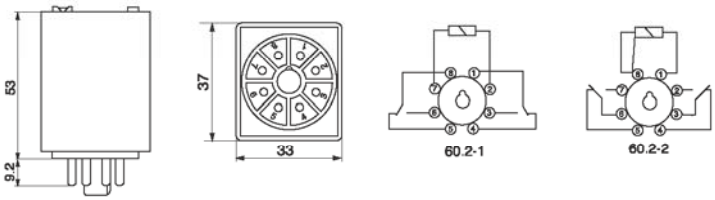
2. Dimension



60.12



60.13



60.12-I

General Relay

1. Main Technical Parameter

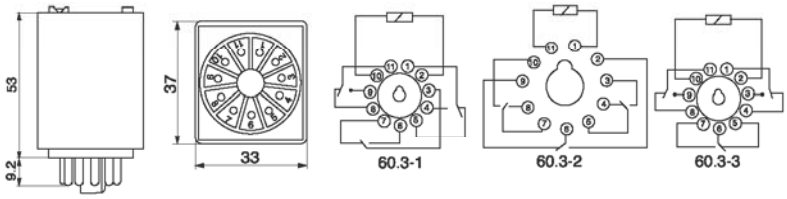
Specifications \ Model		60.13-I	70.2	70.3
Terminal layout		3Z	2Z	3Z
Contact capacity	AC	10A 250V	10A 250V	10A 250V
	DC	10A 30V	10A 30V	10A 30V
Contact resistance(mΩ)		≤ 50mΩ	≤ 50mΩ	≤ 50mΩ
Insulation resistance(MΩ)		≥ 500MΩ	≥ 500MΩ	≥ 500MΩ
Dielectric strength	BOC	1500VAC	1500VAC	1500VAC
	BCC	1500VAC	1500VAC	1500VAC
Coil nominal voltage	AC	6 to 380V	6 to 380V	6 to 380V
	DC	6 to 220V	6 to 220V	6 to 220V
Coil nominal power	AC	2.0VA to 2.8VA	2.0VA to 2.8VA	2.0VA to 2.8VA
	DC	≤ 1.5W	≤ 1.5W	≤ 0.5W
Electrical life(OPS)		10^5	10^5	10^5
Mechanical life(OPS)		10^7	10^7	10^7
Operating temperature(°C)		-40~+60	-40~+60	-40~+60
Weight(g)		≤ 80	≤ 85	≤ 85
Mounting methods		Outlet	Outlet	Outlet

60.13-I

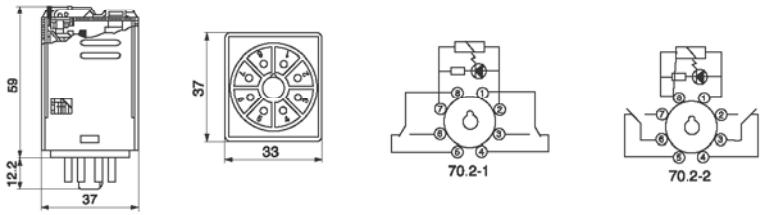
70.2

70.3

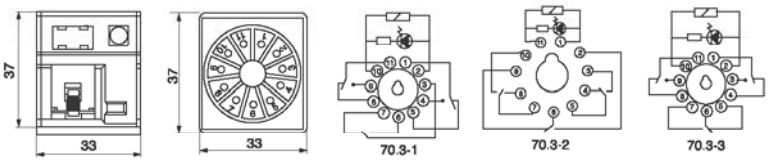
2. Dimension



60.13-I



70.2



70.3

ANDELI

MY2

General Relay

1. Main Technical Parameter

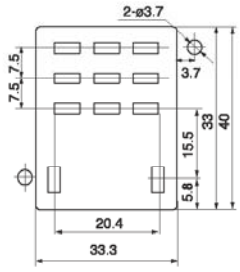
JJDZ3-33

MY2

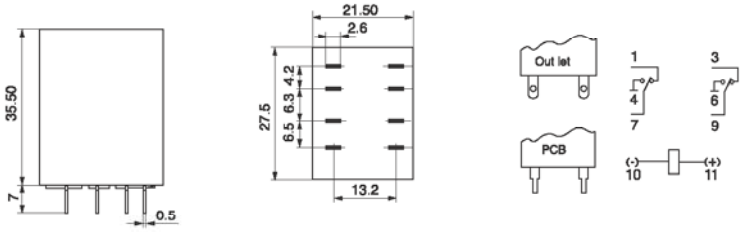
MY3

Specifications \ Model		JJDZ3-33	MY2	MY3
Terminal layout		3Z	2Z	3Z
Contact capacity	AC	3A/28VDC 3A/220VAC	5A 250V	5A 250V
	DC		5A 30V	5A 30V
Contact resistance(mΩ)		≤ 50mΩ	≤ 50mΩ	≤ 50mΩ
Insulation resistance(MΩ)		≥ 500MΩ	≥ 100MΩ	≥ 100MΩ
Dielectric strength	BOC	1000VAC	1000VAC	1000VAC
	BCC	5000VAC	1500VAC	1500VAC
Coil nominal voltage	AC	6 to 220V	6 to 240V	6 to 240V
	DC		6 to 220V	6 to 220V
Coil nominal power	AC	≤ 3W	0.9VA to 1.2VA	0.9VA to 1.2VA
	DC		≤ 0.9W	≤ 0.9W
Electrical life(OPS)		10^5	10^5	10^5
Mechanical life(OPS)		10^7	10^7	10^7
Operating temperature(°C)		-30~+40	-40~+60	-40~+60
Weight(g)		85	≤ 35	≤ 35
Mounting methods		Outlet	Printed-circuit board, Outlet	Printed-circuit board, Outlet

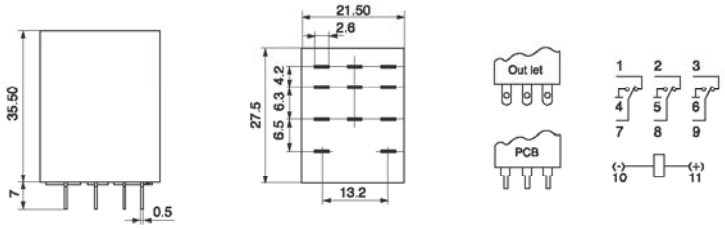
2. Dimension



JJDZ3-33



MY2



MY3

General Relay

1. Main Technical Parameter

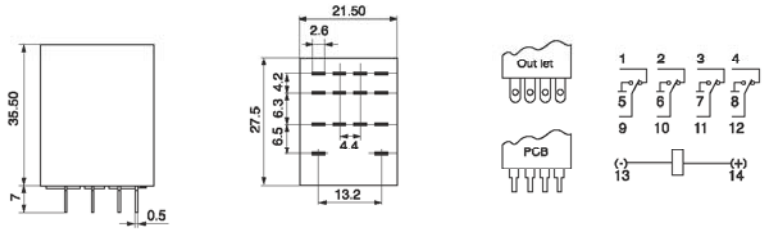
Specifications \ Model		MY4	LY1	LY2
Terminal layout		4Z	1Z	2Z
Contact capacity	AC	3A 250V	15A 250V	10A 250V
	DC	3A 30V	15A 30V	10A 30V
Contact resistance(mΩ)		≤ 50mΩ	≤ 50mΩ	≤ 50mΩ
Insulation resistance(MΩ)		≥ 100MΩ	≥ 100MΩ	≥ 100MΩ
Dielectric strength	BOC	1000VAC	1000VAC	1000VAC
	BCC	1500VAC	1500VAC	1500VAC
Coil nominal voltage	AC	6 to 240V	6 to 240V	6 to 240V
	DC	6 to 220V	6 to 220V	6 to 220V
Coil nominal power	AC	0.9VA to 1.2VA	0.9VA to 1.2VA	0.9VA to 1.2VA
	DC	≤ 0.9W	≤ 0.9W	≤ 0.9W
Electrical life(OPS)		10^5	10^5	10^5
Mechanical life(OPS)		10^7	10^7	10^7
Operating temperature(°C)		-40~+60	-40~+60	-40~+60
Weight(g)		≤ 35	≤ 35	≤ 35
Mounting methods		Printed-circuit board, Outlet	Printed-circuit board, Flange, Outlet	Printed-circuit board, Flange, Outlet

MY4

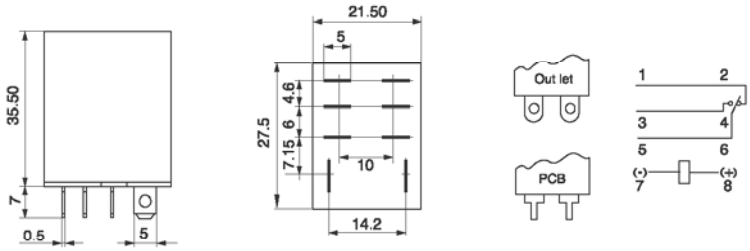
LY1

LY2

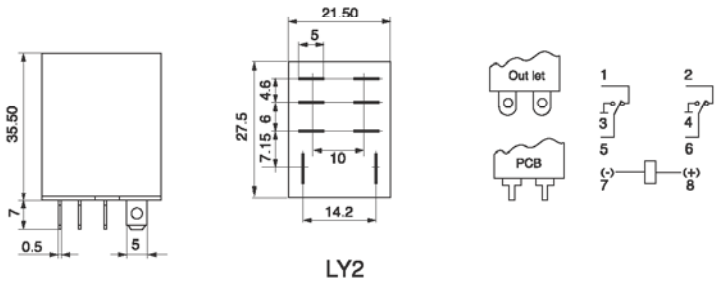
2. Dimension



MY4



LY1



LY2

General Relay

1. Main Technical Parameter

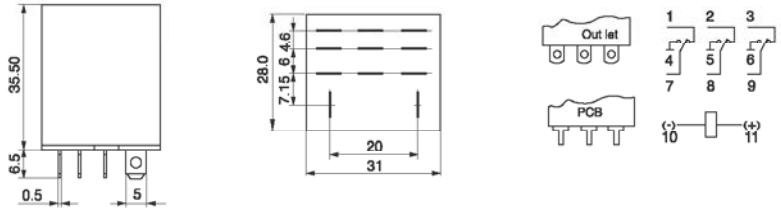
Specifications \ Model		LY3	LY4	MK2P-I
Terminal layout		4Z	2Z	3Z
Contact capacity	AC	10A 250V	10A 250V	10A 250V
	DC	10A 28V	10A 30V	10A 30V
Contact resistance(mΩ)		≤ 50mΩ	≤ 50mΩ	≤ 50mΩ
Insulation resistance(MΩ)		≥ 100MΩ	≥ 500MΩ	≥ 500MΩ
Dielectric strength	BOC	1000VAC	1500VAC	1500VAC
	BCC	1500VAC	1500VAC	1500VAC
Coil nominal voltage	AC	6 to 240V	6 to 380V	6 to 380V
	DC	6 to 110V	6 to 220V	6 to 220V
Coil nominal power	AC	≤ 2.5VA	≤ 2.8VA	≤ 2.8VA
	DC	≤ 1.6W	≤ 1.6W	≤ 1.6W
Electrical life(OPS)		10^5	10^5	10^5
Mechanical life(OPS)		10^7	10^7	10^7
Operating temperature(°C)		-40~+70	-40~+60	-40~+60
Weight(g)		≤ 70	≤ 80	≤ 80
Mounting methods		Printed-circuit board, Flange, Outlet	Outlet	Outlet

LY3

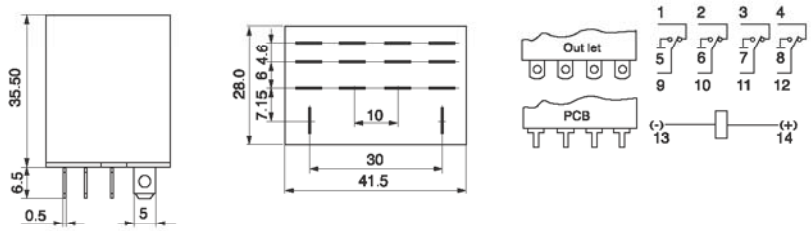
LY4

MK2P-I

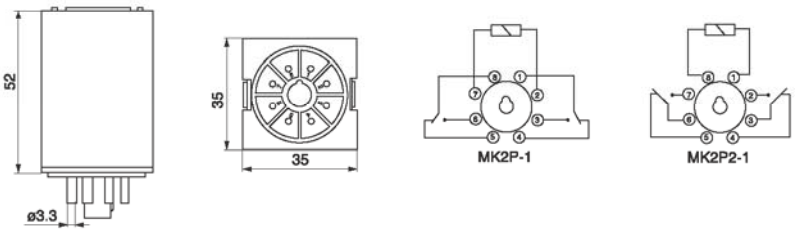
2. Dimension



LY3



LY4



MK2P-I

General Relay

1. Main Technical Parameter

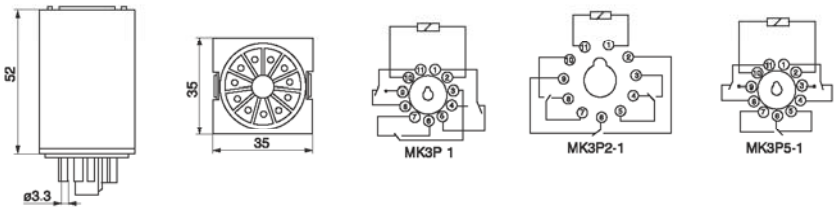
Specifications \ Model		MK3P-I	MK2PN-I	MK3PN-I
Terminal layout		3Z	2Z	3Z
Contact capacity	AC	10A 250V	10A 250V	10A 250V
	DC	10A 30V	10A 30V	10A 30V
Contact resistance(mΩ)		≤ 50mΩ	≤ 50mΩ	≤ 50mΩ
Insulation resistance(MΩ)		≥ 500MΩ	≥ 500MΩ	≥ 500MΩ
Dielectric strength	BOC	1500VAC	1500VAC	1500VAC
	BCC	1500VAC	1500VAC	1500VAC
Coil nominal voltage	AC	6 to 380V	6 to 380V	6 to 380V
	DC	6 to 220V	6 to 220V	6 to 220V
Coil nominal power	AC	≤ 2.8VA	≤ 2.8VA	≤ 2.8VA
	DC	≤ 1.6W	≤ 1.6W	≤ 1.6W
Electrical life(OPS)		10^5	10^5	10^5
Mechanical life(OPS)		10^7	10^7	10^7
Operating temperature(°C)		-40~+60	-40~+60	-40~+60
Weight(g)		≤ 80	≤ 80	≤ 80
Mounting methods		Outlet	Outlet	Outlet

MK3P-I

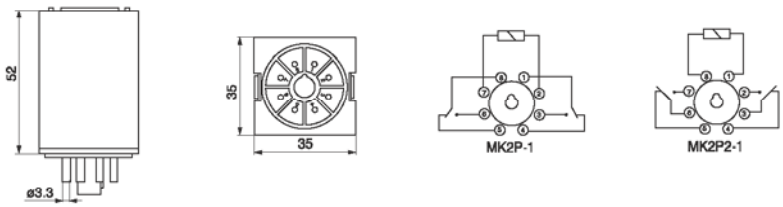
MK2PN-I

MK3PN-I

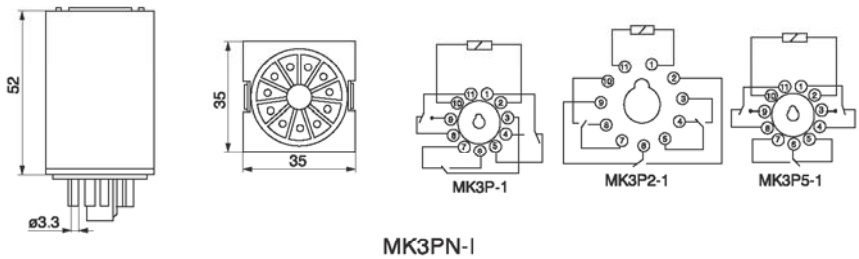
2. Dimension



MK3P-I



MK2PN-I



MK3PN-I

Multi Range Timer

1. Main Technical Parameter

AH3-3

AH3-B

AH3-NB

Classification		Timer			Multi range timer			Multi range timer	
Specification / Model		AH3-3			AH3-B			AH3-NB	
Dimension		50H x 40W x 57.5D			50H x 40W x 57.5D			50H x 40W x 57.5D	
Mounting & socket	Surface(-N)	PF083A(E)			PF083A(E)			PF083A(E)	
	Flush(-Y)	US-08 P3G-08			US-08 P3G-08			US-08 P3G-08	
Full timing range		SEC: 1,3,6,10,12, 30,60 MIN: 3,6,10,12,30, 60 HR: 3,6,10,12,30			A: 1S,10S,1M,10M B: 3S,30S,3M,30M C: 6S,60S,6M,60M D: 1M,10M,1H,10H E: 3M,30M,3H,30H			A: 1S,10S,1M,10M B: 3S,30S,3M,30M C: 6S,60S,6M,60M D: 1M,10M,1H,10H E: 3M,30M,3H,30H	
Rated voltage (V)		AC: 12,24,110,220, 240,380 50/60Hz DC: 12,24			AC: 12,24,110,220, 240,380 50/60Hz DC: 12,24			AC: 12,24,110,220, 240,380 50/60Hz DC: 12,24	
Indicator operating		ON-UP operating			ON-UP operating			Time operating flicker	
O/P Contact	Model	AH3-1	AH3-2	AH3-3	AH3-1	AH3-2	AH3-3□	Mode A/B	
	Time limit 1C	5A		5A	□	□	5A		5A
	Time limit 2C		5A		5A			5A	
	Instantaneous 1C			5A		5A	5A		5A
Life	Mechanical	5×10^6 Times			5×10^6 Times			5×10^6 Times	
	Electrical	10^5 Times			10^5 Times			10^5 Times	
Accuracy	Repeat error	±1% max			±1% max			±1% max	
	Setting error	±10% max			±10% max			±10% max	
	Voltage error	±1% max			±1% max			±1% max	
	Temp error	±2% max			±2% max			±2% max	
Reset time		0.1 sec max			0.1 sec max			0.1 sec max	
Consumed power		3VA			3VA			3VA	
Ambient temperature		-10˚C~+55˚C			-10˚C~+55˚C			-10˚C~+55˚C	
Ambient huminity		48~85% RH			48~85% RH			48~85% RH	
Weight		160g			160g			160g	

Multi Range Timer

1. Main Technical Parameter

ST2P

ST3PA

H3BA-8/H3BA-11

Classification		Timer	Multi range timer		Multi range timer		
Specification / Model		ST2P	ST3PA		H3BA-8/H3BA-11		
Dimension		50H x 40W x 57.5D	55H x 40.5W x 57.5D		48H x 48W x93.5D		
Mounting & socket	Surface(-N)	PF083A(E)	PF-083A(E)		PF113A(E)	PF083A PS-08	
	Flush(-Y)	US-08 P3G-08	US-08 P3G-08		US-11	US-08 P3G-08	
Full timing range		SEC: 1,3,6,10,12, 30,60 MIN: 3,6,10,12,30, 60 HR: 3,6,10,12,30	A: 0.05-0.5s/5s/30s/3min B: 0.1-10s/60s/6mim C: 0.5-5s/50s/5min/30min D: 1-10s/100s/100min/60min E: 5-60s/10s/60min/6h F: 0.25-2min/20min/2h/12h G: 0.5-4min/40min/4h/24h		0.1SEC~100HRS		
Rated voltage (V)		AC: 12,24,110,220(50/60Hz) DC: 12~24	AC: 24,48,110,220 (50/60Hz) DC: 24,48		24 to 240 DC/AC AC: 24,48,110,220 DC: 12,24,48		
Indicator operating		ON-UP operating	ON-UP operating		Time operating flicker		
O/P Contact	Model	ST2P-E	ST3PA	ST3PC	H3BA	H3BA-8	H3BA-8H
	Time limit 1C	5A		5A			5A
	Time limit 2C	5A	5A		5A	5A	
	Instantaneous 1C	5A		5A			5A
Life	Mechanical	5 x 10^7 Times	5 x 10^7 Times		10^7 Times		
	Electrical	10^5 Times	10^5 Times		10^5 Times		
Accuracy	Repeat error	±2% max	±2% max		±2% max		
	Setting error	±5% max	±5% max		±5% max		
	Voltage error	±5% max	±5% max		±5% max		
	Temp error	±2% max	±2% max		±2% max		
Reset time		0.5 sec max	0.5 sec max		0.5 sec max		
Consumed power		3VA	3VA		100~240VAC:10VA 12VDC,24~240VDC:1.5W		
Ambient temperature		-10˚C~+55˚C	-10˚C~+55˚C		-10˚C~+55˚C		
Ambient huminity		35~85% RH	35~85% RH		35~85% RH		
Weight		100g	100g		100g		

ANDELI

H3CA

Multi Range Timer

1. Main Technical Parameter

H3CR-A8

H3CA-A

H3CA-8

Classification		Multi range timer	Multi range timer	Multi range timer
Specification / Model		H3CR-A8	H3CA-A	H3CA-8
Dimension		48H x 48W x 81.6D	48H x 48W x 81.6D	48H x 48W x 81.6D
Mounting & socket	Surface(-N)	PS-08 PF083A	PF113A(E)	PS-08 PF083A
	Flush(-Y)	US-08 P3G-08	US-11	US-08 P3G-08
Full timing range		0.5SEC~300HRS	0.1SEC~9990HRS	0.1SEC~9990HRS
Rated voltage (V)		AC: 24,110~240(50/60Hz) DC: 12,24~240(50/60Hz)	AC: 24~240(50/60Hz) DC: 24~240(50/60Hz)	AC: 24,110, 220 (50/60Hz) DC: 24,48(50/60Hz)
Indicator operating		Time operating flicker	LCD	LCD
O/P Contact	Model	H3CR-A8	H3CA-A	H3CA-8
	Time limit 1C		5A	
	Time limit 2C	5A(AC250)		5A
	Instantaneous 1C			
Life	Mechanical	10^7 Times	10^7 Times	10^7 Times
	Electrical	10^5 Times	10^5 Times	10^5 Times
Accuracy	Repeat error	±2% max	±2% max	±2% max
	Setting error	±5% max	±5% max	±5% max
	Voltage error	±5% max	±5% max	±5% max
	Temp error	±2% max	±2% max	±2% max
Reset time		0.5 sec max	0.5 sec max	0.5 sec max
Consumed power		100~240VAC:10VA 12VDC,24~240VDC:1.5W	100~240VAC:10VA 12VDC,24~240VDC:1.5W	100~240VAC:10VA 12VDC,24~240VDC:1.5W
Ambient temperature		-10˚C~+55˚C	-10˚C~+55˚C	-10˚C~+55˚C
Ambient huminity		35~85% RH	35~85% RH	35~85% RH
Weight		100g	100g	100g

Timer

1. Main Technical Parameter

ASTP-N

ASTP-Y

AH2-N

AH2-Y

Classification		Timer			Timer			Timer			Timer		
Specification / Model		ASTP-N			ASTP-Y			AH2-N			AH2-Y		
Dimension		61H x 49W x 70D			88H x 58W x 68D			61H x 49W x 70D			88H x 58W x 68D		
Mounting & socket	Surface(-N)	PF083A PS-08			PF083A			PF083A PS-08			PF083A		
	Flush(-Y)	P2CF-08			US-08 P3G-08			P2CF-08			US-08 P3G-08		
Full timing range		SEC: 1,3,6,10,12,30,60 MIN: 3,6,10,12,30,60 HR: 3,6,10,12,24						SEC: 1,3,6,12,30,60 MIN: 3,6,12,30,60 HR: 3,6,12,24					
Rated voltage (V)		AC: 12,24,110,220,240 50/60Hz DC: 12,24						AC: 12,24,110,220,240 50/60Hz DC: 12,24					
Indicator operating		Time operating						ON-UP two indicator lamp					
O/P Contact	Model	ASTP-N1/ ASTP-Y1	ASTP-N2/ ASTP-Y2	ASTP-N/ ASTP-Y				AH2-N1/ AH2-Y1	AH2-N2/ AH2-Y2	AH2-N/ AH2-Y			
	Time limit 1C	5A		5A				5A		5A			
	Time limit 2C		5A						5A				
	Instantaneous 1C			5A						5A			
Life	Mechanical	5×10^6 Times						5×10^6 Times					
	Electrical	10^5 Times						10^5 Times					
Accuracy	Repeat error	±1% max						±1% max					
	Setting error	±10% max						±10% max					
	Voltage error	±1% max						±1% max					
	Temp error	±2% max						±2% max					
Reset time		0.1 sec max						0.1 sec max					
Consumed power		3VA						3VA					
Ambient temperature		-10˚C~+55˚C						-10˚C~+55˚C					
Ambient huminity		48~85% RH						48~85% RH					
Weight		220g						220g					

Twin Timer

1. Main Technical Parameter

AH2-N/Y

ATDV-N

ATDV-Y

Classification		Multi range timer	Twin timer	Twin timer
Specification \ Model		AH2-N/Y	ATDV-N	ATDV-Y
Dimension		61H x 49W x 70D 88H x 58W x 68D	61H x 49W x 70D	88H x 58W x 68D
Mounting & socket	Surface(-N)	PF083A PS-08	P2CF-08 PS-08	PF083A
	Flush(-Y)	US-08 P3G-08	PF083A	US-08 P3G-08
Full timing range		A: 1S,10S,1M,10M B: 3S,30S,3M,30M C: 6S,60S,6M,60M D: 1M,10M,1H,10H E: 3M,30M,3H,30H	6S x 6S,6S x 60S, 60S x 6S,60S x 60S, 6M x 6M,6M x 60M, 60M x 6M,60M x 60M, Longest time 12Hours upon clients' request	6S x 6S,6S x 60S, 30S x 30S, 30S x 60S 60S x 6S,60S x 60S, 6M x 6M,6M x 60M, 60M x 6M,60M x 60M, Longest time 12Hours upon clients' request
Rated voltage (V)		AC: 12,24,110,220, 240 50/60Hz DC: 12,24	AC: 12,24,110,220,240 50/60Hz DC: 12,24	AC: 12,24,110,220,240 50/60Hz DC: 12,24
Indicator operating		ON-UP Two Indicator Lamp	ON,OFF Operating	ON,OFF Operating
O/P contact	Model	AH2-N- □ /AH2-Y- □	ATDV-N	ATDV-Y
	Time limit 1C	5A	5A	5A
	Time limit 2C			
	Instantaneous 1C	5A		
Life	Mechanical	5 x 10^6 Times	5 x 10^6 Times	5 x 10^6 Times
	Electrical	10^5 Times	10^5 Times	10^5 Times
Accuracy	Repeat error	±1% max	±1% max	±2% max
	Setting error	±10% max	±10% max	±20% max
	Voltage error	±1% max	±1% max	±1% max
	Temp error	±2% max	±2% max	±2% max
Reset time		0.1 sec max	0.2 sec max	0.2 sec max
Consumed power		3VA	3VA	3VA
Ambient temperature		-10˚C~+55˚C	-10˚C~+55˚C	-10˚C~+55˚C
Ambient huminity		48~85% RH	48~85% RH	48~85% RH
Weight		220g	160g	210g

Digital Timer

1. Main Technical Parameter

ASY-2D

ASY-3D

H3Y- □(ST6P)

Classification		Digital timer	Digital timer	Timer	
Specification \ Model		ASY-2D	ASY-3D	H3Y- □(ST6P)	
Dimension		88H x 58W x 68D	88H x 58W x 68D	28H x 21W x 52.6D	
Mounting & socket	Surface(-N)	PF083A	PF083A	PYF08A(E)	PYF14A(E)
	Flush(-Y)	US-08 P3G-08	US-08 P3G-08	With Y-20 adapter	
Full timing range		SEC: 9.9,99 MIN: 9.9,99 HR: 9.9,99	SEC: 9.99,99.9,999 MIN: 99.9,999 HR: 99.9,999	SEC: 1,3,5,10,30,60, 120 MIN: 3,5,10,30,60 HR: 3	
Rated voltage (V)		AC: 12,24,110,220,240 50/60Hz DC: 12,24	AC: 12,24,110,220,240 50/60Hz DC: 12,24	AC: 12,24,110,220,240 50/60Hz DC: 12,24	
Indicator operating		After contact transfer	After contact transfer	Power, up operating	
O/P contact	Model	ASY-2D	ASY-3D		
	Time limit 1C				
	Time limit 2C	5A	5A		
	Instantaneous 1C				
Life	Mechanical	5 x 10^6 Times	5 x 10^6 Times	5 x 10^6 Times	
	Electrical	10^5 Times	10^5 Times	10^5 Times	
Accuracy	Repeat error	±0.05% max	±0.05% max	±3% max	
	Setting error	0	0	–	
	Voltage error	±0.05 Sec	±0.05 Sec	±2% max	
	Temp error	±0.05 Sec	±0.05 Sec	±5% max	
Reset time		0.3 sec max	0.3 sec max	0.2 sec max	
Consumed power		5VA	5VA	3VA	
Ambient temperature		-10˚C~+55˚C	-10˚C~+55˚C	-10˚C~+55˚C	
Ambient huminity		48~85% RH	48~85% RH	48~85% RH	
Weight		230g	230g	45g	

Timer Relay

1. Main Technical Parameter

ST3PF

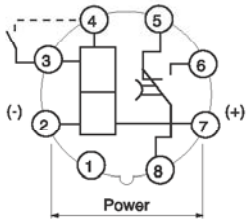
ST3PK

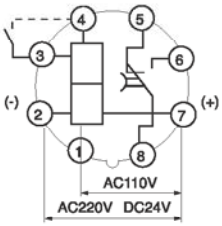
ST3PY

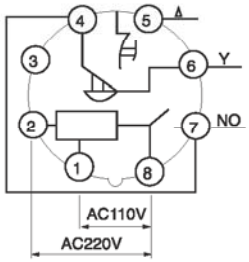
ST3PR

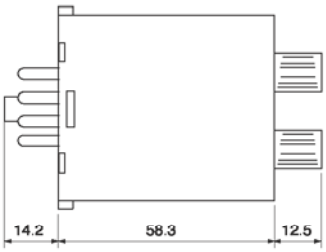
Classification	Timer relay			
Model / Specification	ST3PF	ST3PK	ST3PY	ST3PR
Dimension	55H x 40.5W x 57.5D	55H x 40.5W x 57.5D	55H x 40.5W x 57.5D	55H x 40.5W x 57.5D
Function	Off delay	Breaking delay	Delaying of star-delta starter	On-off delaying repetitive
Delaying accuracy	1%	1%	0.5%±10ms	1%
Contact amount	Timed 1 Spdt	Timed 1 Spdt	Timed star-delta transfer Inst.1 normally open	Timed 1 Spdt
Contact capacity	AC220V 3A	AC220V 3A	AC220V 3A	AC220V 2A
Delaying range	0.1~1s 0.2~2s 0.5~5s 1~10s 2.5~30s 5~60s	0.1~1s 0.25~2s 0.5~5s 1~10s 2.5~30s 5~60s 15~180s	1~10s 2.5~30s 5~60s	0.5~6s/60s 1~10s/10min 2.5~30s/30min
Rated voltage	AC110, 220V DC24, 48, 110V	AC110, 220V DC24V	AC110, 220V	AC110, 220V DC24V

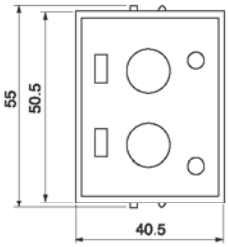
2. Dimension

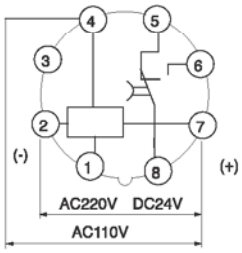












ANDELI

TB-35

Timer Relay

1. Main Technical Parameter

TB-35

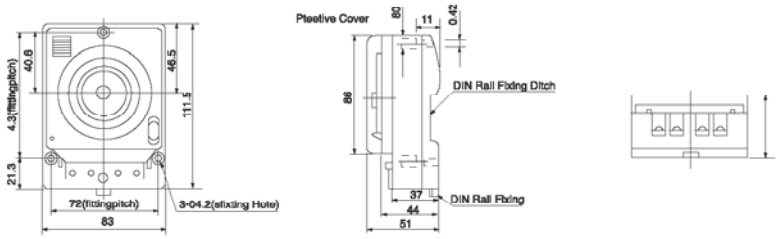
TB-35B

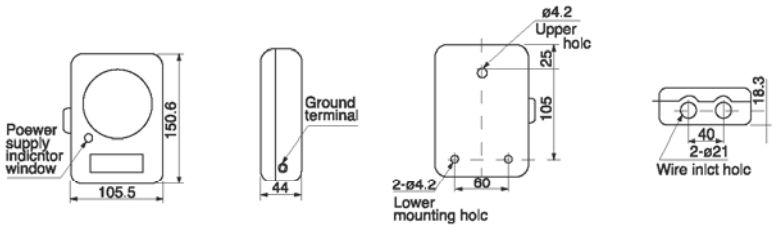
SUL181H

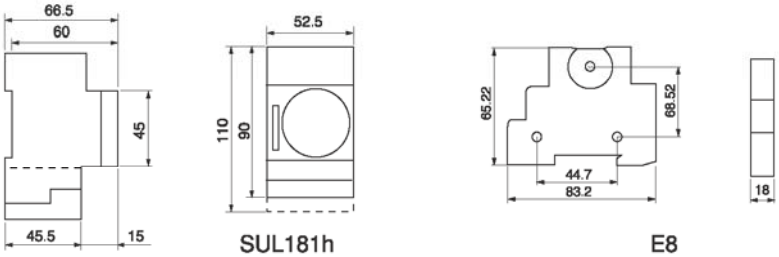
E8

Classification		Timer	Timer	Timer	Timer
Model / Specification		TB-388	TB-35	SUL181h	E8
Contact capacity		AC220V 10A	AC220V 10A	AC220V 16A	AC220V 10A
Full timing range		24h	24h	24h	7m
Contact resistance		< 50mΩ	< 50mΩ	< 50mΩ	< 50mΩ
Insulation resistance		> 100MΩ	> 100MΩ	> 100MΩ	> 100MΩ
Coil voltage		100~240V AC	100~240V AC	110,230V AC	110,230V AC
Life	Electrical	10^5 Times	10^5 Times	10^5 Times	10^5 Times
	Mechanical	10^7 Times	10^7 Times	10^7 Times	10^7 Times
Operating temperature		-40˚C~+55˚C	-40˚C~+55˚C	-40˚C~+55˚C	-40˚C~+55˚C
Storage battery (Working reserve)		Time 150h	Without battery	Time 150h	–
Minimum setting unit		15Minutes	15Minutes	30Minutes	0.5Minutes
Set up times		15 m/per times 96 times	15 m/per times 96 times	30 m/per times 48 times	1M,1.5M,2M,2.5M, 3M,3.5M,4.5M,5M, 5.5M,6M,6.5M,7M

2. Dimension







ANDELI

AFR-1

Floatless Level Switch Relay

1. Main Technical Parameter

AFR-1

AFS-GR

PM61F-GR

61F-GP-N

61F-G

Classification		Floatless level switch relay				
Specification \ Model		AFR-1	AFS-GR	PM61F-GR	61F-GP-N	61F-G
Dimension (mm)		61H x 49W x 70D	50H x 40W x 58D	50H x 40W x 58D	50H x 40W x 70D	79.5H x 84W x 127D
Socket type		PS-08 PF-083A(E)	PF083A(E)	PF083A(E)	PF113A(E)	–
Sensing mode	General	AFR-1	–	–	–	61F-G
	High sensing	AFR-1H	–	–	–	–
	Long distance	AFR-1L	–	–	–	–
	Low density	AFR-1D	–	–	–	–
	Two lines	AFR-1R	AFS-GR	PM61F-GR	61F-GP-N	–
Rated vVoltage		AC: 110V, 220V, 240 50/60Hz				
Indicator operating		Two LED's use for two status				
Operate voltage		85~110% of rated voltage				
Second voltage		8VAC (except high sensing 24VAC)				
Operate resistance		4K Ωmin.(GENERAL)				
Release resistance		15K Ωmin.(GENERAL)				
Response time		Operate: 80msec max, Release: 160 msec max.				
Contact rating		5A, 250VAC(RESISTIVE LOAD)				
Length of cable		1Km max.(GENERAL)				
Life	Mechanical	5×10^6 times min				
	Electrical	10^5 times min				
Insulation resistance		100MΩ (DC 500V)min				
Dielectric strength		1500VAC, 50/60Hz, for 1 minute				
Consumed power		3.2VA				
Ambient temperature		-10°C~+55°C				
Ambient humidity		45~85%RH				
Weight		200g	150g	150g	150g	380g

Timer

THC8A-1A

THC8A-2A

DH48S

DH48S-S

THC19-2

RSTC

TS-GM20

TS-MD20

APR-3

JVM-1

THC8

THC15A

TS-GM1

TS-GM2

TS-GE2

THC15L

XJ11

Relay Socket

PTF08A
(LY2)

PTF08A-E
(LY2)

PTF11A
(LY3)

PTF14A-E

PYF08A
(MY2,57.02,H3Y-2)

PYF08A-E
(MY2)

PYF14A
(MY4,57.04,55.34,55.04)

PYF14A-E
(MY4)

PF-083BE

MT740(Blue/Black)

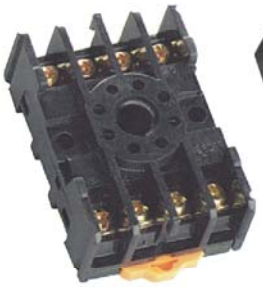
RT704
(57.04,55.34,55.04)

RT624

PSF-14AE/L

TYPE 90.22
(60.12)

TYPE 90.23
(60.13)



PF085A

PF113A
(MK3P,H3BA,
JQX-10F-3Z,JTX-3C)

PF113A-E
(MK3P,JQX-10F-3Z,
JTX-3C)

PF083A
(MK2P,ST3P,AH3-3,
H3BA-8,DH48S,
JQX-10F-2Z,JTX-2C)

PF083A-E
(MK2P,JQX-10F-2Z,
JTX-2C)

ANDELI

ZG3NC

Solid State Relay

SSR-40DA

1. Main Technical Parameter

Type		ZG3NA	ZG3NC	ZG3V
Dimensions(mm)		58 x 43 x 27	57 x 44 x 22	104 x 73.5 x 24
Function		Many kinds of input standards SSR, With operation display		
Output	Insulation	Photoelectric coupler		
	Load voltage	3-32VDC / 90-420VAC		
	Current	10~40A	10~80A	
	Leakage current	• 100VAC 5mA • 200VAC 10mA		
	VoRmVceo	1000		
	di/dt(A/us)	200		
	dv/dt(v/us)	400		
	$I^2t(A^2S)$	25~3000		
	Tj(°C)Max.TJ(C)	100		
Input	Input voltage	3-32VDC / 90-250VAC		
	Input current	<40mA		
	Off voltage	1VDC		
	On voltage	3VDC		
	Off time	0.5ms DC / 10msAC		
	On time	0.5ms DC / 10msAC		
Dielectric strength		50Hz, 60S 2500VAC		
Ambient temperature		-30°C~80°C(Under non-ice / dewfall condition)		
Efficiency of safety working current		Dissipative load is 60% / Inductive load is 40%		

ZG3NC-325A

Type	Input voltage	Output voltage	Output current (A)
ZG3T-203B	3-32VDC	30-240VAC	3
ZG3T-303B	3-32VDC	90-480VAC	3
ZG3M-301B	3-32VDC	90-480VAC	1
ZG3N-203B	3-32VDC	30-240VAC	3
ZG3M-208B	3-32VDC	30-240VAC	8
ZG3V-301B	3-32VDC	90-480VAC	1
SSR-25DA	3-32VDC	24-380VAC	25
SSR-40DA	3-32VDC	24-380VAC	40
SSR-25AA(VA)	80-250VAC	24-380VAC	25
SSR-40AA(VA)	80-250VAC	24-380VAC	40
ZG3NC-210B	3-32VDC	30-240VAC	10
ZG3NC-310B	3-32VDC	90-480VAC	10
ZG3NC-220B	3-32VDC	30-240VAC	20
ZG3NC-320B	3-32VDC	90-480VAC	20
ZG3NC-225B	3-32VDC	30-240VAC	25
ZG3NC-325-B	3-32VDC	90-480VAC	25

ZG3NC-340B

Hour Meter

HM-1

1. Main Technical Parameter

HM-1	
Supply voltage	AC110V, 220V/50Hz
Dimension	48 x 48 x 40(mm)
Timing range	0~99, 999.99 Hours
Net weight	50g

YKW

HC3L, HC3L-A

Dimension	24 x 48 x 50(mm)
Timing range	999999.9H, 99H59M59S, 9999H59M, 9999Day23H, 9999H59M59S, 999999H59M
Voltage	No need out put
Battery life	6 Years
Panel size	22.5 x 45(mm)

HC3L-A

Electromagnetic Counter

1. Main Technical Parameter

Specs. \ Model	CSK4-YKW/NKW/LKW, CSK5-YKW/NKW/LKW, CSK64-YKW/NKW/LKW	
Voltage	AC110V, 220V	DC 12V, 24V
Consumption	3VA	3.5W
Counting speed	10CPS	20CPS
Tolerance	Rated voltage -15%~+10%	
Life (x 10^4)	2000 times	
Test	AC-1, 500V(50/60Hz) 1 minute (Dielectric)	

HC3J

HC3J, HC3J-AL

Dimension	24 x 48 x 50(mm)	
Display	3Digital / 8Digital LCD	
Operation mode	Sum	
Voltage	No need output	
Counting speed	10/200 Times/s	10 Times/s
Panel size	22.5 x 45mm	
Reset model	Panel, terminal blocks	

ABLH7EC

ANDELI

ZG3M

Solid State Relay

1. Main Technical Parameter

ZG3V-301B

ZG3M-301B

ZG3M-305B

ZG3T-301B

Type		ZG3INA	ZG3INB	ZG13
Dimensions(mm)		104 x 73.5 x 24	104 x 73.5 x 24	104 x 73.5 x 24
Function		Many kinds of input standards SSR, With operation display		
Output	Insulation	Photoelectric coupler		
	Load voltage	0~220VAC/0~380VAC		0~380VAC
	Current	10~40A	10~80A	
	Leakage current	• 100VAC 5mA • 200VAC 10mA		
	VoRmVceo	1000		
	di/dt(A/us)	200		
	dv/dt(v/us)	400		
	$I^2t(A^2S)$	25~3000		
	Tj(°C)Max.TJ(C)	100		
Input	Input voltage	0-10VDC / 4-200mmA / 470K-560K		
	Input current	40mA		
	Off voltage	1VDC		
	On voltage	3VDC		
	Off time	0.5ms DC / 10msAC		
	On time	0.5ms DC / 10msAC		
Dielectric strength		50Hz, 60S 2500VAC		
Ambient temperature		-30°C~80°C(Under non-ice / dewfall condition)		
Efficiency of safety working current		Dissipative load is 60% / Inductive load is 40%		

Type	Input voltage	Output voltage	Output current (A)
ZG3NC-240B	3-32VDC	30-240VAC	40
ZG3NC-340B	3-32VDC	90-480VAC	40
ZG3NC-250B	3-32VDC	30-240VAC	50
ZG3NC-270B	3-32VDC	30-240VAC	70
ZG3NC-370B	3-32VDC	90-480VAC	70
ZG3NC-215A	80-250VAC	30-240VAC	15
ZG3NC-220A	80-250VAC	30-240VAC	20
ZG3NC-240A	80-250VAC	30-240VAC	40
ZG3NC-250A	80-250VAC	30-240VAC	50
ZG33-310B	3-32VDC	30-240VAC	10
ZG33-340B	3-32VDC	90-480VAC	40
ZG1NC-210C	2W/470KΩ-560KΩ	30-240VAC	10
ZG1NC-215C	2W/470KΩ-560KΩ	30-240VAC	15
ZG1NC-220C	2W/470KΩ-560KΩ	30-240VAC	20
ZG1NC-225C	2W/470KΩ-560KΩ	30-240VAC	25
ZG1NC-240C	2W/470KΩ-560KΩ	30-240VAC	40

CJX1 Series AC Contactors

1. Application

CJX1 series AC contactors are suitable for frequency 50/60Hz,rated insulation voltage up to 1000V,rated operation current 9~475A under AC-3 duty.It is mainly used for making/breaking electric circuit at a long distance & for frequent starting/stopping & with thermal relay to compose a magnetic motor starter.The product conforms to IEC60947-4-1 standard.

CJX1-9,12

CJX1-16,22

CJX1-32

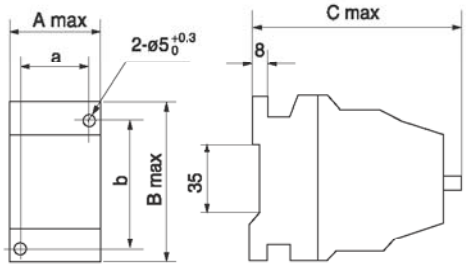
CJX1-45~85

2. Specification

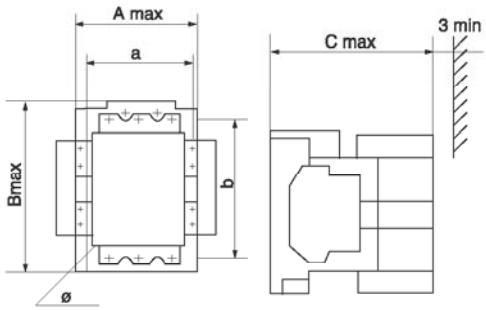
Type		CJX1-9 CJX1-12	CJX1-16 CJX1-22	CJX1-32	CJX1-45 CJX1-63	CJX1-75 CJX1-85	CJX1-110 CJX1-140	CJX1-170 CJX1-205	CJX1-250 CJX1-300	CJX1-400 CJX1-475
Mechanical endurance($x10^6$)		10	10	10	8	8	8	8	8	8
Conventional thermal current(A)		20	30	45	80	100	160	210	300	400/550
Rated insulation voltage(V)		660	660	660	1000	1000	1000	1000	1000	1000
Rated(380V) operating current(A)	AC-3	9/12	16/22	32	45/63	75/85	110/140	170/205	250/300	400/475
	AC-4	3.3/4.3	7.7/8.5	15.6	24/28	34/42	54/68	75/96	110/125	150
Power of controllable motor(kW) AC-3	380V	4/5.5	7.5/11	15	22/30	37/45	55/75	90/110	132/160	200/250
	660V	5.5/7.5	11	23	39/55	67	100	156	235	375
Power of controllable motor(kW) AC-4	380V	1.4/1.9	3.5/4	7.5	12/14	17/21	27/35	38/50	58/66	81
	660V	2.4/3.3	6/6.6	13	20.8/24	29.5/36	46.9/60	66/86	100/114	140
Frequency of operation (I/h)	AC3	1000	750	750	1200/1000	1000/850	1000/750	700/500	700/500	500/420
	AC4	250	250	250	400/300	300/250	300/200	200/130	200/130	150
Electrical endurance ($x10^6$)	AC3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	AC4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Operating voltage range of coil		(0.8~1.1)Ue								
Power consumption of coil	Atracting (VA)	10	10	12.1	17	32	39	58	84	115
	Starting (VA)	68	69	101	183	330	550	910	1430	2450
Rated insulation voltage of auxitiary contacts(V)		690	690	690	690	690	690	690	690	690
Conventional thermal current of auxitiary contacts(A)		10	10	10	10	10	10	10	10	10
Rated operating current of auxitiary contacts(A)	AC15 380/220	6/10	6/10	4/6	4/6	4/6	4/6	4/6	4/6	4/6
	DC13 220V	0.45	0.45	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Rated voltage of the control coil(V)	50Hz	24,36,48,110,127,220,380,etc								
	60Hz	24,110,220,440,etc.								

3. Outline and Mounting Dimension

CJX1-110,140



CJX1-0.9~32 (Table 1)



CJX1-45~475(Table 2)

CJX1-170~475

Table 1

Type	A max	B max	C max	a	b
CJX1-9,12	45	78.5	104(90)	35+0.31	60+0.37
CJX1-16,22	46	85	114	35+0.31	75+0.37
CJX1-32	74	88	108	50+0.31	75+0.37

Table 2

Type	A max	B max	C max	a	b	
CJX1-45,63	91(114)	120	124	70+0.6	100+0.2	4.8
CJX1-75,85	102(125)	135	142	80+0.6	100+0.2	5.5
CJX1-110,140	122(145)	156	154	100+0.2	130+0.8	6.5
CJX1-170,205	140(163)	185	190	100+0.2	160+0.8	7
CJX1-250,300	150(173)	205	200	120+0.2	180+0.8	9
CJX1-400,475	165(188)	205	225	130+0.8	180+0.8	9

CJX1-09~32N

CJX1-N Mechanical Interlocking Contactor

Type	Rated thermal current (A)	Rated operation current (A)		Controllable power of motor (kW)			
				AC 3		AC 4	
		380V	660V	380V	660V	380V	660V
CJX1-09N	20	9	3.3	4	5.5	1.4	2.4
CJX1-12N	20	12	4.3	5.5	7.5	1.9	3.3
CJX1-16N	30	16	7.7	7.5	11	3.5	6
CJX1-22N	30	22	8.5	11	11	4	6.6
CJX1-32N	45	32	15.6	15	23	7.5	13
CJX1-45N	45	38	18.5	18.5	23	9	15.5
CJX1-63N	70	45	24	22	39	12	20.8
CJX1-75N	70	63	28	30	55	14	24.3
CJX1-85N	90	75	34	37	67	17	29.5
CJX1-110N	90	85	42	45	67	21	36
CJX1-140N	150	110	54	55	100	27	46.9
CJX1-170N	150	140	68	75	100	35	60
CJX1-205N	180	170	75	90	156	38	66
CJX1-250N	220	205	96	110	156	50	86
CJX1-300N	300	250	110	132	235	58	100
CJX1-400N	300	300	125	160	235	66	114

CJX1-45~400N

CJX2 Series AC Contactor

CJX2-D09

CJX2-D25

CJX2-D50

CJX2-D95

1. Application

CJX2 series AC Contactor is suitable for using in the circuits up to the rated voltage 660V AC 50/60Hz, rated current up to 620A, for making, breaking, frequently starting & controlling the AC motor. Combined with the auxiliary contact block, timer delay & machine-interlocking device etc, it becomes the delay contactor, mechanical interlocking contactor, star-delta starter. With the thermal relay, it is combined into the electromagnetic starter. The product conforms to IEC60947-4-1 standard.

2. Specification

Type		CJX2-D09	CJX2-D12	CJX2-D18	CJX2-D25	CJX2-D32	CJX2-D40	CJX2-D50	CJX2-D65	CJX2-D80	CJX2-D95
Rated working current (A)	AC3	9	12	18	25	32	40	50	65	80	95
	AC4	3.5	5	7.7	8.5	12	18.5	24	28	37	44
Standard power ratings of 3-phase motors 50/60Hz in category AC-3 (kW)	220/230V	2.2	3	4	5.5	7.5	11	15	18.5	22	25
	380/400V	4	5.5	7.5	11	15	18.5	22	30	37	45
	415V	4	5.5	9	11	15	22	25	37	45	45
	500V	5.5	7.5	10	15	18.5	22	30	37	55	55
	660/690V	5.5	7.5	10	15	18.5	30	33	37	45	55
Rated heat current (A)		20	20	32	40	50	60	80	80	125	125
Electrical life	AC3 ($x10^4$)	100	100	100	100	80	80	60	60	60	60
	AC4 ($x10^4$)	20	20	20	20	20	15	15	15	10	10
Mechanical life ($x10^4$)		1000	1000	1000	1000	800	800	800	800	600	600
Number of the contacts		3P+NO					3P+NC+NO				
		3P+NC									

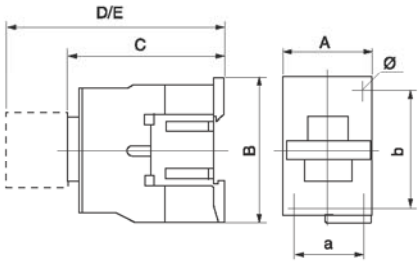
Type		CJX2-D115	CJX2-D150	CJX2-D170	CJX2-D205	CJX2-D245	CJX2-D300	CJX2-D410	CJX2-D475	CJX2-D620
Rated working current (A)	AC3	115	150	170	205	245	300	410	475	620
	AC4	52	60	75	85	105	117	138	147	180
Standard power ratings of 3-phase motors 50/60Hz in category AC-3(kW)	220/230V	30	40	55	63	75	100	110	147	200
	380/400V	55	75	90	110	132	160	220	265	335
	415V	59	80	100	110	132	180	220	280	375
	500V	75	90	110	129	160	200	250	355	400
	660/690V	80	100	110	129	160	220	280	355	450
Rated heat current (A)		200	250	250	275	315	400	500	700	1000
Electrical life	AC3 ($x10^4$)	200	60	60	50	50	50	30	30	20
	AC4 ($x10^4$)	15	15	15	15	15	15	8	8	5
Mechanical life ($x10^4$)		300	300	300	300	300	300	100	100	100

3. Standard Control Circuit Voltage

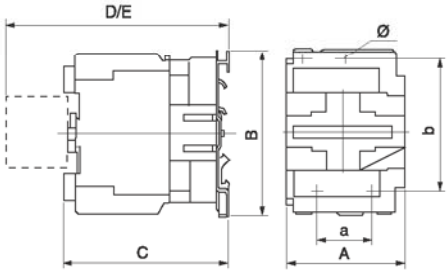
Volts	24	42	48	110	220	230	240	380	400	415	440	500	660
50Hz	B5	D5	E5	F5	M5	P5	U5	Q5	V5	N5	R5	S5	Y5
60Hz	B6	D6	E6	F6	M6	-	U6	Q6	-	-	R6	-	-
50/60Hz	B7	D7	E7	F7	M7	P7	U7	Q7	V7	N7	R7	-	-

4. Outline and Mounting Dimension

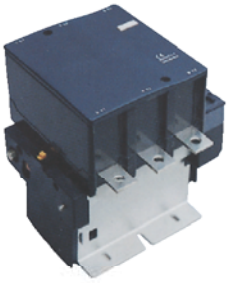
CJX2-D115



CJX2-D09~32



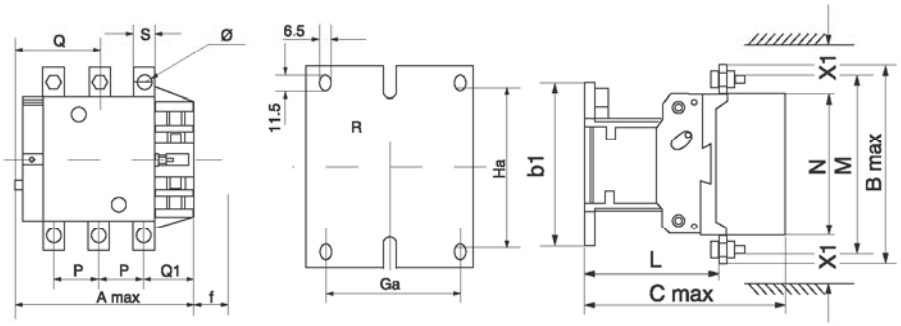
CJX2-D40~95



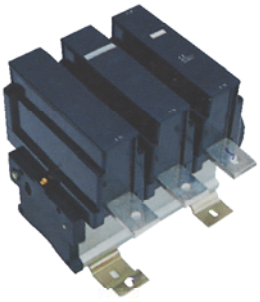
CJX2-D205

Type	A	B	C	D	E	a	b	
CJX2-D09~12	47	76	82	113	133	34/35	50/60	4.5
CJX2-D18	47	76	87	118	138	34/35	50/60	4.5
CJX2-D25	57	86	95	126	146	40	48	4.5
CJX2-D32	57	86	100	131	151	40	48	4.5
CJX2-D40~65	77	129	116	145	165	40	100/110	6.5
CJX2-D80~95	87	129	127	175	195	40	100/110	6.5

CJX2-D300



CJX2-D115~620



CJX2-D620

Type	A	B	C	b1	P	Q	S	Q1	M	N	L		Ga	Ha
CJX2-D115	158	120	132	158	35	60	17	25	134	96.2	75	M6	-	-
CJX2-D150	158	120	132	158	35	60	17	25	134	96.2	75	M6	-	-
CJX2-D170	158	120	132	158	35	60	17	25	134	96.2	75	M6	-	-
CJX2-D205	168.5	174	181	137	40	69	20	59.4	154	127	113.5	M8	80	120-106
CJX2-D245	168.5	197	181	137	48	69	25	51.5	172	127	113.5	M10	80	120-106
CJX2-D300	213	206	219	145	48	91	25	74	181	158	145	M10	80	120-106
CJX2-D410	213	206	219	209	48	91	25	74	181	158	145	M10	80	120-106
CJX2-D475	233	238	232	209	55	108	30	77	208	172	146	M10	80	180
CJX2-D620	309	304	255	280	80	140	40	89	264	202	155	M12	80	180

5. Auxiliary Contact Block

Appellation	Type	
Auxiliary instantaneous contactor block,contactor I	LA1-DN10C	1 -
	LA1-DN01C	- 1

LA1-DN11

Appellation	Type	
Auxiliary instantaneous contactor block,contactor II	LA1-DN11C	1 1
	LA1-DN20C	2 0
	LA1-DN02C	0 2

LA1-DN22

Appellation	Type	
Auxiliary instantaneous contactor block,contactor IV	LA1-DN40C	4 0
	LA1-DN31C	3 1
	LA1-DN22C	2 2
	LA1-DN13C	1 3
	LA1-DN04C	0 4

Appellation	Type	
Auxiliary instantaneous contactor block,contactor IV	LA1-DN40C	4 0
	LA1-DN31C	3 1
	LA1-DN22C	2 2
	LA1-DN13C	1 3
	LA1-DN04C	0 4

LA8-DN11

Appellation	Type	
Side-mounted auxiliary module	LA8-DN11C	1 -
		- 1

6. LA2 Time Delay Auxiliary Contact Block

Appellation	Type		
Auxiliary instantaneous contactor block,contactor IV	0.1...3S	LA2-DT0	2 2
	0.1...30S	LA2-DT2	2 2
	10...180S	LA4-DT4	2 2
	1...30S	LA2-DS2	2 2
			2 2

LA2-DT2

Appellation	Type		
Time delay auxiliary contactor block releasing and delay	0.1...3S	LA3-DT0	1 1
	0.1...30S	LA3-DT2	1 1
	10...180S	LA3-DT4	1 1

7. Characteristic

Contactor	Auxiliary Blocks	Relative products
	+  Delay timer	→  Time-delay contactor
	+  Mechanical interlock	→  Reversing contactor
	+  Thermal relay	→  Magnetic starter
	+  Current-limited auxiliary block	→  Changeover capacitor contactor
	+  Delay timer +  Auxiliary block	→  Star-delta starter

CJX2N Series AC Contactors

1. Application

CJX2N series AC contactor is suitable for frequency 50/60Hz,rated insulation voltage up to 1000V,rated operation current 9~150A under AC-3 duty.It is mainly used for making/breaking electric circuits at a long distance & for frequent starting/stopping & controlling AC Motors.It is used in combination with thermal relay to compose a magnetic motor starter. The products comply with IEC60947-4-1 standard.

CJX2N-09

CJX2N-25

CJX2N-50

2. Specification

Type		CJX2N -09	CJX2N -12	CJX2N -18	CJX2N -25	CJX2N -32	CJX2N -38	CJX2N -40
Rated working current Ie (A) AC-3 Ue ≤440V		9	12	18	25	32	38	40
Rated heat current Ith (A)		25	25	32	40	50	50	60
Rated insulation voltage Ui (V)		690	690	690	690	690	690	1000
Rated operating voltage Ue (V) Max		690	690	690	690	690	690	1000
Rated operational power in AC-3 Pe (kW)	220/230V	2.2	3	4	5.5	7.5	9	11
	380/400V	4	5.5	7.5	11	15	18.5	18.5
	415/440V	4	5.5	9	11	15	18.5	22
	500V	5.5	7.5	10	15	18.5	18.5	22
	660/690V	5.5	7.5	10	15	18.5	18.5	30
Rated operational power in AC-4 Pe (kW)	220/230V	1.5	1.5	2.2	3	4	4	4
	380/400V	2.2	3.7	4	5.5	7.5	7.5	9
	415/440V	2.2	3	3.7	5.5	7.5	7.5	9/11
	500V	3	4	5.5	7.5	9	9	11
	660/690V	4	5.5	7.5	10	11	11	15
Frequency of operation (I/h)		1200	1200	1200	1200	1000	1000	1000
Electrical endurance ($x10^4$)	AC-3	100	100	100	100	80	80	80
	AC-4	20	20	20	20	20	20	15
Mechanical endurance ($x10^6$)		15	15	15	15	15	15	6
Operating voltage range of coil	Close voltage:(0.85~1.1)Us Open voltage:(20%~75%)Us							
Power consumption of coil (VA)	Atracting	7	7	7	7	7	7	20
	Starting	70	70	70	70	70	70	200
Rated insulation voltage of auxiliary contacts (V)	690	690	690	690	690	690	690	690
Conventional thermal current of auxiliary contacts (A)	10	10	10	10	10	10	10	10
Auxiliary contacts specification	AC-15:360VA DC-13:33W							

CJX2N-80

CJX2N-115

CJX2N-150

Type		CJX2N -50	CJX2N -65	CJX2N -80	CJX2N -95	CJX2N -115	CJX2N -150
Rated working current Ie (A) AC-3 Ue≤440V		50	65	80	95	115	150
Rated heat current Ith (A)		80	80	125	125	200	200
Rated insulation voltage Ui (V)		1000	1000	1000	1000	1000	1000
Rated operating voltage Ue (V) Max		1000	1000	1000	1000	1000	1000
Rated operational power in AC-3 Pe (kW)	220/230V	15	18.5	22	25	30	40
	380/400V	22	30	37	45	55	75
	415/440V	25/30	37	45	45	59	80
	500V	30	37	55	55	75	90
	660/690V	33	37	45	45	80	100
Rated operational power in AC-4 Pe (kW)	220/230V	5.5	7.5	7.5	9	9	11
	380/400V	11	11	15	15	18.5	22
	415/440V	11	11/15	15	15	18.5	22
	500V	15	18.5	22	22	30	37
	660/690V	18.5	22	25	25	30	45
Frequency of operation (l/h)		1000	1000	750	750	750	750
Electrical endurance ($x10^4$)	AC-3	60	60	60	60	60	60
	AC-4	15	15	10	10	15	15
Mechanical endurance ($x10^6$)		6	6	4	4	4	4
Operating voltage range of coil	Close voltage:(0.85~1.1)Us			Open voltage:(20%~75%)Us			
Power consumption of coil (VA)	Atracting	20	20	20	20	22	22
	Starting	200	200	200	200	300	300
Rated insulation voltage of auxiliary contacts (V)	690	690	690	690	690	690	690
Conventional thermal current of auxiliary contacts (A)	10	10	10	10	10	10	10
Auxiliary contacts specification	AC-15:360VA			DC-13:33W			

3. Standard Control Circuit Voltage

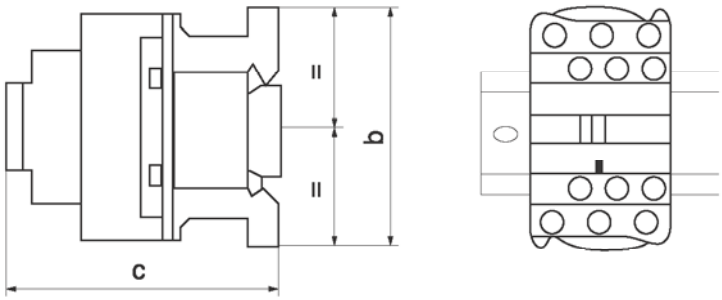
Volts	24	42	48	110	220	230	240	380	400	415	440	500	660
50Hz	B5	D5	E5	F5	M5	P5	U5	Q5	V5	N5	R5	S5	Y5
60Hz	B6	D6	E6	F6	M6	-	U6	Q6	-	-	R6		
50/60Hz	B7	D7	E7	F7	M7	P7	U7	Q7	V7	N7	R7		

4. Characteristic

Contactor and other auxiliary blocks.

Contactor		Auxiliary Blocks		Relative Products
	+	 Delay timer	→	 Time-delay contactor
	+	 Thermal relay	→	 Magnetic starter
	+	 Auxliary block	→	 AC Contactor

5. Outline and Mounting Dimension



	09	12	18	25	32	38	40	50	65	80	95	115	150
b	76.6	76.6	76.6	76.6	76.6	76.6	127	127	127	127	127	158	158
c	87	87	87	94	94	94	116	116	116	123.8	123.8	132	132

CJX2-F AC Contactor

1. Application

CJX2-F AC contactor is suitable for using in the circuits u to the rated voltage 380V AC 50/60Hz, current 800A, for long distance breaking circuit and frequently starting or controlling the motor. It also can be sed for the conntrol of distribution circuits of rated current from 115A to 800A. It conforms to IEC60947-4-1 standard.

CJX2-F115

CJX2-F150

CJX2-F630

2. Specification

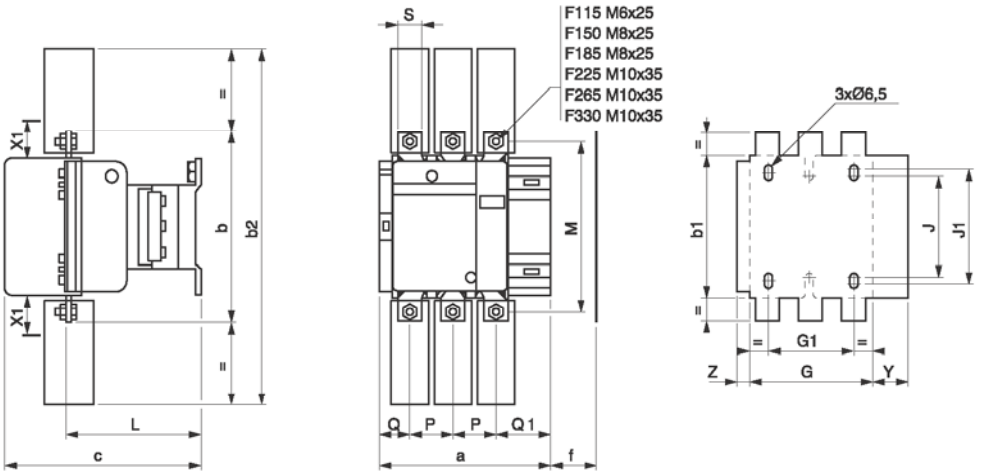
Type	Rated operational current in AC-3(A)	Max power ratings of 3-phase motors in category AC-3(kW)							Operating frequency (time/hour) AC-3	Electrical life AC-3 x10⁴	Mechanical life x10⁴
		220V 230V	380V 400V	415V	440V	500V	660V 690V	1000V			
CJX2-F115	115	30	55	59	59	75	80	65	1200	120	1000
CJX2-F1154	115	30	55	59	59	75	80	65	1200	120	1000
CJX2-F150	150	40	75	80	80	90	100	65	1200	120	1000
CJX2-F1504	150	40	75	80	80	90	100	65	1200	120	1000
CJX2-F185	185	55	90	100	100	110	110	100	600	100	600
CJX2-F1854	185	55	90	100	100	110	110	100	600	100	600
CJX2-F225	225	63	110	110	110	130	129	100	600	100	600
CJX2-F2254	225	63	110	110	110	130	129	100	600	100	600
CJX2-F265	265	75	132	140	140	160	160	147	600	80	600
CJX2-F2654	265	75	132	140	140	160	160	147	600	80	600
CJX2-F330	330	100	160	180	200	200	220	160	600	80	600
CJX2-F3304	330	100	160	180	200	200	220	160	600	80	600
CJX2-F400	400	110	200	220	250	257	280	185	600	80	600
CJX2-F4004	400	110	200	220	250	257	280	185	600	80	600
CJX2-F500	500	147	250	280	295	355	335	335	600	80	600
CJX2-F5004	500	147	250	280	295	355	335	335	600	80	600
CJX2-F630	630	200	335	375	400	400	450	450	600	80	600
CJX2-F6304	630	200	335	375	400	400	450	450	600	80	600
CJX2-F780	780	220	400	425	425	450	475	40	600	80	600
CJX2-F7804	780	220	400	425	425	450	475	450	600	80	600
CJX2-F800	800	250	450	450	450	450	470	450	600	80	600

CJX2-F780

CJX2-F1154

CJX2-F5004

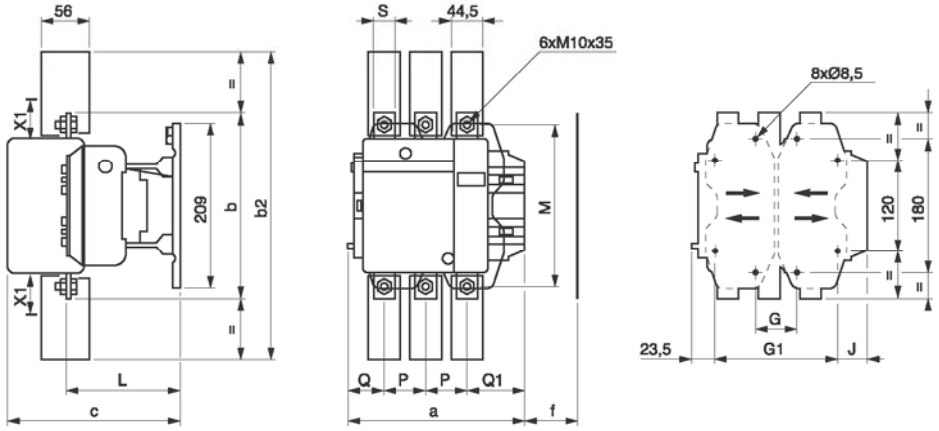
3. Outline and Mounting Dimension



CJX2-F115 to F330

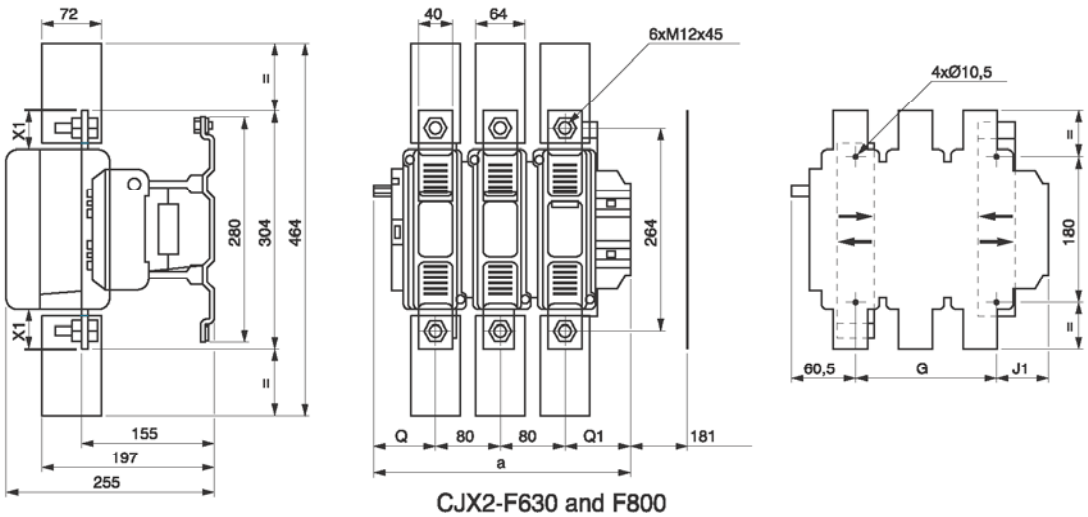
CJX2-		a	b	b1	b2	c	f	G	G1	J	J1	L	M	P	Q	Q1	S	1	Y	Z
F115	3P	163.5	162	137	265	171	131	106	80	106	120	107	147	37	29.5	60	20	26	44	13.5
	4P	200.5	162	137	265	171	131	143	80	106	120	107	147	37	29.5	60	20	26	44	13.5
F150	3P	163.5	170	137	301	171	131	106	80	106	120	107	150	40	26	57.5	20	34	44	13.5
	4P	200.5	170	137	301	171	131	143	80	106	120	107	150	40	26	55.5	20	34	44	13.5
F185	3P	168.5	174	137	305	181	130	111	80	106	120	113.5	154	40	29	59.5	20	34	44	13.5
	4P	208.5	174	137	305	181	130	151	80	106	120	113.5	154	40	29	59.5	20	34	44	13.5
F225	3P	168.5	197	137	364	181	130	111	80	106	120	113.5	172	48	21	51.5	25	44.5	44	13.5
	4P	208.5	197	137	364	181	130	151	80	106	120	113.5	172	48	17	47.5	25	44.5	44	13.5
F265	3P	201.5	203	145	375	213	147	142	96	106	120	141	178	48	39	66.5	25	44.5	38	21.5
	4P	244.5	203	145	375	213	147	190	96	106	120	141	178	48	34	66.5	25	44.5	38	21.5
F330	3P	213	206	145	375	219	147	154.5	96	106	120	145	181	48	43	74	25	44.5	38	20.5
	4P	261	206	145	375	219	147	202.5	96	106	120	145	181	48	43	74	25	44.5	38	20.5

f = minimum distance required for coil removal



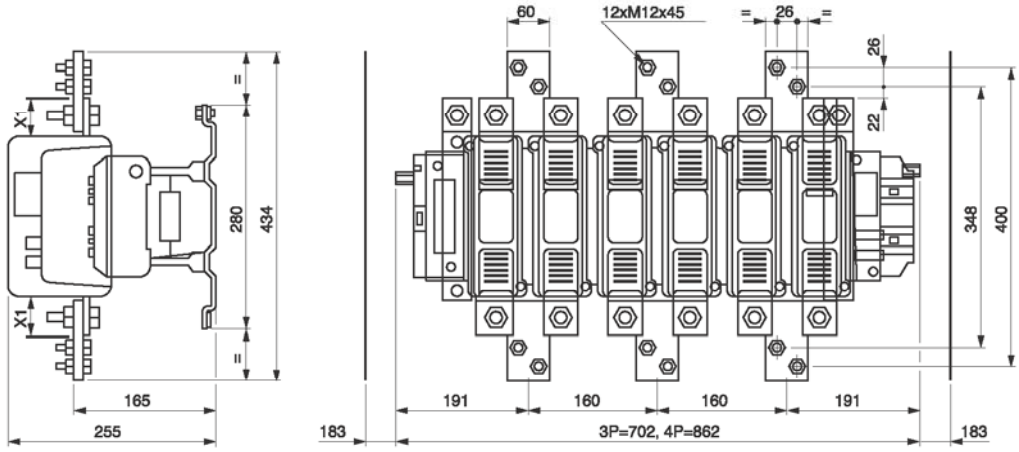
CJX2-F400 and F500

CJX2-		a	b	b2	c	f	G *	G min.	G max.	G1 *	G1 min.	G1 max.	J	L	M	P	Q	Q1	S
F400	2P	213	206	375	219	119	80	66	102	170	156	192	19.5	145	181	48	69	96	25
	3P	213	206	375	219	119	80	66	102	170	156	192	19.5	145	181	48	43	74	25
	4P	261	206	375	219	119	80	66	150	170	156	240	67.5	145	181	48	43	74	25
F500	2P	233	238	400	232	141	80	66	120	170	156	210	39.5	146	208	55	76	102	30
	3P	233	238	400	232	141	80	66	120	170	156	210	39.5	146	208	55	46	77	30
	4P	288	238	400	232	141	140	66	175	230	156	265	34.5	146	208	55	46	77	30



CJX2-F630 and F800

CJX2-		a	G	G min.	G max.	J1	Q	Q1
F630	2P	309	180	100	195	68.5	102	127
F630, F800	3P	309	180	100	195	68.5	60	89
F630	4P	389	240	150	275	68.5	60	89



CJX2-F780

4. Bobbin of AC Contactor CJX2-F

Type	Used for contactor
LX1-FF	CJX2-F115~F150
LX1-FG	CJX2-F185~F225
LX1-FH	CJX2-F265~F330
LX1-FJ	CJX2-F400
LX1-FK	CJX2-F500
LX1-FL	CJX2-F630/CJX2-F800
LX1-FX	CJX2-F780

CJX2-N Mechanical Interlocking Contactor

1. Application

CJX2-N mechanical interlocking contactor is suitable for using in the circuits up to the rated voltage 660V AC 50/60Hz, current 620A, for convertible controlling the motor. This mechanical interlocking device ensures contact changeover of the two convertible contactors. It conforms to IEC60947-4-1 standard.

2. Specification

CJX2-09~12N

CJX2-25~32N

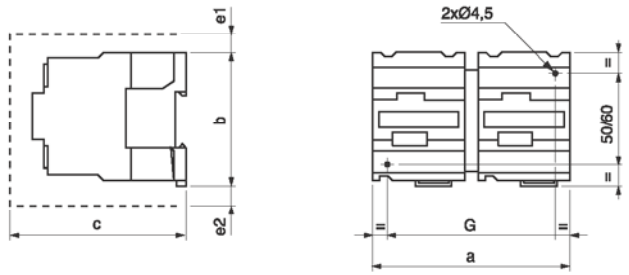
CJX2-40~95N

CJX2-115~800N

Type	Rated current AC-3(A)	Controlled power (kW)				
		220V	380V	415V	440V	660V
CJX2-09N	9	2.2	4	4	4	5.5
CJX2-12N	12	5.5	5.5	5.5	5.5	7.5
CJX2-18N	18	7.5	7.5	9	9	10
CJX2-25N	25	5.5	11	11	11	15
CJX2-32N	32	7.5	15	15	15	18.5
CJX2-40N	40	18.5	18.5	22	22	30
CJX2-50N	50	15	22	25	30	33
CJX2-65N	63	18.5	30	37	37	37
CJX2-80N	80	22	37	45	45	45
CJX2-95N	95	22	45	45	45	41
CJX2-115N	115	30	55	59	59	80
CJX2-150N	150	40	75	80	80	100
CJX2-170N	170	55	90	100	100	110
CJX2-205N	205	63	110	110	110	129
CJX2-245N	245	75	132	132	132	160
CJX2-300N	300	100	160	200	200	220
CJX2-410N	410	110	220	250	250	280
CJX2-475N	475	147	265	280	280	355
CJX2-620N	620	200	335	400	400	450

Type	Number of poles	Rated current AC-3(A)	Rated current In/A	Controlled power(kW)	
				220V	380V
CJX2-F115N	3P	115	250	200	55
CJX2-F1154N	4P	115	250	200	55
CJX2-F150N	3P	150	355	250	75
CJX2-F1504N	4P	150	355	250	75
CJX2-F185N	3P	185	425	275	90
CJX2-F1854N	4P	185	425	275	90
CJX2-F225N	3P	225	500	315	110
CJX2-F2254N	4P	225	500	315	110
CJX2-F265N	3P	265	630	350	132
CJX2-F2654N	4P	265	630	350	132
CJX2-F330N	3P	330	800	400	160
CJX2-F3304N	4P	330	800	400	160
CJX2-F400N	3P	400	800	500	200
CJX2-F4004N	4P	400	800	500	200
CJX2-F500N	3P	500	1000	700	250
CJX2-F5004N	4P	500	1000	700	250
CJX2-F630N	3P	630	1250	1000	335
CJX2-F6304N	4P	630	1250	1000	335
CJX2-F800N	3P	800	1250	1000	400

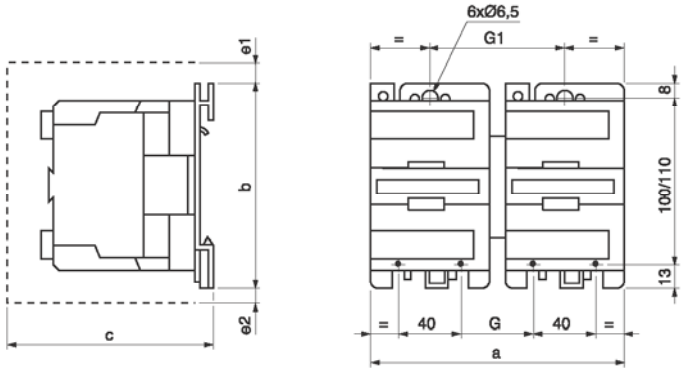
3. Outline and Mounting Dimension



CJX2-09N~38N

CJX2-N	a	b	c	e1(3P)	e2(4P)	G
09N, 12N	105	74	84	7	6	95
18N	106	74	92	8	-	95
25N	127	84	99	8	7	111
32N, 38N	127	84	117	10	-	111

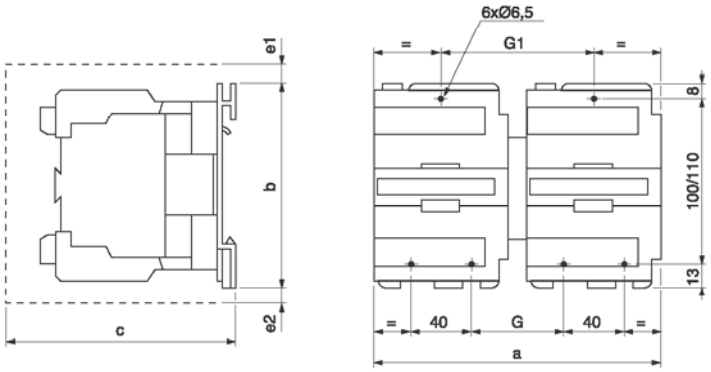
c, e1 and e2 including cabing



CJX2-40N~65N

CJX2-N(3-pole)	a	b	c	e1	GG	1
40N, 50N, 55N	165	127	142	5	50	90
CJX2-N(4-pole)	a	b	c	e2	GG	1
40N, 65N	182	127	133	11	57	97

c, e1 and e2 including cabing

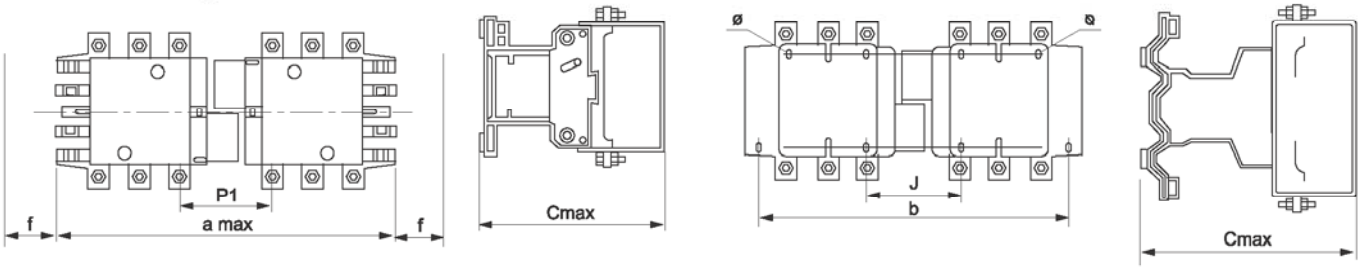


CJX2-80N~95N

CJX2-N(3-pole)	a	b	c	e1	GG	1
80N, 95N	182	127	158	13	57	90
CJX2-N(4-pole)	a	b	c	e2	GG	1
80N	207	127	158	20	71	11

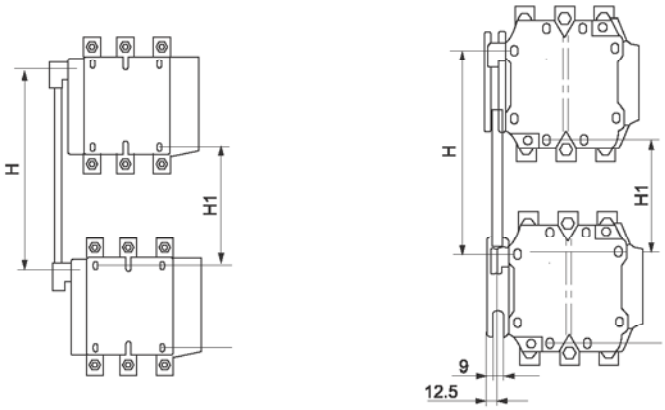
c, e1 and e2 including cabing

Horizontal mounting



Type	Amax	J	P1	f	b		Cmax
CJX2-F115N	350	71	77	131	330	6.5	182
CJX2-F1154N	425	105	77	131	370	6.5	182
CJX2-F150N	350	71	71	131	330	6.5	182
CJX2-F1504N	425	105	71	131	370	6.5	182
CJX2-F185N	350	78	71	130	330	6.5	193
CJX2-F1854N	430	114	71	130	370	6.5	193
CJX2-F225N	350	78	55	130	330	6.5	193
CJX2-F2254N	430	118	54	130	370	6.5	193
CJX2-F265N	450	109	96	147	428	6.5	225
CJX2-F2654N	546	157	100	147	485	6.5	225
CJX2-F330N	450	124	112	147	428	6.5	232.5
CJX2-F3304N	546	166	107	147	485	6.5	232.5
CJX2-F400N	485	157	110	146	460	8.5	232.5
CJX2-F4004N	485	157	107	146	485	8.5	232.5
CJX2-F500N	485	156	115	150	460	8.5	245.5
CJX2-F630N	650	139	140	181	625	10.5	268.5
CJX2-F6304N	810	139	137	181	785	10.5	268.5

Vertical mounting



CJX2-F115N~CJX2-F225N

CJX2-F265N~CJX2-F630N

Type	H	H	H	H
	Min	Max	Min	Max
CJX2-F115N, CJX2-F150N	200	310	80	190
CJX2-F185N, CJX2-F225N	220	310	100	190
CJX2-F265N	250	380	130	260
CJX2-F330N	260	380	60	200
CJX2-F400N	280	380	100	200
CJX2-F500N	300	380	120	200
CJX2-F630N	380	380	200	200

CJX2-K Series AC Contactor

1. Application

CJX2-K series AC contactor is suitable for use in the circuit up to the rate and frequent starting, controlling the AC motor. The addition of auxiliary contact group to the contactor, combined with the proper thermal relay, can act to protect the circuit to overload. It conforms to IEC60947-4-1 standard.

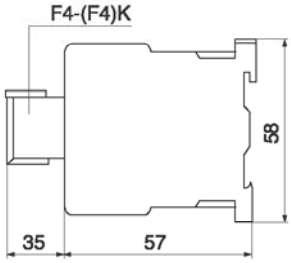
CJX2-K06, 09, 12

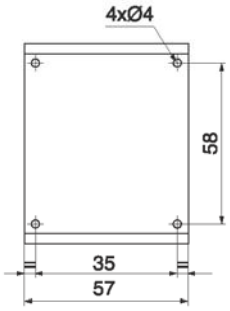
2. Specification

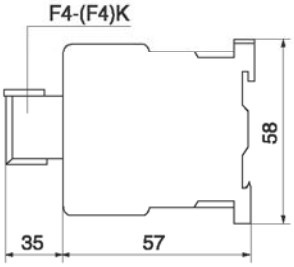
Type			CJX2-K06	CJX2-K09	CJX2-K12
Rating working voltage(V)			660(690)		
Rated working current(A)	380V	AC-3	6	9	12
		AC-4	2.6	3.5	5
Rated heating current(A)			16	20	20
The max current when turn on(A)		380V	60	90	120
		660V	72	108	144
The max current for turn off(A)		380V	48	72	96
		660V	60	90	120
Three phases cage motors power which can be pulled AC3(kW)		220v	1.5	2.2	3
		380v	2.2	4	5.5
		660v	3	4	4
Operation frequency (time/hour)	Electricity lif($x10^4$)	AC-3	1200		
		AC-4	300		
Electrical lfie	AC-3		$5x10^6$		
	AC-4		$1x10^5$		
Mechanical life			$3x10^6$		

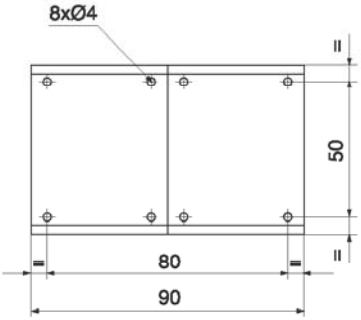
CJX2-K06, 09, 12N

3. Outline and Mounting Dimension









CJX2-Z Series DC Contactors

1. Application

CJX2-Z series DC operated contactor is suitable for use in the circuits up to rated voltage 660V DC 50Hz or 60Hz, and in rated current 9-95A in DC-3/380V load circuits. For remote controlling circuit making, breaking and frequent starting DC motors. It can also combine with the auxiliary contact group, air delayer, thermal relay devices etc.

CJX2-09~32Z

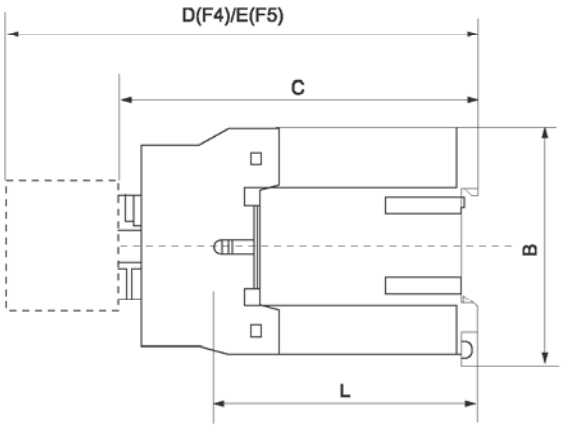
CJX2-40~95Z

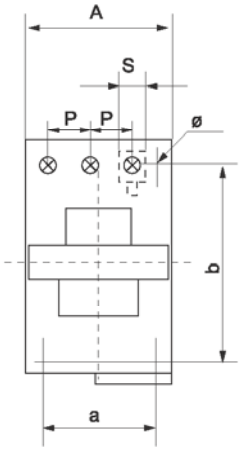
2. Specification

Type			CJX2-09Z	CJX2-12Z	CJX2-18Z	CJX2-25Z	CJX2-32Z
Rated working current(A)	380V	AC3	9	12	18	25	32
		AC4	3.5	5	7.7	8.5	12
	660V	AC3	6.6	8.9	12	18	21
		AC4	1.5	2	3.8	4.4	7.5
Rated heat current(A)			25	25	32	40	50
Controllable power(kW)	220/240V		2.2	3	4	5.5	7.5
	380/400V		4	5.5	7.5	11	15
	415V		4	5.5	9	11	15
	500V		5.5	7.5	10	15	18.5
	600/690V		5.5	7.5	10	15	18.5
Weight(Kg)	DC contactor		0.64	0.34	0.65	0.65	0.95
Measure(Mm^3)	DC contactor		76x115x47	76x115x47	76x120x47	88x130x59	86x135x59
Pole			3, 4	3, 4	3	3, 4	3
Rated working voltage(V)			380, 660	380, 660	380, 660	380, 660	380, 660
Rated insulation voltage(V)			660	660	660	660	660
Mechanical life $x10^4$			1000	1000	1000	1000	800
Electrical life	AC $x10^4$		100	100	100	100	80
	AC4 $x10^4$		20	20	20	20	20
Operating frequency	Electrical life	AC3 $x10^4$	1200	1200	1200	1200	600
		AC4 $x10^4$	300	300	300	300	300
	Mechanical life $x10^4$		3600	3600	3600	3600	3600
Rated controlled voltage(V)			24-660	24-660	24-660	24-660	24-660
Working voltage	Close	DC %	0.85~1.1Us	0.85~1.1Us	0.85~1.1Us	0.85~1.1Us	0.85~1.1Us
	Open	DC %	0.10~0.75Us	0.10~0.75Us	0.10~0.75Us	0.10~0.75Us	0.10~0.75Us

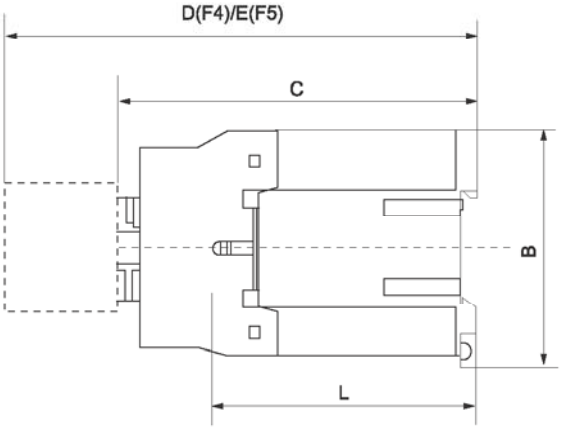
Type			CJX2-40Z	CJX2-50Z	CJX2-65Z	CJX2-80Z	CJX2-95Z
Rated working current(A)	380V	AC3	40	50	65	80	95
		AC4	18.5	24	28	37	44
	660V	AC3	34	39	42	49	55
		AC4	9	12	14	17.3	21.3
Rated heat current(A)			60	80	80	125	125
Controllable power(kW)	220/240V		11	15	18.5	22	25
	380/400V		18.5	22	30	37	45
	415V		22	30	37	45	45
	500V		22	30	37	55	55
	600/690V		30	33	37	45	55
Weight(Kg)	DC contactor		2.185	2.185	2.185	2.525	2.525
Measure(Mm^3)	DC contactor		128x175x81	128x175x87	128x175x87	128x183x87	128x183x8
Pole			3, 4	3, 4	3, 4	3, 4	3, 4
Rated working voltage(V)			380, 660	380, 660	380, 660	380, 660	380, 660
Rated insulation voltage(V)			660	660	660	660	660
Mechanical life $x10^4$			800	800	800	600	600
Electrical life	AC $x10^4$		80	80	80	60	60
	AC4 $x10^4$		15	15	15	10	10
Operating frequency	Electrical life	AC3 $x10^4$	600	600	600	600	600
		AC4 $x10^4$	300	300	300	300	300
	Mechanical life $x10^4$		3600	3600	3600	3600	3600
Rated controlled voltage(V)			24-660	24-660	24-660	24-660	24-660
Working voltage	Close	DC %	0.85~1.1Us	0.85~1.1Us	0.85~1.1Us	0.85~1.1Us	0.85~1.1Us
	Open	DC %	0.10~0.75Us	0.10~0.75Us	0.10~0.75Us	0.10~0.75Us	0.10~0.75Us

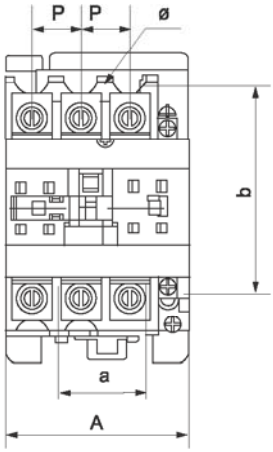
3. Outline and Mounting Dimension





CJX2-09~32Z



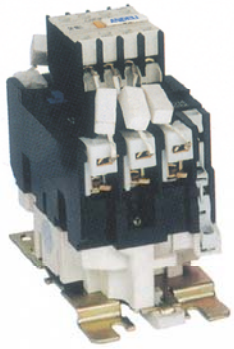


CJX2-40~95Z

Type	Amax	Bmax	Cmax	Dmax	Emax	a	b		L	P	S
CJX2-09Z~12Z	47	76	82(116)	120.5(154.5)	140.5(174.5)	34/35	50/60	4.5	60(95)	105	8.6
CJX2-18Z	47	76	87(122)	125.5(160.5)	145.5(180.5)	34/35	50/60	4.5	61(96)	11.3	10.4
CJX2-25Z	57	86	95(131)	133.5(169.5)	153.5(189.5)	40	48	4.5	70(107)	13.2	11.7
CJX2-32Z	57	86	100(138)	138.5(176.5)	158.5(196.5)	40	48	4.5	71.6(120)	14.5	13
CJX2-4011Z~6511Z	77	129	116(173)	154.5(211.5)	174.5(231.5)	40	100/110	6.5	78(135)	20	8.6
CJX2-4004/4088Z ~6504/6508Z	84	129	116(173)	154.5(211.5)	174.5(231.5)	40	100/110	6.5	78(135)	20	8.6
CJX2-8011Z~9511Z	87	129	127(188)	165.5(226.5)	185.5(246.5)	40	100/110	6.5	83(140)	23.5	12
CJX2-8004/8008Z ~9504/9508Z	96	129	127(183)	160.5(221.5)	180.5(241.5)	40	100/110	6.5	83(140)	23.5	12

CJ19 Series Changeover Capacitor Contactor

CJ19-25~32



CJ19-63~95

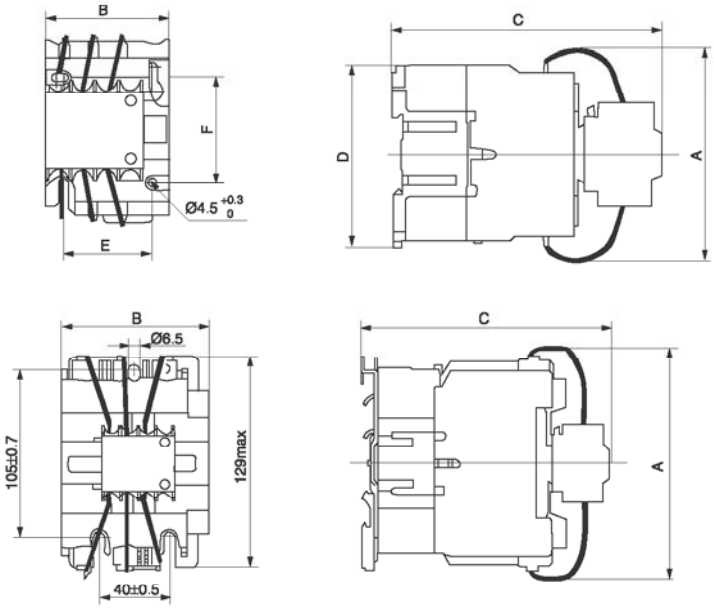
1. Application

CJ19 series changeover capacitor contactor is mainly applicable to a power line of AC 50/60Hz, rated working voltage up to 380V. It is used to put a low voltage parallel connected capacitor in operation or switch it off in a low voltage reactive power compensation device. The contactor is equipped with a surge suppressor, which can effectively reduce the surge current passing through the capacitor at weitching on and suppress the over-voltage at switching off. The product is in conformity with the standards IEC947-4-1.

2. Specification

Model		CJ19-25	CJ19-32	CJ19-43	CJ19-63	CJ19-95
Electrical Ifie		100	100	100	100	100
Rating current Ie (380V)A		17	23	29	43	63
Power of controlled capacitor	220/230V	6	9	10	15	22
	380/400V	12	18	20	30	40
Rated insulation voltage Ui(V)		500				
Rated operational voltage Ue(V)		380				
Restrained surge capacity		20Ie				
Operation range		70Pick-up:(85%~110%); Drop-out:(20%~75%) Us				
Coil power(VA)	Start-up		110	110	200	200
	Holding	8	11	11	20	20
Control capacity of auxiliary contact		AC-15 360VA; DC-13 33W				
Weight(Kg)		0.44	0.63	0.64	1.4	1.5

3. Outline and Mounting Dimension

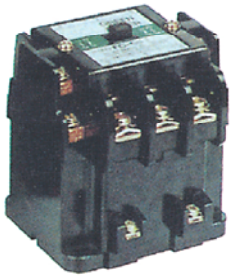


Type	Amax	Bmax	Cmax	Dmax	E	F	Note
CJ19-25	80	47	124	76	34/35	50/60	Screw mount/ 35mm rail mount
CJ19-32	90	58	134	86	40	48	
CJ19-43	90	58	136	86	40	48	
CJ19-63	132	79	150				
CJ19-95	135	87	158				

CJX3 Series AC Contactor

CJX3-10

CJX3-25



CJX3-35/50

CJX3-65/80

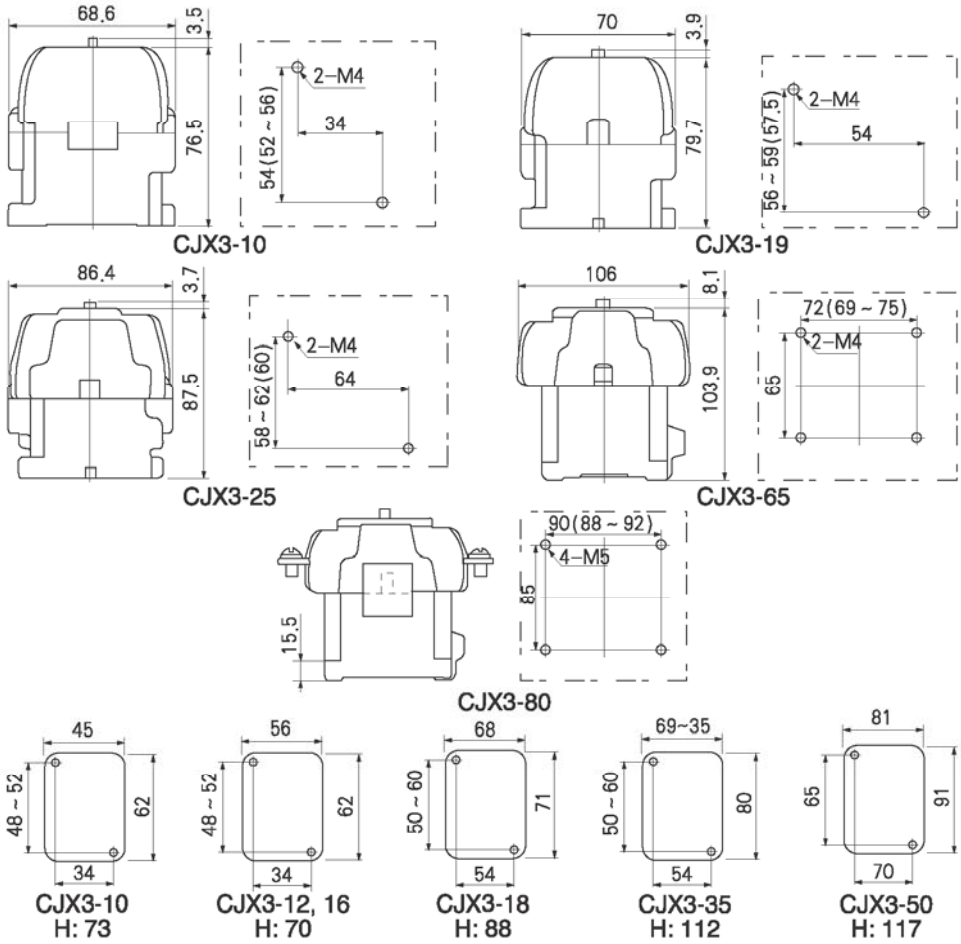
1. Application

CJX3 series AC contactor is used to 50/60Hz, rated working voltage 660V, rated working current 80A electric power system, to switch on and off circuit and AC motors in frequent control, protecting overload circuit. It conforms to IEC60947-1 standard.

2. Specification

Type	Rated insulating voltage (V)	Rated heating current (A)	AC-3 controlled power (kW)			Operating rotation time//hour (AC-3)	Electrical life AC-3 (10^4)	Mechanical life (10^4)	Coil power starting/ working VA/VA
			220V	380V	660V				
CJX3-10	690	20	3.5	5.5	5.5	600	100	500	60/2.2
CJX3-11		20	3.5	5.5	5.5				
CJX3-12		26	3.7	5.5	5.5				
CJX3-16		26	3.7	5.5	5.5				85/3
CJX3-18		30	5.5	7.5	7.5				
CJX3-19		30	5.5	11	11				175/5
CJX3-25		45	7.5	15	15				
CJX3-35		50	7.5	15	15				270/8
CJX3-50		65	11	22	22				
CJX3-65		80	15	30	30				
CJX3-80		110	19	37	37				

3. Outline and Mounting Dimension



CJX5 Series AC Contactors

CJX5-9~18

CJX5-22~32

CJX5-40~65

CJX5-75~85

1. Application

CJX5 series AC Contactor is suitable for using in the circuits up to the rated voltage 660V AC 50/60Hz, rated current up to 85A, for making, breaking, frequently starting & controlling the AC motor. Combined with the auxiliary contact block, timer delay & machine-interlocking device etc, it becomes the delay contactor, mechanical interlocking contactor, star-delta starter. With the thermal relay, it is combined into the electromagnetic starter. It conforms to IEC60947-1 standard.

2. Specification

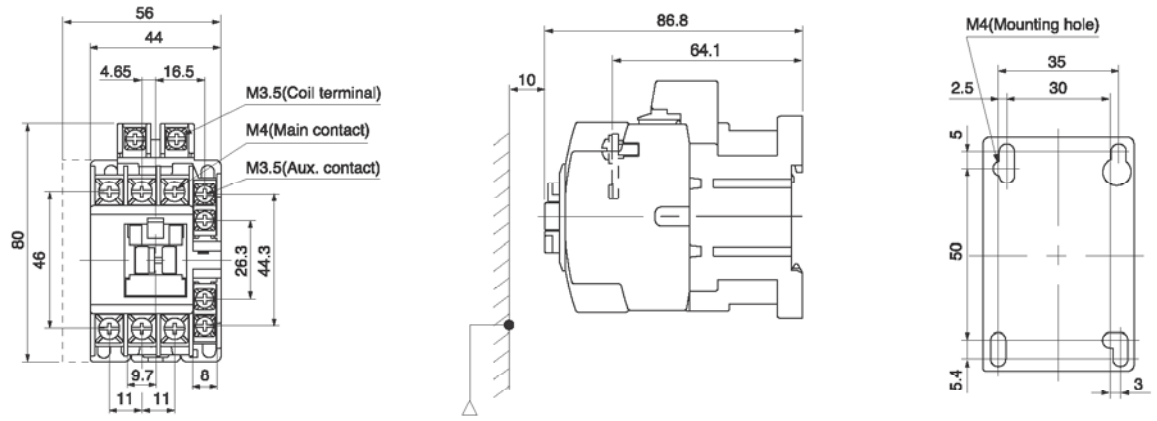
Type			CJX5-9	CJX5-12	CJX5-18	CJX5-22	CJX5-32
AC1 duty			20A	20A	25A	32A	50A
AC3 duty		200~240V	2.5kW11A	3.5kW13A	4.5kW18A	5.5kW22A	7.5kW32A
		380~440V	4kW9A	5.5kW12A	7.5kW18A	11kW22A	15kW32A
		500~550V	4kW7A	7.5kW12A	7.5kW13A	15kW22A	18.5kW28A
		690V	4kW5A	7.5kW9A	7.5kW9A	15kW18A	18.5kW21A
Continuous current(Ith)			20A	25A	30A	32A	45A
AC motor	Single phase	115V	0.5HP	0.5HP	1HP	2HP	2HP
		230V	1HP	2HP	3HP	3HP	5HP
	Three phase	200V	2HP	3HP	5HP	7HP	7.5HP
		230V	3HP	3HP	5HP	7.5HP	10HP
		460V	2HP	7.5HP	10HP	10HP	20HP
		575V	5HP	10HP	15HP	15HP	20HP

Type			CJX5-40	CJX5-50	CJX5-65	CJX5-75	CJX5-85
AC1 duty			60A	80A	100A	110A	135A
AC3 duty		200~240V	11kW40A	15kW55A	18.5kW65A	22kW75A	25kW85A
		380~440V	18.5kW40A	22kW50A	30kW65A	37kW75A	45kW85A
		500~550V	22kW32A	30kW43A	37kW60A	45kW64A	45kW75A
		690V	22kW25A	30kW33A	37kW47A	45kW47A	45kW52A
Continuous current(Ith)			50A	70A	80A	90A	100A
AC motor	Single phase	115V	3HP	3HP	5HP	5HP	7.5HP
		230V	5HP	7.5HP	10HP	15HP	15HP
	Three phase	200V	10HP	10HP	15HP	20HP	25HP
		230V	10HP	15HP	20HP	25HP	30HP
		460V	25HP	30HP	40HP	50HP	50HP
		575V	25HP	30HP	40HP	50HP	50HP

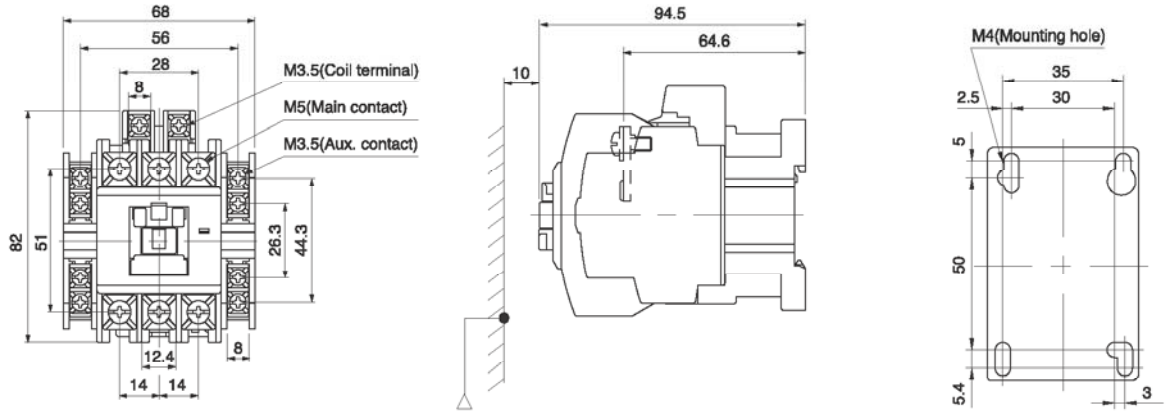
3. Auxiliary for AC Contactor CJX5

Type	Contact No.		PIC
	NO	NC	
AU-2-20	2	0	
AU-2-11	1	1	
AU-2-02	0	2	
AU-4-40	4	0	
AU-4-31	3	1	
AU-4-22	2	2	
AU-4-13	1	3	
AU-4-04	0	4	

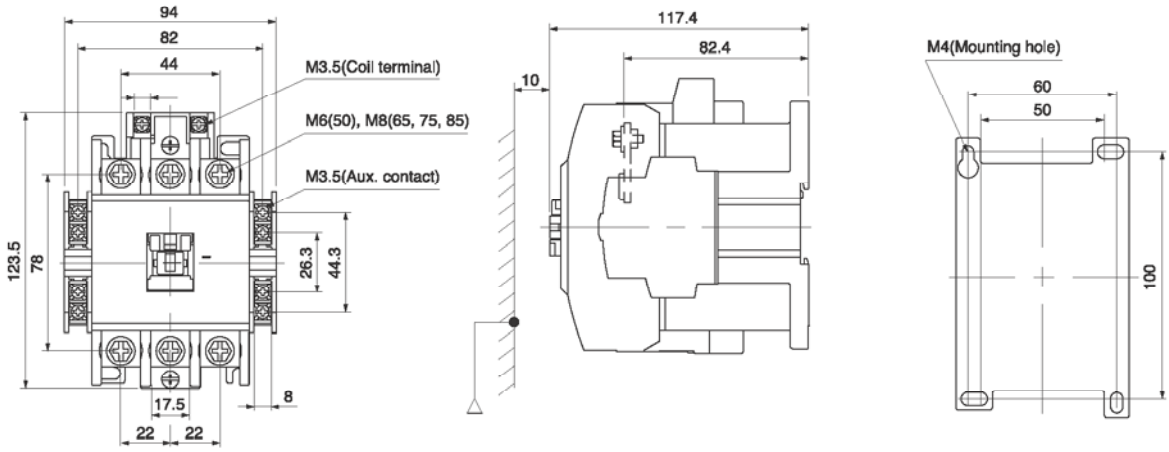
4. Outline and Mounting Dimension



CJX5-9~22



CJX5-32~40



CJX5-50~85

CJX7 AC Contactor

CJX7-09,16

1. Application

CJX7-9~300 AC contactor(hereafter refer to as contactor)is mainly used in power system with AC 50/60Hz, therated working voltage up to 660V, under the application category of AC-3, when the rated working voltage 380V, the rated operating current to 300A electrical, for the long-distance range making and breaking the electric circuit, and combines the electorm agnetism starter with the suitable thermal overload relay or the electronic protector to protect against the possible overload electric circuit during operation(running).

CJX7-26

2. Type and Meaning

CJX 7 □ □ □

- The auxiliary contact pair indicated with two figures, ones place expressed NC;
- The contact pair, the tens digit expressed NO contact pair;
- The main contact pair indicated with two figures, ones place expressed NC contact Pair;
- The tens digit expressed NO contact pair;
- The basic specification code is indicated with the rated working voltage;
- 380V rated operating current numerical value under AC-3 application category;
- Design code
- A.C contator

CJX7-30,40

3. Main Structure and Working Principle

3.1 The structure of the contactor is the positive mounted straight action type double-break dots, cover and the body are made by the arc proof plastic, CJX7-9~16 uses the auto extinguishing of arc, but CJX7-26~110 has ?U ?shape the extinguishing of arc piece in the body to form the seal explosion chamber. The extinguishing of arc is good, the arc over distance is zero. The contact is made by the anti-fusion welding and bears the silver base alloy material wear electricity with good electric conductivity, long life, does not have the pollution to the environment. The ferrite core has ″E ″shape structure, small vloume. There are two kinds of coil wiring ways for the user choice, one is the two terminals in the identical end of the product; other is the two terminals in the products beginnings and ends, the wiring is flexible and convenient. The base is made by the glass fiber reinforced plastice with high intensity, good dielectric properties. The installation way can be the bolt, also may use the guide rail installment. The idsassemble and assemble are very convenient and rapid. The electric conduction part does not appear externally, the security performance is good.

3.2 The working principle of contactor: control power source power source of making(breaking) contactor pullin coil, magnetism system produces(vanishes)electromagnetism suction to drive the moving part making and(breaking) circuit through then, realize the goal of control.

4. Common Work Condition and Installing Condition

CJX7-45,50

a. The installation site elevation does not surpass 2000m;

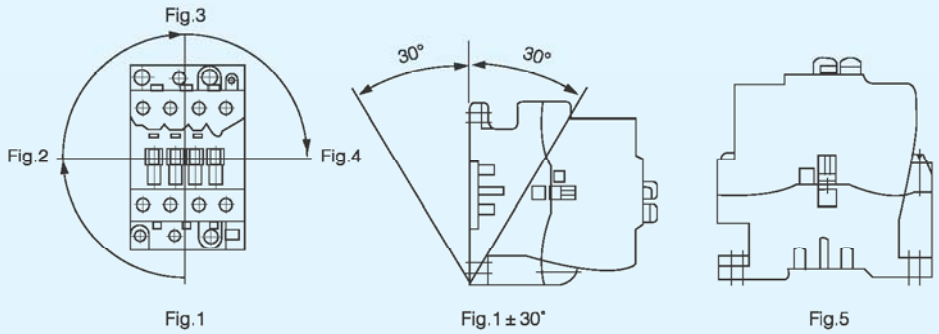
b. Ambient air temperature should not over +40℃, also not over +35℃ with in 24h, the lower limit of ambient air temperature is -5℃;

c. The air relative humidity at installation site should not over 50% when the maximum temperature is +40℃; the higher relative humidity are allowed under lower temperature, for example, 90% at 20℃, It must take the mesures on the product occuring dew because of the change of temperature.

d. The installation site pollution class is 3;

e. The contactor can be mounted vertically or horizontally. If vertically mounts, the gradient between the mounted surface and the perpendicular plans is not bigger than= 30%; (See Fig 1)

CJX7-63



1) The installation site pollution class is 3

5. Technical Parameter

5.1 The allowable application category of main circuit and the auxiliary circuit of the contactor and its code see Table 1

Table 1 application category of main circuit and the auxiliary circuit of the contactor and its code

CJX7-75

Circuit	Application category code	Example of the typical usage
Main circuit	CJX7-1	Noninductive or the micro ineuductive load, resistance furnace
	CJX7-2	The starting and breaking of wire winding type asynchronous motor
	CJX7-3	The starting and breaking during operation of cage asynchronous motor
	CJX7-4	The starting, plug breaking or reverse revolution, spot moving of cage asynchronous motor
Auxiliary circuit	CJX7-15	Control AC electromagnet load(>72VA)
	CJX7-13	Control DC magnet load

5.2 Contactor rated insulation voltage(Ui), reted working voltage(Ue), conventional free air heat current(Ith), rated operating current(Ie) and rated work rate see Table 2.

CJX7-95,110

Table 2 main circuits basic parameters

Type	Frame code	Rated insulation voltage Ui V	Convensional free air heat current Ith A	AC-3 rated operating current Ie A			AC-3 control the max. power kW of generator		
				220V	380V	660V	220V	380V	660V
CJX7-9	16	1000	26	9	9	7	2.2	4	5.5
CJX7-12			28	12	12	9	3	5.5	6.5
CJX7-16			30	17	17	10	4	7.5	9
CJX7-26	26		45	26	26	17	6.5	11	15
CJX7-30	40		65	32	32	21	9	15	18.5
CJX7-40			65	37	37	25	11	8.5	22
CJX7-50	75		100	50	50	35	15	22	30
CJX7-63			125	65	65	43	18.5	30	37
CJX7-75			125	75	75	46	22	37	40
CJX7-95	110		145	96	96	65	25	45	55
CJX7-110			160	110	110	82	30	55	75
CJX7-145	185		250	145	145	120	40	75	100
CJX7-185			275	185	185	170	50	90	120
CJX7-210	300		350	210	210	210	60	110	150
CJX7-260			400	260	260	260	78	140	190
CJX7-300			450	300	300	280	88	160	220

CJX7-100

6. Installation

6.1 Correct install wiring

Note that the terminal symbole: Main circuit 1L1,3L2,5L3 is incoming therminal; 2T1,4T2,6T3 outgoing terminal.

The incoming terminal of NO auxiliary contact is: 13,23,33,43····· the outgoing terminal of NO auxiliary contact is: 14,24,34,44····· The outgoing terminal of OFF auxiliary contat is :11,21,31, 41····· the outgoing terminal of OFF auxiliary contact is: 12,22,32,42····· The coil terminal is: A1 and A2

6.2 Contactors Overall and installation dimensions see Figure 2, Figure 4, Figure 5 and table 9.

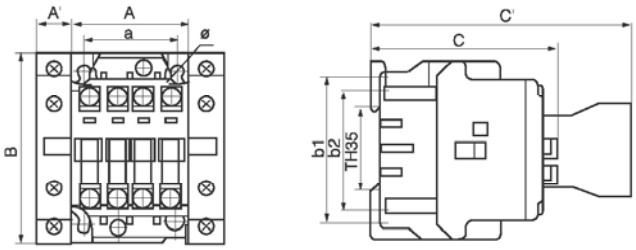


figure2: CJX7-9、12、16 dimensions and installation size

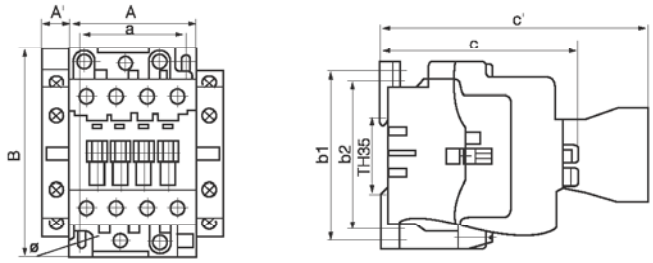


figure3: CJX7-26、30、40 dimensions and installation size

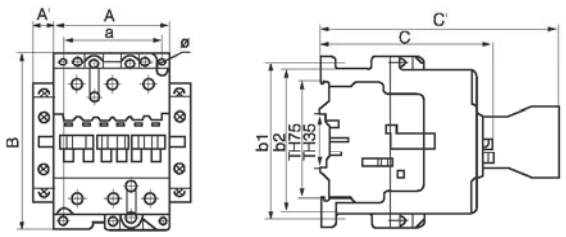


figure4: CJX7-50、63、75 dimensions and installation size

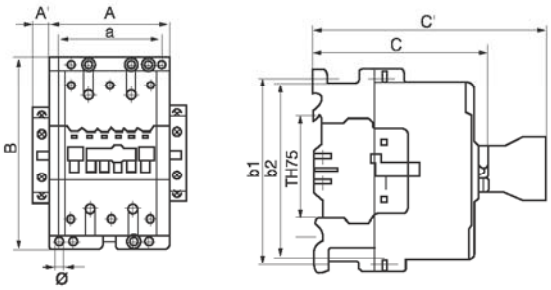


figure5: CJX7-95、110 dimensions and installation size

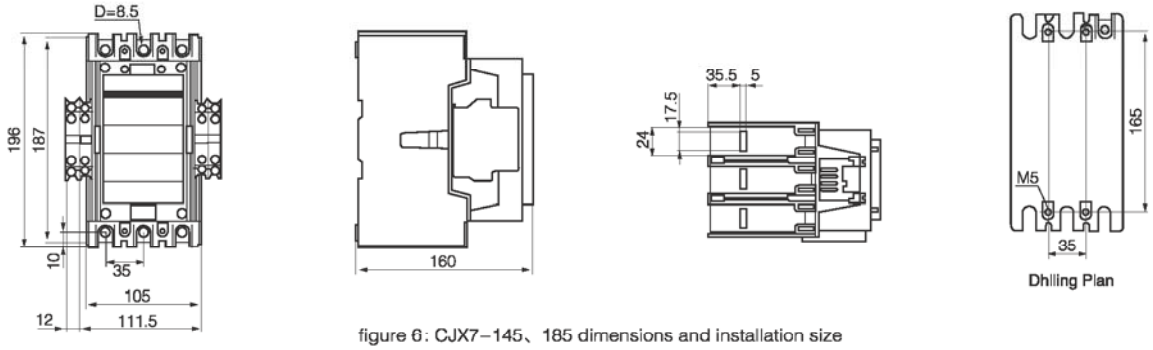


figure 6: CJX7-145、185 dimensions and installation size

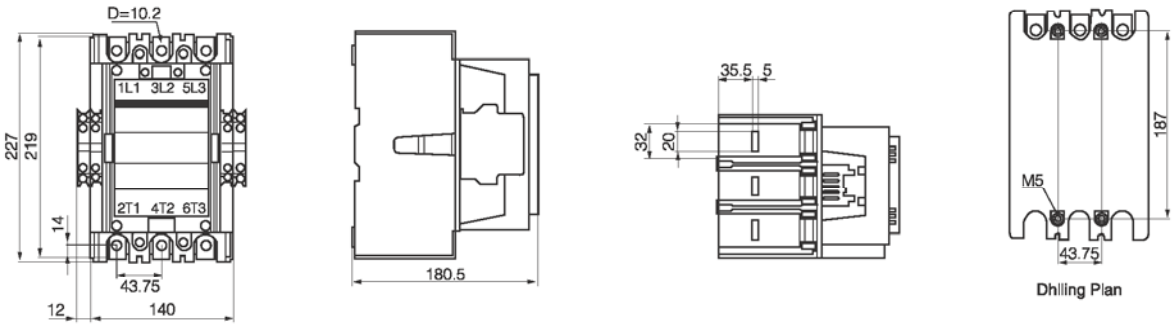


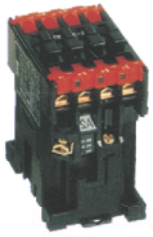
figure7: CJX7-210、260、300 dimensions and installation size

Type	A	A	B	C	C°	a	b1	b2		Mounting mode
CJX7-9,12,16	44	12.5	74	74	102	35	60	50	4.5	Screw installation or TH75 mounting rail installation
CJX7-26	54	12.5	90	93.5	120.5	45	80	70	4.2	
CJX7-30,40	54	12.5	90	108.5	135.2	45	80	70	4.2	
CJX7-50,63,75	70	12.5	110	108	135	60	100	90	6.2	installation or TH35 or TH75 mounting rail installtion
CJX7-95,110	90	12.5	148.5	123.5	151	78	136	126	6.2	Screw installation or TH75 mounting rail installation
CJX7-145,185	Note: Refer to drawing 6 for dimension									
CJX7-210,260,300	Note: Refer to drawing 7 for dimension									

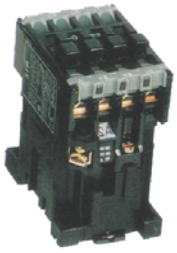
CJX8 Series AC Contactor

1. Application

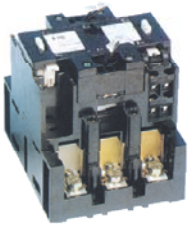
CJX8 series AC Contactors are mainly used in 50/60Hz electrical lines of the rated voltage up to 660V AC and rated current up to 370A, are applicable for remote making and breaking of electrical lines or frequent control of AC motors, having no-voltage protection. Usually, it can be combined with JR29 series thermal relay to form electromagnetic starters which have overload and open-phase protection. It complies with IEC947-4-1 standard.



CJX8-9



CJX8-12



CJX8-170

CJX8-370

TPD40

2. Specification

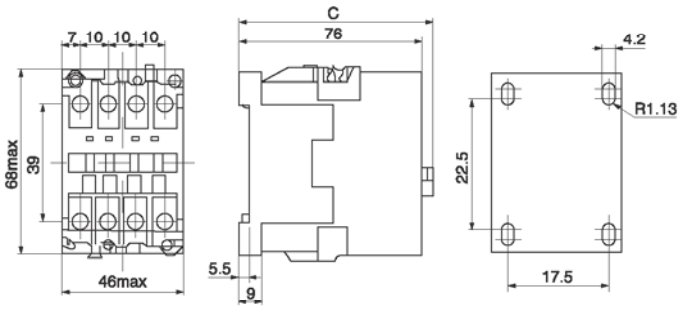
Type		CJX8-9	CJX8-12	CJX8-16	CJX8-25	CJX8-30	CJX8-37	CJX8-45
The highest control power (kW)	220V	2.2	3	4	6.5	9	10	13
	380V	4	5.5	7.5	11	15	18.5	22
	500V	4	5.5	7.5	11	15	18.5	22
	660V	4	5.5	5.5	11	15	18.5	22
Rated heating current Ith (A)		16	20	25	40	45	45	60
Rated working current AC2/AC3/AC4	380V	8.5	11.5	15.5	22	30	37	44
	660V	3.5	4.9	6.7	13	17.5	21	25
Rated holding power of a holding coil/pull-in (VA/W)		9/2.2 60/50	9/2.2 60/50	9/2.2 60/50	10/3 85/65	10/3 85/65	22/5 175/25	22/5 125

Type		CJX8-65	CJX8-85	CJX8-105	CJX8-170	CJX8-250	CJX8-370
The highest control power (kW)	220V	16	20	28	46	60	32
	380V	33	45	55	90	132	200
	500V	40	50	7	110	160	250
	660V	40	50	75	110	160	250
Rated heating current Ith (A)		80	100	140	230	300	400
Rated working current AC2/AC3/AC4	380V	65	85	105	170	245	370
	660V	45	55	82	118	170	268
Rated holding power of a holding coil/pull-in (VA/W)		30/8 270/130	30/8 270/130	32/9 510/280	60/15 790/460	66/16 1100/600	100/27 900/350

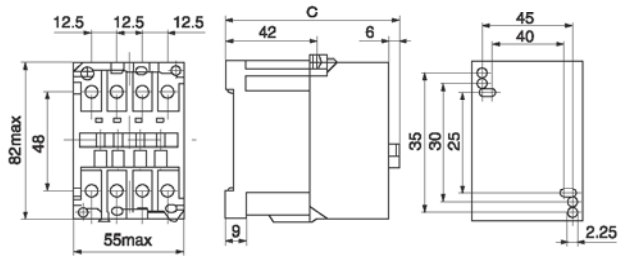
CA7	CA9-11 CA9-20	CA11-11 CA-20
		
B9,B12,B16,B25,B30,37	B45,B65,B85,B105	B170,B250,B370

TP Type pneumatic timer delaying the operation of next stage of a control loop			
Start delay	TPD40 0.3~40s TPD180 10~180s	Relief delay	TP140 0.3~40s TP1180 10~180s

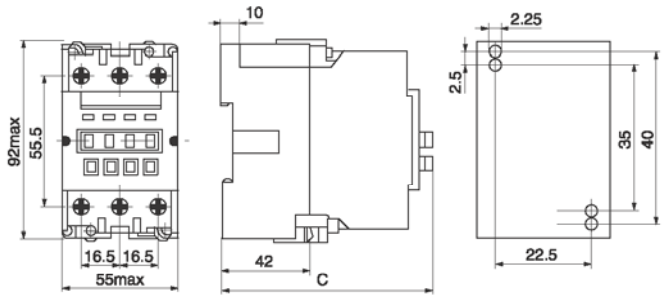
3. Outline and Mounting Dimension



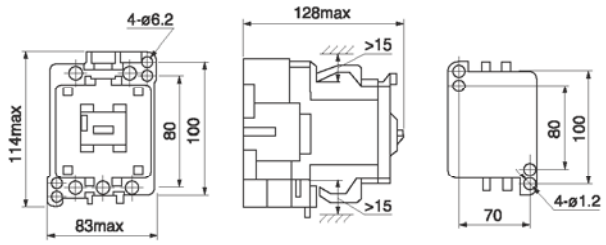
CJX8-9, 12, 16



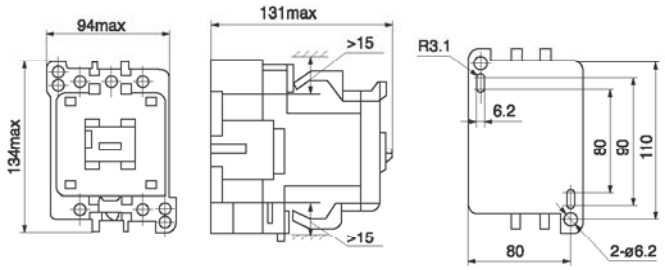
CJX8-25



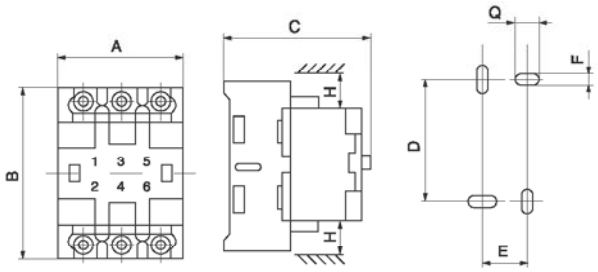
CJX8-30



CJX8-37, 45



CJX8-65, 85



CJX8-105, 170, 250, 370

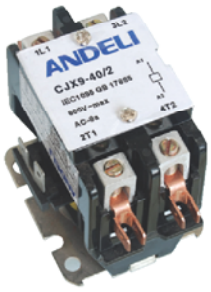
Type	A max	B max	C max	D max	E	F	G	H
CJX8-105	118	154	137	140±0.35	35±0.15	Φ6.5	Φ6.5	15
CJX8-170	134	165	152	150±0.35	40±0.15	7.5	7.5	15
CJX8-250	167	207	193	190±0.45	50±0.17	5.5	8.5	15
CJX8-370	202	252	221	220±0.52	60±0.20	6.5	8.5	15

CJX9 Series Air Condition AC Contactor

1. Application

This series contactor is mainly applicable to a line of AC 50Hz or 60Hz, rated working voltage up to 600V and rated working current up to 60A, used to close or and to switch off the line. It complies to IEC947-4-1 standard.

CJX9-2M-40/1



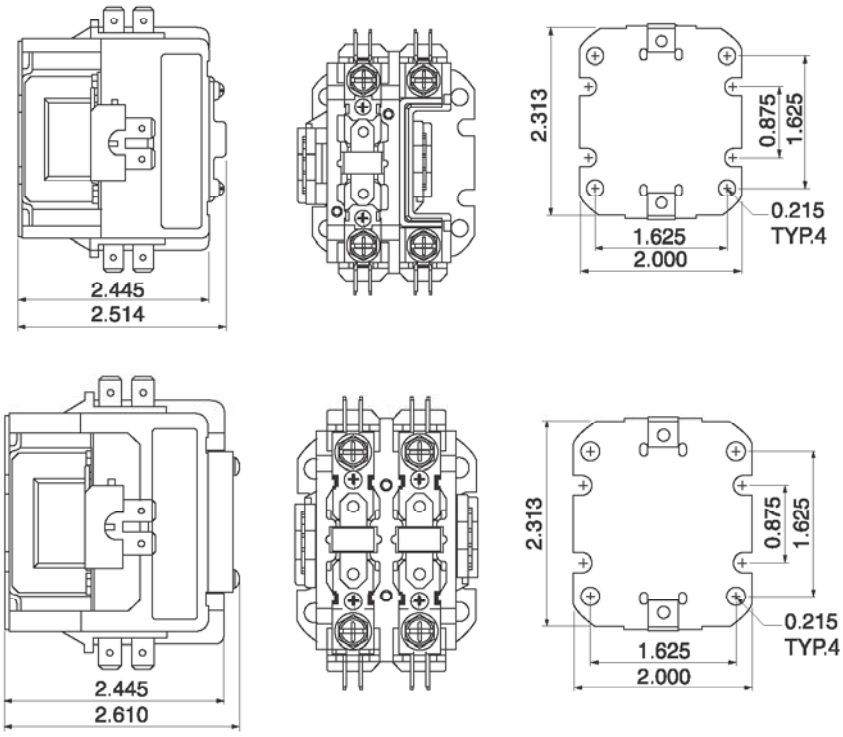
CJX9-2M-40/2

CJX9-2M-40/3

2. Specification

Type	Rated current (A)	Rated voltage (V)
CJX9-2S-30-24V	30	24
CJX9-2S-30-120V	30	120
CJX9-2S-30-240V	30	240
CJX9-2M-40-24V	40	24
CJX9-2M-40-120V	40	120
CJX9-2M-40-240V	40	240
CJX9-3S-30-24V	30	24
CJX9-3S-30-120V	30	120
CJX9-3S-30-240V	30	240
CJX9-3M-40-24V	40	24
CJX9-3M-40-120V	40	120
CJX9-3M-40-240V	40	240
CJX9-2S-50-240V	50	24
CJX9-3G-50-120C	50	120
CJX9-3G-50-240V	50	240
CJX9-3F-60-24V	60	24
CJX9-3A-60-120V	60	120
CJX9-3A-60-240V	60	240

3. Outline and Mounting Dimension (unit: inch)



QCX2 Series Magnetic Starter

1. Application

QCX2-09,12,18

QCX2 series magnetic starter is mainly applied to circuit of AC 50 or 60Hz,voltage up to 550V for far distance making and breaking circuit and frequently starting and controlling motor. It has the features of small volume, light weight, low power consumption, high efficiency, safe and reliable performance. It complies to IEC947-4-1 standard.

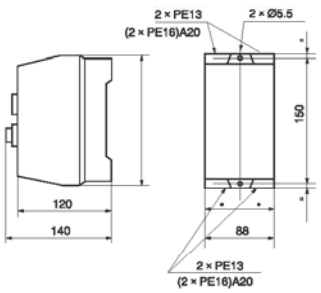
2. Specification

QCX2-25,32

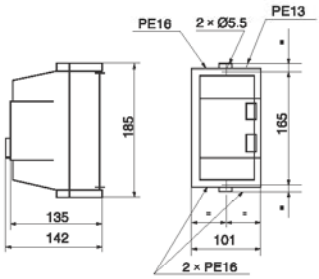
Type	Rated current (A)	Maximum power AC3 duty (kW)						Suitable thermal relay (A)
		220/230V	380/400V	415V	440V	500V	660/690V	
QCX2-9	9	2.2	4	4	4	5.5	5.5	JR28 D1312 JR28 D1314
QCX2-12	12	3	5.5	5.5	5.5	7.5	7.5	JR28 D1316
QCX2-18	18	4	7.5	9	9	10	10	JR28 D1321
QCX2-25	25	5.5	11	11	11	15	15	JR28 D1322 JR28 D2353
QCX2-32	32	7.5	15	15	15	18.5	18.5	JR28 D2355
QCX2-40	40	11	18.5	22	22	22	30	JR28 D3353 JR28 D3355
QCX2-50	50	15	22	25	30	30	33	JR28 D3357 JR28 D3359
QCX2-65	65	18.5	30	37	37	37	37	JR28 D3361
QCX2-80	80	22	37	45	45	55	45	JR28 D3363 JR28 D3365
QCX2-95	95	25	45	45	45	55	45	JR28 D3365

3. Dimension & Mounting Size

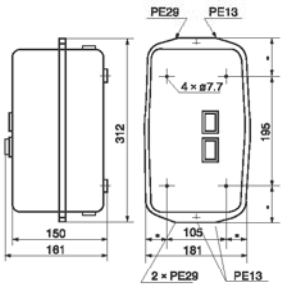
QCX2-40~95



QCX2-09
QCX2-12
QCX2-18



QCX2-25
QCX2-32



QCX2-40
QCX2-95

QCX3 Star-delta Reduced Voltage Starter

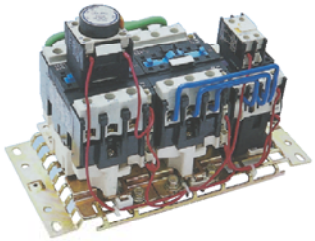
QCX3-09,12,18,25,32

1. Application

QCX3 series star delta reduced voltage starter is suitable for starting motor in the circuit of AC 50/60Hz, voltage up to 660V and current up to 95A. It is provided with a timer for automatic changeover of start-delta to reduce the voltage and current of motor starter. It complies with IEC947-4-1 standard.

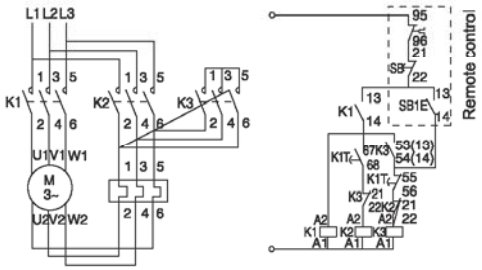
2. Specification

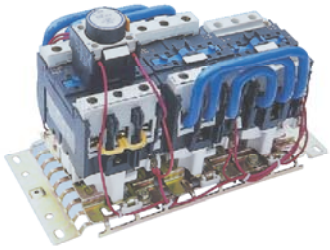
Type	Rated operating current (A)	3-phase motor capacity (kW)			
	AC3	220V	380V	415V	440V
QCX3-09	9	4	7.5	7.5	7.5
QCX3-12	12	5.5	11	11	11
QCX3-18	18	11	18.5	22	22
QCX3-25	25	11	22	22	22
QCX3-32	32	15	25	25	25
QCX3-40	40	18.5	37	37	37
QCX3-50	50	25	55	59	59
QCX3-65	65	32	55	59	59
QCX3-80	80	37	75	75	75
QCX3-95	95	45	80	80	80



QCX3-40, 50, 65

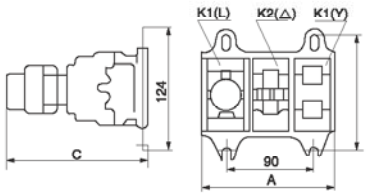
3. Wiring Diagram



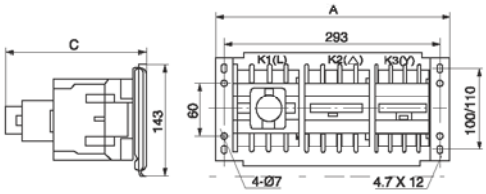


QCX3-80, 95

4. Outline and Mounting Dimension



QCX3-09~32



QCX3-40~95

Type	QCX3-09	QCX3-12	QCX3-18	QCX3-25	QCX3-32	QCX3-40	QCX3-50	QCX3-65	QCX3-80	QCX3-95
A	140	140	140	174	174	310	310	310	310	310
C	149	149	154	164	169	185	185	185	196	196

ADS7 Star-delta Starter

1. Specification

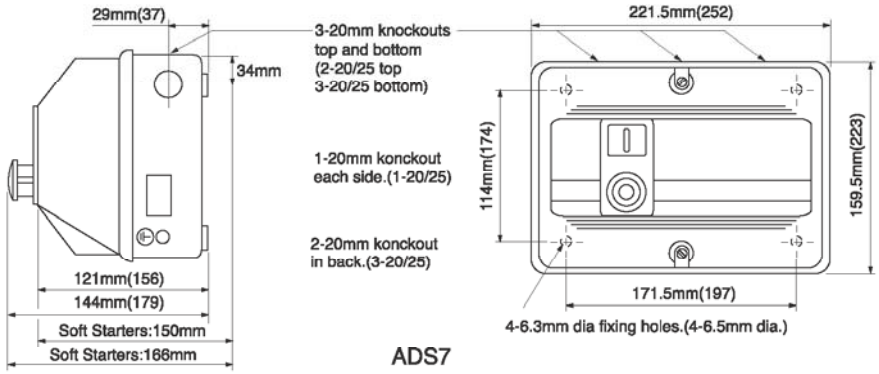
ADS7

Type	Rated Current AC3 415V(A)	3-phase Motor Capacity AC3 load 415V	
Direct-on-line, surface mounting Direct-on-line, flush mounting Direct-on-line, surface mounting, reversing Direct-on-line, surface mounting, with isolator	0.74-1.11A	0.37kW	0.50HP
	1.11-1.66A	0.55kW	0.75HP
	1.66-2.50A	1.10kW	1.50HP
	2.50-3.70A	1.50kW	2.00HP
	3.70-5.60A	2.50kW	3.40HP
	5.60-8.40A	4.00kW	5.50HP
	8.40-11.9A	5.50kW	7.50HP
	11.4-16.0A	7.50kW	10.0HP
	16.0-23.0A	11.0kW	15.0HP
	22.0-33.0A	15.0kW	20.0HP

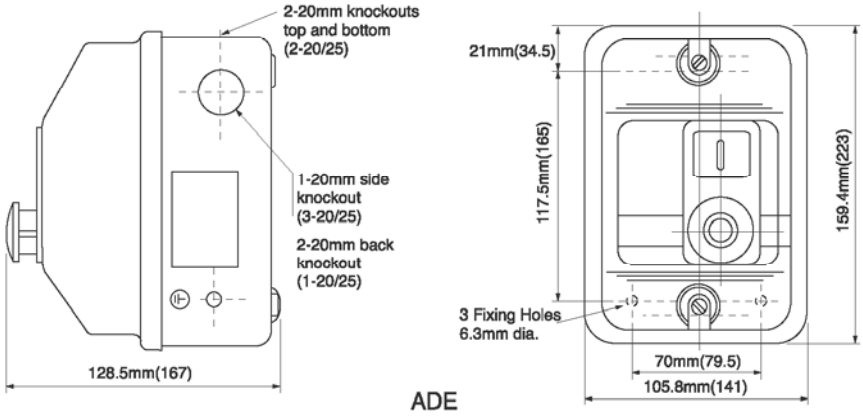
ADE

Type	Rated Current AC3 415V(A)	3 Phase Motor Capacity AC3 load 415V	
Star-delta, surface mounting	4.30-6.40A	3.00kW	4.00HP
	6.40-9.70A	5.00kW	6.80HP
	9.70-14.5A	7.50kW	10.0HP
	14.5-20.6A	10.0kW	13.5HP
	19.7-27.7A	15.5kW	20.0HP
	26.0-38.0A	22.0kW	30.0HP
	38.0-57.0A	30.0kW	40.0HP

2. Outline and Mounting Dimension



ADS7



ADE

QS5 Series Cam Starter

QS5-15N

QS5-63A

1.Application

QS5 cam starter is mainly used to start torward or backward and stop directly three-phase asynchronous elecric motor with AC 50/60Hz, voltage up to 500V and capacity up to 7.5KW. It can also be used for changeover from one ind of circuit to the other.

2. Specification

Model	Mark	Rated current (A)	Motor control capacity (HP)	Mechanical life (times)	Frequency of operation (per hr)	Applications	Position of lever
QS5-15A	I-O	15	5.5	250000	200	ON-OFF switching	0-60
QS5-30A		30	10				
QS5-15N	I-O-I	15	5.5			Forward & reverse	60-0-60
QS5-30N		30	10				
QS5-15P/3	I-O-II	15	5.5			for 3 pole two circuit	60-0-60
QS5-30P/3		30	10				
QS5-63A	I-O	63	22	200000	180	ON-OFF switching	0-60
QS5-100A		100	30				
QS5-63N	I-O-I	63	22			Forward & reverse	60-0-60
QS5-100N		100	30				
QS5-63/P4	I-O-II	63	22			for 3 pole rwo circuit	60-0-60
QS5-100/P4		100					

LNC1 1P 20A

Home Contactor

LNC1-20、LNC1-63AC Contactor(Contactor for short)is mainly designed for AC 50Hz or 60Hz circuits with 230V rated operating voltage. In AC-7a usage,rated operating voltage up to 230V,rated operating current up to 63A,it functions as long distance breaking and circuit controling.This product is mainly applied to household appliances or low inductance loading and home electromltor loading control used for the similar purpose.

LNC1 2P 40A

LNC1 4P 25A

Type	Rated insulation voltage(V)	Rated operating voltage(V)	Rated heating current(A)	Rated operating current(A)	Control power (kW)
LNC1-20	500V	230V	20A	20/7A	4/1.2kW
LNC1-25	500V	230V	25A	25/8.5A	5.4/1.5kW
LNC1-32	500V	230V	32A	32/12A	6.5/1.9kW
LNC1-40	500V	230V	40A	40/15A	8.4/2.4kW
LNC1-63	500V	230V	63A	63/25A	13/3.8kW

Intelligent Motor Soft Starter of AJR3 Series

1.Introduction

The intelligent motor soft starters of AJR3 series, being ideal substitutes for former star / delta switch, auto step-down and magnetic control step-down starting equipments etc.for motors, are new type equipments developed based on the latest motor control theory, motor protection technologies and modern computer technologies, the performance of which is far more advanced than most of those soft starters being independent of multiple closed-loop control technology.

2.Performance

2.1 The starting current of motor is saved effectively, reducing distribution capacity and preventing grid capacity-increase investment.
2.2 The starting stress of motor and loading equipment is reduced, prolonging service life of the motor and relative equipment.
2.3 The soft shutdown function helps to solve the problem of shutdown surge of inertial system effectively (which is impossible for traditional starting equipment).
2.4 Six unique starting modes are provided in order to realize running under complicated requirement of motor and load, reaching perfect starting effect.
2.5 Perfect and reliable protection design is provided, ensuring smooth utilization of motors and relative production equipment.
2.6 The application of intelligent and network technologies for motor starting adapts the motor control technology to higher requirement of rapidly developed electric power automation technologies.

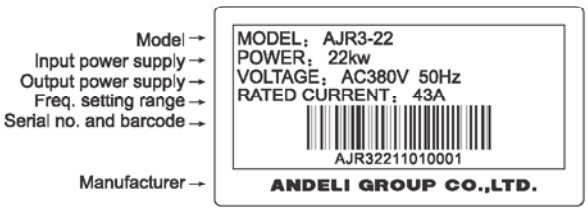
3.Feature

3.1 Perfect humanized design:
Harmonious integration of elegant appearance and reasonable structure.
Harmonious integration of perfect function and easy operation.
Harmonious integration of reliable performance and compact structure.
State-of-the-art design of industrial products.
3.2 Reliable quality assurance:
Computer simulation design
SMT process.
Perfect electromagnetic compatibility.
High temperature aging and vibration test before ex-factory
3.3 Perfect and reliable protection
No-voltage protection, undervoltage protection and overvolage protection.
Overheat protection and over stating time protection of soft starter.
Input open phase protection, output open phase protection and three-phase unbalance protection.
Starting overcurrent protection, running overload protection and load short circuit protection
3.4 Products with independent intellectual property right:
Appearance design patent.
Independent software copyright.
Unique motor starting and protection technology.
Special testing and commissioning equipment and process.
3.5 Quick and considerate after-sales service:
The reliable performance and quality are the base of excellent services.
Corresponding perfect design plans can be provided.
Timely and considerate consultancy services can be provided.
The performance of products can be improved continuously according to the requirement of users.

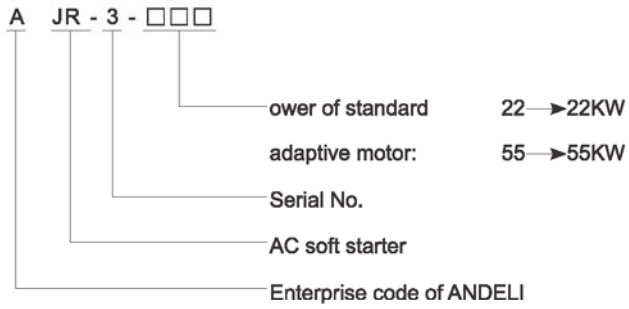
4.Condition

4.1 Power supply: Urban power supply, self-provided power station, diesel generating set, three-phase AC 380V or 660V ± 15%, 50Hz or 60Hz. The power supply capacity must meet the requirement of the soft starter for motor starting.
4.2 Available motor: Three-phase asynchronous squirrel cage motor. The rated power of the motor shall match with that of the soft starter.
4.3 Starting frequency: Dependent on the actual load.
4.4 Cooling mode: Natural air cooling.
4.5 Protection level: IP 20.
4.6 Environment: Place with altitude, ambient temp, relative humidity and vibration being below 1000m, 0℃ ~+40℃ , below 90%RH and 0.5G respectively, free from condensate, corrosive / inflammable / explosive gas, conductive dust, and with good indoor ventilation.

5.Nameplate



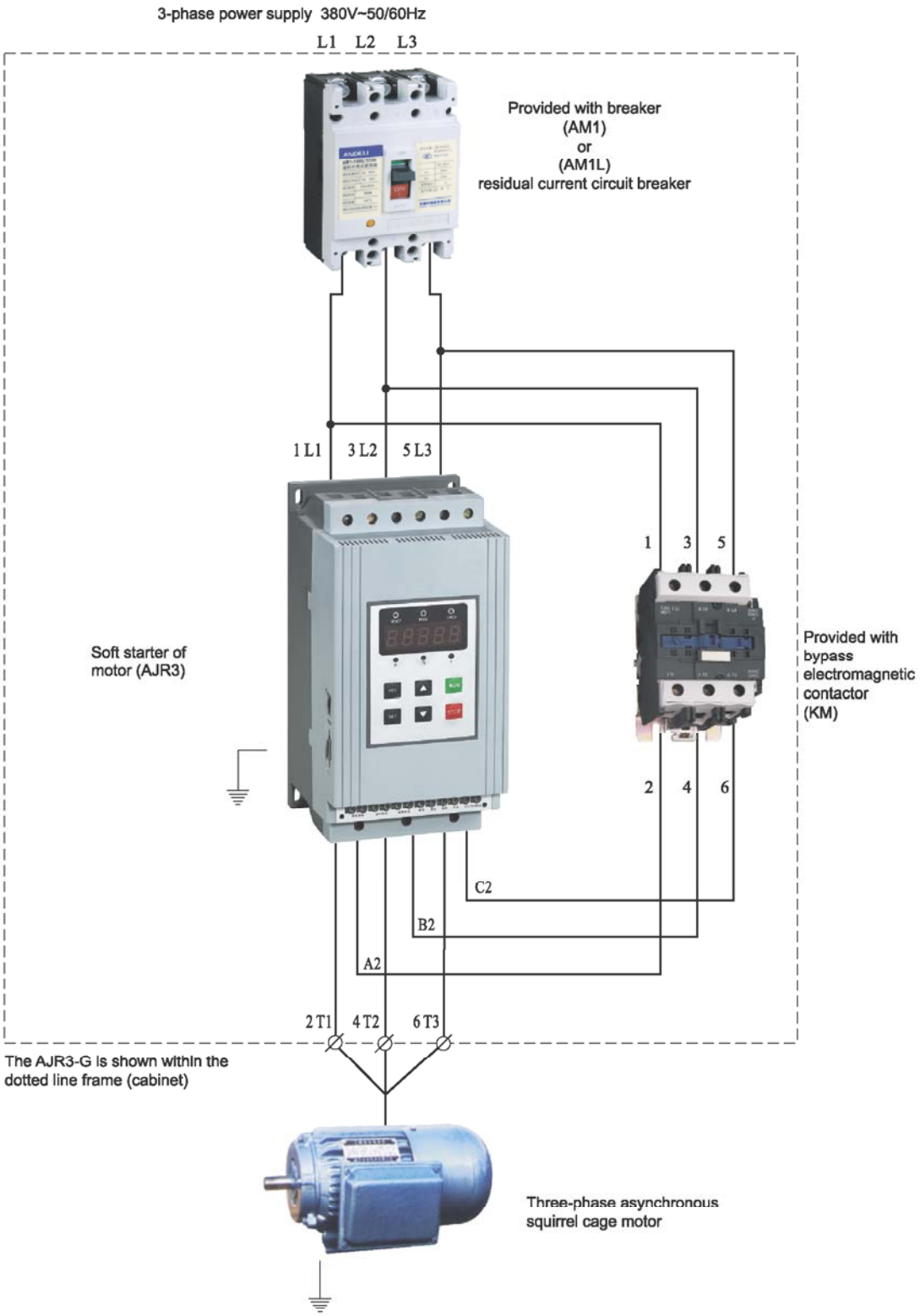
6.Model



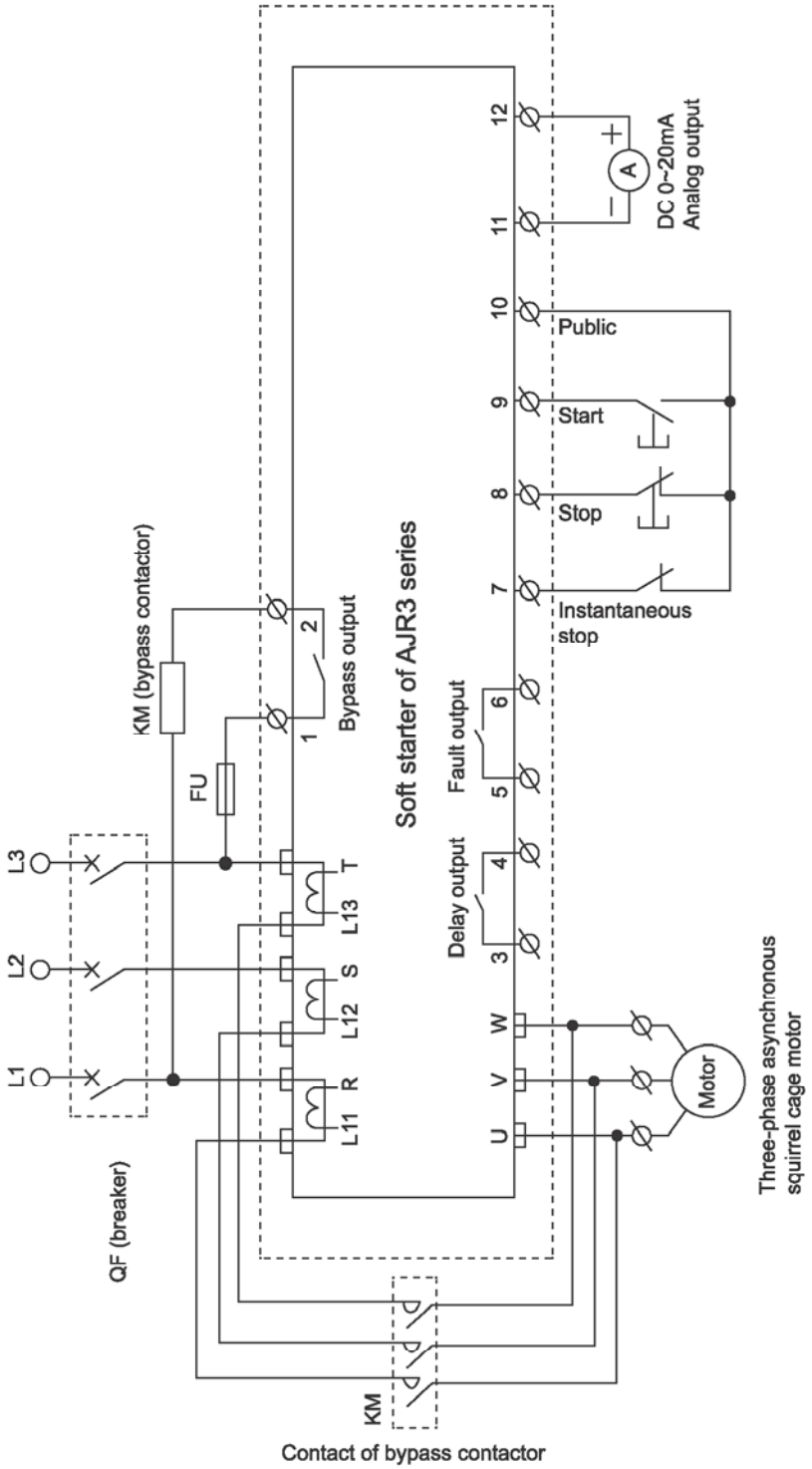
7.Electrical specification of AJR3

Standard			The AJR3 introduces the electronic soft start-stop device meeting the performance test and national standard: (GB14048.6-1998)
Voltage of three-phase power supply (U)V			208-10%…240+10% 380-15%…415+10% 440-15%…500+10%
Freq. Hz			50
Nominal current A			10…1000, 20 rated values totally
Power of motor KW			5.5…500
Rated nameplate volt of motor		V	208…240 380…415 440…500
Current adjustment			The nominal current In of motor can be adjusted within 0.5~1.3 times the rated starter current , the max. starting current can be adjusted within 2~7 times the In, the current limit is 5 times the set value.
Start mode			Limited start current: 5In Factory setting: 3In under standard load when the torque integral is 16s. 3.5In under heavy load when the torque integral is 15s.
Shutdown mode	Free shutdown		Free shutdown
	Soft shutdown		Programmable adjustment within 0.5 ~ 60s
	Shutdown by braking		Programmable adjustment within 0.5 ~ 60s (order protocol)
Display and keyboard			Motor running current (or current percentage) can be shown during normal running; the relative information can be shown when fault occurs; parameter, contact function and lock-stop can be set through keyboard.
Output relay (2)			JR / JM
	Type of contact		1 "Normally On" + 1 "Normally Off" / 1 "Normally On" + 1 "Normally Off"
	Factory setting		Output of starting relay / Output port of fault relay
	Max. operating power ~ 220V	VA	Starting power 1200, holding power 120
	Min. switching cap.	A	100mA-24V
	Nominal operating cur.	A	0.5, class AC-14, AC-15 (240V AV) and DC-13 (48VDC)
	Nominal thermocurrent	A	5
	Max operating volt		~400V
	Service life		500million times
Protection	Protection of main power supply		Integrated protection of motor and starter Open phase protection and phase unbalance protection - indicated by output relay
Selection starter			The AJR3 device can be selected according to the nominal power and load of the motor The power of starter is available for standard or heavy load.

8.Main circuit wiring diagram of AJR3

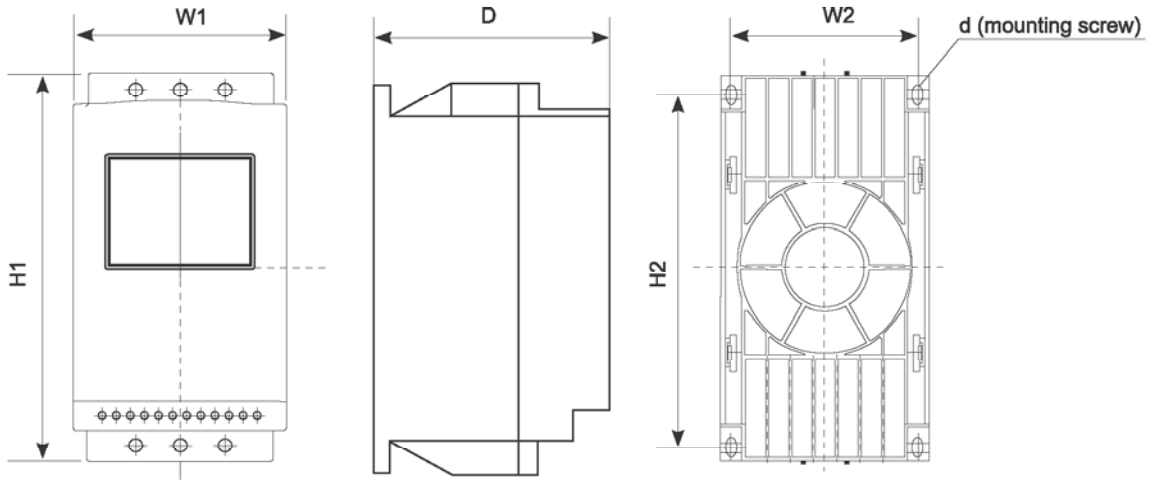


9.Overall circuit diagram of AJR3



10.Overall and installation size of AJR3

10.1 Outside drawing of 5.5kW~75kW soft starter of AJR3 series

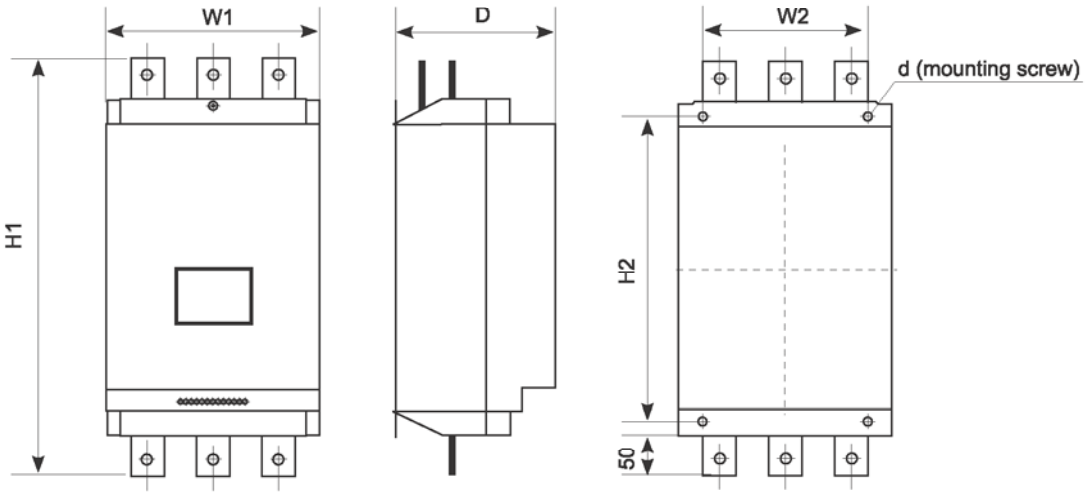


10.2 Installation size of 5.5kW~75kW soft starter of AJR3 series

Spec.	Rated power (kW)	Rated current (A)	Overall size			Installation size			Net weight (kg)
			W1	H1	D	W2	H2	d	
AJR3-5.5	5.5	11	146	270	160	131	247	M6	< 5
AJR3-7.5	7.5	15	146	270	160	131	247	M6	< 5
AJR3-11	11	23	146	270	160	131	247	M6	< 5
AJR3-15	15	30	146	270	160	131	247	M6	< 5
AJR3-18.5	18.5	37	146	270	160	131	247	M6	< 5
AJR3-22	22	43	146	270	160	131	247	M6	< 5
AJR3-30	30	60	146	270	160	131	247	M6	< 5
AJR3-37	37	75	146	270	160	131	247	M6	< 5
AJR3-45	45	90	146	270	160	131	247	M6	< 5
AJR3-55	55	110	146	270	160	131	247	M6	< 5
AJR3-75	75	150	146	270	160	131	247	M6	< 5

RMK: The rated power and rated current refer to the max. rated value of the soft starter. Generally, the corresponding parameters of the motor shall not be higher than this value.

10.3 Outside drawing of 90kW~400kW soft starter of AJR3 series



10.4 Installation size of 90kW~400kW soft starter of AJR3 series

Spec.	Rated power (kW)	Rated current (A)	Overall size			Installation size			Net weight (kg)
			W1	H1	D	W2	H2	d	
AJR3-90	90	180	257	525	194	195	377	M8	< 20
AJR3-115	115	230	257	525	194	195	377	M8	< 20
AJR3-132	132	264	257	525	194	195	377	M8	< 20
AJR3-160	160	320	257	525	194	195	377	M8	< 20
AJR3-185	185	370	257	525	194	195	377	M8	< 20
AJR3-200	200	400	257	525	194	195	377	M8	< 20
AJR3-250	250	500	290	560	245	260	465	M8	< 23
AJR3-280	280	560	290	560	245	260	465	M8	< 23
AJR3-320	320	640	290	560	245	260	465	M8	< 23
AJR3-400	400	800	330	590	245	300	490	M8	< 31

RMK: The rated power and rated current refer to the max. rated value of the soft starter. Generally, the corresponding parameters of the motor shall not be higher than this value.

ANDELI

ADL900

Universal Single-Phase Frequency Conveter of ADL900 Series

1.Introduction

The high quality universal single-phase FC of ADL900 Series, produced by our company based on independent R&D technologies, provided with functions such as built-in PID control, signal setting / feedback disconnection monitoring switching, underload protection, fault signal tracking, automatic restart upon fault, built-in braking unit, 14 fault protection modes, fault monitoring, different I/O terminals, different speed setting modes, automatic voltage adjustment, wobble frequency control and multi-speed control, can meet requirement of different load to motion control. The keyboard is provided with a LED for display of running data and fault codes. The powerful background commissioning and monitoring software can be used through the built-in standard RS485 interface network; The MODBUS bus protocol and expansion card are compatible with on-site bus control such as PROFIBUS, DEVICENET and CANOPEN etc.

Application:

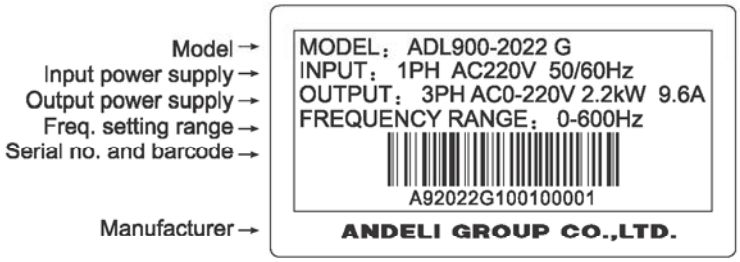
OEM machinery: Machinery used for textile industry, plastics industry, food industry, printing industry, package industry, carpentry etc.

Heavy industry: Industries such as metallurgy, chemical industry, cement, electric power, coal, petroleum, paper making, water supply, heating & ventilation and sewage treatment etc.

2.Feature

2.1. Silent running.
2.2. Trip control, realizing powerful and stable running.
2.3. Quick menu design.
2.4. Easy PLC, PID adjustment.
2.5. Built-in flexible PWM power consumption brake for quick shutdown.
2.6. Compact and handy structure.
2.7. Customized design with good stability and high anti-interference ability
2.8. Built-in RS-485 communication interface, standard MODBUS protocol.
2.9. 14 protection modes.

3.Nameplate



4.Model

ADL 900 2 022 G

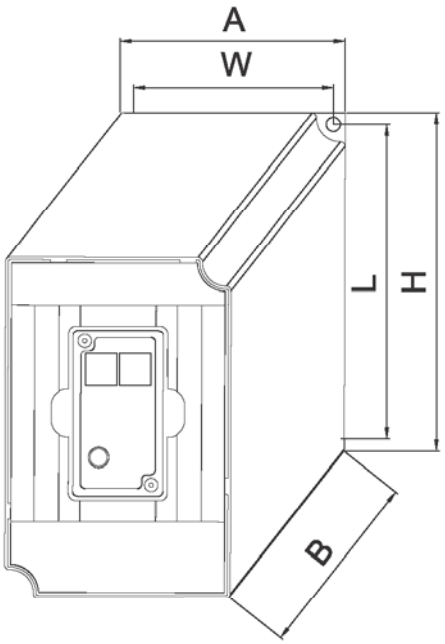
- G: Universal type (heavy load); P: Fan & pump type (light load)
- Max. motor power: 022, i.e. 2.2KW
- Input power supply: 2, i.e. 220V 4, i.e. 380V
- Serial No. of software
- Enterprise code of ANDELI

5.Technical specification

	Item	Spec.
Input	Rated voltage / freq.	Single-phase 220V, three-phase 220V; 50Hz/60Hz
	Variable range	Voltage: -20% ~ +20% voltage unbalance rate: < 3% freq.: ± 5%
Output	Rated voltage	0~220V
	Freq. range	0Hz~600Hz
	Freq. resolution	0.01Hz
	Overload capacity	G type: 150% rated current-1min, 180%-1s, 200%-instantaneous protection P type: 120% rated current-1min, 150% -1s, 180%-instantaneous protection
Main control	Modulation mode	Optimization of space voltage vector PWM modulation
	Freq. accuracy	Digital setting: max. freq. x ± 0.01% Analog setting: max. freq. X ± 0.2%
	Freq. resolution	Digital setting: 0.01Hz analog setting: max. freq. x 0.1%
	Start freq.	0.40Hz~10.00Hz
	Torque increase	Automatic torque increase, manual torque increase 0.1%~30.0% (available fore V/F mode)
	V/F curve	Linear V/F curve, quadratic V/F curve, customized V/F curve
	Acc. / dec. duration	Time unit (min/s), optional, max. time 3600 (0.1-3600)
	DC braking	Options at start / stop time, motion freq.: 0~20.00Hz Motion time: 0~30.0s, braking current: 0~80%
	Inching	Inching freq. range: 0.1Hz~50.00Hz inching acc./dec. duration 0.1~3600s
	Built-in PID	For forming a closed-loop control system being available for pressure and flow process control etc.
	Multi-speed running	Multi-speed running through PLC or control terminals
	Textile wobble freq.	For realizing wobble frequency functions of fixed oscillation amplitude and variable oscillation amplitude
	Automatic voltage regulation (AVR)	When the grid voltage changes, the constant output voltage can be kept
	Automatic energy-saving running	The V/F curve can be optimized automatically according to the load and therefore the energy-saving running can be realized
	Automatic current limiting	Automatic current limiting during operation, preventing fault trip caused by frequent overcurrent
	Communication	Standard RS485 comm. interface supporting MODBUS commu. protocol in formats of ASCII and RTU.
Running	Running com. channel	Three switchable modes are provided: Operating panel, control terminal and serial port
	Freq. setting channel	Switchable modes are provided: Analog potentiometer of keyboard, ▲ / ▼ of keyboard, digital function code, serial port, Terminal UP/DOWN, analog voltage, analog current, impulse and combination
	Switching input channel	Forward / reversal rotation command, 5-channel programmable switching input. 35 functions can be set respectively.

	Item	Spec.
Running	Analog input channel	2-channel analog signal input, 4~20mA, 0~10V, optional
	Analog output channel	Analog signal output, 4~20mA or 0~10V, optional, output of physical quantities such as set freq. and output freq. etc. is allowed.
Operating panel	Digital LED display	Parameters such as set freq., output voltage and output current etc. can be shown
	External instrument display	Physical quantities such as output freq., output current and output voltage can be shown
	Protection	Overcurrent protection, overvoltage protection, undervoltage protection, overheat protection and overload protection etc.
	Option	Braking components, remote control operating panel, remote control cable, keyboard base etc.
Environment	Place	Indoor, without direct sunlight, dust, corrosive gases, oil mist and steam etc.
	Altitude	Less than 1000m (the rated value shall be lowered if it is higher than 1000m)
	Environment temp.	-10° C ~ +40° C
	Humidity	Less than 90%RH, without condensation
	Vibration	below 5.9m, s2 (0.6G)
	Storage temp.	-20° C ~ +60° C
Struct-ure	Protection level	IP 20 (when the status display unit or keyboard is selected)
	Cooling mode	Forced air cooling
	Installation mode	Hanging

6.Exterior structure



7.Mechanical parameter

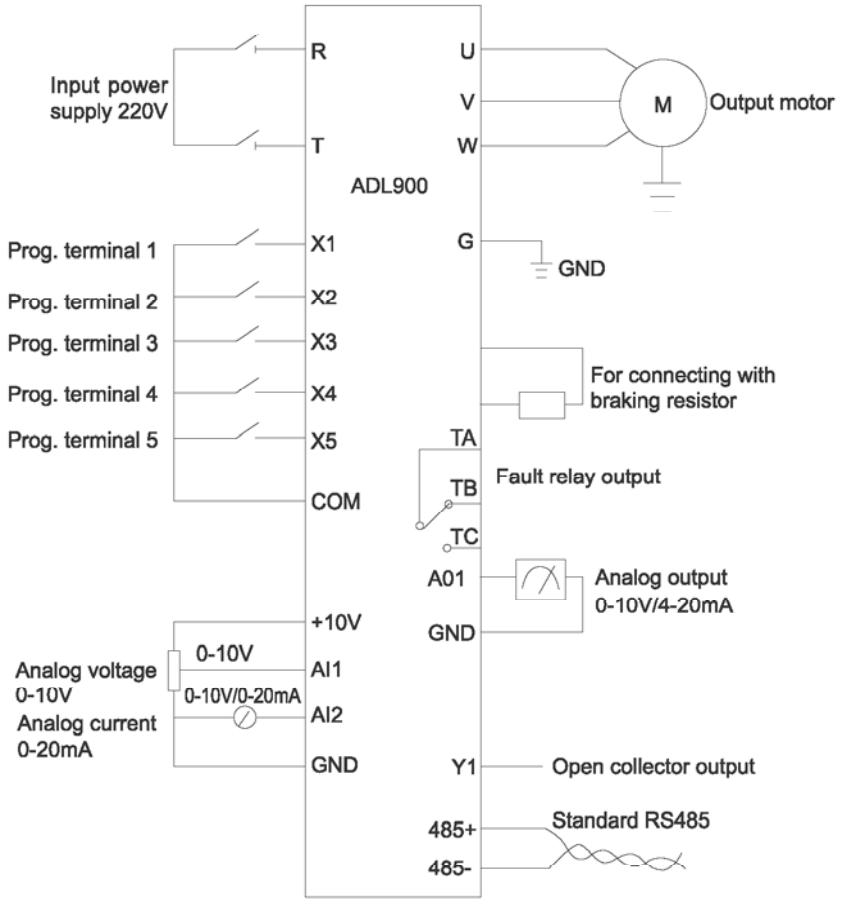
Installation size (mm)

Model	Overall dimension A×B×H	Installation size WXL	Hole dia.	RMK
AO	39×73×20	37×71(installation hole of operating panel)	Φ4.5	Panel size
A1	102×118×152	90×142		Plastic case & hanging type

8.Notification before ordering

8.1 The ADL900 is an universal single-phase FC with high performance and constant torque load. The product is available for hoisting equipment and mining / building / packaging / printing machines etc.
8.2 If external keyboards and extension lines are required, please inform us during ordering.

9.Wiring diagram for basic running



ANDELI

ADL980

Universal Frequency Converter of ADL980 Series

1. Introduction

The universal frequency converter of ADL 980 series, produced by our company based on independent R& D technologies, featuring high quality, multifunction, low frequency, high torque and flux vector control, quick torque response, good load adaptability, reliable operation, high accuracy and reliability, provided with functions as as automatic parameter tuning, zero-servo null-speed sensor, vector control and V/F control switch, perfect user password protection, quick menu design, rotation speed tracking, built-in PID controller, signal setting / feedback disconnection monitoring & switching, underload protection, fault signal tracking, automatic restart upon fault, built-in braking unit, 25 fault protection modes, fault monitoring, different I/O terminals, different speed setting modes, automatic voltage adjustment, wobble frequency control and multi-speed control, can help to increase the power factor and efficiency as much as possible and meet requirement of different load to motion control. The keyboard is provided with a LED for display of running data and fault codes. The LCD can show state information and operation description in Chinese and help to copy and download parameters; The powerful background commissioning and monitoring software can be used through the built-in standard RS485 interface network; The MODBUS bus protocol and expansion card are compatible with on-site bus control such as PROFIBUS, DEVICENET and CANOPEN etc.

Application:

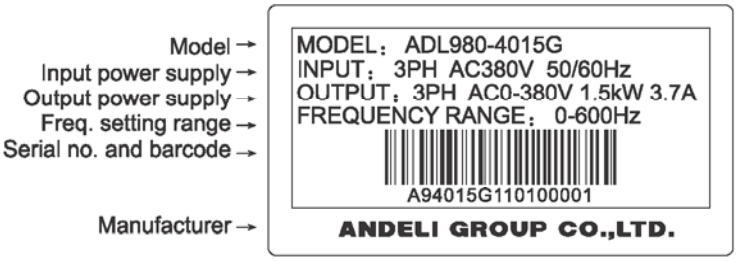
OEM machinery: Machinery used for textile industry, plastics industry, food industry, printing industry, package industry, carpentry, winding, mining and hoisting etc.

Heavy industry: Industries such as metallurgy, chemical industry, cement, electric power, coal, petroleum, paper making, water supply, heating & ventilation and sewage treatment etc.

2. Feature

2.1. Multiple control modes, good versatility.
2.2. Automatic identification of motor parameter.
2.3. 150% torque output under 0.5Hz.
2.4. Powerful low speed / reliable high speed running.
2.5. Null-speed torque output.
2.6. Silent running.
2.7. Trip control, realizing powerful and stable running.
2.8. Quick menu design.
2.9. Easy PLC, PID adjustment.
2.10. Built-in flexible PWM power consumption brake for quick shutdown.
2.11. Compact and handy structure.
2.12. Customized design with good stability and high anti-interference ability
2.13. Built-in RS-485 communication interface, standard MODBUS protocol.
2.14. 25 protection modes.

3. Nameplate



4.Model

ADL 980-4 007~150 G

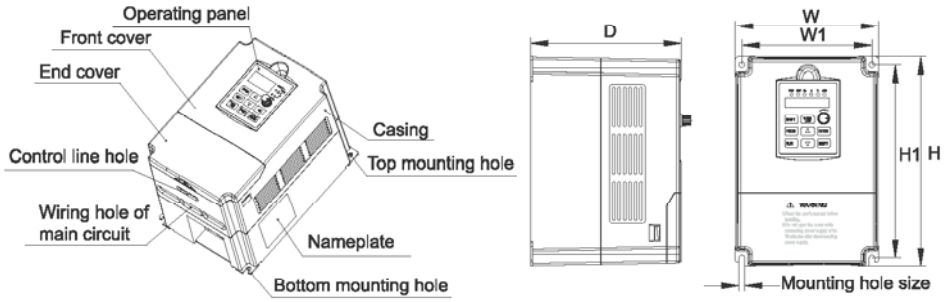
- G: Const. torque type (heavy load); P: Fan & pump type (light load)
- Max. motor power: 007, i.e. 0.75kW 150, i.e. 15kW
- Input power supply: 2, i.e. 220V 4, i.e. 380V
- Serial No. of software
- Enterprise code of ANDELI

5.Technical specification

	Item	Spec.
Input	Rated voltage / freq.	380V or 220V 50Hz/60Hz
	Variable volt range	Variation range: ≤ % 20% voltage unbalance rate: < 3% freq. range: < ± 5%
Output	Voltage	0~380V or 0~220V
	Freq.	0~600Hz
	Overload capacity	G type: 150% rated current-1min, 180% -1s, 200%-instantaneous protection P type: 120% rated current -1min, 150% -1s, 180% - instantaneous protection
Main control	Control mode	Standard V/F control, flux vector control
	Modulation mode	Space voltage vector PWM modulation
	Speed control range	1:50
	Start torque	≥ 150% rated torque under 2.0Hz
	Freq. accuracy	Digital setting: max. freq. x ± 0.01% Analog setting: max. freq. X ± 0.2%
	Freq. resolution	Digital setting: 0.01Hz analog setting: max. freq. x 0.05%
	Torque increase	Automatic torque increase, manual torque increase 0.1%~30.0%
	V/F curve	Three modes: One customized V/F curve, quadratic V/F curve and linear V/F curve
	Acc. / dec. curve	Three modes: Linear acc. / dec. S-shaped acc./dec.; four acc./dec. durations, optional time unit (min/s), the longest duration: 60h
	DC braking	Initial freq. for shutdown DC braking: 0.00Hz~max. output freq. Braking duration: 0.0~30.0s Braking current: 0.0%~100.0% rated current
	Automatic voltage regulation (AVR)	When the grid voltage changes, the constant output voltage can be kept
	Slip comp.	Available slip setting can help to compensate speed change caused by load, realizing higher speed control accuracy
	Automatic current limiting	Automatic current limiting during operation, preventing fault trip caused by frequent overcurrent
	Overvoltage stall	Automatic voltage limiting during operation, preventing fault trip caused by deceleration overvoltage
Customized function	Textile wobble freq.	Textile wobble freq. control, realizing fixed wobble freq. and variable wobble freq.
	Freq. combination	The running command channels and freq. setting channels can combine at random
	Length setting	Length reaching shutdown, max. length: 65.535KM
	Inching	Inching freq. range: 0.00 Hz~max. output freq.; Inching acc./dec. duration: 0.1~3600.0s, settable; inching interval: 0.1~3600.0s, settable
	Multi-speed running	Multi-speed running through PLC or control terminals

	Item	Spec.
	Built-in closed- loop process control	A closed-loop control system can be formed easily
Running function	Running command channel	Operation panel, control terminal and serial port setting switchable through different ways
	Freq. setting channel	Digital setting, analog voltage setting, analog current setting, impulse setting, serial port setting, terminal setting and multi-speed setting switchable through different ways.
	Auxiliary freq. setting	Free auxiliary freq. trimming and synthesis
	Impulse output terminal	0 ~ 50kHz rectangular impulse signal output, realizing output of set freq. and output freq. etc.
	Analog output terminal	One line analog signal output, 0/4 ~ 20mA or 0/2 ~ 10V optional, realizing output of set freq. and output freq. etc.
Operating panel	LED display	61 types of parameters such as set freq., output freq., output voltage and output current etc. can be displayed
	LCD display	Optional, Chinese / English guidance
	Parameter copy	Quick upload and download of parameters through the operation panel are allowed
	Key function selection	Part of the keys can be customized for fear of misoperation
Environment	Protection	Open-phase protection (optional), overcurrent protection, overvoltage protection, undervoltage protection, overheat protection, overload protection and underload protection etc.
	Place	Indoor, free from direct light, dust, corrosive gas, inflammable gas, oil mist, steam, water drop or salt etc.
	Altitude	The rated value shall be lowered for places with the altitude being over 1000m. 10% of the rated value shall be lowered per 1000m
	Ambient temp.	-10℃ ~ + 40℃ (the rated value shall be lowered when the ambient temp. is within 40℃ ~ 50℃)
	Humidity	5% ~ 95% RH, without condensate
	Vibration	Below 5.9m / (0.6g)
	Storage temp.	-40℃ ~ + 70℃
Struc-ture	Protection class	IP 20
	Cooling mode	Air cooling, with fan control
	Efficiency	45kW or lower ≥ 93%; 55kW or higher ≥ 95%

6.Exterior structure



7.Exterior structure

Installation dimension of wall hanging plastic casing equipment

Note: G: Constant torque load (heavy) P: Fan & pump load (light)

Model	Output freq. (KW)	W	W1	H	H1	D	Installation dim.
ADL980-4007G/4015P	0.75/1.5	126	111	170	157	165	Φ4.5
ADL980-4015G/4022P	1.5/2.2	126	111	170	157	165	Φ4.5
ADL980-4022G/4037P	2.2/3.7	126	111	170	157	165	Φ4.5
ADL980-4037G/4055P	3.7/5.5	152	137	220	208	170	Φ5
ADL980-4055G/4075P	5.5/7.5	152	137	220	208	170	Φ5
ADL980-4075G/4110P	7.5/11	217	205	300	286	217	Φ6.5
ADL980-4110G/4150P	11/15	217	205	300	286	217	Φ6.5
ADL980-4150G/4185P	15/18.5	217	205	300	286	217	Φ6.5

Installation dimension of wall hanging iron casing equipment

Note: G: Constant torque load (heavy) P: Fan & pump load (light)

Model	Output freq. (KW)	W	W1	H	H1	D	Installation dim.
ADL980-4185G/4220P	18.5/22	260	180	440	422	275	Φ9
ADL980-4220G/4300P	22/30	260	180	440	422	275	Φ9
ADL980-4300G/4370P	30/37	320	220	530	512	310	Φ11
ADL980-4370G/4450P	37/45	320	220	530	512	310	Φ11
ADL980-4450G/4550P	45/55	320	220	530	512	310	Φ11
ADL980-4550G/4750P	55/75	435	260	680	656	370	Φ11
ADL980-4750G/4900P	75/90	435	260	680	656	370	Φ11
ADL980-4900G/41100P	90/110	435	260	680	656	370	Φ11
ADL980-41100G/41320P	110/132	490	315	810	782	360	Φ11
ADL980-41320G/41600P	132/160	490	315	810	782	360	Φ11
ADL980-41600G/41850P	160/185	620		1300		445	Φ11
ADL980-41850G/42000P	185/200	620		1300		445	Φ11
ADL980-42000G/42200P	200/220	760		1550		450	Φ11
ADL980-42200G/42500P	220/250	760		1550		450	Φ11
ADL980-42500G/42850P	250/285	760		1550		450	Φ11
ADL980-42850G/43150P	285/315	850		1700		500	Φ13
ADL980-43150G/43500P	315/350	850		1700		500	Φ13
ADL980-43500G/44000P	350/400	850		1700		500	Φ13

8.Notification before ordering

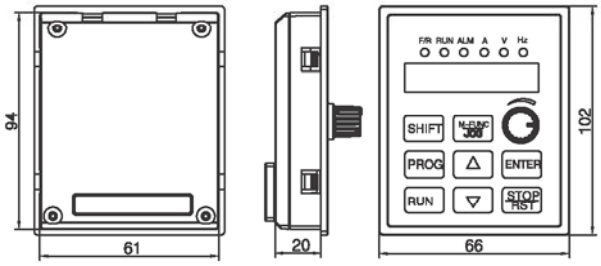
8.1 The ADL980G is an universal high performance FC. The product is available for hoisting equipment and mining / building / packaging / printing machines etc.

8.2 The ADL980P is a light load type FC being available for different pumps and fans etc.

8.3 If external keyboards and extension lines are required, please inform us during ordering.

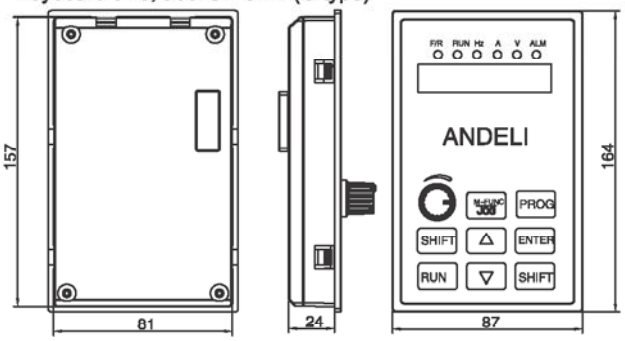
9.Size of operating panel

Keyboard size, 0.75~5.5kW (G type)



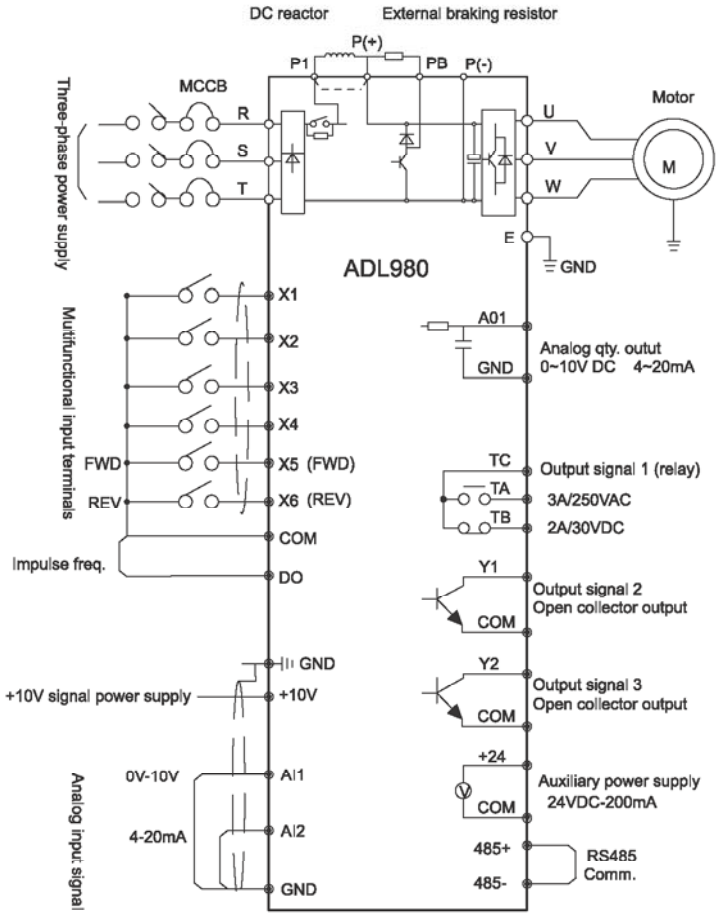
Hole size

Keyboard size, above 7.5kW (G type)



Hole size

10.Wiring diagram for basic running



○ Terminal of main circuit ◉ Terminal of control circuit

Basic wiring schematic of FC

Power Equipment & Transformer & Solar

ANDELI

SVC

SVC Automatic Voltage Stabilizer

SVC-500VA

1. Application

SVC automatic voltage stabilizer consists of contact voltage regulator,sampling control circuit and servomotor as well.It has excellent features,such as small waveform distortion,high efficiency,high power factor,free from the effect or frequency variation of supply.It can be widely used in most situations where the voltage stabilization is required.

2. Specification

Input voltage	150V-250V
Output voltage	220V±3%, 110V±3%
Frequency	50Hz/60Hz
Response time	<1sec. (against 10% input voltage deviation)
Efficiency	>90%
Ambient temperature	-10℃~±40℃
Relative humidity	<90%
Waveform distortion	Non-lack fidelity waveform
Power factor cosø	0.8
Insulation resistance	>5MΩ

SVC-1500VA

3. Outline and packing

Type	Outline(cm)			Weight(Kg)	Qty/CTN
	L	W	H		
SVC-500VA	18.5	15	12.5	17	4PCS
SVC-1000VA	21	18	14.5	20	4PCS
SVC-1500VA	21	18	14.5	25	4PCS
SVC-2000VA	27.5	23.5	18.5	7.8	1PC
SVC-3000VA	29	23	22	9.8	1PC
SVC-5000VA	45	24	18.5	14	1PC
SVC-7500VA	47	26	22	19.5	1PC
SVC-10000VA	47	26	22	24.5	1PC
SVC-15000VA	42	38	73	35	1PC
SVC-20000VA	42	38	73	68.5	1PC
SVC-30000VA	42	38	83	80	1PC
SVC-5000VA	28	30	46	19	1PC (Cabinet)
SVC-10000VA	44	32	56	31	1PC (Cabinet)

SVC-3000VA

SVC-7500VA

SVC-10000VA

SVC-5KVA

SVC-10KVA

SVC(LED) Automatic Voltage Stabilizer

1. Application

SVC(LCD) automatic voltage stabilizer consists of contact voltage regulator,sampling control circuit and servomotor as well.It has excellent features,such as small waveform distortion, high efficiency,high power factor,free from the effect or frequency variation of supply.It can be widely used in most situations where the voltage stabilization is required.

SVC-D2000VA

2. Specification

Input voltage	150V-250V
Output voltage	220V±3%, 110V±3%
Frequency	50H/60Hz
Response time	<1sec. (against 10% input voltage deviation)
Efficiency	>90%
Ambient temperature	-10℃~±40℃
Relative humidity	<90%
Waveform distortion	Non-lack fidelity waveform
Power factor cosø	0.8
Insulation resistance	>5MΩ

SVC-D3000VA

3. Outline and packing

Type	Outline(cm)			Weight(Kg)	Qty/CTN
	L	W	H		
SVC-D500VA	18.5	15	12.5	17	4PCS
SVC-D1000VA	21	18	14.5	20	4PCS
SVC-D1500VA	21	18	14.5	25	4PCS
SVC-D2000VA	27.5	23.5	18.5	7.8	1PC
SVC-D3000VA	29	23	22	9.8	1PC
SVC-D5000VA	45	24	18.5	14	1PC
SVC-D7500VA	47	26	22	19.5	1PC
SVC-D10000VA	47	26	22	24.5	1PC
SVC-D15000VA	42	38	73	35	1PC
SVC-D20000VA	42	38	73	68.5	1PC
SVC-D30000VA	42	38	83	80	1PC
SVC-D5000VA	28	30	46	19	1PC (Cabinet)
SVC-D10000VA	44	32	56	31	1PC (Cabinet)

SVC-D5000VA

SVC-D10000VA

SVC-D20KVA

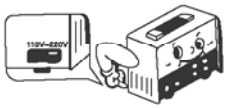
SVC-D30KVA

SVC(NEW) Single-phase And Three-phase High Accuracy Full Automatic AC Voltage Stabilizer

SVC-500VA

SVC-3000VA

Requirements for installation

Please check the voltage stabilizer supply voltage and input voltage range (0.5KVA-5KVA)	150V-250V → 220V → 110V
(0.5KVA-5KVA)	150V-250V → 220V
Please pay attention to the cable connections between input terminal and power supply, and between output terminal and load	
The output voltage of the instrument shall be the same as that of voltage stabilizer	
Please adjust the selector switch of input voltage to a voltage step that is the same as power supply	
Mustn't use the voltage stabilizer in case of overload	
Please use good cables for connecting	
If the fuse is damaged, please examine your voltage stabilizer and load	
Please use the fuses of same rated values, mustn't use the nonrated fuses or wires	
Install it in the dry places without corrosive gas and water	

SVC2 Automatic Voltage Stabilizer

1. Application

SVC2-2000VA

SVC2 automatic voltage stabilizer consists of contact voltage regulator,sampling control circuit and servomotor as well.It has excellent features,such as small waveform distortion,high efficiency,high power factor,free from the effect or frequency variation of supply.It can be widely used in most situations where the voltage stabilization is required.

2. Specification

Input voltage	150V-250V
Output voltage	220V±3%, 110V±3%
Frequency	50H/60Hz
Response time	<1sec. (against 10% input voltage deviation)
Efficiency	>90%
Ambient temperature	-10℃~±40℃
Relative humidity	<90%
Waveform distortion	Non-lack fidelity waveform
Power factor cosø	0.8
Insulation resistance	>5MΩ

SVC2-3000VA

3. Outline

Type	Outline(cm)		
	L	W	H
SVC2-500VA	220	220	65
SVC2-1000VA	240	240	87
SVC2-1500VA	240	240	87
SVC2-2000VA	275	250	125
SVC2-3000VA	275	250	125
SVC2-5000VA	340	350	160
SVC2-7000VA	340	350	160

SVC2-5000VA

SVC-D(LCD) Series Fully AutomaticA.C. Voltage Regulator

SVC-D1000VA

1. Summary

SVC-D Series AC automatic voltage regulator is the latest product studied and produced by ourselves. These products adopt 8 digits CPU control produced by the well-known MOTOROLA company, which can stabilize the precision and set up the delay time. The products also have many protection functions on delay, over-voltage invert-delay, lack voltage, over load invert-delay, lack voltage, over load, over temperature, machine malfunction and so on. They have digital display, blue-screen lightproof, dynamic panel display and it can show the working status of the machine. When the machine works abnormally, on the panel there is corresponding due and short or long warning.

SVC-D3000VA

Specification	0.5KVA,1KVA,1.5KVA,2KVA,3KVA,5KVA
Input Voltage	① AC 150V~250V ② AC 70V~130V
Output Voltage	AC ① 220 ② 110V
Stabilization Precision	When 220V,±3% When 110V,±3%
Frequency	50Hz,60HZ
Delay Time	Long:180s; Short:5s
Over-voltage Protection Value	① 250V/5s delay; ② 275V/2s delay; ③ 295V/1s delay; ④ 305V/0s
Lack-voltage Protection Value	180V/5s delay
Over-load Protection Value	2.8times than rated capacity
Over-temperature Protection Value	90℃
Load Capacity Factor	cos 0.9
Regulating Time	When input varies 10%, less than 1s
Waveform Distrotion	No additional waveform distortion
Reactance Strength	1500V/1min
Insulation Resistance	>5MΩ
Insulation Grade	E grade
Environment	Temperature: -10℃~+40℃ Humidity:<90%

SVC(Three) Automatic Voltage Stabilizer

1. Application

SVC automatic regulator voltage consists of contact voltage regulator,sampling control circuit and servomotor as well.It has excellent features,such as small waveform distortion,high efficiency, high power factor,free from the effect or frequency variation of supply.It can be widely used in most situations where the voltage stabilization is required.

SVC-6KVA-3

2. Specification

Input voltage	280V~430V
Output voltage	380V±3%
Phase	Three phase
Frequency	50Hz/60Hz
Response	<1 sec. (against 10% input voltage deviation)
Efficiency	Better than 90%
Ambient temperature	-10℃~+40℃
Relative humidity	Less than 90%
Waveform	Non-lack fidelity waveform
Insulation resistance	>5MΩ

SVC-9KVA-3

3. Outline and Packing

Type	Outline(cm)			Weight(Kg)	Qty/CTN
	L	W	H		
SVC-1.5KVA-3	48.5	22.5	17	16.5	1PCS
SVC-3KVA-3	48.5	22.5	17	24	1PCS
SVC-4.5KVA-3	48.5	22.5	17	25	1PCS
SVC-6KVA-3	39	31.5	77	36.5	1PCS
SVC-9KVA-3	43.5	36	77	49.6	1PCS
SVC-15KVA-3	48	36	70	65.5	1PCS
SVC-20KVA-3	51.5	40.5	85	88	1PCS
SVC-30KVA-3	59	46	109	108	1PCS
SVC-40KVA-3	64.5	52.5	109	190	1PCS
SVC-50KVA-3	64.5	52.5	109	203	1PCS
SVC-60KVA-3	64.5	52.5	109	210	1PCS
SVC-75KVA-3	67	56.5	130	240	1PCS
SVC-100KVA-3	67	56.5	130	260	1PCS

SVC-15KVA-3

SVC-30KVA-3

SVC-40KVA-3

SVC(LED)(Three) Automatic Voltage Stabilizer

1. Application

SVC-D6KVA-3

SVC(LCD)(Three) automatic regulator voltage consists of contact voltage regulator,sampling control circuit and servomotor as well.It has excellent features,such as small waveform distortion, high efficiency,high power factor,free from the effect or frequency variation of supply.It can be widely used in most situations where the voltage stabilization is required.

2. Specification

Input voltage	280V~430V
Output voltage	380V±3%
Phase	Three phase
Frequency	50Hz/60Hz
Response	<1 sec. (against 10% input voltage deviation)
Efficiency	Better than 90%
Ambient temperature	-10℃~+40℃
Relative humidity	Less than 90%
Waveform	Non-lack fidelity waveform
Insulation resistance	>5MΩ

SVC-D9KVA-3

3. Outline and Packing

Type	Outline(cm)			Weight(Kg)	Qty/CTN
	L	W	H		
SVC-D1.5KVA-3	48.5	22.5	17	16.5	1PCS
SVC-D3KVA-3	48.5	22.5	17	24	1PCS
SVC-D4.5KVA-3	48.5	22.5	17	25	1PCS
SVC-D6KVA-3	39	31.5	77	36.5	1PCS
SVC-D9KVA-3	43.5	36	77	49.6	1PCS
SVC-D15KVA-3	48	36	70	65.5	1PCS
SVC-D20KVA-3	51.5	40.5	85	88	1PCS
SVC-D30KVA-3	59	46	109	108	1PCS
SVC-D40KVA-3	64.5	52.5	109	190	1PCS
SVC-D50KVA-3	64.5	52.5	109	203	1PCS
SVC-D60KVA-3	64.5	52.5	109	210	1PCS
SVC-D75KVA-3	67	56.5	130	240	1PCS

SVC-D15KVA-3

SVC-D30KVA-3

SVC-D75KVA-3

SAR Series Fully Automatic A.C. Voltage Regulator

SAR-2000VA

1. Overview

These special products of SAR series Voltage Regulator have advanced equipment, abundant technology, reliable quality and distinguished credit. SAR series are designed at JS3717-84 request, these products conform to fully automatic control of integrated circuit. They are of quick speed, good reliable of sensitive action, convenient use and assure the stale resuit. They are suitable for families, schools, enterprises, hotels and diets etc., where need a stable civil power. They can make the illumination lamp, TV set, air-conditioner, refrigerator, computer and copy machine etc. work at a normal condition and have a long using time.

SAR-5000VA

2. Technical specification

Frequency	Regulating Time	Temperature Rise	Withstand Voltage	Low Voltage Protection	Over Voltage Protection
50-60Hz	Less Than 0.5	<60℃	Accord With Ministry Issued Standard	Output 100V/160V	Output 270V/260V
Model	Range	Input Civil Power Voltage(V)	Output Precision of Stabling Voltage		
0.5KVA To 5KVA	Current	160-260	220V±5%		
	Over-Low Voltage	130-270	220V±8%		
	Special Over-Low Voltage	100-270	220V±10%		
	High Precision of Stabling Voltage	160-270	220V±3%		

SVR Series Fully Automatic Voltage Regulator

SVR-1000VA

SVR-1500VA

SVR-3000VA

SVR-5000VA

SVR-10000VA

1. Overview

SVR Series voltage regulators have advanced equipment, abundant technology, reliable quality and distinguished credit,AVR,AR series are designed at JB3717-84 request. These products conform to fully automatic control of integrated circuit. They are of quick speed, good reliable of sensitive action, convenient use and assure the stale result. They are suitable for families, schools, enterprises, hotels and diets etc., where need a stable civil power. They can make the illumination lap, TV set, refrigerator, air-conditioner, computer and copy machine etc. work at a normal condition and have a long using time.

2. Technical Specification

Frequency	Regulating Time	Temperature Rise	Withstand Voltage	Low Voltage Protection	Over Voltage Protection
50-60Hz	Less Than 0.5	<60℃	Accord With Ministry Issued Standard	Output 160V	Output 260V
Model	Range	Input Civil Power Voltage(V)	Output Precision of Stabling Voltage		
0.5KVA To 5KVA	Current	160-260	220V±3%		
	Over-Low Voltage	130-260	220V±8%		
	Special Over-Low Voltage	115-265	220V±10%		
	High Precision of Stabling Voltage	160-265	220V±5%		

DBW SBW Compensated Voltage Stabilizer

1. Application

DBW-100KVA

DBW SBW compensated voltage stablilizer is a contact adjustable automatic voltage compensation high-power regulating power device. When voltage from supply network is varied or due to loading current effect, it automatically regulates the output voltage to ensure the normal function of the varied of electric equipments.

2. Specification

Input voltage	Single phases: 220V±20% or 220V±30% Three phases four-line: 380V±20% or 380V±30%
Output voltage	Single phase: 220V±2%; Three phases: 380V±2%
Phase	Single phase; Three phases four-line
Frequency	50Hz/60Hz
Response	within 1 sec.(against 10% input voltage deviation)
Efficiency	Better than 95%
Ambient temperature	-10℃~+40℃
Waveform	Non-lack fidelity waveform
Insulation restortion	Better than 5MΩ
Overload	Double rated current, one min
Protection	Overvoltage, overcurrent, feed phases

SBW-150KVA

3. Outline and packing

Type	Outpower(kVA)	Outline(cm)	Weight(Kg)	Cabinet
DBW-20KVA	20	70 x 50 x 135	283	1
DBW-30KVA	30	70 x 50 x 135	310	1
DBW-40KVA	40	70 x 50 x 135	330	1
DBW-50KVA	50	80 x 60 x 150	360	1
DBW-60KVA	60	80 x 60 x 150	380	1
DBW-70KVA	70	80 x 60 x 150	100	1
DBW-80KVA	80	90 x 70 x 170	430	1
DBW-100KVA	100	90 x 70 x 170	480	1
SBW-50KVA	50	80 x 62 x 135	350	1
SBW-60KVA	60	80 x 62 x 135	370	1
SBW-100KVA	110	85 x 52 x 150	420	1
SBW-150KVA	150	100 x 72 x 170	550	1
SBW-180KVA	180	100 x 72 x 170	570	1
SBW-200KVA	200	100 x 72 x 170	630	1
SBW-225KVA	225	110 x 80 x 180	660	1
SBW-250KVA	250	110 x 80 x 200	700	1
SBW-300KVA	300	110 x 80 x 210	740	1
SBW-320KVA	320	110 x 80 x 210	760	1
SBW-400KVA	400	110 x 80 x 210/2	1100	2
SBW-500KVA	500	110 x 80 x 210/2	1500	2
SBW-600KVA	600	110 x 80 x 210/2	2200	2
SBW-800KVA	800	85 x 100 x 220/3	2800	3
SBW-1000KVA	1000	85 x 100 x 220/3	3500	3
SBW-1200KVA	1200	85 x 100 x 220/3	4100	3
SBW-1600KVA	1600	110 x 110 x 220/4	5560	4
SBW-2000KVA	2000	110 x 110 x 220/4	7100	4

SBW-300KVA

JJW SJW A.C. Precision Purity Regulated Power Supply

JJW-1000VA

1. JJW SJW A.C. Precision Purity Regulated Power Supply Feature

A.C. Precision purity regulated power supply is our new, high characteristic electronic A.C. regulated equipment as KUPA doctor's theory, combining Asymmetrical Digital Subscriber Loop colander net, which integrates multi-functions such as purity regulation and anti-disturbance. They are of wide range in regulation, fast speed in response, high precision in regulation etc.,to refrain all kinds of noise from power net and disturbance from peak. They are your first choice among of A.C. regulated power supply at present, which are 614 series electronic A.C. regulated power supply and ideal substitution regulated power supply.

It often happens that the electrical equipment are damaged because of lack of power. The experts of power point out most 80% malfunctions of computer are caused by A.C. power supply directly or indirectly. So as to ensure the safe operation of electrical equipment, the power supply must be improved. Our products fulfill the requirements in such places for his spurious characteristic. Our products are suitable for the following fields: science department, university, corporation, hospital, broadcasting station, communication equipment, traffic system, test equipment and all automatic production equipment.

JJW-2000VA

2. JJW/2 A.C. Intelligence Percision Purity Regulated Power Supply Feature

JJW/2 A.C. Intelligence precision purity regulated power supply is new high characteristic electronic A.C. regulated power supply,which is one of advanced characteristic A.C. regulated power supply at present, and widely suitable for high precision electrical equipment and general electrical power equipment. In America, the products have been used into military and aviation etc. JONCHAN A.C. intelligence precision purity regulated power supply adopt advanced technology, integration purity, regulation, anti-disturbance and automatic protection etc. with the advantages such as wide range in regulation, fast speed in response, high precision, anti-disturbance, low distortion, strong capacity in anti-load impact, long life, low noise and so on .

JJW-3000VA

3. Capability index

Range of output voltage

Single phase:170-270V Three phases:310-450V

Range of input regulation: Single phase:185-250V, output:220±5%

Three phases:330-450V, output:380±0.5%

Input frequency:50Hz±5%
Alarm value of output voltage
Single phase:output higher than 242V or lower than 198V
Three phases:output higher than 418V or lower than 342V
Value of protection of over voltage(output loop cut down)
Single phase:output voltage more than 247V
Three phases:output voltage more than 427V
Value of protection of short voltage(output loop cut down)
Single phase:output lower than 193V
Value of protection of over current:1.2 times larger than rated current
Response time of instant voltage change: advantage over two weeks of power
Signle pulse restraint of instant high power
Single phase input 3000V, while 75us single pulse, the remained output voltage <30V
Output wave distortion:<3%
Working ambient temperature:-10˚C±40˚C
Waste power:<1.5%

WYJ-0~30V/3A

WYJ Regulated D.C. Power Supply

1. WYJ D.C. Regulated Power Supply

The WYJ series D.C. Regulated power supply is the one whose output voltage is variable. They have the functions of continuous adjustment output voltage and fixed output to be chosen as per requirements. The circuit consists of integrated circuit and power amplifier, with single-way output and multi-ways independent output. The circuit has functions of high steady in capability, reliability in characteristic, steady in output voltage, small size novel appearance, suitable for scientific research institutes, manufactories, electric appliance serices and so on.

WYJ-0~30V/3A x 2

2. WYJ1730SL 30A/WYJ1730SL 40A & WYJ1730SC 30A/WYJ1730SC 40A Large Power D.C. Regulated Power Supply Feature

WYJ-0~30V/3A x 2

Single-way large power D.C. Regulated power supply
Max. output power up to 1200W
Reliable protection functions of over current, over thermal and circuit
8 hours continuously working
The value of voltage and current of WYJ 1730SL is displayed by three digits
The value of voltage current of WYJ 1730SC is displayed by meters

3. WYJ1721SL/WYJ1731SL & WYJ1751SC/WYJ1761SL Feature

Two-way output

Two numeral tubs show the value of output voltage and current separately through the choice switch.

The regulated voltage and current can be switched automatically and showed by luminous tube.

The two-way output voltage can be serial-shunt operation as per requirement, while in serial and shunt operation ,one of the main power can follow the voltage or current(shunt).

It adopts the mode of protection of current limitation, which can be adjusted as per requirement.

It can add up to 5V/3A fixed voltage output as the users' requirements.

Full plastic frame, novel appearance.

4. SWYJ-23005 Feature

Two meters with two-way output show the value of output voltage and current separately through the choice switch.

The regulated voltage and current can be switched automatically and showed by luminous tube.

The two-way output voltage can be serial-shunt operation as per requirement ,while in serial and shunt operation, one of the main power can follow the voltage or current (shunt).

It adopts the mode of protection of current limitation, which can be adjusted as per requirement,

It can add up to 5V/3A fixed voltage output as the user's requirements.

Full plastic frame, novel appearances

5. Main Technical Index

Type	Output current	
	Voltage	Current
WYJ1721SL 5A	0~20V	0~2A
WYJ1731SL 2A	0~30V	0~3A
WYJ1731SL 3A		0~5A
WYJ1731SL 5A		0~2A
WYJ1751SL 3A	0~50V	0~3A
WYJ1761SL 2A	0~60V	0~5A
WYJ1761SL 3A		0~3A

Wave and noise: CV ⩽ 1mVrms CC ⩽ 5mArms

Power reaction: CV ⩽ $1x10^{-4}$+0.5mV CC ⩽ $2x10^{-3}$+1mA

Load reaction: CV ⩽ $1x10^{-4}$+2mV CC ⩽ $2x10^{-3}$+3mA

Measurement and weight:290x158x135mm 3~6kgs

Output voltage: Between OV-30V can be adjusted continuously

Output current:0-30A(WYJ1730SC 30A/WYJ1730SL 30A

WYJ1730SC 30A/WYJ1730SL 30A)

0-40A

Power reaction:CV<$1x10^{3}$+5mVrms;CC<$1x10^{2}$+15mVrms

Load reaction:CV<$1x10^{-3}$+5mVrms;CC<$1x10^{-2}$+30mVrms

Mode of protection: Current limitation and circuit protection

Measurement and weight: 400x200x480mm 30kgs

Type	Output current	
	Voltage	Current
SWYJ23005D 5A	0~20V	0~5A
SWYJ23005D 2A	0~30V	0~2A
SWYJ23005D 3A		0~3A
SWYJ23005D 5A		0~5A

Wave and noise: CV ⩽ 1m Vrms CC ⩽ 5mArms

Power reaction: CV ⩽ $1x10^{-4}$+0.5mV CC ⩽ $2x10^{-3}$+1mA

Load reaction: CV ⩽ $1x10^{-4}$+2mV CC ⩽ $2x10^{-3}$+3mA

Measurement and weight:370x262x163mm 6~10kgs

Power Supply

S-15-12

15W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-15-5	5V,0~3.0A	± 2%	500mV	65%
S-15-12	12V,0~1.3A	± 1%	50mV	68%
S-15-24	24V,0-0.7A	± 1%	50mV	73%

25W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-25-5	5V,0~5.0A	± 2%	50mV	72%
S-25-12	12V,0~2.1A	± 1%	100mV	76%
S-25-15	15V,0~1.7A	± 1%	100mV	77%
S-25-24	24V,0~1.1A	± 1%	100mV	80%

35W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-35-5	5V,0~7.0A	± 2%	75mV	70%
S-35-12	12V,0~3.0A	± 1%	100mV	76%
S-35-15	15V,0~2.4A	± 1%	100mV	78%
S-35-24	24V,0~1.5A	± 1%	100mV	78%

S-40-12

40W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-40-5	5V,0~8.0A	± 2%	75mV	72%
S-40-12	12V,0~3.5A	± 1%	100mV	76%
S-40-15	15V,0~2.8A	± 1%	100mV	76%
S-40-24	24V,0~1.8A	± 1%	100mV	78%

50W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-50-5	5V,0~10A	± 2%	75mV	71%
S-50-12	12V,0~4.2A	± 1%	100mV	78%
S-50-15	15V,0~3.4A	± 1%	100mV	78%
S-50-24	24V,0~2.1A	± 1%	100mV	82%

60W Single Output Switching Power Supply

Model No	Ouput	Tol.	R & N	Effi.
S-60-5	5V,0~12A	± 2%	120mV	73%
S-60-12	12V,0~5.0A	± 1%	120mV	76%
S-60-15	15V,0~4.0A	± 1%	150mV	77%
S-60-24	24V,0~2.5A	± 1%	150mV	79%

S-75-12

70W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-75-5	5V,0~15A	± 2%	80mV	72%
S-75-12	12V,0~6.3A	± 2%	80mV	77%
S-75-15	15V,0~5.0A	± 2%	80mV	79%
S-75-24	24V,0~3.2A	± 1%	100mV	80%

75W PFC Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
SP-75-5	5V,0~15A	± 2%	80mV	72%
SP-75-12	12V,0~6.3A	± 2%	80mV	77%
SP-75-15	15V,0~5.0A	± 2%	80mV	79%
SP-75-24	24V,0~3.2A	± 1%	100mV	80%

S-100-12

100W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-100-3	3V,0~20A	± 2%	100mV	70%
S-100-5	5V,0~20A	± 2%	100mV	78%
S-100-7.5	7.5V,0~13.6A	± 1%	100mV	80%
S-100-10	10V,0~10A	± 1%	100mV	80%
S-100-12	12V,0~8.5A	± 1%	100mV	81%
S-100-15	15V,0~6.7A	± 1%	100mV	81%
S-100-18	18V,0~5.6A	± 1%	100mV	82%
S-100-24	24V,0~4.5A	± 1%	100mV	84%
S-100-27	27V,0~3.7A	± 1%	100mV	84%
S-100-48	48V,0~2.0A	± 1%	100mV	84%
S-100F-5	5V,0~20A	± 2%	100mA	76%
S-100F-7.5	7.5V,0~13.5A	± 1%	125mA	78%
S-100F-12	12V,0~8.5A	± 1%	125mA	80%
S-100F-15	15V,0~6.7A	± 1%	125mA	81%
S-100F-24	24V,0~4.5A	± 1%	125mA	83%
S-100F-48	48V,0~2.2A	± 1%	125mA	84%

S-120-12

120W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-120-3	3V,0~24A	± 2%	100mV	70%
S-120-5	5V,0~24A	± 2%	100mV	78%
S-120-7.5	7.5V,0~16A	± 1%	100mV	80%
S-120-10	10V,0~12A	± 1%	100mV	80%
S-120-12	12V,0~10A	± 1%	100mV	81%
S-120-15	15V,0~8A	± 1%	100mV	81%
S-120-18	18V,0~6.6A	± 1%	180mV	82%
S-120-24	24V,0~5A	± 1%	240mV	84%
S-120-27	27V,0~4.5A	± 1%	240mV	84%
S-120-48	48V,0~2.5A	± 1%	240mV	84%

145W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-145-5	5V,0~25A	± 2%	120mA	72%
S-145-7.5	7.5V,0~18A	± 2%	120mA	74%
S-145-12	12V,0~12A	± 2%	120mA	77%
S-145-13.5	13.5V,0~10.7A	± 2%	120mA	78%
S-145-15	15V,0~9.6A	± 2%	80mA	79%
S-145-24	24V,0~6.0A	± 1%	150mA	80%
S-145-27	27V,0~5.4A	± 1%	150mA	80%
S-145-48	48V,0~3.0A	± 1%	150mA	80%

S-150-12

150W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-150-7	5V,0~30A	± 2%	150mV	78%
S-150-7.5	7.5V,0~20.0A	± 1%	150mV	80%
S-150-9	9V,0~16.7A	± 1%	180mV	80%
S-150-12	12V,0~12.5A	± 1%	180mV	82%
S-150-15	15V,0~10.0A	± 1%	180mV	84%
S-150-24	24V,0~6.5A	± 1%	240mV	85%
S-150-48	48V,0~3.2A	± 1%	240mV	87%
S-150-13.5	13.5V,0~11.2A	± 1%	180mV	83%
S-150-27	27V,0~5.6A	± 1%	240mV	86%

S-200-12

200W PFC Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
SP-200-3.3	3.3V,0~40.0A	± 2%	100mA	72%
SP-200-5	5V,0~40.0A	± 2%	100mA	77%
SP-200-12	12V,0~16.7A	± 2%	100mA	85%
SP-200-15	15V,0~13.4A	± 2%	100mA	84%
SP-200-24	24V,0~8.40A	± 2%	125mA	87%
SP-200-48	48V,0~4.20A	± 2%	250mA	86%

200W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-200-3.3	3.3V,0~40.0A	± 2%	100mV	65%
S-200-5	5V,0~40.0A	± 2%	100mV	71%
S-200-7.5	7.5V,0~26.7A	± 2%	100mV	76%
S-200-12	12V,0~16.7A	± 2%	100mV	79%
S-200-13.5	13.5V,0~14.9A	± 2%	100mV	80%
S-200-15	15,0~14.3A	± 2%	100mV	81%
S-200-24	24V,0~8.40A	± 1%	150mV	83%
S-200-27	27V,0~7.5A	± 1%	150mV	83%
S-200-48	48V,0~4.2A	± 1%	250mV	84%

S-201-12

201W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-201-5	5V,0~40.0A	± 2%	150mA	73%
S-201-7.5	7.5V,0~26.5A	± 2%	150mA	76%
S-201-12	12V,0~16.5A	± 1%	150mA	79%
S-201-13.5	13.5V,0~14.7A	± 1%	150mA	79%
S-201-15	15V,0~13.0A	± 1%	150mA	80%
S-201-24	24V,0~8.3A	± 1%	150mA	81%
S-201-27	27V,0~7.4A	± 1%	200mA	82%
S-201-48	48V,0~4.2A	± 1%	240mA	83%

240W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	PP
S-240-5	5V,0~40A	± 2%	150mA	135
S-240-7.5	7.5V,0~30.0A	± 2%	200mA	135
S-240-12	12V,0~18.0A	± 1%	150mA	135
S-240-15	15V,0~15.0A	± 1%	150mA	135
S-240-24	24V,0~10.0A	± 1%	180mA	135
S-240-30	30V,0~8.0A	± 1%	180mA	135
S-240-48	48V,0~5.0A	± 1%	200mA	135

S-250-12

250W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-250-5	5V,0~40.0A	± 2%	80mA	74%
S-250-12	12V,0~18A	± 1%	120mA	79%
S-250-15	15V,0~15A	± 1%	120mA	80%
S-250-24	24V,0~10.0A	± 1%	120mA	81%
S-250-27	27V,0~9.4A	± 1%	150mA	82%
S-250-48	48V,0~5.2A	± 1%	200mA	82%

300W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-300-5	5V,0~45.0A	± 2%	150mA	73%
S-300-12	12V,0~25.0A	± 1%	200mA	82%
S-300-13.5	13.5V,0~22.0A	± 1%	200mA	82%
S-300-24	24V,0~12.5A	± 1%	200mA	84%
S-300-27	27V,0~11.0A	± 1%	200mA	84%
S-300-48	28V,0~6.5A	± 1%	240mA	86%

S-320-12

320W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-320-5	5V,0~50.0A	± 2%	150mA	77%
S-320-7.5	7.5V,0~36.0A	± 2%	150mA	80%
S-320-12	12V,0~25A	± 1%	150mA	82%
S-320-13.5	13.5V,0~22.0A	± 1%	150mA	83%
S-320-15	15V,0~20.0A	± 1%	150mA	84%
S-320-24	24V,0~12.5A	± 1%	150mA	86%
S-320-27	27V,0~11.0A	± 1%	200mA	86%
S-320-48	48V,0~6.5A	± 1%	240mA	87%

320W PEC Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
SP-320-5	5V,0~50.0A	± 2%	150mA	79%
SP-320-7.5	7.5V,0~40.0A	± 2%	150mA	83%
SP-320-12	12V,0~25.0A	± 1%	150mA	86%
SP-320-13.5	13.5V,0~22.0A	± 1%	150mA	86%
SP-320-15	15V,0~20.0A	± 1%	150mA	86%
SP-320-24	24V,0~13.0A	± 1%	150mA	87%
SP-320-27	27V,0~11.7A	± 1%	200mA	88%
SP-320-48	48V,0~6.7A	± 1%	240mA	89%

S-350-12

350W PEC Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
SP-350-5	5V,0~50A	± 2%	150mA	73%
SP-350-7.5	7.5V,0~46.0A	± 1%	150mA	76%
SP-350-12	12V,0~30.0A	± 1%	150mA	79%
SP-350-13.5	13.5V,0~25.8A	± 1%	150mA	79%
SP-350-15	15V,0~23.2A	± 1%	150mA	80%
SP-350-24	24V,0~14.6A	± 1%	150mA	81%
SP-350-27	27V,0~13.0A	± 1%	200mA	82%
SP-350-48	48V,0~7.3A	± 1%	240mA	83%

350W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-350-5	5V,0~50A	± 2%	150mA	73%
S-350-7.5	7.5V,0~46.0A	± 1%	150mA	76%
S-350-12	12V,0~30.0A	± 1%	150mA	79%
S-350-13.5	13.5V,0~25.8A	± 1%	150mA	79%
S-350-15	15V,0~23.2A	± 1%	150mA	80%
S-350-24	24V,0~14.6A	± 1%	150mA	81%
S-350-27	27V,0~13.0A	± 1%	200mA	82%
S-350-48	48V,0~7.3A	± 1%	240mA	83%

S-500-12

400W Single Output Switching Power Supply

Model No.	Ouput	Tol.	R & N	Effi.
S-400-5	5V,0~55.0A	± 2%	80mA	72%
S-400-9	9V,0~43.0A	± 2%	80mA	76%
S-400-12	12V,0~33.0A	± 1%	120mA	82%
S-400-15	15V,0~26.0A	± 1%	150mA	84%
S-400-24	24V,0~17.0A	± 1%	150mA	86%
S-400-48	48V,0~8.3A	± 1%	240mA	88%

Power Supply

LV-30-12

Single Output LED Switching Power Supply (Size: 167×28.5×21mm)

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line repuest
LV-15-12	Aluminiun	110-250V AC	15W	12V±0.5V	1. 25A	−20℃ ~40℃	170g	The wire of VDE (200mm)
LV-15-24		110-250V AC	15W	24V±0.5V	0. 625A		170g	
LV-18-12		110-250V AC	18W	12V±0.5V	1. 5A		170g	
LV-18-24		110-250V AC	18W	24V±0.5V	0. 75A		170g	

Single Output LED Switching Power Supply (Size: 200×30.5×20. 5mm)

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line repuest
LV-30-12	Aluminiun	170-250V AC	30W	12V±0.5V	2. 5A	−20℃ ~40℃	250g	The wire of VDE (200mm)
LV-30-24		170-250V AC	30W	24V±0.5V	1. 25A		250g	
LV-36-12		170-250V AC	36W	12V±0.5V	3A		250g	
LV-36-24		170-250V AC	36W	24V±0.5V	1. 5A		250g	

LV-60-12

Single Output LED Switching Power Supply (Size: 178×70×50mm)

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line repuest
LV-60-12	Aluminiun	90-130V AC	60W	12V±0.5V	5A	−20℃ ~40℃	850g	The wire of VDE (200mm)
LV-60-24		90-130V AC	60W	24V±0.5V	2. 5A		850g	
LV-60-12-1		170-250V AC	60W	12V±0.5V	5A		850g	
LV-60-24-1		170-250V AC	60W	24V±0.5V	2. 5A		850g	

Single Output LED Switching Power Supply (Size: 178×70×50mm)

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line repuest
LV-100-12	Aluminiun	90-130V AC	100W	12V±0.5V	8. 33A	−20℃ ~40℃	1200g	The wire of VDE (200mm)
LV-100-24		90-130V AC	100W	24V±0.5V	4. 17A		1200g	
LV-100-12-1		170-250V AC	100W	12V±0.5V	8. 33A		1200g	
LV-100-24-1		170-250V AC	100W	24V±0.5V	4. 17A		1200g	

Single Output LED Switching Power Supply (Size: 228×120×63mm)

Model NO.	Housing material	AC input voltage range	Max.output power	Output voltage	Output current	Working temperature	Weight	Connect the line repuest
LV-150-12	Aluminiun	170-250V AC	150W	12V±0.5V	12. 5A	−20℃ ~40℃	2500g	The wire of VDE (200mm)
LV-150-24		170-250V AC	150W	24V±0.5V	6. 25A		2500g	
LV-200-12		170-250V AC	200W	12V±0.5V	16. 7A		2500g	
LV-200-24		170-250V AC	200W	24V±0.5V	8. 33A		2500g	

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Power Supply

Single Output Switching Power Supply

- High efficienay high reliability minnte extension
- Air coo
- Protections:Short circuit/Over load
- 2 years warranty

MS-15-12

Model NO.	MS-15-5V	MS-15-12V	MS-15-15V	MS-15-24V	MS-15-48V
DC VOLTAGE	5V	12V	15V	24V	48V
VOLTAGE TOLERANCE	±2%	±1%	±1%	±1%	±1%
RATED CURRENT	3A	1.25A	1A	0.7A	0.32A
CURRENT RANGE	0~3A	0~1.25A	0~1.0A	0~0.7A	0~0.32A
RATED POWER	15W	15W	15W	16.8W	15.36W
RIPPLE&NOISE	50mVP-P	50mVP-P	100mVP-P	100mVP-P	120mVP-P
DC VOLTAGE ADJ.RANGE	±10%	±10%	±10%	±10%	±10%
SETUP,RISE TIME	200ms, 100ms, 20ms at full load				
VOLTAGE ADJ.RANGE	170~265VAC auto switch 254~375VDC 47~63Hz				
AC CURRENT	0.25A/230VAC				
EFFICIENCY	74%	80%	81%	83%	83%
INRUSH CURRENT	30A/230VAC				
LEAKAGE CURRENT	<0.5mA/240VAC				
OVER LOAD	±110%~±150%				
WORKING TEMP. HUMIDITY	(-10℃~+60℃):20%~90%RH				
PROTECT TEMP. HUMIDITY	(-20℃~+85℃):10%~95%RH				
ASEISMICITY	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
WITHSTAND VOLTAGE	I/P-FG:1.5KVAC O/P-FG:0. 5KVAC				
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100m 0hms/500VDC				
SAFETY STANDARDS	Compliance to UL 1012				
EMC STANDARVS	Compliance to EN55022 CLASSA				
WEIGHT	0. 2Kg				
DIMENSION	120×50×31mm(L×W×H)				

MS-35-12

Model NO.	MS-35-5V	MS-35-12V	MS-35-15V	MS-35-24V	MS-35-48V
DC VOLTAGE	5V	12V	15V	24V	48V
VOLTAGE TOLERANCE	±1%	±1%	±1%	±1%	±1%
RATED CURRENT	7.0A	3.0A	2.4A	1.5A	0.8A
CURRENT RANGE	0~7A	0~3.0A	0~2.4A	0~1.5A	0~0.8A
RATED POWER	36W	36W	36W	36W	38.4W
RIPPLE&NOISE	75mVP-P	100mVP-P	100mVP-P	100mVP-P	150mVP-P
DC VOLTAGE ADJ.RANGE	±10%	±10%	±10%	±10%	±10%
SETUP,RISE TIME	200ms, 100ms, 20ms at full load				
VOLTAGE ADJ.RANGE	170VAC~265VAC auto switch 254~375VDC				
AC CURRENT	0. 65A/230VAC				
EFFICIENCY	74%	81%	81%	83%	83%
INRUSH CURRENT	cold start 36A 230VAC				
LEAKAGE CURRENT	<0. 6mA/240VAC				
OVER LOAD	±110%~±				
WORKING TEMP. HUMIDITY	(-10℃~+60℃):20%~90%RH				
PROTECT TEMP. HUMIDITY	(-20℃~+85℃):10%~95%RH				
ASEISMICITY	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
WITHSTAND VOLTAGE	I/P-FG:1.5KVAC O/P-FG:0. 5KVAC				
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100m 0hms/500VDC				
SAFETY STANDARDS	Compliance to UL 1012				
EMC STANDARVS	Compliance to EN55022 CLASSA				
WEIGHT	0. 2Kg				
DIMENSION	85×58×38mm(L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input,rated load and 25℃ of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12″twisted pair-wire terminated with a 0. 1uf&47uf parallel capacitor.
3. Tolerance:includes set up tolerance, line regulation and load regulation.

ANDELI

Power Supply

Single Output Switching Power Supply

- High efficienay high reliability minnte extension
- Protections:Short circuit/Over load
- Air coo
- 2 years warranty

MS-50-12

Model NO.	MS-50-5V	MS-50-12V	MS-50-15V	MS-50-24V	MS-50-48V
DC VOLTAGE	5V	12V	15V	24V	48V
VOLTAGE TOLERANCE	±2%	±1%	±1%	±1%	±1%
RATED CURRENT	10A	4.2A	3.4A	2.1A	0.8A
CURRENT RANGE	0~10A	0~4.2A	0~3.4A	0~2.1A	0~1A
RATED POWER	50W	50.4W	51W	50.4W	50.4W
RIPPLE&NOISE	75mVP-P	100mVP-P	120mVP-P	120mVP-P	150mVP-P
DC VOLTAGE ADJ.RANGE	±10%	±10%	±10%	±10%	±10%
SETUP,RISE TIME	200ms, 100ms, 20ms at full load				
VOLTAGE ADJ.RANGE	170~265VAC auto switch 254~375VDC 47~63Hz				
AC CURRENT	0.65A/230VAC				
EFFICIENCY	74%	81%	81%	83%	83%
INRUSH CURRENT	36A/230VAC				
LEAKAGE CURRENT	<0.5mA/240VAC				
OVER LOAD	±110%~±150%				
WORKING TEMP. HUMIDITY	(-10℃~+60℃):20%~90%RH				
PROTECT TEMP. HUMIDITY	(-20℃~+85℃):10%~95%RH				
ASEISMICITY	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
WITHSTAND VOLTAGE	I/P-FG:1.5KVAC O/P-FG:0. 5KVAC				
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100m 0hms/500VDC				
SAFETY STANDARDS	Compliance to UL 1012				
EMC STANDARVS	Compliance to EN55022 CLASSA				
WEIGHT	0. 33Kg				
DIMENSION	99×97×36mm(L×W×H)				

MS-60-12

Model NO.	MS-60-5V	MS-60-12V	MS-60-15V	MS-60-24V	MS-60-48V
DC VOLTAGE	5V	12V	15V	24V	48V
VOLTAGE TOLERANCE	±2%	±1%	±1%	±1%	±1%
RATED CURRENT	12A	5A	4A	2.5A	1.25A
CURRENT RANGE	0~12A	0~5A	0~4A	0~2.5A	0~1.25A
RATED POWER	50W	50.4W	51W	50.4W	50.4W
RIPPLE&NOISE	100mVP-P	120mVP-P	120mVP-P	150mVP-P	150mVP-P
DC VOLTAGE ADJ.RANGE	±10%	±10%	±10%	±10%	±10%
SETUP,RISE TIME	200ms, 100ms, 20ms at full load				
VOLTAGE ADJ.RANGE	170~265VAC auto switch 254~375VDC 47~63Hz				
AC CURRENT	0.65A/230VAC				
EFFICIENCY	74%	81%	81%	83%	83%
INRUSH CURRENT	36A/230VAC				
LEAKAGE CURRENT	<0.5mA/240VAC				
OVER LOAD	±110%~±150%				
WORKING TEMP. HUMIDITY	(-10℃~+60℃):20%~90%RH				
PROTECT TEMP. HUMIDITY	(-20℃~+85℃):10%~95%RH				
ASEISMICITY	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
WITHSTAND VOLTAGE	I/P-FG:1.5KVAC O/P-FG:0. 5KVAC				
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100m 0hms/500VDC				
SAFETY STANDARDS	Compliance to UL 1012				
EMC STANDARVS	Compliance to EN55022 CLASSA				
WEIGHT	0. 33Kg				
DIMENSION	99×97×36mm(L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input,rated load and 25℃ of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12″twisted pair-wire terminated with a 0. 1uf&47uf parallel capacitor.
3. Tolerance:includes set up tolerance, line regulation and load regulation.

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Power Supply

Single Output Switching Power Supply

- High efficienay high reliability minnte extension
- Air coo
- Protections:Short circuit/Over load
- 2 years warranty

RS-60-12

Model NO.	RS-60-5V	RS-60-12V	RS-60-15V	RS-60-24V	RS-60-48V
DC VOLTAGE	5V	12V	15V	24V	48V
VOLTAGE TOLERANCE	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
RATED CURRENT	12A	5A	4A	2.5A	1.25A
CURRENT RANGE	0~12A	0~5A	0~4A	0~2.5A	0~1.25A
RATED POWER	60W	60W	60W	60W	60W
RIPPLE&NOISE	75mVP-P	100mVP-P	100mVP-P	100mVp-p	120mVp-p
DC VOLTAGE ADJ.RANGE	±10%	±10%	±10%	±10%	±10%
SETUP,RISE TIME	200ms, 100ms, 30ms at full load				
VOLTAGE ADJ.RANGE	110~265VAC auto switch 254~375VDC 47~63Hz				
AC CURRENT	0.8A/110VAC 0.45A/230VAC				
EFFICIENCY	74%	80%	81%	83%	83%
INRUSH CURRENT	45A/165VAC 45A/230VAC				
LEAKAGE CURRENT	<3.5mA/240VAC				
OVER LOAD	±110%~±150%				
WORKING TEMP. HUMIDITY	(-10℃~+60℃):20%~90%RH				
PROTECT TEMP. HUMIDITY	(-20℃~+85℃):10%~95%RH				
ASEISMICITY	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
WITHSTAND VOLTAGE	I/P-FG:1.5KVAC O/P-FG:0. 5KVAC				
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100m 0hms/500VDC				
SAFETY STANDARDS	Compliance to UL 1012				
EMC STANDARVS	Compliance to EN55022 CLASSA				
WEIGHT	0. 57Kg				
DIMENSION	129×98×38mm(L×W×H)				

RS-100-12

Model NO.	RS-100-5V	RS-100-12V	RS-100-15V	RS-100-24V	RS-100-48V
DC VOLTAGE	5V	12V	15V	24V	48V
VOLTAGE TOLERANCE	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
RATED CURRENT	20A	8.3A	6.7A	4.2A	2.1A
CURRENT RANGE	0~20A	0~8.3A	0~6.7A	0~4.2A	0~2.1A
RATED POWER	100W	100W	100W	100W	100W
RIPPLE&NOISE	100mVP-P	120mVP-P	120mVP-P	150mVP-P	240mVP-P
DC VOLTAGE ADJ.RANGE	±10%	±10%	±10%	±10%	±10%
SETUP,RISE TIME	200ms, 100ms, 30ms at full load				
VOLTAGE ADJ.RANGE	110~265VAC auto switch 254~375VDC 47~63Hz				
AC CURRENT	2A/110VAC 1A/230VAC				
EFFICIENCY	74%	80%	81%	83%	83%
INRUSH CURRENT	45A/165VAC 45A/230VAC				
LEAKAGE CURRENT	<3.5mA/240VAC				
OVER LOAD	±110%~±150%				
WORKING TEMP. HUMIDITY	(-10℃~+60℃):20%~90%RH				
PROTECT TEMP. HUMIDITY	(-20℃~+85℃):10%~95%RH				
ASEISMICITY	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
WITHSTAND VOLTAGE	I/P-FG:1.5KVAC O/P-FG:0. 5KVC				
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100m 0hms/500VDAC				
SAFETY STANDARDS	Compliance to UL 1012				
EMC STANDARVS	Compliance to EN55022 CLASSA				
WEIGHT	0. 57Kg				
DIMENSION	159×97×38mm(L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input,rated load and 25℃ of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12″twisted pair-wire terminated with a 0. 1uf&47uf parallel capacitor.
3. Tolerance:includes set up tolerance, line regulation and load regulation.

ANDELI

Power Supply

Single Output Switching Power Supply

- High efficienay high reliability minnte extension
- Air coo
- Protections:Short circuit/Over load
- 2 years warranty

RS-120-12

Model NO.	RS-120-5V	RS-120-12V	RS-120-15V	RS-120-24V	RS-120-48V
DC VOLTAGE	5V	12V	15V	24V	48V
VOLTAGE TOLERANCE	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
RATED CURRENT	20A	10A	8A	5A	3.2A
CURRENT RANGE	0~20A	0~10A	0~8A	0~5A	0~2.5A
RATED POWER	100W	100W	100W	100W	120W
RIPPLE&NOISE	100mVP-P	120mVP-P	120mVP-P	150mVP-P	240mVP-P
DC VOLTAGE ADJ.RANGE	±10%	±10%	±10%	±10%	±10%
SETUP,RISE TIME	200ms, 100ms at full load				
VOLTAGE ADJ.RANGE	110~265VAC auto switch 254~375VDC 47~63Hz				
AC CURRENT	2A/110VAC 1A/230VAC				
EFFICIENCY	74%	80%	81%	83%	83%
INRUSH CURRENT	45A/110VAC 45A/230VAC				
LEAKAGE CURRENT	<3.5mA/240VAC				
OVER LOAD	±110%~±150%				
WORKING TEMP. HUMIDITY	(-10℃~+60℃):20%~90%RH				
PROTECT TEMP. HUMIDITY	(-20℃~+85℃):10%~95%RH				
ASEISMICITY	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
WITHSTAND VOLTAGE	I/P-FG:1.5KVAC O/P-FG:0. 5KVAC				
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100m 0hms/500VDC				
SAFETY STANDARDS	Compliance to UL 1012				
EMC STANDARVS	Compliance to EN55022 CLASSA				
WEIGHT	0. 6Kg				
DIMENSION	199×98×38mm(L×W×H)				

RS-150-12

Model NO.	RS-150-5V	RS-150-12V	RS-150-15V	RS-150-24V	RS-150-48V
DC VOLTAGE	5V	12V	15V	24V	48V
VOLTAGE TOLERANCE	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
RATED CURRENT	25A	12.5A	10A	6.25A	3.2A
CURRENT RANGE	0~25A	0~12.5A	0~10A	0~6.25A	0~3.2A
RATED POWER	125W	150W	150W	150W	153.6W
RIPPLE&NOISE	120mVP-P	150mVP-P	150mVP-P	150mVP-P	240mVP-P
DC VOLTAGE ADJ.RANGE	±10%	±10%	±10%	±10%	±10%
SETUP,RISE TIME	200ms, 100ms, 30ms at full load				
VOLTAGE ADJ.RANGE	110~265VAC auto switch 254~375VDC 47~63Hz				
AC CURRENT	3A/110VAC 1.6A/230VAC				
EFFICIENCY	74%	80%	81%	83%	83%
INRUSH CURRENT	45A/165VAC 45A/230VAC				
LEAKAGE CURRENT	<3.5mA/240VAC				
OVER LOAD	±110%~±150%				
WORKING TEMP. HUMIDITY	(-10℃~+60℃):20%~90%RH				
PROTECT TEMP. HUMIDITY	(-20℃~+85℃):10%~95%RH				
ASEISMICITY	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
WITHSTAND VOLTAGE	I/P-FG:1.5KVAC O/P-FG:0. 5KVAC				
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100m 0hms/500VDC				
SAFETY STANDARDS	Compliance to UL 1012				
EMC STANDARVS	Compliance to EN55022 CLASSA				
WEIGHT	0. 6Kg				
DIMENSION	199×98×38mm(L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input,rated load and 25℃ of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12″twisted pair-wire terminated with a 0. 1uf&47uf parallel capacitor.
3. Tolerance:includes set up tolerance, line regulation and load regulation.

Single Output Switching Power Supply

- High efficienay high reliability minnte extension
- Air coo
- Protections:Short circuit/Over load
- 2 years warranty

RS-200-12

Model NO.	RS-200-5V	RS-200-12V	RS-200-15V	RS-200-24V	RS-200-48V
DC VOLTAGE	5V	12V	15V	24V	48V
VOLTAGE TOLERANCE	4.5~5.6V	10~13.2V	13.5~18V	20~26.4V	41~56V
RATED CURRENT	35A	16.5A	13A	8.3A	4.2A
CURRENT RANGE	0~35A	0~16.5A	0~13A	0~8.3A	0~4.2A
RATED POWER	200W	198W	198W	199.2W	201.6W
RIPPLE&NOISE	120mVP-P	150mVP-P	150mVP-P	150mVP-P	240mVP-P
DC VOLTAGE ADJ.RANGE	±10%	±10%	±10%	±10%	±10%
SETUP,RISE TIME	200ms, 100ms at full load				
VOLTAGE ADJ.RANGE	165~265VAC auto switch 254~375VDC 47~63Hz				
AC CURRENT	3A/165VAC 2A/230VAC				
EFFICIENCY	74%	80%	81%	83%	83%
INRUSH CURRENT	45A/165VAC 45A/230VAC				
LEAKAGE CURRENT	<3.5mA/240VAC				
OVER LOAD	±110%~±150%				
WORKING TEMP. HUMIDITY	(-10℃~+60℃):20%~90%RH				
PROTECT TEMP. HUMIDITY	(-20℃~+85℃):10%~95%RH				
ASEISMICITY	10~500Hz.2G 10min./1 cycle.60min.each along X.Y.Z axes				
WITHSTAND VOLTAGE	I/P-FG:1.5KVAC O/P-FG:0. 5KVC				
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100m 0hms/500VDAC				
SAFETY STANDARDS	Compliance to UL 1012				
EMC STANDARVS	Compliance to EN55022 CLASSA				
WEIGHT	0. 5Kg				
DIMENSION	165×99×45mm(L×W×H)				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input,rated load and 25℃ of ambient temperature.
2. Ripple&noise are measured at 20MHz of bandwidth by using a 12″twisted pair-wire terminated with a 0. 1uf&47uf parallel capacitor.
3. Tolerance:includes set up tolerance, line regulation and load regulation.

BK-50VA

BK Machine Tool Control Transformer

1. Application

BK series machine tool control transformer is suitable for circuit of 50~60Hz, voltage up to 500V, usually applied as power supply for machine tool electrical appliances, local lightings and indicator lamps.

2. Structure character

According to different structures, BK transformer belongs to shell type, and according to the installation mode, it belongs to vertical type.

BK-300VA

3. Model and its meaning

B K - □

- Rated capacity
- Control
- Transformer

BK-500

BK-1000

4. Working environment

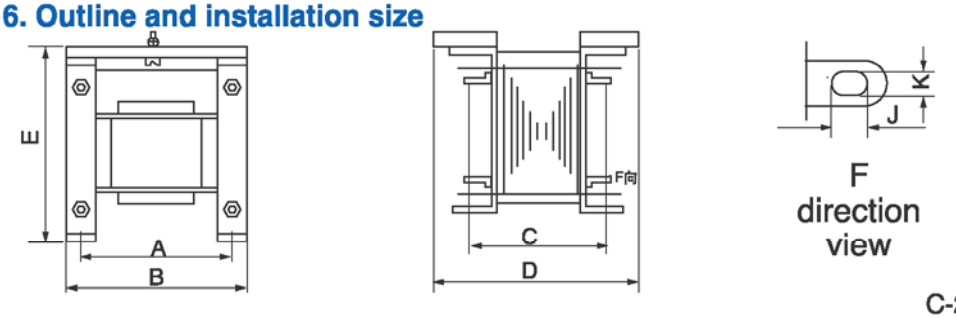
1. Ambient air temperature: -5℃~+40℃, the highest monthly mean temperature should not exceed +30℃;
2. Altitude for installing place should not exceed 1000m;
3. When the ambient air temperature is +40, the relative humidity should not exceed 50%, and it allows higher relative humidity under lower temperature. Max average humidity in the dampest month is 90%, meanwhile the lowest average temperature of this month is +25℃, and condensation on the product surface caused by temperature change should be taken into consideration.

5. Specification

Model	Overall size(mm)			Hole distance for installation(mm)		Installation hole (mm)K x J
	Bmax	Dmax	Emax	A	C	
BK-50	76	76	83	61±0.4	54±3	5 × 12
BK-100	84	92	100	70±0.4	60±2.5	6 × 12
BK-150	96	105	110	80±0.4	62±2.5	6 × 12
BK-250	105	120	125	88±0.4	73±3	9 × 11.5
BK-300	115	125	125	95±0.4	76±3	9 × 11.5
BK-400	120	130	130	100±0.4	80±3	9 × 11.5
BK-500	134	144	150	100±0.4	86±3	9 × 11.5
BK-700	150	150	158	125±0.4	100±3	9 × 11.5
BK-1000	150	153	160	125±0.4	110±3.5	9 × 11.5
BK-1500	160	240	137	134±0.4	116±3.5	9 × 11.5
BK-2000	189	270	145	158±0.4	122±3.5	9 × 11.5

Type	Outline(mm)	Mounting size (mm)	Primary voltage	Secondary voltage	Weight (kg)	QTY/CTN
BK-25VA	76 × 80 × 75	63 × 44	220V 380V	380V,220V, 110V,36V, 24V,12V,6V (to be chosen)	1.97	16
BK-50VA	85 × 90 × 80	71 × 61			3.3	16
BK-100VA	103 × 92 × 95	87 × 69			5.5	12
BK-150VA	103 × 100 × 95	87 × 76			6.4	8
BK-200VA	103 × 106 × 95	87 × 81			7.3	8
BK-250VA	115 × 110 × 130	95 × 84			9	6
BK-300VA	115 × 115 × 130	95 × 86			9.87	6
BK-400VA	134 × 132 × 150	107 × 93			13.9	4
BK-500VA	134 × 137 × 150	107 × 98			15.5	4
BK-1000VA	153 × 149 × 168	128 × 115			25	2
BK-1500VA	175 × 185 × 185	140 × 135			17	1
BK-2000VA	175 × 195 × 185	140 × 145			21	1
BK-2500VA	207 × 250 × 230	168 × 163			25	1
BK-3000VA	207 × 250 × 230	168 × 173			28	1
BK-4000VA	240 × 240 × 250	200 × 160			40	1
BK-5000VA	240 × 250 × 250	200 × 170			41	1

6. Outline and installation size



F direction view

JBK3 Machine Tool Control Transformer

1. Application

JBK3-63

JBK3 series machine tool control transformer is a kind of new product by reference to sample of SIMENS Company, it accords with standards like VDE0550, IEC204-1, IEC439, GB5226, etc. It is suitable for AC circuit of 50~60Hz, output rated voltage less than 220V, input rated voltage less than 500V, worked as control power supply for mechanical equipment and general electrical appliance and as power supply for work lighting and signal lamp.

2. Model and its meaning

JBK3-160

JB K 3 - □

- □ — Rated capacity
- 3 — Design No.
- K — Control
- JB — Machine tool transformer

3. Installation size

JBK3-250

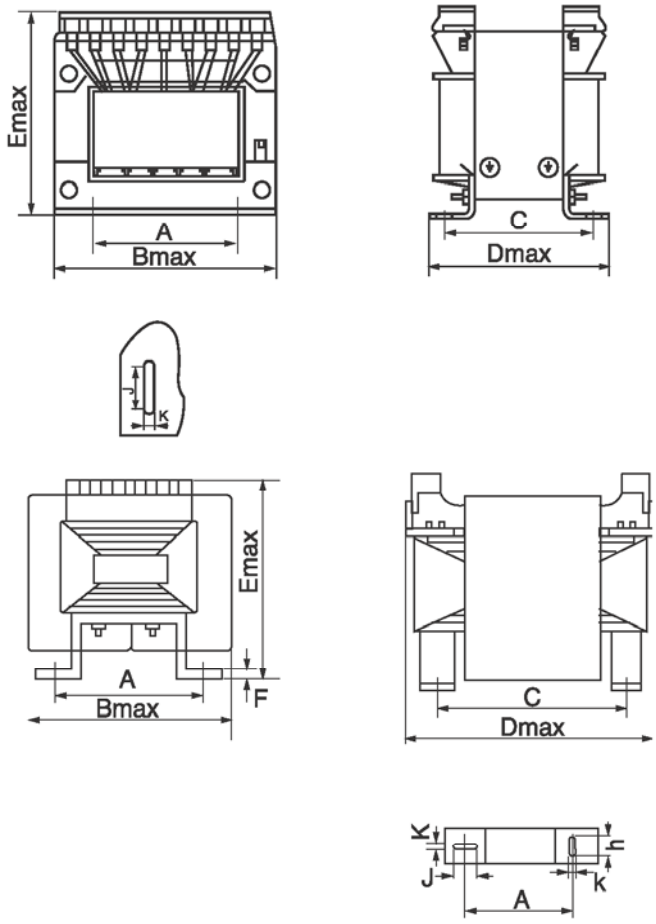
JBK3-1000

Type	Overall size(mm)			Hole distance for installation (mm)		Installation hole K or K x J(mm)	Fmax (mm)
	Bmax	Dmax	Emax	A	C		
JBK3-40,60	78	72	89	56±0.4	51±2	4.8 × 9	12
JBK3-100	85	85	94	64±0.4	66±2	4.8 × 9	12
JBK3-160	96	91	109	84±0.4	73±2	5.8 × 11	14
JBK3-250	96	105	109	84±0.4	87±2	5.8 × 11	14
JBK3-400	120	109	123	90±0.4	90±2	7 × 12	18
JBK3-630	150	112	150	122±0.5	90±2	7 × 12	22
JBK3-1000	160	195	151	126±2	152±2	7 × 12	18
JBK3-1600	184	220	163	140±2	176±2	7 × 12	18
JBK3-2500	200	250	171	172±2	200±2	7 × 12	18

5. Machine Tool Control Transformer

Type	Rated capacity (VA)	Uel rated input voltage (V)	Rated output voltage		
			Control	Illumination	Indication
JBK3-40	40	220±5% 380±5%	110 (127)	24 (36)	6 (12)
JBK3-63	63				
JBK3-100	100				
JBK3-160	160				
JBK3-250	250				
JBK3-400	400				
JBK3-630	630				
JBK3-1000	1000		Distribution of capacity for different winding may be according to the uses' request.		
JBK3-1600	1600				
JBK3-2500	2500				

6. Overall size



TDGC2J-1.5KVA

TDGC2-5KVA

TDGC2-15KVA

TDGC2 TSGC2 TDGC2J Voltage Regulator

1. Application

The product is special auto transformer which is connectded in different forms.Its output voltage can be regulated smoothly and continuously from zero to the maximum value.The provision of an indicating meter is made for the models TDGC2 TDGC2J 0.2,0.25,0.5/0.5(M).All the models find popular applications in industries,agriculture and scientific researches,and are particularly suited to servs as ancillary facilities for such equipment as various machine tools,transistor curve tracers, projecting TV sets,and analytical instruments in petroleum industry,etc.

2. Specification

Type	Capacity (kVA)	Phase	Frequency (Hz)	Input voltage (V)	Output Voltage (V)	Max. output current(A)
TDGC2J TDGC2 TDGC-0.5(C)	0.5	1	50/60	110/220	0-250	0.88/2
TDGC2J TDGC2 TDGC-1/0.5	1					1.6/4
TDGC2J TDGC2 TDGC-2	2					3.2/8
TDGC2J TDGC2 TDGC-3/0.5	3					4.8/12
TDGC2J TDGC2 TDGC-5/0.5	5					8/12
TDGC2J TDGC2 TDGC-10/0.5	10					16/40
TDGC2J TDGC2 TDGC-15/0.5	15					24/60
TDGC2J TDGC2 TDGC-20/0.5	20					80
TDGC2J TSGC2 TSGC-3/0.5	3	3	50/60	220/380	0-430	1.6/4
TDGC2J TSGC2 TSGC-6/0.5	6					3.2/8
TDGC2J TSGC2 TSGC-10/0.5	10					5.4/13.4
TDGC2J TSGC2 TSGC-15/0.5	15					20
TDGC2J TSGC2 TSGC-20/0.5	20					28
TDGC2J TSGC2 TSGC-30/0.5	30					40

Uninterruptable Power Supply(UPS)

1. Application

Back-up UPS is a technically-modified new product of the company on the basis of the previous UPS-500VA one and has multifunction as automatic voltage regulation of local electricity, sychronous switches for users load,protections of over-voltage,overvoltage,overcurrent,overcharge of batterise,feed and so on.

UPS-500VA

UPS-1000VA

2. Specification

Input voltage / Output voltage	220V±20% / 220V±10%
Frequency	50Hz/60Hz
Efficiency	more than 80%
Ambient temprature	-10˚C~+40˚C
Charger time	8 hours/time
Inverter supply time	(Rating power 80%) 3-4mins (rating power 50%)8-10mins
Inverter charge time	<10ms
Output waveform	Square wave
Yawp	<50dB

3. Outline & Packing

Type	Time	Outline(cm)			Weight(kg)
		L	W	H	
UPS-350VA	3-7min	26	10	14	4.3
UPS-500VA	5-15min	36	11	16	7.2
UPS-1000VA	5-15min	36	15	23	11.5

Uninterruptable Power Supply(UPS)

Product		High Frequency On Line UPS(1kVA~3kVA)					
Type		G1K	G2K	G3K	G1KS	G2KS	G3KS
Rated power	VA/W	1kVA/0.7kW	2kVA/1.4kW	3kVA/2.1kW	1kVA/0.7kW	2kVA/1.4kW	3kVA/2.1kW
Input	Nominal voltage	220VAC (or 230/240 VAC)					
	Voltage range	118~300VAC					
	Frequency range	46~54Hz(default).user adjustable within 40-60Hz					
	Power factor	>0.97					
	Connection	IEC320-10A inlet		IEC320-16A inlet	IEC320-10A inlet		IEC320-16A inlet
Output	Voltage	220VAC ± 1%(or 230/240VAC ± 1%)					
	Frequency	46~54Hz or 50Hz ± 0.1Hz(Line mode) 50Hz ± 0.1Hz(Battery mode)(or 60Hz ± 0.1Hz)					
	Wave form	Sine Wave					
	Distortion	3%	4%		3%	4%	
	Overload capability	110%~150% for 30 sec., ≥ 150% for 200 ms					
	Current crest ratio	3: 1					
	Standard	IEC320-4	IEC320-6	IEC320-3& terminal block	IEC320-4	IEC320-6	IEC320-3& terminal block
Battery	Type	Sealed, Maintenance free, Lead-acid					
	Nominal DC voltage				36VDC	96VDC	
	Quantity	3 pieces	8 pieces		Depends on the requested back-up time		
	Back-up time(full load)	5min	9min	5min	Depends on the capacity of the external battery bank		
	Recharge time	5hrs to 90% of capacity after full load discharge			Depends on the capacity of the external battery bank		
Bypass	Automatic transfer	On overload and UPS failure					
	Before UPS power-on	Default "NO",user adjustable to "YES"					
	Voltage range	80~264VAC(Default),user adjustable within 80~286VAC					
Transfer time		0ms;less than 4 ms from inverter to bypass and vice versa					
LED indicators	Status	Load level/Battery level, Battery, Utility power,Inverter,Bypass, Overload,Fault					
Audible alarm		Bypass, On battery mode,Battery low ,Overload,Fault					
Acoustic Noise	At 1meter distance	45 dB	50 dB		45 dB	50 dB	
Commu-nications	DB-9 port	RS-232 serial interface					
	Intelligent slot	Options:SMNP Card,AS400 Card of Winpower CMC/(USB Port)					
Network surge protection		RJ45 I/O port available for network or Fax/Modem					
Environmen-tal	Operating temperature	0~40℃					
	Operating humidity	20~90% non-condensing					
Weight	Net(Kg)	13	31.5	32	7	13.5	14
Dimensions	W x L x H(mm)	145 x 400 x 220	192 x 460 x348	192 x 460 x348	145 x 400 x220	192 x 460 x348	192 x 460 x 348

Uninterruptable Power Supply(UPS)

1. Application

Back-up UPS is a technically-modified new product of the company on the basis of the previous UPS-500VA one and has multifunction as automatic voltage regulation of local electricity, sychronous switches for users load,protections of overvoltage,overcurrent,overcharge of batterise, feed and so on.

2. Specification

Product		On Line UPS parallel Redundancy (6~10kVA 1Ph/1Ph)			
Type		G6KN	G10KN	G6KNS	G10KNS
Rated power	VA/W	6kVA/4.2kW	10kVA/4.2kW	6kVA/4.2kW	10kVA/4.2kW
Input	Nominal voltage	220VAC (or 230/240VAC)			
	Voltage range	176~276VAC			
	Frequency range	46~54Hz			
	Phase	Single Pahse			
	Power factor	0.98			
	Connection	Hardwirde			
Output	Voltage	220VAC ± 1% (or 230/240VAC ± 1%)			
	Frequency	50Hz ± 1%(Battery mode)			
	Wave form	Sine wave			
	Power factor	0.7			
	Voltage distortion	2% under liner load			
	Overload capability	105%~130% for 10min, ⩾ 130% for 1s.			
	Current crest ratio	3:1 max			
	Connections	Hardwired			
Battery	Type	Sealed,Maintenance free, Lead-Acid			
	Quantity	20 pieces		Depends on the requested back-up time	
	Nominal voltage	240 VDC			
	Back-up time(full load)	7min	5min	Depends on the capacity of the external battery bank	
	Recharge time	8 hrs to 90% of capacity after full load discharge		Depends on the capacity of the external battery bank	
	Connection	External Battery Socket			
Transfer time		0 ms			
Maintenance bypass switch		Yes			
LED indicators	Status	Load level/Battery level.Utility power,Inverter,Bypass, Overload.Fault			
Audible alarm	Bypass	Alarm beeps every two minutes			
	Battery discharge	Alarm beeps every four seconds, Every second if battery low			
	Overload	Alarm beeps two for every second			
	Fault	Alarm beeps continuously			
Acoustic Noise	At 1 meter distance	< 55 dB			
Communication	DB-9 port	RS232 serial interface			
	Intelligent slot	Options: SNMP Card, AS400 Card or Winpower CMC/(USB-Port)			
Parallel Port		Up to three units in parallel for power redundancy and load sharing			
Environmental	Operating temperature	0~40℃			
	Operating humidity	20~90% non-condensing			
Weight	Net(kg)	84	93	35	38
Di≠mensions	W x L x H (mm)	260 × 570 × 717			

Uninterruptable Power Supply(UPS)

Product		On Line UPS Parallel Redundancy (10~20kVA 3Ph/1Ph)		
Type		3G10KNS	3G15KNS	3G20KNS
Rated power	VA/W	10kVA/7kW	15kVA/10.5kW	20kVA/14kW
Input	Nominal voltage	380VAC		
	Voltage range	304~478VAC		
	Frequency range	46~54Hz		
	Phase	Three Pahse (4 Wires+Ground)		
	Power factor	0.95		
	Connection	Hardwired		
Output	Voltage	220VAC ± 1%, Single phase		
	Frequency	50Hz ± 0.1%(Battery mode)		
	Wave form	Sine wave		
	Power factor	0.7		
	Voltage distortion	⩽ 2% under liner load		
	Overload capability	105%~130% for 10min, ⩾ 130% for 1s.		
	Current crest ratio	3:1 max		
	Connections	Hardwired		
Battery	Type	Sealed,Maintenance free, Lead-Acid		
	Quantity	Depends on the requested back-up time		
	Nominal voltage	240 VDC		
	Back-up time(full load)	Depends on the capacity of the external battery bank		
	Recharge time	Depends on the capacity of the external battery bank		
	Connection	External battery socket	Hardwired	
Transfer time		0 ms		
Maintenance bypass switch		Yes		
LED indicators	Status	Load level/Battery level, Battery,Utility power,Inverter, Bypass,Overload.Fault		
Audible alarm	Bypass	Alarm beeps every two minutes		
	Battery discharge	Alarm beeps every four seconds, Every second if battery low		
	Overload	Alarm beeps two for every second		
	Fault	Alarm beeps continuously		
Acoustic noise	At 1 meter distance	⩽ 55 dB	⩽ 60 dB	
Communica-tion	DB-9 port	RS232 serial interface		
	Intelligent slot	Options: SNMP Card, AS400 Card or Winpower CMC/(USB-Port)		
Parallel port		Up to three units in parallel for power redundancy and load sharing		
Environmen-tal	Operating temperature	0~40℃		
	Operating humidity	20~90% non-condensing		
Weight	Net(kg)	38.5	55	
Dimensions	W x L x H (mm)	260 × 570 × 717		

EPS Series

1. Usage

Emergency power supplied to the equipment of 380V/220V, such as fire protection facility or direct load or especially important load or fire protection emergency light load or other loads

Installation form: On the ground (standard power cupboard)

Backup time: 90-120 minuted, (standard), the backup time coule be deposited as designed

Specification: 2KW-800KW

Specification: 2,4,6,8,10,15,20,25,30,45,55,75,95,110,130,160,180,200,220,250,280,315,400, 500,630,800KW. These products are used for force load and fire protection emergency light.

2. Product summary

Series EPS is of high technical green product with CPU controlled, digital circuit and high integrated level electronic element, which adopts module inverter produced by international famous manufactory, and the newest fifth IGBT and invert technique.This product provieds the second or third powr for the direct load and especially important load facility and fire protection equipment or light.

3. Aduantages

Static, no noise, no arranged cigarettes, no common damage, no fire hidden danger

Switch over automatically without people

Save energy, lose little power without emergency power supplied

Stable capability,reliable safety and long using life

Comparing with generator, it's comprehensive price is lower and capability price ratio is better.

4. Characteristics

Adopt the newest IGBT invert module and high reliable integrated circuit

Modulate PWM technology in pulse width, four in one desigmm,constructer simplified

Supply power to any inductive or capacityve loads

Link with fire control, could realize building intelligent monitor by distance and fire protection

All the main componets adopt the high reliable well-known brand

Direction wires and parts are of fire-netardant and un-burnt characteristics.

Notice: 1. EPS series is used for three phases, single phase or mixed type electrical equipment, such as lift, water pump, air blower, light, the screen of securities, air conditioner, office equipment, finacial institution and so on.

2. Auto. fire protection linking device could be chosen.

3. When the EPS needs fire protection link, remote monitor and output with multi-loops, please make sure before making order.

5. EPS products tecnincal parameter

Type		EPS-800KW
Voltage		380±20%
Input	Phase	Three phases four wires+PE
	Frequency	50HZ±5%
	Capacity	2KW-800KW
Output	Voltage	380VAC Three phases four wires+PE
	Voltage Precision	±5%
	Waveform	Sine wave distortion ⩽ 3%
	Frequency	50HZ±0.5%
	Overload capacity	120% ordinarily run
Regulating time		<0.2s
Battery		Sealed battery maintained for free
Backup time		Standard time is 90 minuted or 120 minuted (backup time could be deposited as required)
Protection		Short-circuit protection, over-current protection, could run lack of phase
Display		LED or LCD
Efficiency		Power supplied emergently:above90%, Power supplied by electric net:about 100%
Operation environment		Temperature:-24℃-40℃, Relative humidity: 0-90% sealever height:less than 2000m
Noise		When there is city power, placed without noise, otherwise, the noise<55dB, larger than EPS-75KW, the noise<65dB
Size/weight		See the size and weight list
The method of door-opened and wires entry		The front door single open, the back door double open, the wires enter from the bottom(standard type)

Notice: 1. The output loop could be made inside the cupboard as required

2. Detail specification: 2,4,6,8,10,15,20,25,30,35,55,75,95110,130,160,180,200,280,315,400,500,630,800KW

DC/AC Inverter

1. Application

DC/AC inverter is designed for switching DC24V to AC110-220V. They can be used outdoors or on home appliance as emergency power. Usually, cord with AC power socket and the DC power cord with DC battery. When the load connects to the DC power cord with DC power, if the commercial power falls, the inverter will convert the batttery voltage to AC voltage and go on supplying. When the commercial power restall, the inverter will switch to charge the battery by itself. When the battery is fully charged, it will stop automatically.

ZUP-500VA

2. Feature

AC voltage available for AC 100V, 110V, 120V, 220V, 230V or 240V at request.
Each unit contains two AC sockets available for two pin plugs.
Automatic function change for inverter or batttery charge.
Selective 4 AC voltage for each unit, such as when AC 110V, it will be available for AC 110V, 120V, 130V and 140V.
Different led indicator for function of inverter and charger.
Each unit contain a AC cord for AC input voltage besides.
Model ZUP-300 and ZUP-300A unit contains an extra power cord for DC battery.
Products applicable for:
A. Personal computer.
B. Various video/audio equipment. (TV, casset, tape record, etc.)
C. Small motor equipment.
D. Various lighting equipment. Protection:
a. Protection for short circuit and polarity reverse of battery.
b. Overload fuse protection for charging current, input voltage and output voltage.

ZUP-1000VA

3. Specification

Type	DC Voltage	Capacity	Charging Current
ZUP-300VA	DC12V, 24V	max.300W	max.25A
ZUP-500VA	DC12V, 24V	max.500W	max.35A
ZUP-1000VA	DC12V, 24V	max.1000W	max.35A
ZUP-1500VA	DC12V, 24V	max.1500W	max.45A
ZUP-2000VA	DC12V, 24V	max.2000W	max.60A
ZUP-3000VA	DC24V,48V	max. 3000W	max. 90A
ZUP-5000VA	DC24V,48V	max. 5000W	max. 150A

ZUP-2000VA

Two outlets are incorporated for the simultaneous use of both the 110V and 220V outlets.
The sockets are of a type that is capable of accepting two different types of plugsprongs and blades of two different forms.
Built-in overload protection circuit and overdischarge protection circuit.

Batteries can be easily charged using home AC power source.

Battery charging will be made safer than using automatic charging voltage control system.

Power Inverter

A8200

Model	A8300	A8400	A8300U	A8400U	A8500	A8600	A8500U	A8600U
Input voltage	DC 12V (DC11-15V)							
Output voltage	AC100-120V, AC220-240V							
USB output	x		DC 5V (Max 500mA)		x		DC 5V (Max 500mA)	
Continuous power	300W	400W	300W	400W	500W	600W	500W	600W
Peak power	600W	800W	600W	800W	1000W	1200W	1000W	1200W
Output frequency	60+/-3Hz, 50+/-3Hz							
Output waveform	Modified sine wave							
NO load current draw	<0.45A							
Low voltage alarm activation	DC10.2-10.8V							
Under voltage shutdown	DC9.2-9.8V							
Over voltage shutdown	DC15-16V							
Overload protection	440W ± 5%	540W ± 5%	440W ± 5%	540W ± 5%	640W ± 5%	750W ± 5%	640W ± 5%	750W ± 5%
Thermal protection	>65˚C							
Fuses internal	40A	35A+20A	40A	35A+20A	35A x 2	40A x 2	35A x 2	40A x 2

A8300

Model	A8800	A810000	A812000	A815000	A82000	A825000	A83000
Input voltage	DC 12V (DC11-15V)						
Output voltage	AC100-120V, AC220-240V						
Continuous power	800W	1000W	1200W	1500W	2000W	2500W	2800W
Peak power	1600W	2000W	2400W	3000W	4000W	5000W	6000W
Output frequency	60+/-3Hz, 50+/-3Hz						
Output waveform	Modified sine wave						
NO load current draw	<0.45A						
Low voltage alarm activation	DC10.2-10.8V						
Under voltage shutdown	DC9.2-9.8V						
Over voltage shutdown	DC15-16V						
Overload protection	940W ± 5%	1200W ± 5%	1400W ± 5%	1700W ± 5%	2300W ± 5%	2800W ± 5%	3200W ± 5%
Thermal protection	>65˚C						
Fuses internal	25A x 4	35A x 4	35A x 4	35A x 6	20A x 12	30A x 12	35A x 12

A8400

A8500U

A8600U

A81000

A81500

A82000

Power Inverter

AVT-5A

Model	AVT-5A	AVT-10A	AVT-20A
Input Voltage	DC 24V		
Output Voltage	DC 12V±5%		
Output Current	5A	10A	20A

AO300W

AO600W

Model		AO8300U	AO8400U	AO8500U	AO8600U	AO8700U
DC Input		DC 12V (DC11-15V)				
		DC 24V (DC22-30V)				
AC Output Output Frequency		AC 100V±10% / AC 100V±10% / AC 220V±10% 55±3Hz / 60±3Hz / 50±3Hz				
USB Output(If Have)		DC 5V				
Continuous Power		300W	400W	500W	600W	700W
Peak Power		600W	800W	1000W	1200W	1400W
Output Wave		Modified Sine Wave				
Efficiency		>85%				
No Load Current		<0. 45A				
Input Under Voltage Alarm	12V Input	DC 10. 2-10. 8V				
	24V Input	DC 20. 4-21. 6V				
Input Under Voltage Shut Down	12V Input	DC 9. 2-9. 8V				
	24V Input	DC 18. 4-19. 6V				
Input Under Voltage Shut Down	12V Input	DC 15-16V				
	24V Input	DC 30-32V				
Overload Shut Down		360W-390W	480W-520W	600W-650W	720W-780W	840W-910W
Fuse	12V Input	40A×1	25A×2	35A×2	25A×3	30A×3
	24V Input	20A×1	25A×1	35A×1	40A×1	25A×2
The Best Working Temperature		5-35℃				
Cooling Method		Fan				
Accessories		Cigar Cable Battery Clip Cable				

ASW8600

Model		ASW8300	ASW8600	ASW81200	ASW81500
Input Voltage		DC 12V (DC11-15V)			
		DC 24V (DC22-30V)			
Output Voltage		AC 220V±10%			
Output Frequency		55±1%			
USB Output		DC 5V			
Continuous Power		300W	600W	1200W	1500W
Peak Power		600W	1200W	2400W	3000W
Distortion Rate		<5%			
Efficiency		>85%			
No Load Current		<0.45A			
Input Under Voltage Alarm	12V Input	DC 10. 2-10. 8V			
	24V Input	DC 20. 4-21. 6V			
Input Under Voltage Shut Down	12V Input	DC 9. 2-9. 8V			
	24V Input	DC 18. 4-19. 6V			
Input Under Voltage Shut Down	12V Input	DC 15-16V			
	24V Input	DC 30-32V			
Overload Shut Down		360W-390W	720W-780W	1440W-1560W	1800W-1950W
Working Temperature		5-35℃			
Heat Dissipation Method		Fan			
Cable		Cigar Cable Battery Clip Cable			

Power Inverter

A8300N

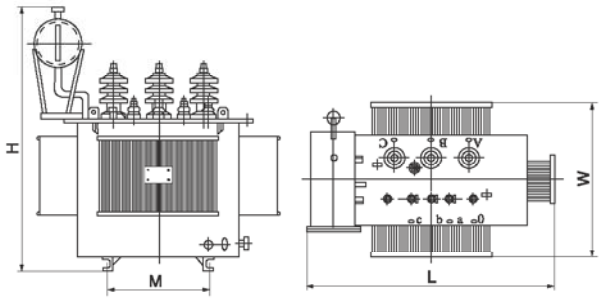
Model		A8300N	A8400N	A8500N	A8600N
DC Input		DC 12V (DC11-15V)			
		DC 24V (DC22-30V)			
AC Output		AC 220V±10%			
Output Frequency		55±1%			
USB Output		DC 5V			
Continuous Power		300W	600W	1200W	1500W
Peak Power		600W	1200W	2400W	3000W
Output Wave		Modified Sine Wave			
Efficiency		>85%			
No Load Current		<0.45A			
Input Under Voltage Alarm	12V Input	DC 10. 2-10. 8V			
	24V Input	DC 20. 4-21. 6V			
Input Under Voltage Shut Down	12V Input	DC 9. 2-9. 8V			
	24V Input	DC 18. 4-19. 6V			
Input Under Voltage Shut Down	12V Input	DC 15-16V			
	24V Input	DC 30-32V			
Overload Shut Down		360W-390W	480W-520W	600W-650W	720W-780W
Fuse	12V Input	40A×1	25A×2	35A×2	25A×3
	24V Input	20A×1	25A×1	35A×1	40A×1
The Best Working Temperature		5-35℃			
Cooling Method		Fan			

A8500N

Model		8800N	81000N	81200N	81500N
DC Input		DC 12V (DC11-15V)			
		DC 24V (DC22-30V)			
AC Output		AC 110V±10%/AC 110V±10%/AC 220V±10%			
Output Frequency		55±3%/60±3%/50±3%			
USB Output		DC 5V			
Continuous Power		800W	1000W	1200W	1500W
Peak Power		1600W	2000W	2400W	3000W
Output Wave		Modified Sine Wave			
Efficiency		>85%			
No Load Current		<0.45A			
Input Under Voltage Alarm	12V Input	DC 10. 2-10. 8V			
	24V Input	DC 20. 4-21. 6V			
Input Under Voltage Shut Down	12V Input	DC 9. 2-9. 8V			
	24V Input	DC 18. 4-19. 6V			
Input Under Voltage Shut Down	12V Input	DC 15-16V			
	24V Input	DC 30-32V			
Overload Shut Down		960W-1040W	1200W-1300W	14400W-1560W	1800W-1950W
Fuse	12V Input	25A×4	30A×4	35A×4	30A×6
	24V Input	25A×2	30A×2	35A×2	25A×4
The Best Working Temperature		5-35℃			
Cooling Method		Fan			

S9 Series Distribution Transformer

1. Outline and installation size



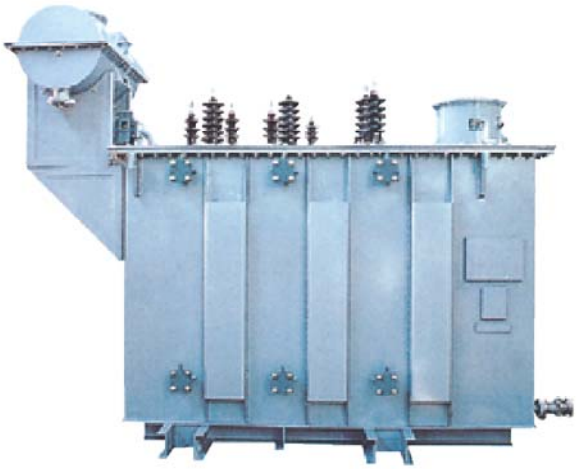
2. Product Feature

This kind of product feature has high efficieney and low consumption. It can save a lot of power consumption and operating costs The new S9 Serier transformer is impoldered on the bas's of the 10KV Distribution transformer. It accords with the GB1094-96,GB/T6451-99,IEC76 strandard.

3. Technical Specification

Rated Capacity (KVA)	Voltage Schedule			Vector Group	Consumption(W)		N0-load current (%)	Short/ circuit imped-ance(%)	Weight			Out line dimension (mm±10%)			Gauging Distance
	HV	Tapping	LV		N0-load (kw)	load (kw)			Body	o:l	Total	Length	Width	Height	
10	6 6.3 10 10.5 11	±5% (±2 x 2.5%)	0.4	Yyn0, Dyn11	65	330	3.5	4	90	35	150	760	400	950	350 × 350
20					105	480	3.0		135	60	225	885	400	955	350 × 350
30					130	600	2.1		180	70	285	985	380	1015	400 × 400
50					170	870	2.0		230	75	350	985	510	1035	400 × 450
63					200	1040	1.9		285	90	430	1060	465	1135	400 × 450
80					250	1250	1.8		295	95	475	1010	775	1070	400 × 450
100					290	1500	1.6		330	100	520	1010	740	1095	400 × 450
125					340	1800	1.5		380	110	600	1040	770	1135	400 × 550
160					400	2200	1.4		440	120	685	1235	735	1165	550 × 550
200					480	2600	1.6		515	135	800	1280	765	1210	550 × 550
250					560	3050	1.2		610	160	940	1345	800	1315	550 × 550
315					670	3650	1.1		715	180	1105	1395	850	1375	660 × 660
400					800	4300	1.0		880	205	1310	1435	820	1460	660 × 660
500					960	5150	1.0		1005	230	1515	1525	965	1450	660 × 660
630					1200	6200	0.9		1155	265	1770	1615	1080	1615	660 × 660
800					1400	7500	0.8		1420	315	2160	1700	1120	1705	820 × 820
1000					1700	10300	0.7	4.5	1580	425	2520	1750	1140	1880	820 × 820
1250					1950	12000	0.6		1940	495	3040	1850	1245	1835	820 × 820
1600					2400	14500	0.6		2355	560	3800	1865	1285	2020	820 × 820
2000					2600	17000	0.5	5	3165	755	4950	2300	1165	2305	1070 × 1070
2500					3000	20700	0.5		3880	1300	6580	2440	1315	2490	1070 × 1070

SZ9 ON-load Tap-changer Power Transformer



1. Product Feature

The sz9 on-load tap-changer power transformer is widely applies to urban and rural electric network construetion. The iron core is in ladder shape and changes the traditional piling way of iron core as well as the inner distribution of magnetic way. It also decrease the no-load consurmption, no-load current consurmption and noise pollution all by 20%. The new product applies CAD tool and marked with advanced design, reasonable structure, high quality material. It accords with GB1094-1996 and GB/T6451-1999.

2. Technical Specification

Rated Capacity (KVA)	Voltage Schedule			Vector Group	Consumption(W)		N0-load current (%)	Short/ circuit imped-ance(%)	Weight			Out line dimension (mm±10%)			Gauging Distance
	HV	Tapping	LV		N0-load (kw)	load (kw)			Body	o:l	Total	Length	Width	Height	
200	6 6.3 10 10.5 11	±4 × 2.5%	0.4	Yyn0, Dyn11	430	3060	1.6	4	610	450	1430	950	950	1600	550 × 550
250					510	3600	1.5		760	500	1700	1100	1100	1640	550 × 550
315					610	4320	1.5		1060	550	2120	1200	1200	1750	660 × 660
400					740	5220	1.4		1100	660	2160	1250	1250	1800	660 × 660
500					870	6210	1.4		1330	700	2850	1300	1300	1950	660 × 660
630					1120	7650	1.3		1850	740	3410	1300	1300	2110	820 × 820
800					1330	9360	1.3		1980	780	3830	1480	1480	2330	820 × 820
1000					1550	10980	1.3	4.5	2300	1020	4800	1500	1500	2525	820 × 820
1250					1880	13040	1.2		2870	1460	5950	1530	1530	2730	820 × 820
1600					2400	15570	1.1		3450	1730	6950	1550	1550	3000	820 × 820

S9-M.R, S11-M-M.R Ribbon-wound Coreoll Complete

1. Summy

This type of transformer adopts high-permedibility cool-rolling si-steel piece as iron core. It is processed with big fill factor and there is no spacing inside the mangnetic path. The HV and LV coil is continuously winded around the core with good concentricity and compact winding. The product is of low consumption and slight noise pollution by combining new generation of technolgy good performance and energy saving. It is widely used in power distribution system.

2. Technical Specification

S11-M.R Series three-phase ribbon-wound core oil complete sealed distribution transformer

Capacity (kVA)	Voltage schedule		Vector group	Consumption		Short-circuit impedance (%)	No load current (%)	Outline dimension mm(± 10%)			Weight kg (± 10%)		Gauging distance (mm)
	HV(kV)	LV(kV)		No load(W)	load(W)			Length	Width	Height	Oil	Total	
30	6 6.3 11 ± 2x 2.5% or 5%	0.4	Y,d11 Y,yn0	90	600	4 4.5	0.6	1020	600	1090	95	370	400 x 550
50				120	870		0.6	1050	620	1120	110	450	400 x 400
63				140	1040		0.57	1120	650	1150	120	520	550 x 550
80				175	1250		0.54	1160	670	1170	130	570	550 x 550
100				200	1500		0.48	1200	700	1210	150	640	550 x 550
125				235	1800		0.45	1250	730	1250	170	750	550 x 550
160				280	2200		0.39	1290	750	1300	200	860	550 x 550
200				335	2600		0.36	1330	780	1345	245	990	550 x 550
250				390	3050		0.33	1370	780	1410	270	1230	660 x 660
315				465	3650		0.3	1420	800	1470	290	1380	660 x 660
400				560	4300		0.3	1460	800	1530	320	1760	660 x 660
500				670	5100		0.27	1505	805	1590	350	1960	660 x 660
630				840	6200		0.27	1590	850	1650	400	2400	660 x 660
800				980	7500		0.27	1655	935	1690	550	2530	820 x 820
1000				1150	10300		0.27	1755	1035	1750	630	2840	820 x 820
1250				1360	12800		0.27	1895	1125	1820	710	3300	820 x 820
1600				1640	14500		0.27	1970	1240	1950	830	3640	820 x 820

S9-M.R Series three-phase ribbon-wound core oil complete sealed power distribution transformer

Capacity (kVA)	Voltage schedule		Vector group	Consumption		Short-circuit impedance (%)	No load current (%)	Outline dimension mm(± 10%)			Weight kg (± 10%)		Gauging distance (mm)
	HV(kV)	LV(kV)		No load(W)	load(W)			Length	Width	Height	Oil	Total	
30	6 6.3 11 ± 2x 2.5% or 5%	0.4	Y,d11 Y,yn0	130	600	4 4.5	0.6	1000	590	980	80	320	400 x 400
50				170	870		0.6	1100	610	1035	90	400	400 x 400
63				200	1040		0.57	1050	630	1055	100	460	550 x 550
80				240	1250		0.54	1080	650	1120	110	510	550 x 550
100				290	1500		0.48	1090	680	1160	120	570	550 x 550
125				340	1800		0.45	1130	710	1210	130	670	550 x 550
160				400	2200		0.39	1240	730	1280	160	780	550 x 550
200				480	2600		0.36	1290	760	1320	175	920	550 x 550
250				560	3050		0.33	1320	770	1380	205	1120	660 x 660
315				670	3650		0.3	1335	780	1440	235	1250	660 x 660
400				800	4300		0.3	1430	790	1500	285	1500	660 x 660
500				960	5100		0.27	1480	800	1520	330	1750	660 x 660
630				1200	6200		0.27	1520	830	1580	380	2210	660 x 660
800				1400	7500		0.27	1620	900	1630	430	2320	660 x 660
1000				1700	10300		0.27	1680	920	1710	550	2580	660 x 660
1250				1950	12800		0.27	1740	1060	1790	670	2730	820 x 820
1600				2400	14500		0.27	1870	1130	1860	780	2910	820 x 820

S9-35kV Series Transformers

1. Production introduction

The product conforms to the technical parameters and requirements of IEC60076 and China Standard GB1094 & GB/T6451, and a series of significant innovation is applied in aspects of material,design and structure.It has the features of high efficiency and low loss.It can save a lot of operation cost,and the social benefits are very significant.In conclusion,it is a nationally promoted new product and it is deeply favored by customers.

Installation type:indoor/outdoor type

Altitude:≤ 1000m

Installation site:in places without corrosive gases and obvious dusts.

2. Applicable standards

IEC 60076 -1-2-3 2000 Power Transformer

GB1094.1-2-1996 Power Transformer

GB1094.3-5-2003 Power Transformer

GB/T6451-1999 Technical parameters and requirements for three-phase oil-immersed power transformer

3. Model designation

S □ – □ / □

- Voltage class(kV)
- Rated capacity(kVA)
- Performance level code
- Three-phase oil-immersed transformer

4. Performance characteristics

1.The features of this product are high efficiency and low loss.It can save a lot of operation cost, and the social benefits are very significant.

2.The iron cores are made of the imported high-conduction magnetism,cold-roll,and grain-oriented silicon-steel sheets.The iron cores and windings adopt the vacuum drying and vacuum oil-filling processes,which make the internal moisture down to the very low level.

3.The conservator is hermetically sealed,which make the internal running oil to insolate with oxygen and moisture efficiently.

4.The above features guarantee the transformer does not need do replace the oil during the normal operation,greatly decrease the maintenance cost,and prolong the service life.

5. Main technical parameters of S9-M-50~2500/35 series of transformers

Rated capacity (kVA)	Voltage combination(kV)			Connect-ing group id	No-load lossess (W)	Load-loss (W)(75˚C)	Short circuit impedance (%)	No-load current (%)	Weight(kg)			Overal dimension (mm)	Gauge (mm)
	High voltage (kV)	Tapping (%)	Low voltage (kV)						Body	Oil	Gross weight	Length x width x h	
50	35	± 5	0.4	Yyno	215	1210	6.5	2.00	230	320	650	1150x720x1200	550x550
100					305	2020		1.80	380	400	980	1200x740x1300	550x550
125					340	2380		1.75	440	430	1100	1250x780x1380	550x550
160					360	2830		1.65	510	460	1200	1300x800x1400	660x660
200					430	3300		1.55	600	500	1400	1400x840x1500	660x660
250					510	3950		1.40	690	530	1500	1530x860x1580	660x660
315					610	4750		1.40	800	570	1670	1600x890x1630	660x660
400					735	5750		1.30	930	650	1950	1730x50x1700	660x660
500					870	6900		1.30	1070	710	2300	1800x980x1800	820x820
630					1040	8250		1.25	1300	830	2650	1900x1000x1850	820x820
800					1250	9900		1.05	1600	900	3100	1950x1060x1900	820x820
1000					1480	12150		1.00	1800	1080	3700	1980x1100x1950	820x820
1250					1760	14600		0.90	2100	1150	4000	2010x1160x1980	820x820
1600					2130	17500		0.85	2550	1250	4730	2040x1310x2000	820x820
2000					2500	20680		0.75	3100	1400	5600	2170x1380x2700	1070x1070
2500					2975	24500		0.75	3650	1500	6300	2300x1450x2900	1070x1070

6. Main technical parameters of S9-M-800~20000/35 series of transformers

Rated capacity (kVA)	Voltage combination(kV)			Connect-ing group id	No-load lossess (W)	Load-loss (W)(75˚C)	Short circuit impedance (%)	No-load current (%)	Weight(kg)			Overal dimension (mm)	Gauge (mm)
	High voltage (kV)	Tapping (%)	Low voltage (kV)						Body	Oil	Gross weight	Length x width x h	
800	35	± 5	3.15 6.3 10.5	Yd11	1250	9900	6.5	1.05	1680	970	3200	2000x1100x1950	820x820
1000					1480	12150		1.00	1800	1100	3570	2100x1200x2100	820x820
1250					1760	14650		0.90	2060	1200	4040	2150x1250x2150	820x820
1600					2130	17500		0.85	2400	1250	4550	2200x1340x2180	820x820
2000					2600	19350		0.75	2820	1420	5720	2250x1380x2210	1070x1070
2500					3150	20700		0.75	3330	1550	6000	2300x1400x2300	1070x1070
3150	35 38.5	± 5	3.15 6.3 10.5		3860	24300	7.0	0.70	3800	1670	7060	2480x1900x2450	1070x1070
4000					4630	28800		0.70	4500	1830	8200	2800x2250x2500	1070x1070
5000					5480	33000		0.60	5300	2000	9500	3000x2370x2800	1070x1070
6300					6570	36900	7.5	0.60	6550	2300	11280	3200x2520x2900	1070x1070
8000		± 2x2.5	3.15 6.3 10.5		9000	40500		0.55	8150	2700	14000	3300x2700x3200	1475x1475
10000					10600	47700		0.55	9600	3050	16250	3400x2800x3400	1475x820
12500					12600	56700	8	0.50	11000	3660	18800	3500x2930x3500	1475x1070
16000					15300	69300		0.50	13650	430	22250	3620x3040x3600	1475x1070
20000					18090	83500		0.50	15500	5530	25000	3700x3100x3700	1475x1475

ZGS11 Series Combired Transformer

1. Summy

ZGS11 Combined transformer is one of the high-tech prodnets developed by our company on the basis of bad-mounted Transformer. Range of capacity:200-1000KV/A. The produet is suitable for the reutral-point distribution system or small-resistance earthing system in a 10KV distribution network, or the neutral-point solid grounding system of a three-phase four-wire system in a 400V distribution network, well-integrated, reliable in power supply, compact, light in weight, low noise, etc; It has two types of cable outlet s:ring net type and terminal type. The producet can be placed directly into the load center of 10KV network, thus the line loss in reduced and power dis tribution reliability in increased.

2. Technical Specification

Type	Rated Capacity (KVA)	Voltage Schedule			Vector Group	Consumption(w)		No-load current (%)
		HV(KV)	Tapping	LV(KV)		No-load (KW)	load (KW)	
ZGS9-H(Z)-100/10	100		±5% (±2 × 2.5%)	0.4	Dyn11	0.29	1.50	1.6
ZGS9-H(Z)-125/10	125					0.34	1.80	1.5
ZGS9-H(Z)-160/10	160					0.40	2.20	1.4
ZGS9-H(Z)-200/10	200					0.48	2.60	1.3
ZGS9-H(Z)-250/10	250					0.56	3.05	1.2
ZGS9-H(Z)-315/10	315					0.67	3.65	1.1
ZGS9-H(Z)-400/10	400					0.80	4.30	1
ZGS9-H(Z)-500/10	500					0.96	5.10	1
ZGS9-H(Z)-630/10	630					1.20	6.20	0.9
ZGS9-H(Z)-800/10	800					1.40	7.50	0.8
ZGS9-H(Z)-1000/10	1000					1.70	10.30	0.7

ANDELI

SC10

Dry-Type Power Transformer

1. Product description

SC(B) 10 resin-insulated dry-type transformer is designed basing on the Dupont(the USA) NOMEX paper insulation system. the other key components are made from imported materials (such as german MKM copper foil). with advanced manufacturing equipment and technology, the product enjoys high performance, low energy loss, safety and reliability, its especially suitable for high buildings, airports, substations and commercial centers, and any other anti-fire, anti-explode, anti-moisture places etc

2. Specification

Type	Rated current (A)	Voltage combination(KV)		Connection symbol	No-load current(%)	Loss(W)		Impe-dance (%)
		HV	LV			No-load	load	
SC10-30	1.73/43.3	6 ± 2.5% 6 ± 5% 10 ± 2.5% 10 ± 5% 10.5 ± 2.5% 10.5 ± 5% 11 ± 2.5% 11 ± 5%	0.4	Dyn11 Yyn0	2.5	190	700	4
SC10-50	2.89/72.2				2.2	270	990	
SC10-80	4.62/115.5				2.1	370	1380	
SC10-100	5.77/144.3				1.9	400	1570	
SC10-125	7.22/180.4				1.7	470	1840	
SC10-160	9.24/230.9				1.7	540	2120	
SC10-200	11.6/288.7				1.5	620	2520	
SC10-250	14.43/360.8				1.5	720	2750	
SC10-315	18.19/454.7				1.3	880	3470	
SC10-400	23.09/577.4				1.3	980	3990	
SC10-500	28.9/721.7				1.3	1160	4880	
SC10-630	36.4/909				1.2	1340	5870	
SC10-630	36.4/909				1.2	1300	5960	
SC10-800	46.2/1154.7				1.2	1520	6950	6
SC10-1000	57.7/1443.4				1	1770	8130	
SC10-1250	72.2/1804.3				1	2090	9690	
SC10-1600	92.4/2309				1	2450	11730	
SC10-2000	115.5/2886.7				0.9	3320	14450	
SC10-2500	144.3/3608.4				0.9	4000	17170	

100kV Power Transformer

1. Product description

Product description 110KV oil immersed on-load regulation power transformer has a seires of big changes in material, technical and construction with the characters of small size, light weight, high efficiency with low loss and low noise, stable opable operation which cutting down large number of loss from energy GRID and minising operation charge, improving the industrial economic benefit, it is used in power plant, transformer substation, big-sized and chemistry factory and etc. the product is according to national and IEC standards. installation:outdoor ambient temperature: -30˚C-+40˚C Altitude: 1000m relative humidity: 90%(25C)

2. Specification

Rated capacity (kVA)	Voltage combination and tap range (kV)		Vector group	S9 series		S10 series		No-load current (%)	Short-circuit inpedance (%)
	HV	LV		No-load loss	load loss	No-load loss	load loss		
6300	110 ± 2*2.5% 121 ± 2*2.5%	6.3 6.6 10.5 11	Ynd11	9.3	36	8.4	34	0.77	10.5
8000				11.2	45	10.1	43	0.77	
10000				13.2	53	11.9	50	0.72	
12500				15.6	63	14.0	60	0.72	
16000				18.8	77	17.0	73	0.67	
20000				22.0	93	19.8	88	0.67	
25000				26.0	110	23.4	105	0.62	
31500				30.8	133	27.7	126	0.60	
40000				36.8	156	33.1	148	0.56	
50000				44.0	194	39.6	184	0.52	
63000				52.0	234	46.8	222	0.48	
75000		13.8 15.75 18 20		59.0	278	53.1	264	0.42	12-14
90000				68.0	320	61.2	304	0.38	
120000				84.8	397	76.3	377	0.34	
150000				100.2	472	90.2	448	0.30	
180000				112.5	532	101.3	505	0.25	

Mining Flameproof Dry-Type Transformer (KBSG9)

1. Product description

KBSG9 series mining flameproof dry-type transformersuit for not only mines filled with fire-damp mixed gas, grime and explosive gas, but also the gas and steam environment that can not erode metal or destroy insulation. the transformer has the merit of high strength, low temperature rise, good cooling and waterproof property, and easy maintenance.

2. Functional characteristics

• Functional characteristics

1. The KBSG9-50-1600/10(6) mining flameproof of dry type transformer conforms to GB8286-2005 the requirement of "mining flame proof movable substations", its no load, load loss is 10% less than original standard the no-load current short-circuit impedance has diminished too.
2. The insulation material adopt the H level or the C level insulation material, the thermal is good, it is suit for long time operation
3. 3 Phases, 50Hz, ANAN
4. High strength, low temperature rise, good cooling and waterproof propert, and easy maintenance.

• Service conditions

1. The installation is not higher than 1000m(normal)special environment gives explanation in addition
2. Ambient temperature

Highest temperature: 40˚C
Maximum monthly average temperature: 30˚C
Maximum annual temperature: 20˚C
Lowest temperature: -5˚C

3. The surrounding air relative humidity is not greater than 95%(25˚C)
4. In the mine,with methane, dust explosion danger is well
5. No vibration the gradient is less than 15˚C
6. No gas or steam to corrode metal needed or destroy insulation
7. Non-water drop sit
8. Power supply voltage profile approximate to a sine wave
9. The three-phase supply voltage approximate symmetrical

• Scope of application

Mine filled with fire damp mixed gas, grime and explosive gas; the gas and steam environment that can not erode metal or destroy insulation

6KV Mining Flameproof Dry-Type Transformer Technical Specification(KBSG9)

Rated capacity (kVA)	Voltage schedule(kV)		Vector group	Short circuit impedance (%)	Consumption(W)		No-load current (%)	Weight (kg)	Outline dimension(mm ± 10%)		
	HV	LV			No-load (kw)	Load (kw)			Length	Width	Height
KBSG-50/6	6	0.693/0.4 1.2/0.693 3.45	Yu0(d11)	4	350	550	2.5	1250	2075	1100	1050
KBSG-80/6					450	780	2.5	1300	2150	1100	1100
KBSG-100/6					520	920	2.5	1400	2150	1100	1100
KBSG-160/6					700	1300	2.0	1500	2200	1100	1220
KBSG-200/6					820	1550	2.0	2100	2650	1100	1400
KBSG-250/6					950	1800	2.0	2470	2690	1100	1420
KBSG-315/6					1100	2150	1.8	2895	2830	1100	1410
KBSG-400/6					1300	2600	1.8	3260	2920	1100	1440
KBSG-500/6					1500	3100	1.5	3700	2990	1100	1475
KBSG-630/6					1800	3680	1.5	4120	3050	1100	1550
KBSG-800/6			Yu0(d11) Yyn0		2050	4500	1.0	5300	3100	1100	1430
KBSG-1000/6					2350	5400	1.0	5700	3160	1100	1480
KBSG-1250/6			Yu0;Yyn0		2750	6500	1.0	6600	3200	1100	1520
KBSG-1600/6					3350	8000	0.8	7600	3260	1100	1570

10KV Mining Flameproof Dry-Type Transformer Technical Specification(KBSG9)

Rated capacity (kVA)	Voltage schedule(kV)		Vector group	Short circuit impedance (%)	Consumption(W)		No-load current (%)	Weight (kg)	Outline dimension(mm ± 10%)		
	HV	LV			No-load (kw)	Load (kw)			Length	Width	Height
KBSG-50/10	10	0.693/0.4 1.2/0.693 3.45	Yy0(d11)	4	390	680	2.5	1250	2075	1100	1050
KBSG-80/10					490	880	2.5	1300	2150	1100	1100
KBSG-100/10					560	1050	2.5	1400	2150	1100	1100
KBSG-160/10					800	1500	2.0	1500	2200	1100	1200
KBSG-200/10					950	1800	2.0	2200	2760	1100	1480
KBSG-250/10					1100	2100	2.0	2760	2800	1100	1510
KBSG-315/10					1300	2500	1.8	2990	2840	1100	1500
KBSG-400/10					1500	3000	1.8	3430	2940	1100	1550
KBSG-500/10					1750	3500	1.5	3800	3020	1100	1600
KBSG-630/10					2000	4100	1.5	4380	3140	1100	1410
KBSG-800/10			Yy0(d11) Yyn0		2300	5100	1.2	5400	3190	1100	1490
KBSG-1000/10				4.5	2600	6100	1.2	6500	3240	1100	1530
KBSG-1250/10			Yy0;Yyn0		3100	7400	1.0	7100	3300	1100	1580
KBSG-1600/10				5	3800	8500	1.0	8050	3350	1100	1630

Solar Torch With LED Lights

AT-7

AT-7

Current: 25mA
Voltage: 4.5V
Life time for mono crystal panel: 20 years

AT-12

AT-12

A: Adopting superbright white LED as lighting source. It's a green and energy saving flashlight
B: It is very convenient and can be widely applied in camping. traveling, military factors and other fields
C: Onc fully charged by putting it under the sunshine 3-4 hrs. it can continuously work for more than 7-8 hrs
Solar panel: 0.3W
Battery: 1pcs 600mah Ni-Mh or Ni-cd rechargable batteries.
LED: 5pcs super bright LED
Size: 18 x 6 x 6CM
Weight: 83g/pc
Lighting time: 4-6hours
Charging time: 6-8 hours

AT-14

AT-14

1.(1) AT14-LED solar power flashlight. switch ON/OFF button. to turn on or turn off the flashlight
(2) Rated power: 0.45W. charge the mono crystal panel under sunlight for 6 hours and it will last up to 8 hours
(3) Ni-Cd rechargeable battery. source power: super bright led
(4) Life time for mono crystal panel: 20 years
2.(1) AT14-solar power flashlight. switch ON/OFF button to turn on or turn off the flashlight.
(2) Rated power: 0.45W. charge the mono crystal panel under sunlight for 6 hours and it will last up to 80 minutes
(3) Ni-Cd rechargeable battery. source power: bulb 2.4V, 0.5A light range: 300m

AT-24

AT-24

(1) Solar torch with led lights. switch ON/OFF button. to turn on or turn off the solar torch
(2) Rated power: 0.45W. charge the mono crystal panel unded solar torch for 6 hours and it will last up to 8 hours
(3) NI-Cd rechargeable battery. source power: super bright led
(4) Life time for mono crystal panel: 20 years

ANDELI

Solar Series

Specification List

Model	Max Output Power Pm(W)	Max Power Voltage Vpm(V)	Max Power Current Lpm(A)	Operating Circuit Voltage Voc(V)	Short Circuit Current Lsc(A)	Module Size (mm)
AT-220-72	220	34.9	6.31	44.2	6.82	1637 x 982 x 46
AT-210-72	210	24.5	6.09	43.6	6.69	1637 x 982 x 46
AT-200-72	200	34.2	5.85	43.2	6.52	1637 x 982 x 46
AT-180-72	180	34.9	5.16	44.2	5.58	1580 x 808 x 46
AT-170-72	170	34.5	4.93	43.6	5.42	1580 x 808 x 46
AT-160-72	160	34.2	4.68	43.2	5.22	1580 x 808 x 46
AT-140-72	140	17.6	7.95	22.1	8.56	1445 x 673 x 40
AT-130-72	130	17.4	7.47	21.8	8.82	1445 x 673 x 40
AT-130-108	130	17.26	7.53	21.8	7.28	1195 x 808 x 46
AT-120-36	120	17.4	6.89	22.1	7.44	1314 x 673 x 40
AT-120-72	120	17.2	6.97	21.6	7.82	1445 x 673 x 40
AT-120-108	120	17.14	7.01	21.6	7.82	1195 x 808 x 46
AT-110-36	110	17.2	6.39	21.8	7.01	1314 x 673 x 40
AT-110-36	110	17.4	5.16	22.1	6.91	1166 x 673 x 40
AT-110-108	110	17.02	6.46	21.4	7.34	1195 x 808 x 46
AT-100-36	100	16.92	6.91	21.2	6.74	1314 x 673 x 40
AT-100-36	100	17.2	5.81	21.8	6.37	1166 x 673 x 40
AT-90-36	90	17.02	5.29	21.4	6.01	1166 x 673 x 40
AT-85-36	85	17.4	4.89	22.1	5.26	1175 x 527 x 35
AT-75-36	75	17.2	4.36	21.8	4.78	1175 x 527 x 35
AT-65-36	65	17.1	3.8	21.6	4.24	1175 x 527 x 35
AT-22-36	22	17.4	1.26	21.8	1.42	505 x 353 x 28
AT-20-36	20	17.6	1.14	22.1	1.26	624 x 274 x 28
AT-20-36	20	17.2	1.16	21.6	1.37	505 x 353 x 28
AT-18-36	18	17.4	1.03	21.8	1.16	624 x 274 x 28
AT-18-36	18	17.1	10.05	21.4	1.21	505 x 353 x 28
AT-15-36	15	17.2	0.87	21.6	0.99	624 x 274 x 28
AT-12-36	12	17.4	0.69	21.8	0.77	394 x 267 x 28
AT-11-36	11	17.2	0.64	21.6	0.73	394 x 267 x 28
AT-10-36	10	17.1	0.58	21.4	0.67	394 x 267 x 28
AT-4.5-36	4.5	17.4	0.26	21.8	0.29	304 x 189 x 20
AT-4-18	4	8.74	0.46	11.08	0.51	244 x 164 x 20
AT-4-36	4	17.2	0.23	21.6	0.26	304 x 189 x 20
AT-3.5-18	3.5	8.68	0.41	10.98	0.45	244 x 164 x 20
AT-3.5-36	3.5	17.1	0.21	21.4	0.23	304 x 189 x 20
AT-3-18	3	8.46	0.35	10.8	0.39	244 x 164 x 20
AT-3-18	3	8.74	0.34	11.08	0.38	184 x 188 x 20
AT-2.5-18	2.5	8.68	0.29	10.98	0.33	184 x 188 x 20
AT-2-18	2	8.46	0.24	10.8	0.26	184 x 188 x 20
AT-1.5-18	1.5	8.74	0.17	11.08	0.19	174 x 98 x 20
AT-1-18	1	8.68	0.12	10.98	0.13	174 x 98 x 20

Note: The all spefications'tolerances are ± 5%, Standard Test Conditions is AM1.5,1000W/m², 2.5°C

Solar Power

Model	AT-03B
Load Power	120W
Solar Power	28W
Battery	12V/12AHx2pcs
Inverter	160W
Controller	12V 5A
Work Time and Work Way	4h/day
Usage	Fieldwork、army using、provide AC and DC power
Character	Output voltage: 12V,9V,6V,4.5V,220V,solar power and network charge
Notice	According to the customers'requirements to design and produce
Packing (L x W x H)	503 x 323 x 261mm
20″	500pcs
MOQ	100pcs

Model	AT-04B
Load Power	120W
Solar Power	50W
Battery	12V/12AHx2pcs
Inverter	160W
Controller	12V 5A
Work Time and Work Way	4h/day
Usage	Fieldwork、army using、provide AC and DC power
Character	Output voltage: 12V,9V,6V,4.5V,220V,solar power and network charge
Notice	According to the customers'requirements to design and produce
Packing (L x W x H)	662 x 557 x 234mm
20″	230pcs
MOQ	100pcs

Noted:
1) The solar panel's power is calculated by the average of 4h/day of sun peak value
2) Because the different areas have different radiances so we will design to the customers'pecial condition.

Solar Camping Lights

Product Name	Solar Camping Light
Model	AT-01S
Load Power	20p/LED: 2W 40p/LED: 3.2W
Solar Power	4W
Battery	6V/2.8Ah
Working Model and Working Time	20p/led: 5h/day 40p/LED: 3h/day gear20p/LED: 5h/day gear40p/LED: 3h/day

Product Name	Solar Camping Light
Model	AT-04S
Load Power	10p/LED: 1.08W 20p/LED: 1.8W
Solar Power	3W
Battery	6V/2.8Ah
Working Model and Working Time	10p/led: 8h/dag 20p/LED: 5h/day gear10p/LED: 8h/day gear20p/LED: 5h/day

Solar Generator

1.Technical Date

S1206

S1206/S1207

Model	S1206	S1207
Battery Capacity	4AH	7AH
Rated Charging Current	1A	2A
Rated Working Voltage	12V	12V
Floating Charge Voltage	14V	14V
Low Voltage Disconnecting Point	10.5V	10.5V
USB Port Current	≤500mA	≤500mA
Working Temperature	-10℃~50℃	-10℃~50℃
Dimension	223mm×128mm×140mm	223mm×128mm×140mm
Rated Discharge Current	2A	2A
Solar Panel Voltage	≤25V	≤25V
No-load Loss	≤8mA	≤8mA
Low Voltage Reconnecting Point	11. 5V	11. 5V
Humidity Requirement	-15℃~40℃	-15℃~40℃
Storage Temperature	≤90%No Condensation	≤90%No Condensation

S1212

S1212/S1217

Model	S1212	S1217
Battery Capacity	12AH	17AH
Rated Charging Current	2A	2A
Rated Working Voltage	12V	12V
Floating Charge Voltage	14V	14V
Low Voltage Disconnecting Point	10.5V	10.5V
USB Port Current	≤500mA	≤500mA
Working Temperture	-10℃~50℃	-10℃~50℃
Dimension	161mm×97mm×147mm	260mm×155mm×228mm
Rated Discharge Current	2A	2A
Solar Panel Voltage	≤25V	≤25V
No-load Loss	≤8mA	≤8mA
Low Voltage Reconnecting Point	11. 5V	11. 5V
Humidity Requirement	-15℃~40℃	-15℃~40℃
Storage Temperature	≤90%No Condensation	≤90%No Condensation

S1217

S1224

Model	S1224
Battery Capacity	24AH
Rated Charging Current	2A
Rated Working Voltage	12V
Floating Charge Voltage	14V
Low Voltage Disconnecting Point	10.5V
USB Port Current	≤500mA
Working Temperture	-10℃~50℃
Dimension	260mm×155mm×228mm
Rated Discharge Current	2A
Solar Panel Voltage	≤25V
No-load Loss	≤8mA
Low Voltage Reconnecting Point	11. 5V
Humidity Requirement	-15℃~40℃
Storage Temperature	≤90%No Condensation

S1224

AP-300F/SP-500F With Fast Charge Function

Main Function And Features

- Simple structure,easy maintenance;
- Output for pure sine wave;
- Micro-computer chip control,PWM regulate,automatic temperature compensation;
- Protection is wide,with over-voltage,under-voltage,overload,short-circuit and so on;
- High performance,especially used at home;
- Charge fuction:Solar and city power.

AP-300F/AP-500F

AP-300F/AP-500F

1.Technical Data

Model		AP-300F	AP-500F
Capacity		300VA	500VA
System Voltage		12VDC	12VDC
Inverter	Output Wave	Pure Sine Wave	Pure Sine Wave
	Output Voltage	AC110V or 220V,DC12V	AC110V or 220V,DC12V
	Output Frequency	50Hz/60Hz	50Hz/60Hz
Solar Panel	Pmax	100W	160W
	Vmp	17.5V	17.5V
	Imp	5.7A	9.1A
Charger Voltage&Current		12V 10A	12V 15A
Capactiy		12V 100AH	12V 240AH

2.Package Data

Model	AP-300F		AP-500F	
Part	Size(L×W×H mm)	Weight(Kg)	Size(L×W×H mm)	Weight(Kg)
Power Box	450×380×655	68	450×380×655	73
Solar Panel	850×610×60	6.5	1200×850×45	12
Solar Panel Bracket	825×760×55	9.2	1460×85×75	13
Battery	406×174×208	37	406×174×208	43

AP-150L/AP-150H

AP-150L

1.Technical Data

Model		AP-150L	AP-150H
Capacity		150VA	150VA
System Voltage		12VDC	12VDC
Best Output Power Everyday		173WH	346WH
Inverter	Output Wave	Pure Sine Wave	Pure Sine Wave
	Output Voltage	AC110V or 220V, DC12V	AC110V or 220V, DC12V
	Output Frequency	50Hz/60Hz	50Hz/60Hz
	Precision of Output Frequency	±6%	±6%
Solar Panel	Pmax	50W	100W
	Vmp	17. 5V	17. 5V
	Imp	2. 9A	5. 7A
Battery Capactiy		12V 75AH	12V 120AH

AP-150H

2.Package Data

Model	AP-150L		AP-150H	
Part	Size(L×W×H mm)	Weight(Kg)	Size(L×W×H mm)	Weight(Kg)
Power Box	475×295×255	46	475×295×255	60
Solar Panel	850×610×60	7	1250×740×75	12
Solar Panel Bracket	825×760×55	9	1460×85×75	13
Battery	259×169×208	22	406×174×208	37

AP-300L/AP-300H

AP-300L

AP-300H

1.Technical Data

Model		AP-300L	AP-300H
Capacity		300VA	300VA
System Voltage		12VDC	24VDC
Best Output Power Everyday		350WH	700WH
Inverter	Output Wave	Pure Sine Wave	Pure Sine Wave
	Output Voltage	AC110V or 220V, DC12V	AC110V or 220V, DC12V
	Output Frequency	50Hz/60Hz	50Hz/60Hz
	Output Current	1.09A(220V)/2.18A(110V)	1.09A(220V)/2.18A(110V)
	Precision of Output Voltage	±3%	±3%
	Precision of Output Frequency	±0.1%	±0.1%
	False Output Wave of AC	<3%	<3%
	Overload Ability	120%,30 Seconds	120%,30 Seconds
	Invert Efficiency	>85%	>85%
Solar Panel	Pmax	100W	220W
	Vmp	17. 5V	35V
	Imp	2. 9A	5.7A
Battery Capactiy		12V 100AH	24V 100AH

2.Package Data

Model	AP-300L		AP-300H	
Part	Size(L×W×H mm)	Weight(Kg)	Size(L×W×H mm)	Weight(Kg)
Power Box	450×380×655	53	450×380×655	65
Solar Panel	1200×850×45	12	1200×850×85	23
Solar Panel Bracket	1460×85×75	13	1660×85×75	14
Battery	328×172×214	22	406×174×208	43

AP-500L/AP-500H

AP-500L

AP-500H

1.Technical Data

Model		AP-500L	AP-500M	AP-500H
Capacity		500VA	500VA	500VA
System Voltage		12VDC	24VDC	24VDC
Best Output Power Everyday		700WH	700WH	1400WH
Inverter	Output Wave	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
	Output Voltage	AC110V or 220V, DC12V	AC110V or 220V, DC12V	AC110V or 220V, DC12V
	Output Frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Precision of Output Voltage	±3%	±3%	±3%
	Precision of Output Frequency	±0.1%	±0.1%	±0.1%
	False Output Wave of AC	<3%	<3%	<3%
	Overload Ability	120%,30 Seconds	120%,30 Seconds	120%,30 Seconds
	Invert Efficiency	>85%	>85%	>85%
Solar Panel	Pmax	160W	200W	400W
	Vmp	17. 5V	35V	35V
	Imp	9.1A	9.4A	11.4A
Battery Capactiy		12V 120AH	24V 100AH	24V 200AH

2.Package Data

Model	AP-500L		AP-500H	
Part	Size(L×W×H mm)	Weight(Kg)	Size(L×W×H mm)	Weight(Kg)
Power Box	450×380×655	72	550×430×750	85
Solar Panel	1200×850×85	23	1200×850×170	45
Solar Panel Bracket	1660×85×75	14	1660×85×150	28
Battery	406×174×208	43	500×208×212	56

AP-1000L/AP-1000H

AP-1000L

AP-1000H

1.Technical Data

Model		AP-1000L	AP-1000M	AP-1000H
Capacity		1000VA	1000VA	1000VA
System Voltage		24VDC	48VDC	48VDC
Best Output Power Everyday		1460WH	1460WH	2920WH
Inverter	Output Wave	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
	Output Voltage	AC110V or 220V, DC12V	AC110V or 220V, DC12V	AC110V or 220V, DC12V
	Output Frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Precision of Output Voltage	±3%	±3%	±3%
	Precision of Output Frequency	±0.1%	±0.1%	±0.1%
	False Output Wave of AC	<3%	<3%	<3%
	Overload Ability	120%,30 Seconds	120%,30 Seconds	120%,30 Seconds
	Invert Efficiency	>85%	>85%	>85%
Solar Panel	Pmax	400W	400W	800W
	Vmp	35V	70V	70V
	Imp	11.4A	5.7A	11.4A
Battery Capactiy		24V 120AH	48V 120AH	48V 240AH

2.Package Data

Model	AP-1000L		AP-1000H	
Part	Size(L×W×H mm)	Weight(Kg)	Size(L×W×H mm)	Weight(Kg)
Power Box	500×430×700	115	570×440×750	161
Solar Panel	1200×850×170	45	1200×850×340	90
Solar Panel Bracket	1660×85×150	28	1600×85×300	56
Battery	425×760×269	132	850×755×269	263
Battery Bracket	830×100×85	12	1660×100×85	23

AP-2000L/AP-2000H

AP-2000L

AP-2000H

1.Technical Data

Model		AP-2000L	AP-2000H
Capacity		2000VA	2000VA
System Voltage		110VDC	110VDC
Best Output Power Everyday		3378WH	67560WH
Inverter	Output Wave	Pure Sine Wave	Pure Sine Wave
	Output Voltage	AC110V or 220V, DC12V	AC110V or 220V, DC12V
	Output Frequency	50Hz/60Hz	50Hz/60Hz
	Precision of Output Voltage	±3%	±3%
	Precision of Output Frequency	±0.1%	±0.1%
	False Output Wave of AC	<3%	<3%
	Overload Ability	120%,30 Seconds	120%,30 Seconds
	Invert Efficiency	>85%	>85%
Solar Pane	Pmax	900W	1800W
	Vmp	157. 5V	157. 5V
	Imp	5.7A	11.4A
Battery Capactiy		108V 100AH	108V 200AH

2.Package Data

Model	AP-2000L		AP-2000H	
Part	Size(L×W×H mm)	Weight(Kg)	Size(L×W×H mm)	Weight(Kg)
Power Box	550×575×320	45	550×575×320	45
Solar Panel	1200×850×425	102	1200×850×765	203
Solar Panel Bracket	2270×85×225	56	2270×85×450	113
Battery	1108×630×275	260	1615×754×255	509
Battery Bracket	2270×85×75	35	2270×85×75	35

AP-3000L/AP-3000H

AP-3000L

AP-3000H

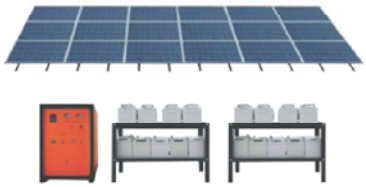
1.Technical Data

Model		AP-3000L	AP-3000H
Capacity		3000VA	3000VA
System Voltage		110VDC	110VDC
Best Output Power Everyday		6000WH	10134WH
Inverter	Output Wave	Pure Sine Wave	Pure Sine Wave
	Output Voltage	AC110V or 220V, DC12V	AC110V or 220V, DC12V
	Output Frequency	50Hz/60Hz	50Hz/60Hz
	Output Current	10.9A(220V)/21.8A(110V)	10.9A(220V)/21.8A(110V)
	Precision of Output Voltage	±3%	±3%
	Precision of Output Frequency	±0.1%	±0.1%
	False Output Wave of AC	<3%	<3%
	Overload Ability	120%,30 Seconds	120%,30 Seconds
	Invert Efficiency	>85%	>85%
Solar Pane	Pmax	1600W	2700W
	Vmp	160V	157.5V
	Imp	10A	17.1A
Battery Capactiy		108V 150AH	108V 300AH

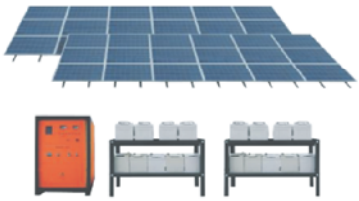
2.Package Data

Model	AP-3000L		AP-3000H	
Part	Size(L×W×H mm)	Weight(Kg)	Size(L×W×H mm)	Weight(Kg)
Power Box	500×640×930	65	500×640×930	65
Solar Panel	1200×850×680	180	1200×850×1190	304
Solar Panel Bracket	1660×85×600	111	2270×85×675	169
Battery	490×540×880	375	987×540×870	750
Battery Bracket	2270×85×75	35	2270×85×150	65

AP-5000L/AP-5000H



AP-5000L



AP-5000H

1.Technical Data

Model		AP-5000L	AP-5000H
Capacity		5000VA	5000VA
System Voltage		220VDC	220VDC
Best Output Power Everyday		6756WH	13512WH
Inverter	Output Wave	Pure Sine Wave	Pure Sine Wave
	Output Voltage	AC110V or 220V, DC12V	AC110V or 220V, DC12V
	Output Frequency	50Hz/60Hz	50Hz/60Hz
	Output Current	18. 2A(220V)/36. 4A(110V)	18. 2A(220V)/36. 4A(110V)
	Precision of Output Voltage	±3%	±3%
	Precision of Output Frequency	±0.1%	±0.1%
	False Output Wave of AC	<3%	<3%
	Overload Ability	120%,30 Seconds	120%,30 Seconds
	Invert Efficiency	>85%	>85%
Solar Pane	Pmax	1800W	3600W
	Vmp	315V	315V
	Imp	5.7A	11.4A
Battery Capactiy		216V 100AH	216V 200AH

2.Package Data

Model	AP-5000L		AP-5000H	
Part	Size(L×W×H mm)	Weight(Kg)	Size(L×W×H mm)	Weight(Kg)
Power Box	500×640×930	65	500×640×930	65
Solar Panel	1200×850×765	203	1200×850×1530	405
Solar Panel Bracket	2270×85×450	113	1660×85×900	226
Battery	740×625×835	520	1070×744×765	1017
Battery Bracket	2270×85×150	65	2270×85×150	65

ANDELI

SML

SML Sories PMW Solar Charge Controller

1.Function

- Battery State-of-Charge display with 3 LEDs;
- Acoustic load disconnect pre-warning;
- PWM regulation (series type);
- Boost,Equalize and Folat charging,also for VRLA;
- Automatic 12/24 Volt detection;
- Integrated temperature compensation;
- Large terminals(up to 16mm² wire size);
- SOC and voltage controlled LVD;
- Fully electronically protected;

The SML series is a sophisticated solar charge controller family for low cost applications. The electronic circuit is equipped with a microcontroller that provides high-efficiency charging technology together with a number of outstanding status display,warning and safety functions.

The temperature-compensated three-stage PWM charging method(boost-equalizationfloat) is now adjustable to sealed and vented lead-acid batteries.

The new version also allows an either SOC or voltage controlled low voltage disconnect function. The battery status is clearly indicated by three LEDs.

As the first controller on the market in this price range it comes with an acoustic low voltage load disconnect pre-warning feature.

2.Technical Data

Model	SML05	SML08	SML10	SML15	SML20
Max. Module Current	5A	8A	10A	15A	20A
Max. Load Current	5A	8A	10A	15A	20A
System Voltage	12/24V Automatic Recognition				
Self Power Consumption	<4mA				
Dimensions(W×H×D)	80×100×32mm				
Type of Protection	IP22				
Boost Voltage	14.5/29.0(25℃), 2h				
Equalization Voltage	14.8/29.6(25℃), 2h				
Fload Voltage	13.7V/27.4V				
Load Voltage Disconnect Function	11.4–11.9V/22.8–23.8V, Controlled by statc of charge 11.0V/22.0V, Controlled by voltage				
Load Reconnect Voltage	12.8V/25.6V				
Temperature Compensation	–4mV/cell*K				
(25℃)Max. Solar Panel Current	5/8/10/15/20A,30/35/40/50A According to model number @50℃				
(25℃)Max. Load Current					
Dimensions	120×90×50(W×H×D)				
Weight	0.38kg				
Max.Wrie Size	24mm²(AWG#6)				
Self Consumption	4mA				
Ambient Temperature Range	–40℃ ~+50℃				
Case Protection	IP22				

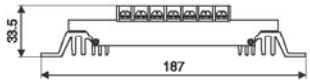
ANDELI

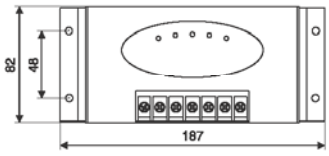
SMT

SMT Series MPPT Solar Controller

1.Function

- Battery State-of-Charge display with 3 LEDs;
- Acoustic load disconnect pre-warning;
- MPPT- regulation;
- Boost,Equalize and Folat charging,also for VRLA;
- Automatic 12/24 Volt detection;
- Integrated temperature compensation;
- Large terminals(up to 16mm^{2}wire size);
- SOC and voltage controlled LVD;
- Fully electronically protected;





The SMT series is a sophisticated solar charge controller family for low cost applications. The electronic circuit is equipped with a microcontroller that provides high-efficiency charging technology together with a number of outstanding status display,warning and safety functions.

The temperature-compensated three-stageMPPTcharging method(boost-equalizationfloat) is now adjustable to sealed and vented lead-acid batteries.

The new version also allows an either SOC or voltage controlled low voltage disconnect function. The battery status is clearly indicated by three LEDs.

As the first controller on the market in this price range it comes with an acoustic low voltage load disconnect pre-warning feature.

2.Technical Data

Model	SMT10	SMT15	SMT20	SMT30	SMT40
Nominal voltage	12/24V Automatic Recognition				
50℃ Max. solar panel current	10A	15A	20A	30A	40A
50℃ Max. load panel current	10A	15A	20A	30A	40A
25℃ Boost voltage	14.5V/29.0V				
25℃ Equalization voltage	14.8V/29.6V				
25℃ Float voltage	13.7/27.4V				
Deep discharge protection	11.4–11.9V/22.8–23.8V Controlled by statc of charge 11.0/22.0V Controlled by voltage				
Load reconnect voltage	12.8V/25.6V				
Temperature compensation	–4mV/cell × K				
Self consumption	<4mA				
Max. wire size	16mm^2(AWG#6)				
Dimensions(W × H × D)	80 × 187 × 28mm				
Weight	300g				
Temperature range	–20℃ ~+50℃				
Type of protection	IP42				

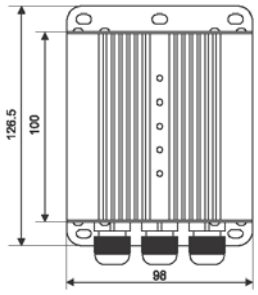
ANDELI

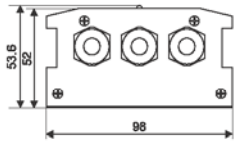
SMG

SMG Series High-power Solar Controller

1.Function

- Battery State-of-Charge display with 3 LEDs;
- Acoustic load disconnect pre-warning;
- PWM- regulation(series type);
- Boost,Equalize and Folat charging,also for VRLA;
- Automatic 12/24 Volt detection;
- Integrated temperature compensation;
- Large terminals(up to 16mm² wire size);
- SOC and voltage controlled LVD;
- Fully electronically protected;





2.Product Introduction

The SMG series is a sophisticated solar charge controller family for low cost applications.The electronic circuit is equipped with a microcontroller that provides high-efficiency charging technology together with a number of outstanding status display, warning and safety functions.

The temperature-compensated three-stage PWM charging method(boost-equalizationfloat) is now adjustable to sealed and vented lead-acid batteries.

The new version also allows an either SOC or voltage controlled olw voltage disconnect function. The battery status is clearly indicated by three LEDs.

As the first controller on the market in this price range it comes with an acoustic low voltage load disconnect pre-warning feature.

3.Technical Data

Model	SMG30	SMG35	SMG40	SMG45	SMG50	SMG60
Nominal voltage	12/24V Automatic Recognition					
50℃ Max. solar panel current	30A	35A	40A	45A	50A	60A
50℃ Max. load panel current	30A	35A	40A	45A	50A	60A
25℃ Boost voltage	14.5V/29.0V					
25℃ Equalization voltage	14.8V/29.6V					
25℃ Float voltage	13.7V/27.4V					
Deep discharge protection	11.4–11.9V/22.8–23.8V Controlled by statc of charge 11.0/22.0V Controlled by voltage					
Load reconnect voltage	12.8V/25.6V					
Temperature compensation	–4mV/cell × K					
Self consumption	<4mA					
Max. wire size	16mm²(AWG#6)					
Dimensions(W × H × D)	98 × 122 × 49mm					
Weight	400g					
Temperature range	–20℃ ~+50℃					
Type of protection	IP44					

ANDELI

SMLNL

SMLNL Solar Street Light Controller

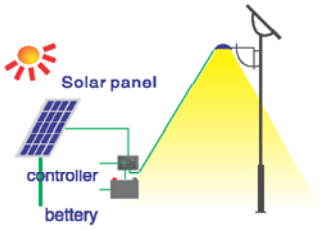
1.Function

- One programmable nightlight function;
- PWM regulation (series type);
- Integrated temperature compensation;
- Three-state charging method;
- SOC and voltage controlled LVD;
- Solid-state circuit and load protection;
- Reverse polarity protection;
- Fully electronically protected;

The SMLNL series is a sophisticated solar charge controller family for low cost applications. The electronic circuit is equipped with a microcontroller that provides high-efficiency charging technology together with a number of outstanding status display, warning and safety functions.

The SMLNL series comes with two night light function mode. One of them is programmable that switch on the load output for a adjustable number of hours from dusk.

The nightlight function is overridden by a battery deep discharge protection to avoid excessive discharge and damage of the battery.The temperature-compensated three-state PWM charging method (boost-equalize-float) is now adjustable to sealed and vented lead-acid batteries.The low voltage disconnect function can be controlled either by SOC or by voltage.The battery status, charging status and load status are clearly indicated by 5 LEDs.



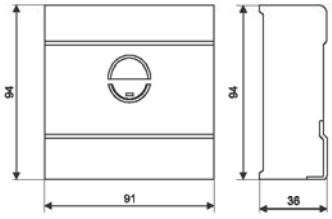
2.Technical Data

Model	SMLNL05	SMLNL08	SMLNL10	SMLNL15	SMLNL20
Nominal voltage	12/24V Automatic Recognition				
50℃ Max. solar panel current	5A	8A	10A	15A	20A
50℃ Max. load panel current	5A	8A	10A	15A	20A
25℃ Boost voltage	14.5V/29.0V				
25℃ Equalization voltage	14.8V/29.6V				
25℃ Float voltage	13.7V/27.4V				
Deep discharge protection	11.4–11.9V/22.8–23.8V Controlled by statc of charge 11.0V/22.0V Controlled by voltage				
Load reconnect voltage	12.8V/25.6V				
Temperature compensation	–4mV/cell × K				
Self consumption	<4mA				
Max. wire size	16mm²(AWG#6)				
Dimensions(W × H × D)	80 × 100 × 32mm(w × h × d)				
Weight	183g				
Temperature range	–20℃ ~+50℃				
Type of protection	IP22				

SX/SXN Solar Charge Controller With Nightlight Function

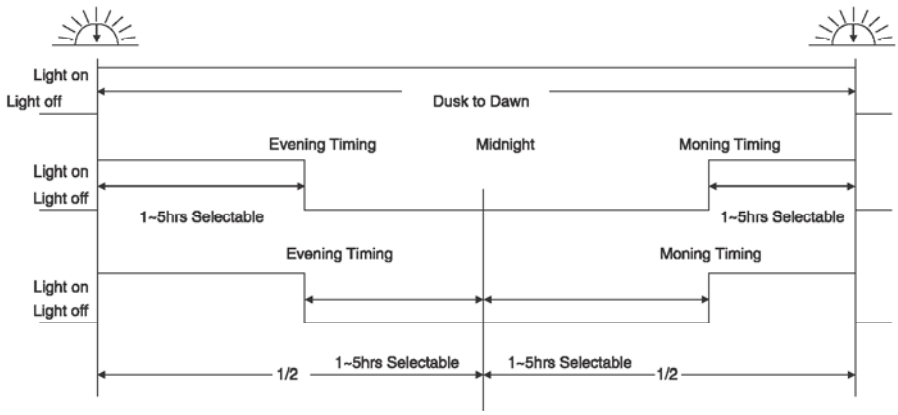
1.Function

- SX/SXN Series is a Sophisticated Solar Charge Controller Which Offers Exceptional Features at an Extremely Competitive Price;
- Data Logging
  The SX/SXN charge controller stores system data for one year;
- High Reliability Design
  Superior design ensures high degree of reliablity through PCB conformal coating and anti-corrosive screws and terminals.Full electronic protection againsst short circuits, overload,overcurrent,reverse flow,wrong polarity and over-temperature;
- Multifunctional LCD Display
  The SOC bar indicates the exact state of charge(available energy)as a percentage through the battery gauge symbol.Load status and nightlight function are displayed symbolically;
- Negative Grounding(SXN);
- Positive Grounding(SX);
- Various Optional System Accessories;
- Overcharge Protection;
- Overdischarge Protection Selectable LCD Modes.



2.Flexible Nightlight Function

Automatically detects day/night;
Programmable day/night threshold(light on/off point);
Lighting timing modes include dusk to dawn and ON/OFF/ON;(Eventng/Morning).



3.Technical Data

Nominal voltage	SX/SXN10	SX/SXN20	SX/SXN40
Max. Solar Ponel Current	12/24V Automatic Recognition		
Max. Load Current	10A	20A	40A
Overcharge Protection	10A	20A	40A
Selectable LVD Modes	Consrant voltage PWM series regulation:boost charge, float charge and optional equalizeation charge		
Ambient Temperature Range	–25℃ ~+50℃		
Max. Wire Size	16mm^2(AWG)		
Self Consumption	4mA		
Weight	166/170g	166/170g	176/180g

KWH Meter & Panel Meter & Multimeter & Temperature Controller Thermocouple & Small Thermostat & Compass

ANDELI

ADM25SC

ADM25SC single phase DIN-rail watt-hour meter

ADM25SC

1. Application

Model ADM25SC single phase electronic DIN rail active energy meter is a kind of new style single phase two wire active energy meter,it adopt micro-electronics technique, and imported large scale integrate circuit。use advanced technique of digital and SMT techniques, etc。It has its completely independent intellectual property rights and minimum size. It has already passed the test of the international authority KEMA. The meter completely accord with relevant technical requirements of class 1 single phase active energy meter stipulated in international standard IEC 62053-21, It can accurately and directly measure 50Hz or 60Hz active energy consumption from single phase AC electricity net. This meter has white backlight source eight digits LCD displays shows the active energy consumption, It has following features: good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

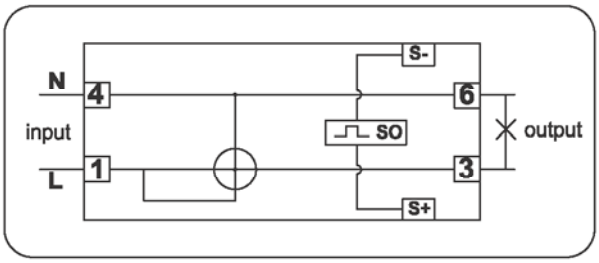
2.Functions and features

- 35mm standard DIN rail installation, complying with standard DIN EN50022.
- Single pole width (Modulus 17.5mm), complying with standard DIN43880.
- Standard configuration 6+1 digits display (9999999.1kWh) by white backlight source LCD. May select6+1 digits display (999999.1kWh) without backlight source general LCD.
- Standard configuration pulse output passive (polarity), May select distant pulse output passive (nonpolarity). And contact with all kind of AMR system conveniently, complying with standard IEC 62053-31 and DIN 43864.
- Bicolor LED instructions power supply state (green) and signal of energy impulse (red).
- Automatic detection the direction of the flow of load current. And Instructions on LED (Working only red power pulse signal, No green power state instructions direction of the flow of load current reverse).
- Single direction measurement single phase two wire active energy consumption. It is nothing with direction of the flow of load current. Complying with standard IEC 62053-21.
- Directly connect operation, there are two types wiring you may select. Standard configuration type S wiring, may select type U wiring.
- Extension terminals cover, in order to protect to use safety.

3.Technical parameters

Model	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM25SC	Class1	127V 230V 220V	5(32)A	0.4‰Id	According to customer's request

4.Outer and mount dimension



ANDELI

ADM65SC

ADM65SC single phase DIN-rail watt-hour meter

1. Application

ADM65SC

Model ADM65S single phase electronic DIN rail active energy meter is a kind of new style single phase two wire active energy meter，it adopt micro-electronics technique, and imported large scale integrate circuit。use advanced technique of digital and SMT techniques, etc。It has its completely independent intellectual property rights and minimum size. It has already passed the test of the international authority KEMA. The meter completely accord with relevant technical requirements of class 1 single phase active energy meter stipulated in international standard IEC 62053-21, It can accurately and directly measure 50Hz or 60Hz active energy consumption from single phase AC electricity net. The meter by step motor and pulse machinery counter displays active power consumption, It has following features: good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

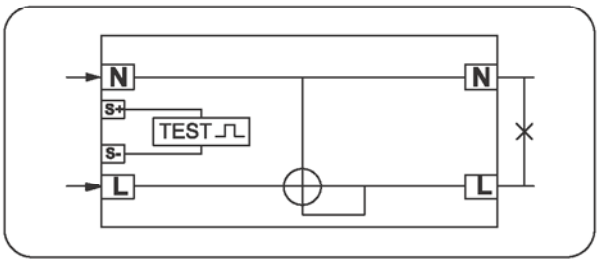
2.Functions and features

● 35mm standard DIN rail installation, complying with standard DIN EN50022.
● Single pole width (Modulus 17.5mm), complying with standard DIN43880.
● Standard configuration 6+1 digits display (9999999.1kWh) by white backlight source LCD. May select6+1 digits display (999999.1kWh) without backlight source general LCD.
● Standard configuration pulse output passive (polarity), May select distant pulse output passive (nonpolarity). And contact with all kind of AMR system conveniently, complying with standard IEC 62053-31 and DIN 43864.
● Bicolor LED instructions power supply state (green) and signal of energy impulse (red).
● Automatic detecting the direction of the flow of load current. And Instructions on LED (Working only red power pulse signal, No green power state instructions direction of the flow of load current reverse).
● Single direction measurement single phase two wire active energy consumption. It is nothing with direction of the flow of load current. Complying with standard IEC 62053-21.
● Directly connect operation, there are two types wiring you may select. Standard configuration type S wiring, may select type U wiring.

3.Technical parameters

Model	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM65SC	Class1	127V 230V	5(30)A 5(40)A 10(40)A 10(60)A	0.4‰Id	According to customer's request

4.Outer and mount dimension,and wiring diagram:



ANDELI

ADM100SC

ADM100SC single phase DIN-rail watt-hour meter

1. Application

ADM100SC

Model ADM100SC single phase electronic DIN rail active energy meter is a kind of new style single phase two wire active energy meter, it adopt micro-electronics technique, and imported large scale integrate circuit。use advanced technique of digital and SMT techniques, etc。It has its completely independent intellectual property rights, The meter completely accord with relevant technical requirements of class 1 single phase active energy meter stipulated in international standard IEC 62053-21, It can accurately and directly measure 50Hz or 60Hz active energy consumption from single phase AC electricity net. This meter has seven digits LCD displays shows the active energy consumption, And internally installed far infrared and RS485 communication module，Convenient to all kinds of AMR system connection.

It has following features: good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

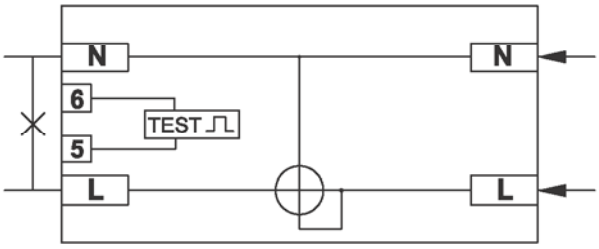
2.Functions and features

● 35mm standard DIN rail installation, complying with standard DIN EN50022. Or front board setting (mounting holes center distance 63 mm), users can choose any one by themselves.
● Six pole width (Modulus 12.5mm), complying with standard JB/T7121-1993.
● Standard configuration 6+1 digits display (99999.1kWh) or 5+2 display. Setted far infrared and RS485 communication port by customers.
● Standard configuration pulse output passive (polarity), May select distant pulse output passive (nonpolarity). complying with standard IEC 62053-31。
●Equipped with a far infrared data communication port and a RSmunication port,485 data communication port, the standard communication protocol configuration with DL/T645-1997 standard, can choose other communication protocol
● Bicolor LED instructions power state and signal of power impulse。
●Automatic Detecting the direction of the trend of load current. Forward measuring,may choose reverse measuring function, Reverse instruction function.
● Single direction measure single phase two wire active Power consumption. It is nothing with direction of the trend of load current. Complying with standard IEC 62053-21.
● Standard configuration type S wiring (Inlet from bottom, outlet from top) for direct connect operation, we can also choose another type of connection, and use CT (Product Configuration code is IC) .
● Standard configuration short terminals cover.

3.Technical parameters

Model	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM100SC	Class1	127V 230V	5(32)A 10(50)A 20(100)A	0.4‰Id	According to customer's request

4.Outer and mount dimension,and wiring diagram



ADM25S single phase DIN-rail watt-hour meter

ADM25S

1. Application

ADM25S single phase DIN-rail watt-hour meter

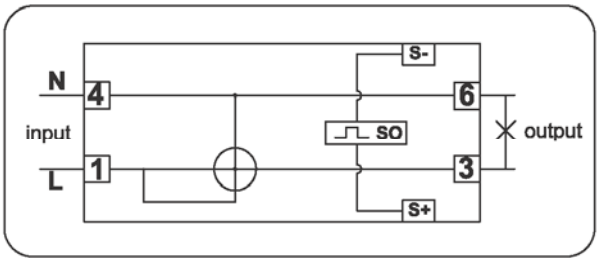
Application Type ADM25S single phase DIN rail watt-hour meter is a kind of new style single phase electronic watt-hour meter, it adopt micro-electronics technique, and imported large scale integrate circuit, use advanced technique of digital and SMT techniques, etc. The meter completely accord with relevant technical requirements of class 1 and class 2 single phase energy meter stipulated in National standard GB/T17215.321-2008 and international standard IEC62053-21. it can accurately and directly measure 50Hz or 60Hz active energy consumption from single phase AC electricity net., it can display total energy consumption by step type impulse register. It has following features: Good reliability, small volume, light weight , specious nice appearance, convenient installation, etc.Functions and features

1. 35mm standard DIN rail installation , complying with standard DIN EN5002.
2. 18mm width , complying with standard DIN43880.
3. May select 5+1 digits display (99999.1kWh) and 6+1 digits display (999999.1kWh).
4. 4. Impulse output when no power , complying with standard DIN43864.

3.Technical parameters

Type	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM25S	Class1	220V/230V	2.5(10)A 3(15)A 5(20)A 5(30)A	0.4‰Id	According to customer's request
ADM25S	Class2			0.5‰Id	

4.Outer and mount dimension



ANDELI

ADM65S

ADM65S single phase DIN-rail watt-hour meter

1. Application

ADM65S

Model ADM65S single phase electronic DIN rail active energy meter is a kind of new style single phase two wire active energy meter，it adopt micro-electronics technique, and imported large scale integrate circuit。use advanced technique of digital and SMT techniques, etc。It has its completely independent intellectual property rights and minimum size. It has already passed the test of the international authority KEMA. The meter completely accord with relevant technical requirements of class 1 single phase active energy meter stipulated in international standard IEC 62053-21, It can accurately and directly measure 50Hz or 60Hz active energy consumption from single phase AC electricity net. The meter by step motor and pulse machinery counter displays active power consumption, It has following features: good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

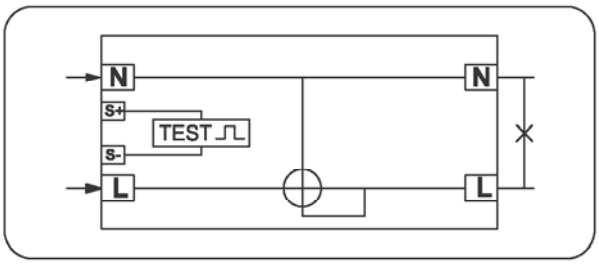
2.Functions and features

● 35mm standard DIN rail installation, complying with standard DIN EN50022.
● Single pole width (Modulus 17.5mm), complying with standard DIN43880.
● Standard configuration 6+1 digits display (9999999.1kWh) by white backlight source LCD. May select6+1 digits display (999999.1kWh) without backlight source general LCD.
● Standard configuration pulse output passive (polarity), May select distant pulse output passive (nonpolarity). And contact with all kind of AMR system conveniently, complying with standard IEC 62053-31 and DIN 43864.
● Bicolor LED instructions power supply state (green) and signal of energy impulse (red).
● Automatic detecting the direction of the flow of load current. And Instructions on LED (Working only red power pulse signal, No green power state instructions direction of the flow of load current reverse).
● Single direction measurement single phase two wire active energy consumption. It is nothing with direction of the flow of load current. Complying with standard IEC 62053-21.
● Directly connect operation, there are two types wiring you may select. Standard configuration type S wiring, may select type U wiring.

3.Technical parameters

Model	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM65S	Class1	127V 230V	5(65)A	0.4‰Id	According to customer's request

4.Outer and mount dimension,and wiring diagram



ANDELI

ADM100S

ADM100S single phase DIN-rail watt-hour meter

1. Application

ADM100S

Model ADM100S single phase electronic DIN rail active energy meter is a kind of new style single phase two wire active energy meter，it adopt micro-electronics technique, and imported large scale integrate circuit。use advanced technique of digital and SMT techniques, etc。It has its completely independent intellectual property rights, The meter completely accord with relevant technical requirements of class 1 single phase active energy meter stipulated in international standard IEC 62053-21, It can accurately and directly measure 50Hz or 60Hz active energy consumption from single phase AC electricity net. The meter by by step motor and pulse machinery counter displays active power consumption,It has following features: good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

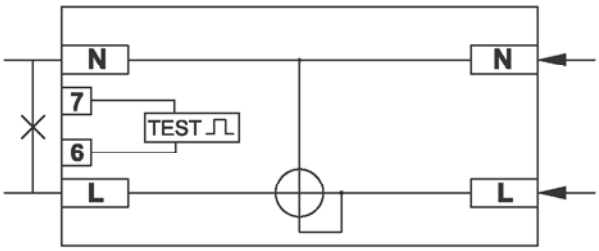
2.Functions and features

● 35mm standard DIN rail installation, complying with standard DIN EN50022. Or front board setting (mounting holes center distance 63 mm), users can choose any one by themselves.
● Six pole width (Modulus 12.5mm), complying with standard JB/T7121-1993.
● Standard configuration 5+1 digits display (99999.1kWh) by step motor and pulse machinery counter. May select 6+1 digits display.
●Standard configuration one port of pulse output passive, May select to increase a distant port of pulse output passive (Product Configuration code is AI). And contact with all kind of AMR system conveniently, complying with standard IEC 62053-31 and DIN 43864.
● Bicolor LED instructions power state (green) and signal of power impulse (red).
● Standard configuration don't detect direction of the trend of load current. May select Automatic Detecting the direction of the trend of load current. And instructions (Only red power pulse signal when working, that is meaning the load current reverse).
● Single direction measure single phase two wire active Power consumption. It is nothing with direction of the trend of load current. Complying with standard IEC 62053-21.
● Directly connect and use, there are two types you may select.

3.Technical parameters

Model	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM100S	Class1	127V 230V	5(30)A 10(50)A 20(100)A	0.4‰Id	According to customer's request

4.Outer and mount dimension



ANDELI

ADM65SCR

ADM65SCR single phase DIN-rail watt-hour meter

1. Application

Model ADM65SCR single phase electronic DIN rail active energy meter is a kind of new style single phase two wire active energy meter, it adopt micro-electronics technique, and imported large scale integrate circuit。use advanced technique of digital and SMT techniques, etc。It has its completely independent intellectual property rights and minimum size. It has already passed the test of the international authority KEMA. The meter completely accord with relevant technical requirements of class 1 single phase active energy meter stipulated in international standard IEC 62053-21, It can accurately and directly measure 50Hz or 60Hz active energy consumption from single phase AC electricity net. This meter has white backlight source eight digits LCD displays shows the active energy consumption, With RS485 remote communication interface, apply to a remote meter reading network, centralized management application of customer.

It has following features: good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

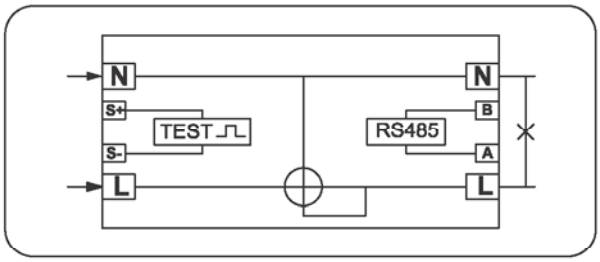
2.Functions and features:

- 35mm standard DIN rail installation, complying with standard DIN EN50022.
- Single pole width (Modulus 17.5mm), complying with standard DIN43880.
- Standard configuration 6+1 digits display (9999999.1kWh) by white backlight source LCD. May select6+1 digits display (999999.1kWh) without backlight source general LCD.
- Standard configuration pulse output passive (polarity), May select distant pulse output passive (nonpolarity). And contact with all kind of AMR system conveniently, complying with standard IEC 62053-31 and DIN 43864.
- Bicolor LED instructions power supply state (green) and signal of energy impulse (red).
- Automatic detection the direction of the flow of load current. And Instructions on LED (Working only red power pulse signal, No green power state instructions direction of the flow of load current reverse).
- Single direction measurement single phase two wire active energy consumption. It is nothing with direction of the flow of load current. Complying with standard IEC 62053-21.
- Directly connect operation, there are two types wiring you may select. Standard configuration type S wiring, may select type U wiring.
- With RS485 remote communication interface, apply to a remote meter reading network,

3.Technical parameters

Model	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM65SCR	Class1	127V 230V	5(30)A 5(40)A 10(40)A 10(60)A	0.4‰Id	According to customer's request

4.Outer and mount dimension,and wiring diagram



ANDELI

ADM100TCR

ADM100TCR single phase DIN-rail watt-hour meter

ADM100TCR

1. Application

Model ADM100TCR three phase four wire electronic DIN rail active energy meter is a kind of new style three phase four wire active energy meter, it adopt micro-electronics technique, and imported large scale integrate circuit. use advanced technique of digital and SMT techniques, etc. It has its completely independent intellectual property rights, The meter completely accord with relevant technical requirements of class one three phase active energy meter stipulated in international standard IEC 62053-21, It can accurately and directly measure 50Hz or 60Hz active energy consumption from three phase four wire AC electricity net. This meter has seven digits LCD displays shows the active energy consumption.And with far infrared and RS485 communication module. And convenient to all kinds of AMR system connection ,It has following features: good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

2.Functions and features

● 35mm standard DIN rail installation, complying with standard DIN EN50022. or front board setting (mounting holes center distance 63 mm), users can choose any one by themselves.

● 10 pole width (Modulus 12.5mm), complying with standard JB/T7121-1993.

● May select 6+1 digits display (99999.1kWh) or 5+2 LCD displays. setting the far infrared or RS485 data communication port by the users.may select backlight function.

●With RS485 interface, with remote power management control function. Remote cut-off function, the customer may develop the secondary epistatic machine software to realize intelligent terminal application.

●Equipped with a far infrared data communication port and a RS485 data communication port, the standard communication protocol configuration with DL/T645-1997 standard, can choose other communication protocol

●Five LED respectively indicating power state and close power pulse signal and remote power pulse signal and data communication state.

●Automatic Detecting the direction of the trend of load current, And instructions by separate LED.

● Single direction two elements measure two phase two wire active Power consumption. It is nothing with direction of the trend of load current. Complying with standard IEC 62053-21.

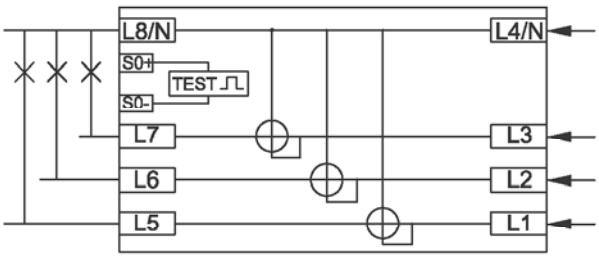
● Standard configuration type S wiring (Inlet from bottom, outlet from top) for direct connect operation, we can also choose another type of connection, and use CT (Product Configuration code is IC) and PT & CT (Product Configuration code is HC) for operation.

● Standard configuration short terminals cover.

3.Technical parameters

Model	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM100TCR	Class1	3×127V 3×230V	5(30)A 10(60)A 20(100)A	0.4‰Id	According to customer's request

4.Outer and mount dimension



ANDELI

ADM100T

ADM100T single phase DIN-rail watt-hour meter

1. Application

ADM100T

Model ADM100T three phase four wire electronic DIN rail active energy meter is a kind of new style three phase four wire active energy meter, it adops micro-electronics technique, and imported large scale integrate circuit. use advanced technique of digital and SMT techniques, etc. It has its completely independent intellectual property rights, The meter completely accord with relevant technical requirements of class three phase active energy meter stipulated in international standard IEC 62053-21, It can accurately and directly measure 50Hz or 60Hz active energy consumption from three phase four wire AC electricity net. The meter by step motor and pulse machinery counter displays active power consumption,It has following features: good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

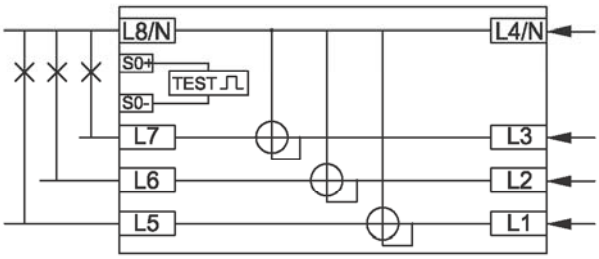
2.Functions and features

● 35mm standard DIN rail installation, complying with standard DIN EN50022. Or front board setting (mounting holes center distance 63 mm), users can choose any one by themselves.
● 10 poles width (Modulus 12.5mm), complying with standard JB/T7121-1993.
● Standard configuration 6 digits display (99999.1kWh) by step motor and pulse machinery counter. May select 7 digits display.
●Five LED respectively indicating each phase power state and closed power pulse signals, and remote power pulse signal.
●Automatic Detecting the direction of the trend of load current, And instructions(yellow indicator lampREV.)
● Single direction three elements measure three phase four wire active Power consumption. It is nothing with direction of the trend of load current. Complying with standard IEC 62053-21.
● May select two elements measure three phase three wire or two phase two wire active power.
● Standard configuration type S wiring (Inlet from bottom, outlet from top) for direct connect operation, we can also choose 5+1 Pulse counter displays , and use CT.

3.Technical parameters

Model	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM100T	Class1	3×127V 3×230V	5(30)A 10(60)A 20(100)A	0.4‰Id	According to customer's request

4.Outer and mount dimension,and wiring diagram



ADM100TC single phase DIN-rail watt-hour meter

1. Application

ADM100TC

Model ADM100TC two phase three wire electronic DIN rail active energy meter is a kind of new style single phase two wire active energy meter，it adopt micro-electronics technique, and imported large scale integrate circuit。use advanced technique of digital and SMT techniques, etc。It has its completely independent intellectual property rights, The meter completely accord with relevant technical requirements of class one three phase active energy meter stipulated in international standard IEC 62053-21, It can accurately and directly measure 50Hz or 60Hz active energy consumption from two phase three wire AC electricity net. This meter has seven digits LCD displays shows the active energy consumption., And with far infrared and RS485 communication module. And Convenient to all kinds of AMR system connection，It has following features: good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

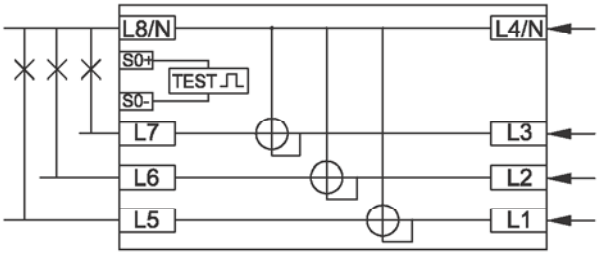
2.Functions and features

● 35mm standard DIN rail installation, complying with standard DIN EN50022. Or front board setting (mounting holes center distance 63 mm), users can choose any one by themselves.
● 10 pole width (Modulus 12.5mm), complying with standard JB/T7121-1993.
● May select 6 +1 digits display (99999.1kWh) or 5+2 LCD displays. setting the far infrared or RS485 data communication port by the users.may select backlight function.
●Equipped with a polarity passive close power pulse output port and a non-polar passive remote power pulse output port (pulse output rate for 10 or 100 imp/kWh can choose), conform to the IEC 62053-31 and DIN 43864 standard.
●Equipped with a far infrared data communication port and a RS485 data communication port, the standard communication protocol configuration with DL/T645-1997 standard, can choose other communication protocol
●Five LED respectively indicating power state (phase voltage L1 and L3) and close power pulse signal and remote power pulse signal and data communication state.
●Automatic Detecting the direction of the trend of load current, And instructions by separate LED.
● Single direction two elements measure two phase two wire active Power consumption. It is nothing with direction of the trend of load current. Complying with standard IEC 62053-21.
● Standard configuration type S wiring (Inlet from bottom, outlet from top) for direct connect operation, we can also choose another type of connection, and use CT (Product Configuration code is IC) and PT & CT (Product Configuration code is HC) for operation.
● Standard configuration short terminals cover.

3.Technical parameters

Model	Accuracy	Reference voltage(V)	Current specifications (A)	Starting Current	Remark
ADM100TC	Class1	3×127V 3×230V	5(30)A 10(50)A 20(100)A	0.4‰Id	According to customer's request

4.Outer and mount dimension



DD28 DD862 DT862 DT8 Kilo Watt-hour Meter

DD282

DD28

DD862

DD862

1. Applications

The series single phase meter is a kind of induction meter to measure the single phase current at the rated frequency of 50Hz. It is an indoor installed meter. Ambient temperature: -10°C to 50°C, relative humidity: below 85% (25°C). DT8 and DT862 series three-phase meter is an induction meter to measure the three-phase current at the rated frequency (50Hz). It is an indoor installed meter; Ambient temperature: -10°C to 50°C, except the first grade is under the working condition of 0 to 40°C. Relative humidity: below 85% (25°C).

2. Specification

Item	Type	Accuracy	R.V.	Calibration (A)	Manner
single-phase watt-meter	DD862-4	2	220	2.5(10)5(20)10(40) 15(60)20(80) 30(100)	direct connction connection with
	DD862-2			1.5(6)	current transformer
	DD282 DD28			3(6)	
				2(4)2.5(5)3(6)5(10) 10(20)20(40)30(60) 40(80)5(20)10(40)	direct connection
three phase four-wire watt meter	DT862-4	2	3x380/220	5(20)10(40)15(60) 20(80)3(100)	direct connection
	DT862-2			1.5(6)	connection with current transformer
	DT8			3(6)	
				10.25.40.80	direct connection

DT862

DT862

DDS480 Single Phase Electronic Kilowatt Hour Meter

1. Application

DDS480 series electronic single phase watt hour meter is a high technology product adople avanced IC technology as well as SMT technology, both circuit design and componects selectior are up to various working environment to guaranty that power meter can operate steadily for a lor time. the finished meter don't neet to be adjusted so that the calibration cycle is long. it extremely reduce the labor force of the electricity board for calibrating power meters. the feature of the products are anti-thief, long life, high accuracy, high reliability, low power consumption small volume, light weight, the meter is up to the according to IEC 1036-96 and GB/T17215-200 standard.

2. Spcification

Name	Type	Accuracy(class)	Basic current
Single Phase Electronic Kilowatt Hour Meter	DDS480	1.0, 2.0	1.5(6)A,2.5(10)A,5(20)A,10(40)A, 45(60)A,20(80)A,5(30)A,10(60)A, 80ms ± 20ms

DTS480 Three Phase Electronic Kilowatt Hour Meter

1. Application

DTS480 series electronic three phase watt hour meter is a high technology product adopted advanced IC technology as well as SMT technology, both circuit design and components selectior are up to various working environment to guaranty that power meter can operate stecdily for a lon time, the finished meter don't need to be adjusted so that the calibration cycle is long, it extremely reduce the labor force of the electricity board for calibrationg power meters, the feature of the products are anti-thief, long life, high accuracy, high reliability, low power consumption small volume, light weight, the meter is up to the according to IEC 1036-96 and GB/T17215-200 standard.

2. Name and specification

Name	Type	Accuracy (class)	Rated voltage (V)	Rated current (A)	Connection
Three phase four wire adive energy electronic type watt-hotu meter	DTS480	1	3x380/220	3x1.5(6), 3x3(6)	CT
				3x5(20), 3x10(40) 3x1.5(60), 3x5(30) 3x10(60)	Direct

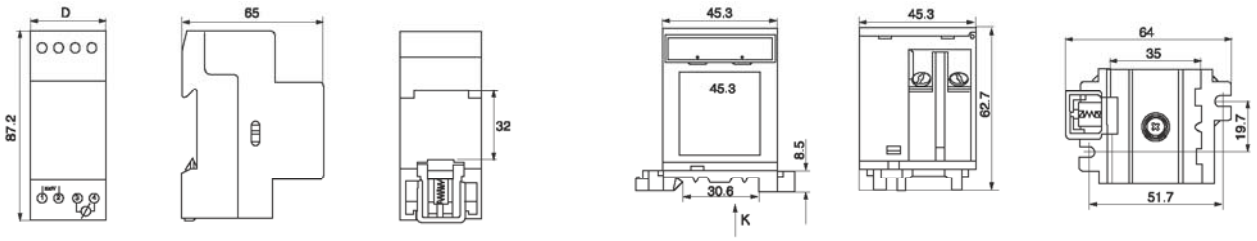
ANDELI

SFC

Modular Type Panel Meter

MODEL	NAME	SPECIFICATION		ACCURACY
SFC-45 SFC-100	AC AMMETER	FROM 10A,15A, 20A,30A···TO 3000A,500A	WITH EXT.C/T 1A OR 5A	CLASS 1.5
		FROM 0.1A,0.5A, 1A,5A,10A,25A···TO 80A,100A	AC DIRECT CONNECTION	CLASS 1.5
	DC AMMETER	FROM 50μA,100μA, 1mA,5mA···1A,5A,10A,25A,30A···TO 100	DC DIRECT CONNECTION	CLASS 1.5
		FROM 10A,15A, 20A,30A···2500A,3000A···TO 8KA,10KA	WITH EXT,SHUNT 50MV,60MV OR 75MV	CLASS 1.5
	AC VOLTMETER	FROM 30V,50V, 100V···TO 300V,500V,600V	AC DIRECT CONNECTION	CLASS 1.5
		FROM 1KV,2KV, 5KV···TO 380KV,450KV	WITH EXT.VOLTAGE TRANSFORMER	CLASS 1.5
	DC VOLTMETER	FROM 10V,20V, 30V···TO 500V,600V,1000V	DC DIRECT CONNECTION	CLASS 1.5
		FROM 1KV,2KV, 5KV···TO 8KV,9KV,10KV	WITH EXT. RESISTOR	CLASS 1.5
	FREQUENCY METER	VOLTAGE: 110V,220V,380V,440V	·····	CLASS 1.0
		FREQUENCY: 45-55Hz,45-65hZ,55-65Hz,47-53Hz		
	POWER FACTOR METER(COS φ)	VOLTAGE: 10V,220V,380V,440V CURRENT: 1A OR 5A	FOR IPHASE OR 3PHASE	CLASS 2.5
		SCALE: 0.5cap-1-0.5ind, 0.3cap-1-0.1ind, 0.7cap-1-0.2ind		
	POWER METER(KW OR KVAR)	VOLTAGE: 110V,220V,380V,440V CURRENT: 1A OR5A	FOR IPIW,3P3W,3P4W WITH C/T OR VOLTAGE TRANSFORMER	CLASS 1.5

1. Outline Drawing



2. Size Of Din Rail Type Series Meter

Model	Unit	D	Number of terminal	Measurement of din rail
SFC-45	mm	4	45	35
SFC-100	mm	10	100	35

Panel Meter

AC Ammeter

Model:AM-96 AM-72 AM-48

Class:1.5

Specs:0.1A 0.5A 1A 1.5A 3A 5A 7.5A 10A 15A 20A 25A 30A 50A 75-105A(use Ext.CT 5A)

Note:for60/75/100A direct meter,the class is 2.5.

Advantage:The scale can be easily changed without opening the front frame so that the class will not be influenced.

DC Ammeter

Model:AM-96 AM-72 AM-48

Class:1.5

Specs:25uA 50uA 1mA 2mA 5mA 10mA 20mA 30mA 50mA 75mA 100mA 150mA 200mA 250mA 300mA 500mA 1A 3A 5A 7.5A 10A 20A 30A 50A 75-105A(used with Shunt)

Feature:The scale can be easily changed without opening the front frame so that the class will not be influenced.

AC Voltmeter

Model:AM-96 AM-72 AM-48

Class:1.5

Specs:30V 50V 75V 100V 120V 150V 250V 300V 450V 600V For 450-380KV,should be used with potential transformer secondary voltage 100V.

DC Voltmeter

Model:AM-96 AM-72 AM-48

Class:1.5

Specs:3V 5V 7.5V 10V 15V 20V 50V 75V 100V 120V 150V 200V 250V 300V 400V 450V 600V

Note:Over 600V should be used with Ext.Resistor.(Rated Cuuent 5mA).

MOVING COIL INSTRUMENTS FOR NONELECTRIC VALUES

Model:AM-96 AM-72

These meters can measure the other non-electric values for example,temperature,speed and so on.

Frequency Meter

Pointer Type

Model:AM-96 AM-72 AM-48

Class:1.0

Volt:50V 100V 220V 380V

Freq:44-55Hz 45-66Hz 55-65Hz 47-53Hz 57-63Hz 44-56Hz 54-66Hz 450-550Hz 550-650Hz

Panel Meter

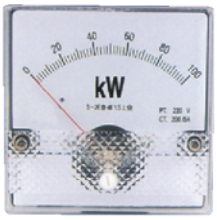
POWER FACTOR

For 3 phases circuits,balanced load 45-65Hz and for 1 phase AC 50Hz.
Model:AM-96 AM-72
Class:2.5
Voltage:100V 380V 440V
Frequency:50Hz 60Hz
Scale graduation:0.5cap-1-0.5ind 0.3cap-1-0.7ind 0.4cap-1-0.4ind 0.7cap-1-0.3ind.
Orders to be Noted:
Type of Current:1P,3P 3W circuits,balanced load.
Rated Volt:The voltage is line voltage(between two wires).
Operating Current:If used with CT,the secondary current 5A or 1A is standard.

POWER METER

Wattmeters with built-in converter for 1 phase,3P 3W,3P 4W.
Model:AM-96 AM-72
Class:1.5
Voltage:50V 100V 220V 240V 220/380V 240/415V
Current:5a
These meters are used with potential secondary voltage 100V voltage transformer or secondary current 5A CT.wattmeters with built-in converter for 3P 3W,3P 4W and single phase.

MODEL:AM-96 AM-80 AM-72 AM-60 AM-50
Struction:Moving Coil,Moving Iron and Rectifier.
Class:2.0 2.5



Name	Specifications			Remarks
DC Ammeter	30-1000uA	1-1000mA 1K-10KA	1-50A	Direct connection With EXt.Shunt
DC Voltmeter	40-1000mV	1-1000V 1K-10KA	1-50A	Direct connection With EXt.Resistor
DC Ammeter	1-1000mA 5-1000A	1-50A 1K-0KA		Direct connection With EXt.CT
DC Voltmeter	40-1000mA	1-1000V 1K-380KV		Direct connection With EXt.CT
Frequency Meter	Voltage:50-380V Frequency:45-55Hz 45-65Hz 55-65Hz			Only AM-80 is available
Power Factor Meter	Voltage:50-380V Frequency:0.5cap-1-0.5ind 0.3cap-1-0.7ind 0.4cap-1-0.4ind 0.7cap-1-0.3ind Suitable for 1Por 3P3W Circuit			
Power Meter	Voltage:50-380V Current:0.2-5A With Current or Voltage Transformer			

ANDELI

AM72

Digital Panel Meter

1. Application

Digital panel meter which is various and artistic in appearance design is used for dual slope, high precise A/D changeover circuit and high light LED cassette setting specification. It is very convenient for user to fix the equipment.

2. Specification

Description	Direct input range	Input current range	Operation voltage	Display range	Class
AC & DC digital voltage meter	AC DC0-100V	–	AC 220V 50/60Hz	0-1999	0.5
AC & DC digital Ampere meter	AC 10-20A DC 0-10A	–	AC 220V 50/60Hz	0-1999	0.5
Frequency digital meter	AC 10-2KHZ (20-300V)	–	AC 220V 50/60Hz	0-1999	0.5
AC tri-phase watt meter	AC 0-100V	AC 5A	AC 380V 50/60Hz AC 110V 50/60Hz	0-1999	–
AC single-phase watt meter	AC 0-220V	AC 10-5A	AC 220V 50/60Hz AC 110V 50/60Hz	0-1999	–
AC single-phase factor meter	AC 100-300V	AC 5A	AC 220V 50/60Hz	0.5-0-0.5	–

AM72-H, AM96-H

AM72-Hz, AM96-Hz

AM72-V, AM96-V

AM72-I3, AM96-I3

AM72-V3, AM96-V3

AM72-A, AM96-A

AM72-W, AM96-W

AM48-I

AM48-HZ

AM48-H

AM48-V

AM-150V

AM-150A

AM-150Hz

ANDELI

AM72N

Digital Panel Meter

1. Application

Digital panel meter which is various and artistic in appearance design is used for dual slope, high precise A/D changeover circuit and high light LED cassette setting specification. It is very convenient for user to fix the equipment.

2. Specification

Description	Direct input range	Input current range	Operation voltage	Display range	Class
AC & DC digital voltage meter	AC DC0-100V	–	AC 220V 50/60Hz	0-1999	0.5
AC & DC digital Ampere meter	AC 10-20A DC 0-10A	–	AC 220V 50/60Hz	0-1999	0.5
Frequency digital meter	AC 10-2KHZ (20-300V)	–	AC 220V 50/60Hz	0-1999	0.5
AC tri-phase watt meter	AC 0-100V	AC 5A	AC 380V 50/60Hz AC 110V 50/60Hz	0-1999	–
AC single-phase watt meter	AC 0-220V	AC 10-5A	AC 220V 50/60Hz AC 110V 50/60Hz	0-1999	–
AC single-phase factor meter	AC 100-300V	AC 5A	AC 220V 50/60Hz	0.5-0-0.5	–

AM72N-A

AM72N-COS

AM72N-W

AM96N-V

AM96N-HZ

AM96N-A/V/HZ

AM72N-V

AM96N-3V/A

AM96N-COS

AM96N-LED

AM96N-A

AM96N-3V

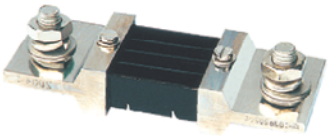
Model FL-2 Current Divider Peripheral

1~50A

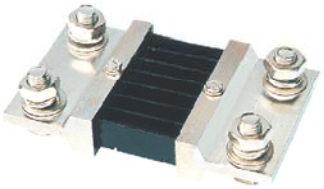
75~100A

150~200A

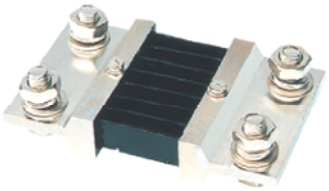
300A



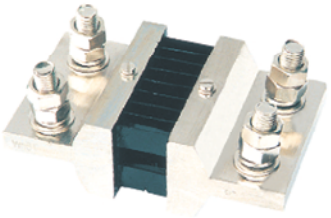
500A



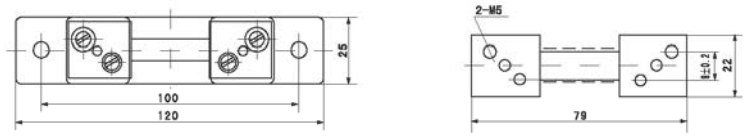
750A

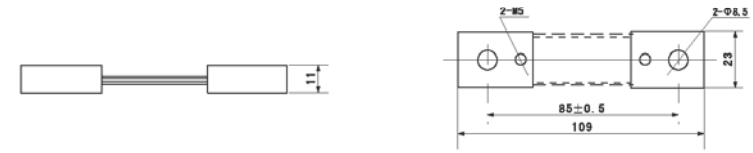


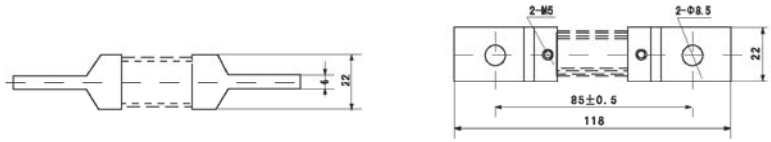
1000A

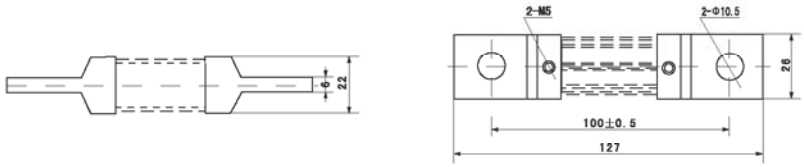


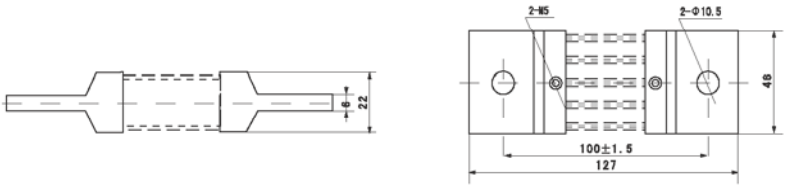
1500A

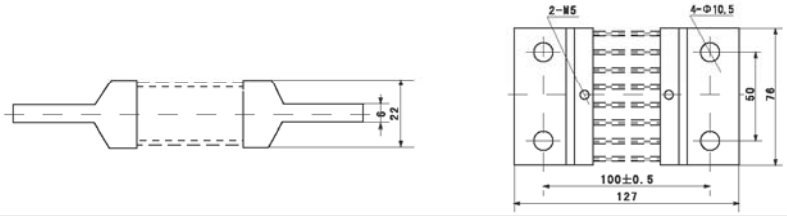


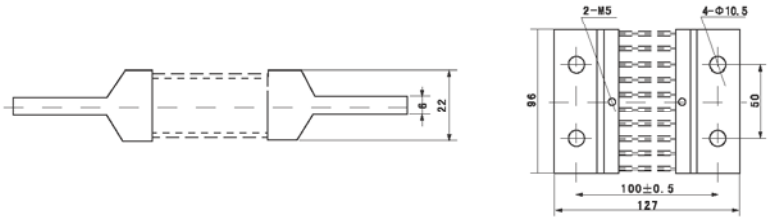


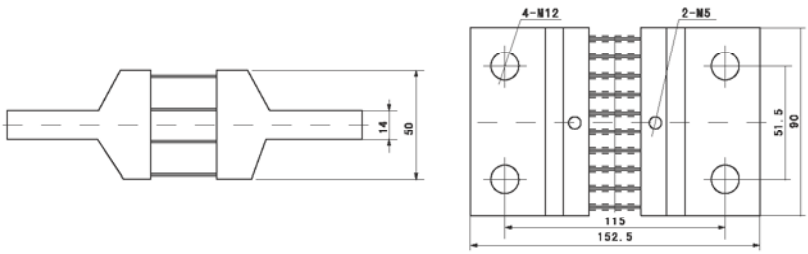










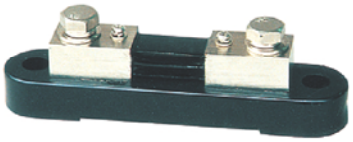


ANDELI

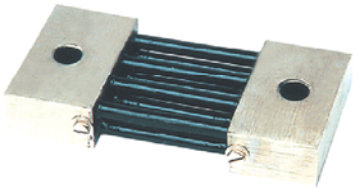
FL-21

Model FL-21 Current Divider Peripheral

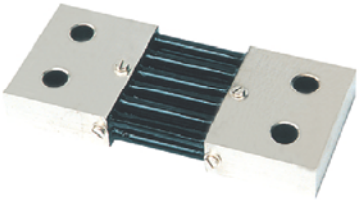
5~125A



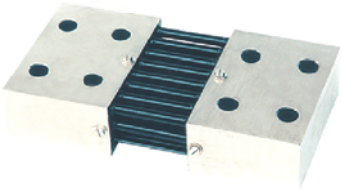
150~200A



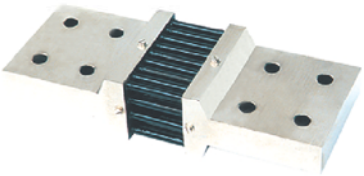
250~600A



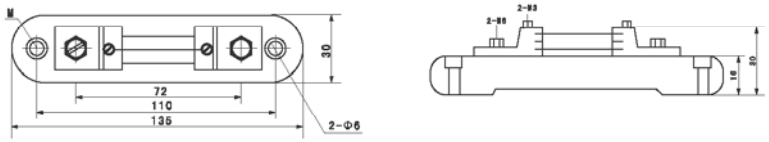
800~1500A

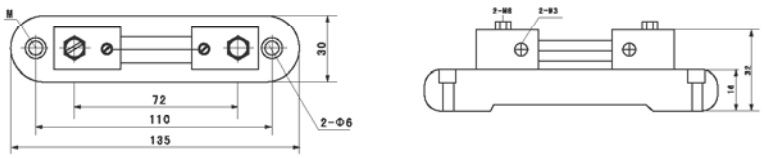


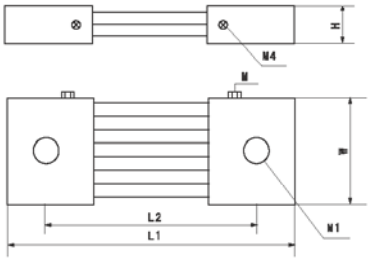
2000~2500A



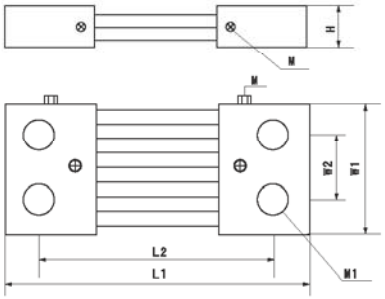
3000~6000A



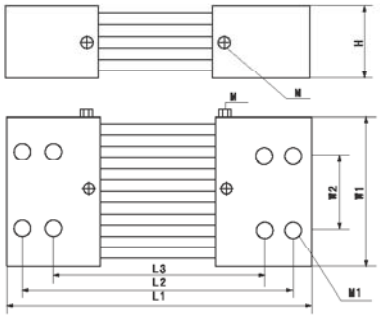




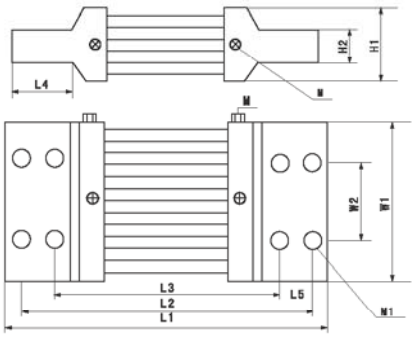
TYPE 50mV	250A	300A	400A	500A	600A
L1	116	116	116	116	122
L2	86	86	86	86	90
W	41	35	44	55	55
H	12	18.5	18.5	18.5	21
M	4	4	4	4	4
M1	13	13	13	13	13
Kg	0.31	0.37	0.49	0.61	0.77



TYPE 50mV	800A	1000A	1200A	1500A
L1	122	159	161	159
L2	90	121	123	121
W1	70	70	85	100
W2	35	35	45	49
H	21	21	21	21
M	4	4	4	4
M1	17	17	17	17
Kg	0.97	1.4	1.7	2.3



TYPE 50mV	2000A	2500A
L1	190	190
L2	165	165
L3	89	89
W1	100	110
W2	50	55
H	38	38
M	4	4
M1	17	17
Kg	4.7	5.3



TYPE 50mV	3000A	4000A	5000A	6000A
L1	273	292	315	327
L2	232	253	271	283
L3	142	153	163	185
L4	90	97	100	108
L5	45	50	54	55
W1	103	110	128	133
W2	55	55	60	65
H1	64	82	106	115
H2	28	34	41	48
M	4	4	4	4
M1	17	17	17	17
Kg	7	9.5	15	19.2

MSQ Current Transformers

1. MSQ-A

Primary current:	5A-150A
Secondary current:	5A,1A
Standard approval:	VDE0414,BS7626,IEC185
Maximum voltage:	0.66KV
Frequency:	50-60KV
Rated load:	10VA
Class:	0.5,1.0
Short-time thermal current:	1th=60Ih
Rated security coefficient:	FS5
Mounting methods:	by once-lead or by copper bar

MSQ-30

2. Technical characteristics of current transformers:

WITH BUSBAR

Type	Rated current(A)	Rated power(VA)		Weight (Kg)
		Class:0.5	Class:1	
MSQ-A	30/5	5-10	5-10	0.60
	40/5	5-10	5-10	0.60
	20/5	5-10	5-10	0.60
	60/5	5-10	5-10	0.60
	75/5	5-10	5-10	0.60
	80/5	5-10	5-10	0.60
	100/5	5-10	5-10	0.60
	120/5	5-10	5-10	0.60
	125/5	5-10	5-10	0.60
	200/5	5-10	5-10	0.60
	250/5	5-10	5-10	0.60

MSQ-40

WINDOWS TYPE

Bar: 30x10mm
conductor: ø20mm

Type	Rated current(A)	Rated power(VA)		Weight (Kg)
		Class:0.5	Class:1	
MSQ-30	30/5	-	1	0.4
	40/5	-	1	0.4
	50/5	-	1	0.4
	60/5	-	1	0.4
	75/5	1	1.5	0.4
	80/5	1.5	2.5	0.4
	100/5	2.5	5	0.4
	150/5	5-10	5-10	0.4
	200/5	5-10	5-10	0.4
	250/5	5-10	5-10	0.4
	300/5	5-10	5-10	0.4

MSQ-60

WINDOWS TYPE

Bar:40x10mm
Conductor:ø30mm

Type	Rated current(A)	Rated power(VA)		Weight (Kg)
		Class:0.5	Class:1	
MSQ-40	100/5	2.5	2.5	0.38
	150/5	3	5	0.38
	200/5	5	5-10	0.38

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MSQ

Type	Rated current(A)	Rated power(VA)		Weight (Kg)
		Class:0.5	Class:1	
MSQ-40	250/5	5-10	5-10	0.38
	300/5	5-10	5-10	0.38
	400/5	5-10	5-10	0.38
	500/5	5-10	5-10	0.38

MSQ-80

WINDOWS TYPE

Bar:60x20mm
Conductor:ø40mm

Type	Rated current(A)	Rated power(VA)		Weight (Kg)
		Class:0.5	Class:1	
MSQ-60	250/5	5	5	0.60
	300/5	5	5	0.60
	400/5	5-10	5-10	0.60
	500/5	5-10	5-10	0.60
	600/5	10-15	10-15	0.60
	750/5	10-15	10-15	0.60
	800/5	10-15	10-15	0.60
	1000/5	15	15	0.60

WINDOWS TYPE

Bar:82x30mm.
Conductor:ø80mm

Type	Rated current(A)	Rated power(VA)		Weight (Kg)
		Class:0.5	Class:1	
MSQ-80	750/5	15	15	0.75
	800/5	15	15	0.82
	1000/5	15	15	0.89
	1200/5	15	15	0.99
	1500/5	15	15	1.02

MSQ-100

WINDOWS TYPE

Bar:80x30mm.or 100x10mm.
Conductor:ø60mm

Type	Rated current(A)	Rated power(VA)		Weight (Kg)
		Class:0.5	Class:1	
MSQ-100	1500/5	15	15	0.80
	1600/5	15	15	0.80
	2000/5	15	15	0.94
	2250/5	15	15	0.98
	2500/5	15	15	1.10
	3000/5	15	15	1.16

MSQ-2000

WINDOWS TYPE

Bar:125x57mm.or 125x10mm.
Conductor:ø60mm

Type	Rated current(A)	Rated power(VA)		Weight (Kg)
		Class:0.5	Class:1	
MSQ-125	1500/5	15	15	1.0
	2000/5	15	15	1.15
	2500/5	15	15	1.45
	3000/5	15	15	1.60
	4000/5	15	15	1.90
	5000/5	15	15	2.20

MR Current Transformers

1. MR Series

MR-28

Primary current:	30A-5000A
Secondary current:	5A,1A
Standard approval:	BS7626,IEC185
Maximum voltage:	0.72KV
Frequency:	50-60KV
Rated load:	5VA-15VA
Class:	1.0, 3.0
Short-time thermal current:	1th=60 x Ih
Rated security coefficient:	FS<5

MR-45

2. Specification

Class:0.5 1.0 3.0

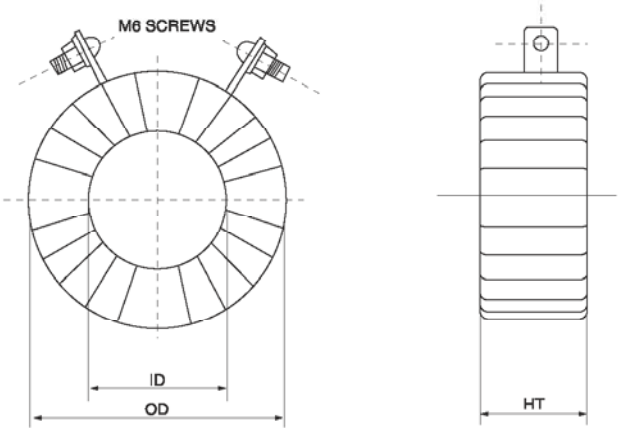
Type	Current	ID(mm)	OD(mm)	TD(mm)
MR-28	30/5A~60/5A	28	70	40
MR-42	100/5A~250/5A	42	80	30
MR-45	300/5A	45	80	30
MR-60	400/5A~600/5A	60	100	30
MR-85	800/5A~1600/5A	85	120	20
MR-125	2000/A~5000/5A	125	165	20

Noted: For measuring currenttransformers, the accuracy class is designated by the highest permissible percentage current(ratio)error at the rated current perscribed for the ac curacy class concerned.

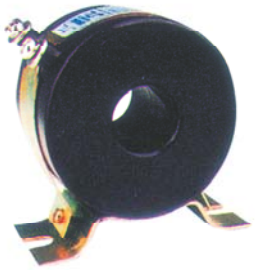
MR-60

3. Outline Drawing

MR-85



RCT Current Transformers



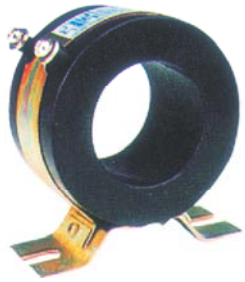
RCT-25

1. RCT Series

Primary current:	30A-3000A
Secondary current:	5A,1A
Standard approval:	IEC44-1
Maximum voltage:	0.66KV
Frequency:	50-60KV
Rated load:	15VA
Class:	1.0
Short-time thermal current:	1th=60 x Ih
Rated security coefficient:	FS<5

2. Specification

Model	Primary/secondary
RCT-25	15/5A 20/5 30/5 40/5 50/5 60/5 75/5 100/5A
RCT-35	30/5 50/5 60/5 80/5 100/5 120/5 150/5 200/5 250/ 300/5A
RCT-60	300/5 400/5 500/5 600/5 800/5 1000/5 1200/5A
RCT-90	1000/5 1200/5 1500/5 1600/5 2000/5A
RCT-110	2000/5 2500/5 3000/5 4000/5 5000/5A



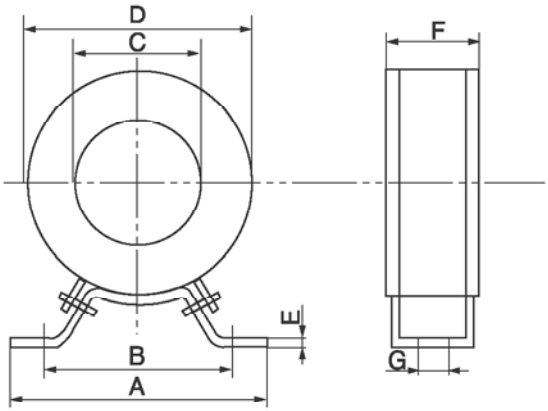
RCT-60

Dimension of case unit:mm

Model	RCT-25	RCT-35	RCT-60	RCT-90	RCT-110
A	93	93	93	93	102
B	78	78	78	78	86
V	25	32	60	90	111
D	78	78	104	136	157
E	2	2	2	2	2
F	55	55	41	41	52
G	9	9	9	9	9

RCT-110

3. Outline Drawing



DP Current Transformers

1. Split core current transformers DP series

The DP series of current transformers have been especially designed to facilitate their installation in new or already existing networks. They may be installed without opening any cable or bus bar circuit.

The connection of conventional CTs usually requires the interruption of the primary side circuit to pass cables or bus bars through the transformer core or to connect such cables to the primary terminals. The DP series transformers core may be easily opened and they may be installed and connected without any supply interruption, thus saving time and installation costs.

The main features of DP transformers are:

- Small size and easy mounting.
- Wide inner window, allowing clamping of big cables or bus bars.
- Wide range of sizes to accomodate all the existing installations.
- High accuracy and reliability.

2. Split core current transformers DP series

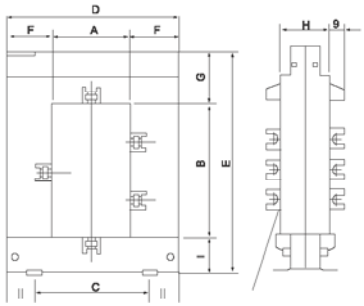
Primary current	100A-5000A
Secondary current	5A,1A
Standard approval	IEC44-1, BS7626
Maximum voltage	0.72/3kV
Frequency	50/60Hz
Rated load	1VA-30VA
Class	0.5, 1.0, 3.0
Short-time thermal current	Ith=100 x In
Rated security coefficient	FS<5

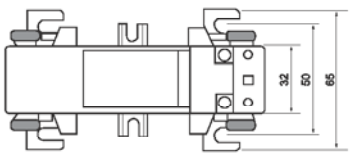
3. Specification

Model	A	B	C	D	E	F	G	H	I	Weight(kg)
DP-23	20	30	51	89	111	34	47	40	32	0.75
DP-58	50	80	78	114	145	32	32	32	33	0.90
DP-88	80	80	108	144	145	32	32	32	33	1.05
DP-812	80	120	108	144	185	32	32	32	33	1.25
DP-816	80	160	120	184	245	52	52	52	38	4.3

Model	Nominal current ratio	Burden VA	
		Class:0.5	Class:1
		VA	VA
DP-23	100		
	150		
	200		1.5
	250		2
	300	1.5	3.75
	400	2.5	6
DP-58	250	1.5	2
	300	1.5	3
	400	1.5	3
	500	2.5	5
	600	2.5	5
	750	2.5	6
	800	2.5	7.5
	1000	5	10
DP-88	250	1.5	3.75
	300	1.5	6
	400	1.5	10
	500	2.5	15
	600	2.5	17.5
	750	2.5	18
	800	2.5	18
	1000	5	20
DP-812	500	2.5	12
	600	2.5	15
	750	2.5	17.5
	800	2.5	18
	1000	5	20
	1200	6	25
	1250	7.5	25
	1500	7.5	30
DP-816	1000	10	20
	1500	15	25
	2000	15	25
	2500	15	25
	3000	20	30
	4000	20	30
	5000	20	30

4. Outline Drawing





Clamp Meter

2017 3 2/1

VC3210 3 2/1

MG-28B

DT-9250T 3 2/1

MG26

MG28

MG32

MG36

DT266

Multimeter

SP-110

YX-360 TRD

YX-360 TRN

YX-360 TRES

3211 D+

DT-890D

DT830B

DT-830

ANDELI

DT-9205

Multimeter

DT-9205

DT-9231 3 2/1

DT-203 3 2/1

UT33B

JT-8500 3 2/1

RP-3

7003

DY-21A 3 2/1

NB4000P-2 3 4/3

DY-2101 3 2/1

TM-902C 3 2/1

SP-15D

MF-15

7001A

GBW 7000

ZC11D-10

Temperature Controller

AM72-4BIC
(PO-010)

AM72-8001
(PO-019)

AM96-92001
(IN-050)

AM72-2211
(IN-037)

AM72-2001
(IN-038)

AM72-93301
(IN-039)

AM72-92001
(IN-040)

AM4896-93301
(IN-042)

AM4896-90001
(IN-052)

AM48-93301
(IN-049)

AM-800
(IN-053)

AM4896-3301
(PO-08)

AM48-4001
(PO-024)

AM-TDA
(PO-026)

AM-TDB
(PO-027)

ANDELI

TC-1

Temperature Controller

TC-1
(PO-03)

TC-2
(PO-04)

TC-3
(PO-05)

JTC-902
(PO-06)

JTC-903
(PO-07)

SC-3
(PO-28)

AM96-3301
(PO-013)

AM96-8301
(PO-014)

AM96-2301
(PO-016)

AM96-2001
(PO-017)

AM96-4001
(PO-018)

AM96-93301
(IN-028)

AM96-2211
(IN-030)

AM96-2001
(IN-031)

Thermocouple and Thermal Resistance

NO: 05
NO fixed device style

NO: 06
NO fixed device style

NO: 07
Movable flange style

NO: 08
Fixed thread style

NO: 09
Fixed flange style

NO: 10
Fixed thread
protective tube style

NO: 11

NO: 13

NO: 15

NO: 12

NO: 14

NO: 16

NO: 17

NO: 18

ANDELI

HG140

PTC Heater 15-150W HG140

Compact heater in PTC technology
Maintains minimum operating temperatures in enclosures
Helps to prevent failure of electronic components caused by condensation and corrosion
Heating power adjusts to ambient temperature
Push connectors for quick and easy wiring
DIN rail mountable
CE

Technical Data HG140

Operating voltage	AC/DC 110-250V(also available in 12-48VDC)
Heating element	PTC resistor, self-regulating
Heating body	Anodized extruded aluminum
Protection class	I, test voltage 1600V
Protection type	IP20
Connection	Push-type terminals for stranded and solid wire 3 x AWG 20-16 (0.5-1.5mm²)
Mountina	Clio for 35mm DIN rail(EN 50022)

Part.No.	Power[1)]	Max.Current[2)]	L	Weight
14000.0-00	15W	1.5A	2.6"/65mm	0.56 lbs(0.3kg)
14001.0-00	30W	3.0A	2.6"/65mm	0.66 lbs(0.3kg)
14003.0-00	45W	3.5A	2.6"/65mm	0.66 lbs(0.3kg)
14005.0-00	60W	2.5A	5.5"/140mm	1.10 lbs(0.5kg)
14006.0-00	75W	4.0A	5.5"/140mm	1.10 lbs(0.5kg)
14007.0-00	100W	4.5A	5.5"/140mm	1.10 lbs(0.5kg)
14008.0-00	150W	9.0A	8.7"/220mm	1.76 lbs(0.8kg)

[1)] at 68˚F(20˚C) ambient temparature. [2)]Inrush current

Applications

Electrical & Electronic enclosures
Telecommunications systems
Display panels
Automatic teller machines(ATM'S)
Access & Parking control systems
Ticket dispensers

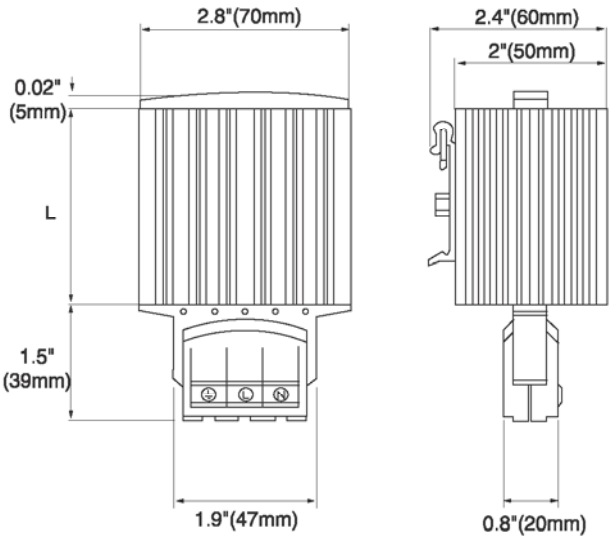
Determining the required heater size

$$P_H=(A \times \Delta T \times K)-P_V$$

P_H =Required heating power for your application in Watts(W)
P_V =Heating power generated by existing components(e.g.a transformer)in Watts(W)
A =Exposed enclosure surface area in square meters(m²)
ΔT =Temperature differential between the desired minimum interior temperature and the Lowest possible external temperature of the enclosure in Kelvin(K), 1.8˚F=1˚C=1K
K= Heat transmission coefficient of the enclosure material used:

Painted steel:	5.5W/m²K
Stainless steel:	3.7W/m²K
Aluminum:	1.2W/m²K
Polyester/Plastc:	3.5W/m²K

For outdoor applications it is recommended to double the heating power



Specifications are subject to change without notice. Suitability of this product for its intended use and any associated risks must be determined by the end custome/buyer in its final application.

ANDELI

HGK047

Small PTC Heater

Compact heater in PTC technology
Maintains minimum operating temperatures in enclosures
Helps to prevent failure of electronic components caused by condensation and corrosion
Heating power adjusts to ambient temperature
DIN rail mountable
CE

Technical Data HGK047

Voltage/heating power	See table
Heating element	PTC resistor, self regulating
Heat sink	Anodized extruded aluminum
Protection class	1(grounded)
Protection type	IP54
Connection	3xAWG30(0.5mm²),12"(300mm)length
Mounting	Clip for 35mm DIN rail (EN50022)

Part.No.	Voltage	Power[1)]	Max.Amps[2)]	Length	VDE	UL
04700.0-00	140-250 VAC	10W	1.0A	2.0"(50mm)	●	
04701.0-00	140-250 VAC	20W	2.5A	2.4"(60mm)	●	
04702.0-00	140-250 VAC	30W	3.0A	2.8"(70mm)	●	
04700.9-00	110-120 VAC	10W	1.0A	2.0"(50mm)		●
04701.9-00	110-120 VAC	20W	1.5A	2.8"(70mm)		●
047029-00	110-120 VAC	30W	1.5A	4.0"(100mm)		●

[1)] at 68˚F(20˚C) ambient temperature. [2)]Inrush

Applications

Electrical & Electronic enclosures
Telecommunications systems
Display panels
Personnel booths
Automatic teller machines(ATM'S)
Access & Parking control systems
Ticket dispensers

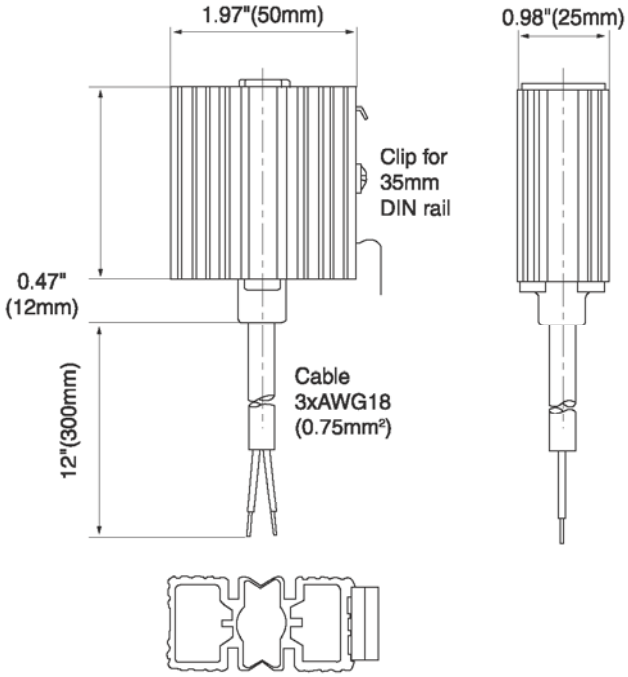
Determining the required heater size

$$P_H=(A \times \triangle T \times K)-P_V$$

P_H =Required heating power for your application in Watts(W)
P_V =Heating power generated by existing components(e.g.a transformer)in Watts(W)
A =Exposed enciosure surface area in square meters(m²)
$\triangle T$ =Temperature differential between the desired minimum interior temperature and the Lowest possible external temperature of the enclosure in Kelvin(K), 1.8˚F=1˚C=1K
K= Heat transmission coefficient of the enclosure material used:

Painted steel:	5.5W/m²K
Stainless steel:	3.7W/m²K
Aluminum:	1.2W/m²K
Polyester/Plastic:	3.5W/m²K

For outdoor applications it is recommended to double the heating power



Specifications are subject to change without notice. Suitability of this product for its intended use and any associated risks must be determined by the end custome/buyer in its final application.

ANDELI

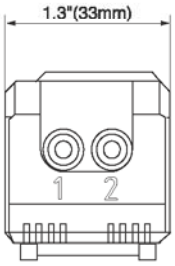
KT011

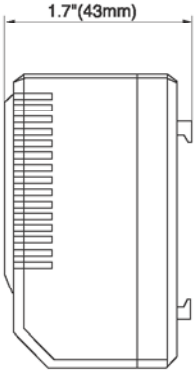
Small Thermostat KT011

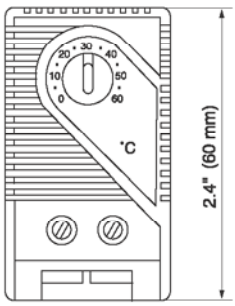
Compact design
Wide adjustment range
Available with ˚F or ˚C scale
Color coded trmperature dials
DIN rail mountable

Thermostat "NC" (normally closed):
Thermostat opens at temperature rise.
Comes with a red temperature dial.

Thermostat "NO" (normally open):
Thermostat closes at temperature rise.
Comes with a blue temperature dial.





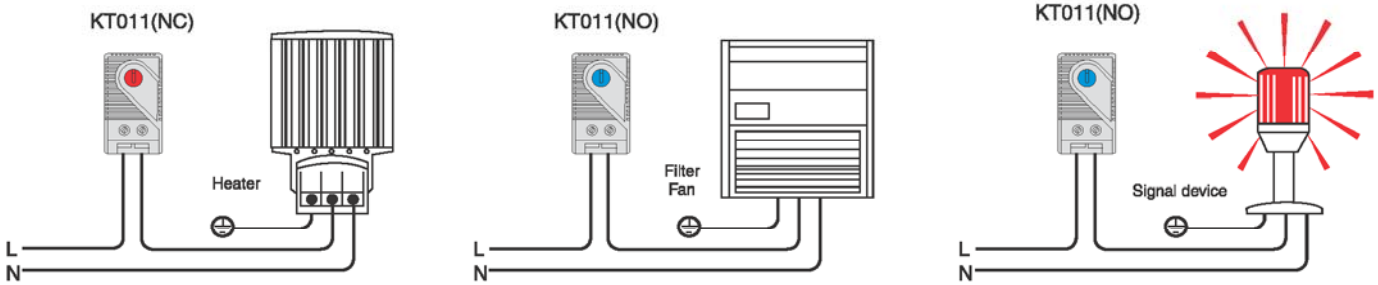


Technical Data KT011

Part.No.	Contact type	Scale on housing
01140.9-00	normally closed	30-140˚F
01141.9-00	normally open	30-140˚F
01146.9-00	normally closed	0-60˚C
01147.9-00	normally open	0-60˚C

Sensor element:	Thermostatic bi-metal
Maximum tolerance:	± 7.2˚F(4K)
Switching difference(hysteresis):	12.6˚F ± 5.4˚F(7˚C ± 3K)
Service life:	100.000 cycles
Swiching capacity(max.load):	15A resistive/2A inductive @ 120 VAC
	10A resistive/2A inductive @ 250 VAC
	DC 30W

EM/EMC compliance:	EN55014-1-2,EN16000-3-2,EN61000-3-3
Connections:	2-pole terminal for AWG 14 max.(2.5mm²)
Mounting:	Clip for 35mm DIN rail(EN50022)
Dimensions(H x W x D):	2.4 x 1.3 x 1.7"(60 x 33 x 43mm)
Housing	Plastic
Weight:	1.4oz(40g)
Protection type:	IP20
Operatng temperature:	-4 to 176˚F(-20 to 80˚C)



Wiring examples

Five-uses Compass

	Function	Bound	Scale Value	Precision
Five-uses compass Type97	Measure Azimuth	6000Mil	20Mil	20Mil
		360°	1°	2°
	Measure pitching Angle	± 90°	5°	2.5°
	Compute distance	Scale10:1		2%
	Measure distance	Scale(KM)1:100000 1:50000		2%
	Mapping Mea-sure	120mm	1mm	Span0.5mm

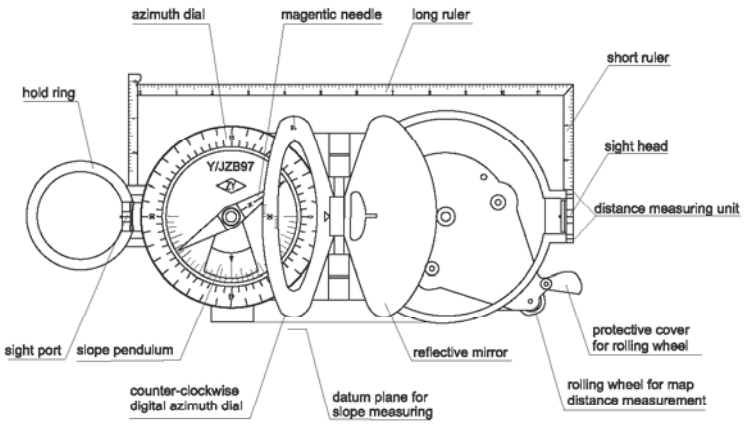
	Function	Bound	Scale Value	Precision
Five-uses compass Type80	Measure Azimuth	6000Mil	50Mil	25Mil
		360°	5°	2.5°
	Measure pitching Angle	± 90°	5°	2.5°
	Compute distance	Scale100:1		5%
	Measure map distance	Scale(KM)1:100000 1:50000		2%
	Coordinate Ruler	Length80mm Short20mm	1mm	Span0.5mm

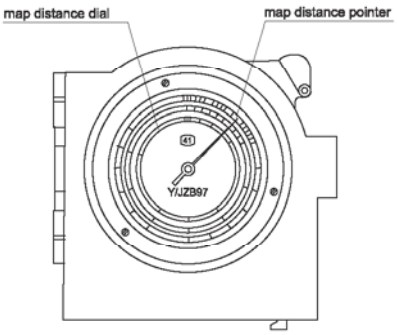
Service Instruction for Compass

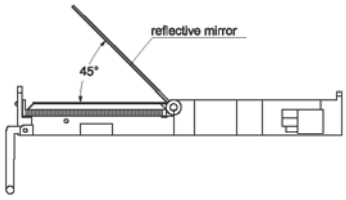
1. Service Instruction for Compass Type Y/JZB97/80

Compass Type Y/JBZ97 is composed of coordinate rulers, mechanisms for azimuth, pitch angle (slope), map/real distances, etc. It can measure azimuth,pitch angle (slope), real/map distances and map coordinate, as well as draw simple maps based on measurements.

2. Structures & Performances



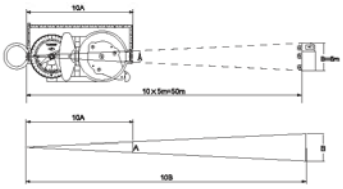




3. Azimuth Measuring Mechanism

It consists of magnetic needle system, azimuth dial, counter-clockwise digital azimuth dial (which would be clockwise as viewed from reflective mirror), sight port and head, etc. Full graduation of azimuth is 360˚ for outer circle and 6000 mil for inner circle.

Procedures to measure azimuth angles in the open is as following: first open the compass, lay the counter-clockwise digital azimuth dial flat; then turn the reflective mirror to 45˚, and observe the azimuth angle from the mirror. The graduation pointed by the magnetic needle"N" (north) pole is read as azimuth angle.



4. Distance Measuring Mechanism

It is a simple scaled distance measuring mechanism which measures distance by three sharp angles formed between sight port and sight head (see figures on the left). The length between the sight port and the middle sharp angle would be 10 × A if taking the length between the sharp angles on each side as A, i.e., the scale is 10:1.

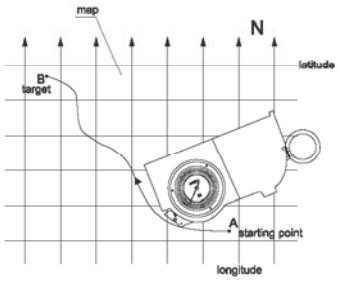
Suppose the real width of B (assumed target to be measured) is 5m, and let it just sits between the sharp angles' vertexes on each side, then the distance between the target and the measurer shuold be:10 x 5 =50m.

5. Slope Measuring Mechanism

It includes slope dial, slope pendulum and reflective mirror. The measuring range is ± 90˚

Hold the compass as showed in the left figure, and aim at the target through sight port and head, then the slope grade from the target to the standing point could be read from the reflective mirror.

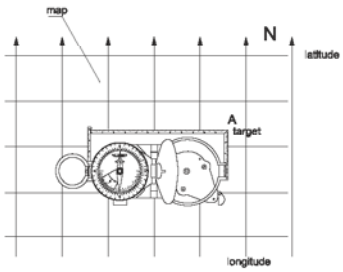
The slope measurement could also be used to do simple level calibration.



7. Map Distance Measuring Mechanism

It is composed of rolling wheel,distance dial and pointer ,and is applicable to maps of-three different scales:1:10000, 1:50000, 1:25000.Measuring unit is kilometer.

First roll the wheel and let the pointer point to "0" , then put the compass on the map with the wheel sitting at the starting point (as shown in the left figure), and roll it along the designated route on the map until reach destination.The graduation pointed by the pointer is the map distance in kilometer.



8. Coordinate Rule

It consists of one long ruler(120mm) and two short rulers (25mm), perpendicular to each other.

Put the compass on the map with the long ruler parallel to the latitude while the short rulers parallel to the longitude (as shown in the left figure). Thus the detailed coodinate of the destination could be measured. Moreover, a simple map could be draw with a ruler, and the straight distance between two points on the map could be measured directly as:

$$\frac{\text{mm between two points} \times \text{map scale}}{100} = \text{m}$$

9. Maintenance

1. The compass must be kept away from ferromagnetic materials, high-voltage power cables and electromagnetic units either in use or in storage to avoid error or low sensitivity.
2. The compass shoule be stored in dry environment with good ventilation to avoid mildewing.
3. The reflective mirror and the digital azimuth dial should not be distorted of bent to avoid low accuracy.
4. White flannel could be used to slightly wipe contaminated surface(s) to keep clean and bright.

10. Product Kit

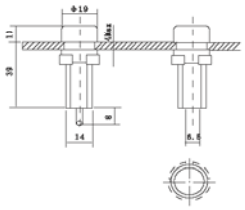
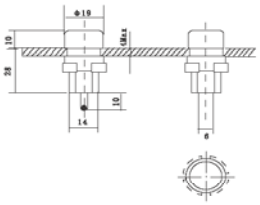
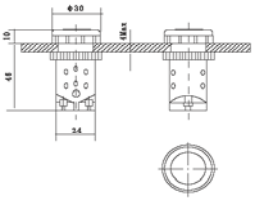
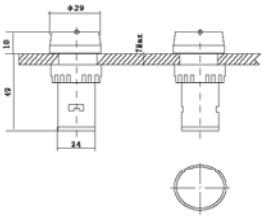
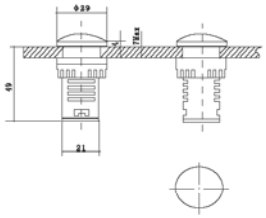
1. a compass; 2. a leather case; 3. a Service Instruction book;
4. a piece of flannel 5. a sile ribbon; 6. a plastic bag;
7. a Certification card.

Indication Lamp & Pushbutton Switch
Warning Light & Siren

ANDELI

AD16

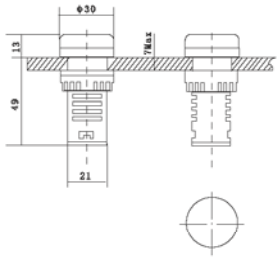
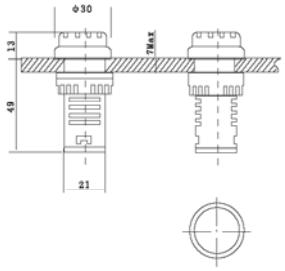
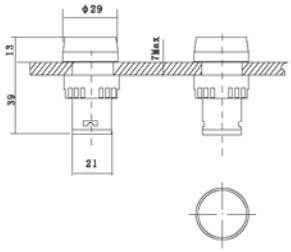
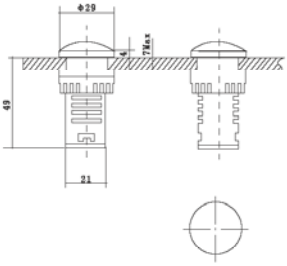
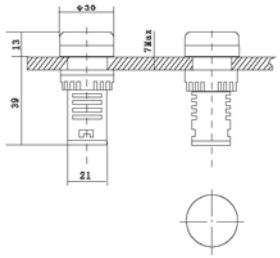
Indication Lamp

Type	Voltage	Colour	Diagram
 AD16-16D	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	
 AD16-16D/S	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	
 AD16-22A	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	
 AD16-22B	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	
 AD16-22C	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	

ANDELI

AD16

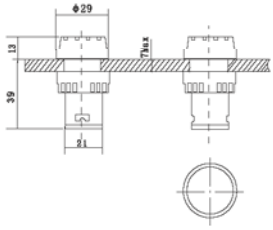
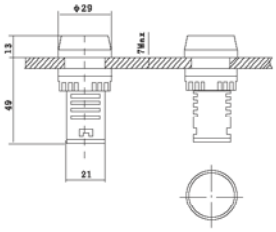
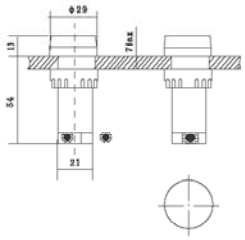
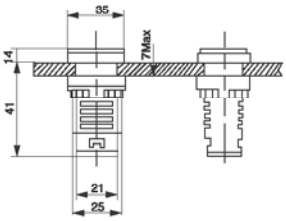
Indication Lamp

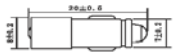
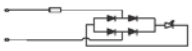
Type	Voltage	Colour	Diagram
 AD16-22D	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	
 AD16-22E	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	
 AD16-22BS	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	
 AD16-22CS	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	
 AD16-22DS	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	

ANDELI

AD16

Indication Lamp

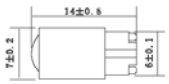
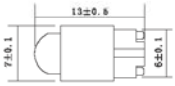
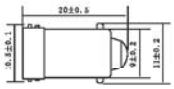
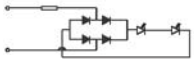
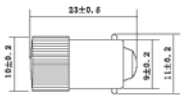
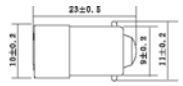
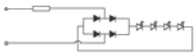
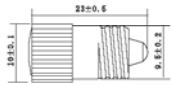
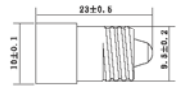
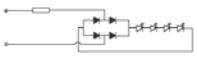
Type	Voltage	Colour	Diagram
AD16-22ES	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V	Red Pure green Yellow Pure blue Pure white	
AD16-22M/R	AC/DC 24V AC/DC 48V AC/DC 110V AC 200V	Red (Flash)	
AD16-22M/K	AC/DC 24V AC/DC 48V AC/DC 110V AC 220V	Black	The buzzer's voice interrupted flash light volume is 10cm/80Decibel,electric current is 15~20mA
AD16-22 Double-color	AC/DC 24V AC/DC 48V AC/DC 110V AC 220V	Red-Green Red-Yellow Red-Blue	
AD16-30DS Dia=30mm	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 220V	Red Pure green Yellow Pure blue Pure white	

Type	Voltage	Colour	Shape drawing	Diagram
BA7S	AC/DC 6V AC/DC 12V AC/DC 24V	Red Green Yellow White Blue		

ANDELI

B9AS,E10

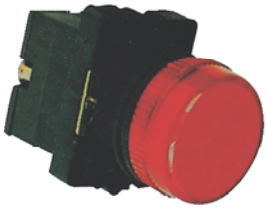
LED Bulb

Type	Voltage	Colour	Shape drawing	Diagram
High brightness pure colour ø7	AC/DC 6V AC/DC 12V AC/DC 24V	Red Green Yellow White Blue		
High bright-ness pure colour ø7	AC/DC 6V AC/DC 12V AC/DC 24V	Red Green Yellow White Blue		
B9AS/S	AC/DC 6V AC/DC 12V AC/DC 24V	Red Green Yellow White Blue		
B9AS	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 110V AC/DC 220V	Red Green Yellow White Blue	 	
E10	AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 110V AC/DC 220V	Red Green Yellow White Blue	 	

Pushbutton Switch

XB2-EV164

XB2-EV444



XB2-EV64

Signalling units ø22 Ip40

Description	Scheme	Supply voltage	Color	Reference
Direct supply (1)				
For using with incandescent bulb (included) BA 9s base fitting	X1 ⊗ X2	130V 50/60Hz	Green	XB2-EV133
			Red	XB2-EV134
			Yellow	XB2-EV135
			Blue	XB2-EV16
For using with incandescent bulb (included) BA 9s base fitting	X1 ⊗ X2	⩽ 250V 50/60Hz	White	XB2-EV161
			Green	XB2-EV163
			Red	XB2-EV164
			Yellow	XB2-EV165
			Blue	XB2-EV166
			Clear	XB2-EV167
For using with incandescent bulb (included) E10/13 base fitting	X1 ⊗ X2	⩽ 250V 50/60Hz	White	XB2-EV661
			Green	XB2-EV663
			Red	XB2-EV664
			Yellow	XB2-EV665
			Blue	XB2-EV666
			Clear	XB2-EV667
(1) Bulb types for using with direct supply: incandescent bulb U ⩽ 250V, max.power 3W, max.diameter length 28 mm.				
For using with neon bulb (included) BA 9s base fitting	X1 ⊗ X2	240V~50/60Hz 220/240V bulb 400V~50/60Hz 380/415V bulb	Green	XB2-EV443
			Red	XB2-EV444
			Yellow	XB2-EV445
			Blue	XB2-EV446
			Clear	XB2-EV447
		230V~50/60Hz 130V bulb	Green	XB2-EV453
			Red	XB2-EV454
			Yellow	XB2-EV455
			Blue	XB2-EV456
			Clear	XB2-EV457
Supply direct through resistor				
For using with incandescent bulb (included) BA 9s base fitting	X1 ⊗ X2		White	XB2-EV171
			Green	XB2-EV173
			Red	XB2-EV174
			Yellow	XB2-EV175
			Blue	XB2-EV176
			Clear	XB2-EV177
BA 9s 6.3V/24V bulb supplied	Via integral transformer 1.2VA	220V~240V/6.3V 50/60Hz	Green	XB2-EV1853
			Red	XB2-EV1854
			Yellow	XB2-EV1855
			Blue	XB2-EV1856
BA 9s 6.3V/24V bulb supplied	Via integral transformer 1.2VA	220V~240V/6.3V 50/60Hz	Green	XB2-EV1873
			Red	XB2-EV1874
			Yellow	XB2-EV1875
			Blue	XB2-EV1876
Direct BA 9s	X1 ⊗ X2	⩽ 380V	White	XB2-EV61
			Green	XB2-EV63
			Red	XB2-EV64
			Yellow	XB2-EV65
			Blue	XB2-EV66
BA 9s, 130V Direct through resistor BA 9s,130V bulb supplied	X1 ⊗ X2	220V 250V	White	XB2-EV71
			Green	XB2-EV73
			Red	XB2-EV74
			Yellow	XB2-EV75
			Blue	XB2-EV76

Pushbutton Switch

XB2-EA142

XB2-EA135

XB2-EA42

XB2-EC42

XB2-ES542

XB2-EA3341

XB2-EA4322

Circular head

Complete units with screw and captive cable clamp connections

Pushbuttons, spring return				
Description	Contact Type	Scheme	Color	Reference
Pushbtton spring return	N/O	13 14	Black	XB2-EA121
			Green	XB2-EA131
	N/C	21 22	Red	XB2-EA142
	N/C+N/O	13 14 21 22	Black	XB2-EA125
			Green	XB2-EA135
			Red	XB2-EA145
Pushbutton latching	N/C	13 14	Black	XB2-EH121
			Green	XB2-EH131
	N/C+N/O	14 11 12 11	Black	XB2-EH125
			Green	XB2-EH135
Flush	N/O	13 14	Black	XB2-EA21
			Green	XB2-EA31
			Yellow	XB2-EA51
			Blue	XB2-EA61
	N/C	21 22	Red	XB2-EA42
Mushroom head ø40mm	N/O	13 14	Black	XB2-EC21
			Green	XB2-EC31
			Yellow	XB2-EC51
			Blue	XB2-EC61
	N/C	21 22	Red	XB2-EC42
Mushroom head	N/C	21 22	ø30	XB2-ES442
			ø40	XB2-ES542
			ø60	XB2-ES642
Flush	N/O	13 14	Green	XB2-EA3311
			White ↑ or →	XB2-EA3341
			Black ⇩ or ⇨	XB2-EA3351
	N/C	21 22	Red O	XB2-EA4322
			Red stop	XB2-EA4342

Pushbutton Switch

XB2-ED21

XB2-EJ33

XB2-EG33

ZB2-BE102

ZB2-BE101

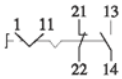
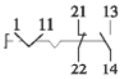
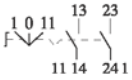
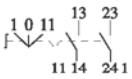
ZB2-BEZ102

ZB2-BEZ101

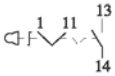
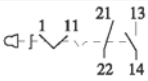
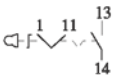
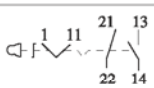
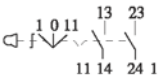
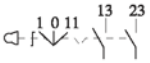
ZB2-BZ102

ZB2-BZ101

Selector switches

Description	Contact/Type	Scheme	Operator	Reference
2 Position stay put	N/C		Standard handle	XB2-ED21
			Long handle	XB2-EJ21
	N/O+N/C		Standard handle	XB2-ED25
			Long handle	XB2-EJ25
2 Position 1 spring return from right to left	N/O		Standard handle	XB2-ED41
			Long handle	XB2-EJ41
	N/O+N/C		Standard handle	XB2-ED45
			Long handle	XB2-EJ45
3 Position stay put	N/O+N/O		Standard handle	XB2-ED33
			Long handle	XB2-EJ33
3 Position 2 spring return to centre	N/O+N/O		Standard handle	XB2-ED53
			Long handle	XB2-EJ53

Key switches(key n° 455)

Description	Contact/Type	Scheme	Key removal	Reference
2 Position stay put	N/O		LH position	XB2-EG21
			LH and RH position	XB2-EG41
	N/C+N/O		LH position	XB2-EG25
			LH and RH position	XB2-EG45
2 Position 1 spring return from right to left	N/O		LH position	XB2-EG61
	N/O+N/O		LH position	XB2-EG5
3 Position stay put	N/O+N/O		Centre position	XB2-EG33
			LH and RH position	XB2-EG53
			All 3 position	XB2-EG03
3 Position 2 spring return to centre position	N/O+N/O		Centre position	XB2-EG73

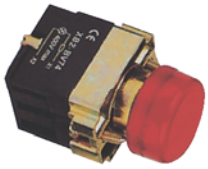
Addittional/replacement contact block, screw and captive cable

For making up body assembles with 3,4, 5 or maximum of 6 contact blocks or replacing 1st or and contact	N/O	Clamp connection		ZB2-BE101
	N/C			ZB2-BE102
	N/O			ZB2-BZ101
	N/C			ZB2-BZ102
	N/O+N/O			ZB2-BZ103
	N/C+N/C			ZB2-BZ104
	N/O+N/C			ZB2-BZ105

Pushbutton Switch

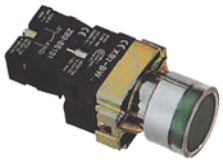
XB2-BV63

XB2-BV65



XB2-BV74

XB2-BV44

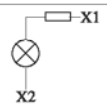


XB2-BW3361

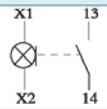
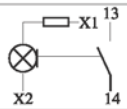
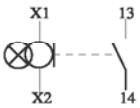
XB2-BW3471

Circular head, screw and captive cable clamp connections Complete units

Signalling units ø22

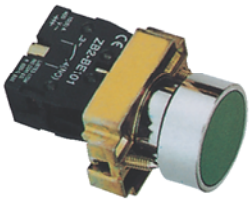
Description	Scheme	Supply/voltage	Color	Reference
Direct bulb included		≤ 380V	Green	XB2-BV63
			Red	XB2-BV64
			Yellow	XB2-BV65
Via integral resistor BA 9s, 130V bulb supplied		220V 250V	Green	XB2-BV73
			Red	XB2-BV74
			Yellow	XB2-BV75
Via integral transformer 1.2VA BA 9s, 6V bulb supplied		110V/50Hz 110-120V/60Hz	Green	XB2-BV33
			Red	XB2-BV34
			Yellow	XB2-BV35
		220V/50Hz	Green	XB2-BV43
			Red	XB2-BV44
			Yellow	XB2-BV45
		240V/50Hz	Green	XB2-BV943
			Red	XB2-BV944
			Yellow	XB2-BV945
		380V/50Hz	Green	XB2-BV53
			Red	XB2-BV54
			Yellow	XB2-BV55
		415V/50Hz	Green	XB2-BV933
			Red	XB2-BV934
			Yellow	XB2-BV935

Illuminated flush pushbuttons with 1N/O contact

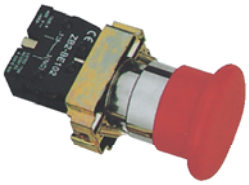
Supply	Scheme	Supply/voltage	Color	Reference
Direct bulb supplied		≤ 380V	Green	XB2-BW3361
			Red	XB2-BW3461
			Yellow	XB2-BW3561
Direct through resistor BA 9s, 130V bulb supplied		220V 250V	Green	XB2-BW3371
			Red	XB2-BW3471
			Yellow	XB2-BW3571
Via integral transformer 12.VA BA 9s, 6V bulb supplied		110V/50Hz 110-120V/60Hz	Green	XB2-BW3331
			Red	XB2-BW3431
			Yellow	XB2-BW3531
		220V/50Hz	Green	XB2-BW3341
			Red	XB2-BW3441
			Yellow	XB2-BW3541
		240V/50Hz	Green	XB2-BW33941
			Red	XB2-BW34941
			Yellow	XB2-BW35941
		380V/50Hz	Green	XB2-BW3351
			Red	XB2-BW3451
			Yellow	XB2-BW3551
		415V/50Hz	Green	XB2-BW33931
			Red	XB2-BW34931
			Yellow	XB2-BW35931

Pushbutton Switch

XB2-BA42



XB2-BA31



XB2-BC42

XB2-BR42

XB2-BA3341

Circular head, with chromium plated metal bezel

Complete units with screw and captive cable clamp connections

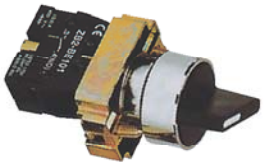
Pushbuttons, spring return

Description	Contact/type	Scheme	Color	Reference
Flush	N/O	13 14	Black	XB2-BA21
			Green	XB2-BA31
			Yellow	XB2-BA51
			Blue	XB2-BA61
	N/C	21 22	Red	XB2-BA42
Projecting	N/O	13 14	Black	XB2-BL21
			Green	XB2-BL31
			Yellow	XB2-BL51
			Blue	XB2-BL61
	N/C	21 22	Red	XB2-BL42
Booted	N/O	13 14	Black	XB2-BP21
			Green	XB2-BP31
			Yellow	XB2-BP51
			Blue	XB2-BP61
	N/C	21 22	Red	XB2-BP42
Mushroom head 40mm	N/O	13 14	Black	XB2-BC21
			Green	XB2-BC31
			Yellow	XB2-BC51
			Blue	XB2-BC61
	N/C	21 22	Red	XB2-BC42
Mushroom head 60mm	N/O	13 14	Black	XB2-BR21
			Green	XB2-BR31
			Yellow	XB2-BR51
			Blue	XB2-BR61
	N/C	21 22	Red	XB2-BR42

Pushbuttons, spring return

Description	Contact/type	Scheme	Color	Reference
Flush	N/O	13 14	Green	XB2-BA3311
			White ↑ or →	XB2-BA3341
			Black ⇩ or ⇨	XB2-BA3351
	N/C	21 22	Red o	XB2-BA4222
			Red stop	XB2-BA4342
Projecting	N/C	21 22	Red o	XB2-BA4322
			Red stop	XB2-BA4342

Pushbutton Switch

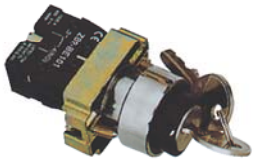


XB2-BD21

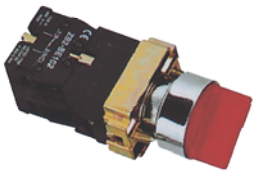
XB2-BD33

XB2-BJ21

XB2-BJ33



XB2-BG21

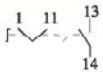
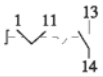
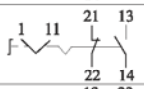
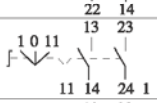
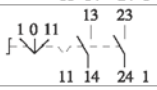


XB2-BK2465

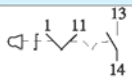
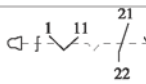
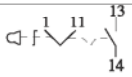
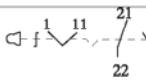
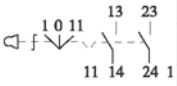
Circular head, with chromium plated metal bezel

Complete units with screw and captive cable clamp connections

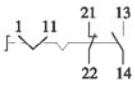
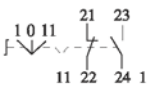
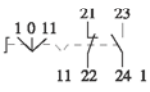
Selector switches

Description	Contact/type	Scheme	Operator	Reference
2 Position stay put	N/O		Standard handle	XB2-BD21
			Long handle	XB2-BJ21
	N/C+N/O		Standard handle	XB2-BD25
			Long handle	XB2-BJ25
2 Position 1 spring return from right to left	N/O		Standard handle	XB2-BD41
			Long handle	XB2-BJ41
	N/C+N/O		Standard handle	XB2-BD45
			Long handle	XB2-BJ45
3 Position stay put	N/O+N/O		Standard handle	XB2-BD33
			Long handle	XB2-BJ33
3 Position 2 spring return to centre	N/O+N/O		Standard handle	XB2-BD53
			Long handle	XB2-BJ53

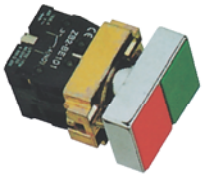
Key switches(key n° 445)

Description	Contact/type	Scheme	Key removal	Reference
2 Position stay put	N/O		LH Position	XB2-BG21
			LH and RH Positiom	XB2-BG41
	N/C+N/O		LH Position	XB2-BG25
			LH and RH Positiom	XB2-BG45
2 Position 1 spring return from right to left	N/O		LH Position	XB2-BG61
	N/C+N/O		LH Position	XB2-BG65
3 Position stay put	N/O+N/O		Centre Position	XB2-BG33
			LH and RH Positiom	XB2-BG53
			All 3 Position	XB2-BG03

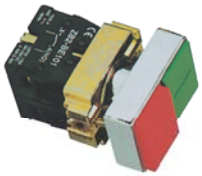
Selector switches with pilot light

Description	Contact/type	Scheme	Reference
2 Position stay put	N/C+N/O		XB2-BK2365
			XB2-BK2465
			XB2-BK2565
			XB2-BK2665
			XB2-BK2765
	N/C+N/O		XB2-BK3365
			XB2-BK3465
			XB2-BK3565
			XB2-BK3665
			XB2-BK3765
	N/C+N/O		XB2-BK5365
			XB2-BK5465
			XB2-BK5565
			XB2-BK5665
			XB2-BK5765

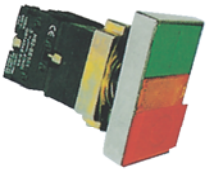
Pushbutton Switch



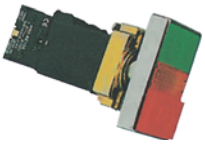
XB2-BL8325



XB2-BL8425



XB2-BW8465



XB2-BW8445

XB2-BT42

XB2-BS542

XB2-BS142

With chromium plated metal bezel

Complete units with screw and captive cable clamp connections

Double-headed pushbuttons, spring return

Description	Contact/type	Scheme	Scheme	Degree. of protection	Reference
Without pilot light 1 flush green pushbutton 1 projecting red pushbutton	N/O + N/C	13 14 21 22	Unmarked	IP40	XB2-BL8325
				IP65	XB2-BL9325
			I O	IP40	XB2-BL8425
				IP65	XB2-BL9425
With pilot light 1 flush green pushbutton 1 pilot light with yellow lens Direct supply°‹380V 1 projecting red pushbutton	N/O + N/C	13 14 X1 X2 21 22	Unmarked	IP40	XB2-BW8365
			I O	IP40	XB2-BW8365
1 flush green pushbutton 1 pilot light with yellow lens 220/250V supply direct through resistor BA 9s, 130V buld included 1 projecting red pushbutton	N/O + N/C	13 14 X1 X2 21 22	Unmarked	IP40	XB2-BW8375
			I O	IP40	XB2-BW8475
1 flush green pushbutton 1 pilot light with yellow lens 1.2VA-220V direct supply via integral transformer BA 9s 6V, bulb included 1 projecting red pushbutton	N/O + N/C	13 14 X1 X2 21 22	Unmarked	IP40	XB2-BW8345
			I O	IP40	XB2-BW8445

Latching mushroom head "emergency stop" pushbutton

Description	Contact/type	Scheme		Reference
Push-pull Red			ø40	XB2-BT42
			ø60	XB2-BX42
Turn to release Red	N/C	21 22	ø30	XB2-BS442
			ø40	XB2-BS542
			ø60	XB2-BS642
Rey release(key n° 445) Red			ø30	XB2-BS742
			ø40	XB2-BS142
			ø60	XB2-BS242

Latching mushroom head pushbutton with "Trigger action"

Turn to release Red release(Key n° 445) Red	N/O + N/C	21 13 22 14	ø40	XB2-BS8445
				XB2-BS9445

Pushbutton Switch

Type	Contact type	Colour	Voltage	Slack
XB4-BA21 XB4-BA31 XB4-BA42 XB4-BA51 XB4-BA61 XB4-BA25 XB4-BA35 XB4-BA45	NO NO NC NO NO NO+NC NO+NC NO+NC	B G R Y BL B G R		Flush
XB4-BC21 XB4-BC31 XB4-BC42 XB4-BC51 XB4-BR21 XB4-BR31 XB4-BR42 XB4-BR51	NO NO NC NO NO NO NC NO	B G R Y BL B G R		Spring return BC type ø40 BR type ø60
XB4-BS442 XB4-BS542 XB4-BS642	NC NC NC	R		Turn to release ø30 ø40 ø60
XB4-BD21 XB4-BD25 XB4-BD33 XB4-BD41 XB4-BD45 XB4-BD53	NO NO+NC NO+NO NO NO+NC NO+NO			2-position locked 2-position locked 3-position locked 2-position reset 2-position reset 3-position reset
XB4-BJ21 XB4-BJ25 XB4-BJ33 XB4-BJ41 XB4-BJ45 XB4-BJ53	NO NO+NC NO+NO NO NO+NC NO+NO			2-position locked 2-position locked 3- position locked 2-position reset 2-position reset 3-position reset

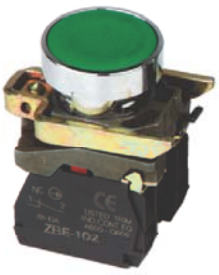
Pushbutton Switch

Type	Contact type	Colour	Voltage	Slack
XB4-BG21 XB4-BG25 XB4-BG33 XB4-BG41 XB4-BG61 XB4-BG53	NO NO+NC NO+NO NO+NO NO NO NO+NO			2-position locked 2-position locked 3-position locked 3-position locked 2-position reset 2-position reset 3-position reset
XB4-BT21 XB4-BT42 XB4-BT845	NO NC NO+NC	B R R		ø40
XB4-BL21 XB4-BL31 XB4-BL42 XB4-BL51 XB4-BL61	NO NO NC NO NO	B G R Y BL		Protruding button
XB4-BW3 □ B5 XB4-BW3 □ G5 XB4-BW3 □ M5	NO+NC	□ Ento-figure 3 G 4 R 5 Y 6 BL 7 T	24 ~48...120V ~230...240V	Liiuminated BA9S Lamp socket LED BA9S bulb and neno lamp
XB4-BW3365 XB4-BW3465 XB4-BW3565 XB4-BW3665 XB4-BW3765	NO+NC	3 G 4 R 5 Y 6 BL 7 T	≤ 250V	Liiuminated BA9S Lamp socket LED BA9S bulb and neno lamp

Pushbutton Switch

Type	Contact type	Colour	Voltage	Slack
XB4-BL8325 XB4-BL8312 XB4-BL8425 XB4-BL8412	NO+NC	R+G W+B R+G W+B		Double end button Flush+Flush "0"+ "1" Projecting+Flush
XB4-BW8365 XB4-BW8465	NO+NC	R+G		Flush+Flush "0"+ "1" Projecting+Flush LED lamp socket LED
XB4-BP21 XB4-BP31 XB4-BP42 XB4-BP51 XB4-BP61	NO NO NC NO NO	B G R Y BL		Dergee of protection IP66
XB4-BS142	NC	R		ø40 ø60
XB4-BV63 XB4-BV64 XB4-BV65 XB4-BV66 XB4-BV67		G R Y BL T	≤ 250V	Lamp BA9S Lamp socket LED BA9S bulb and neno lamp

Pushbutton Switch



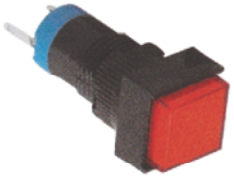
Type	Contact type	Colour	Voltage	Slack
XB4-BVB □ XB4-BVG □ XB4-BVM □		□ Ento-figure 3 G 4 R 5 Y 6 BL 7 T	24V ~48...120V ~230...240V	BA9S lamp socket LED BA9S bulb and neno lamp
XB2-BK12 □ 3 2-position locked XB2-BK13 □ 3 3-position locked XB2-BK14 □ 3 2-position reset XB2-BK15 □ 3 3-position reset	NO+NO NO+NC	□ Ento-fingure G R Y BL T	210V~220V	LED lamp socket LED
XB4-BA3311 XB4-BA3341 XB4-BA3351 XB4-BA4322	NO NO NO NC	G W B R	I ↑ ↓ ⇧ ⇩ O	Flush of marking on
XB4-BH02 XB4-BH03 XB4-BH04 XB4-BH05 XB4-BH06	NO+NC	B G R Y BL		Flush of slef-locking
XB4-BL9312 XB4-BL9434	NO+NC	W+B R+G		Flush+Projecting Projecting+Flush Degree of protection IP66

ANDELI

AY50

Pushbutton Switch

Circular



Square

Rectangular

Circular

Square

Rectangular

Push button with light, Push button, Pilot light(ø8、ø12)

Function	Model	Contact structure	Color
Pilot light Self-reset Self-locking type	AY50-12AY-D AY50-12AY-□/□ AY50-12AY-□T/□ AY50-12AY-□D/□ AY50-12AY-□TD/□ AY50-12AF-D AY50-12AF-□/□ AY50-12AF-□T/□ AY50-12AF-□D/□ AY50-12AF-□TD/□ AY50-12AJ-D AY50-12AJ-□/□ AY50-12AJ-□T/□ AY50-12AJ-□D/□ AY50-12AJ-□TD/□	SPDT SPDT	Red Green Yellow Blue White
Pilot light Self-reset Self-locking type	AY50-8AY-D AY50-8AY-11/□ AY50-8AY-11T/□ AY50-8AY-11D/□ AY50-8AY-11TD/□ AY50-8AF-D AY50-8AF-11/□ AY50-8AF-11T/□ AY50-8AF-11D/□ AY50-8AF-11TD/□ AY50-8AJ-D AY50-8AJ-11/□ AY50-8AJ-11T/□ AY50-8AJ-11D/□ AY50-8AJ-11TD/□	SPDT SPDT	Red Green Yellow Blue White

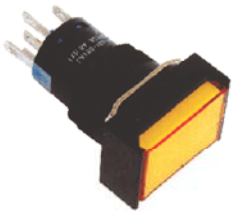
Filling in normal open and close number is front of □, color in back of □.

ANDELI

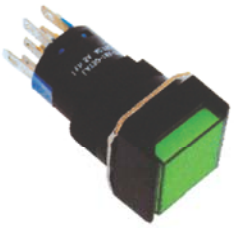
AY50

Pushbutton Switch

Circular



Square



Rectangular

Mushroom push button

Big square

Big rectangular

Emergency push button

Common push button, Push button with light, indicator light, Emergency push button

Function	Model	Voltage class	Color
Pilot light Lnstantaneous type Self-locking type	AY50-16AY-D AY50-16AF-D AY50-16AJ-D AY50-16AY-□/□ AY50-16AF-□/□ AY50-16AJ-□/□ AY50-16AY-□T/□ AY50-16AF-□T/□ AY50-16AJ-□T/□	LED AC/DC 6V 12V 24V NE 100V 220V	Red Green Yellow Blue White Black Transparent Note:black button cover is not used with light
Lnstantaneous type Self-locking type	AY50-16AM-□/□ AY50-16ADF-□/□ AY50-16ADJ-□/□ AY50-16AM-□T/□ AY50-16ADF-□T/□ AY50-16ADJ-□T/□	LED AC/DC 6V 12V 24V NE 100V 220V	Red Green Yellow Blue White Black Transparent Note:black button cover is not used with light
Press locking reset right on the	AY50-16AY-□Z		Red Green

Filling in normal open and close number is front of □, color in back of □.

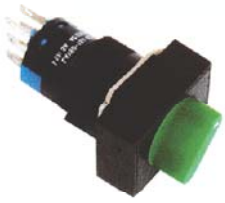
ANDELI

AY50

Pushbutton Switch

Circular

Square



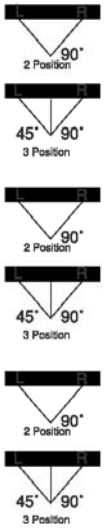
Rectangular

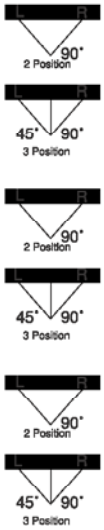
Circular

Square

Rectangular

Turn button, Key push button, Buzzer

Woring state	Model	Color
	AY50-16AY-□X/□ AY50-16AF-□X/□ AY50-16AJ-□X/□ AY50-16AY-22XS/□ AY50-16AF-22XS/□ AY50-16AJ-22XS/□	Red Green Blue

Woring state	Model	Key removable position
	AY50-16AY-□Y AY50-16AF-□Y AY50-16AJ-□Y AY50-16AY-22YS AY50-16AF-22YS AY50-16AJ-22YS	Key two-position, which can be taken out in two positions Key three-position has two types: 1. Key is takenout in middle 2. Key is all taken out in three positions

Filling in normal open and close number is front of□, color in back of□.

Circular

Square

Rectangular

Indicators

YL238-03

YL238-04

YL238-05

YL238-06

YL240-01

YL240-02

YL240-03

YL240-04

YL240-05

YL240-06

COB61 COB62 COB63 COB63A COB62A COB61A

HJ9-6 HJ9-4 HJ9-3 HJ9-1

YL235

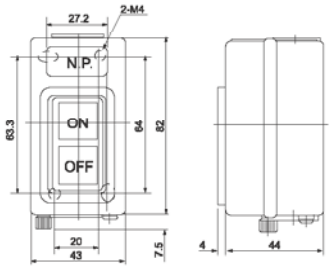
YL240

YL244-01 YL244-02 YL244-03

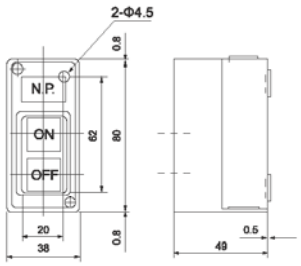
Motive Switch

External Appearance Size

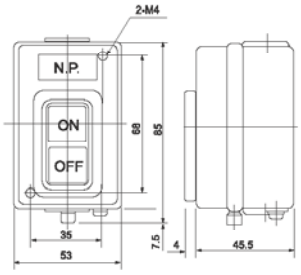
BSN-310



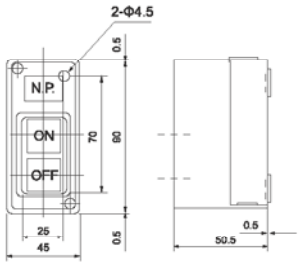
BSP-315



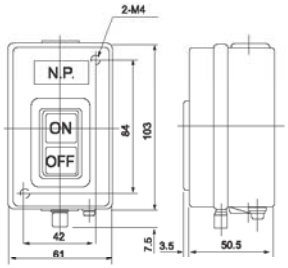
BSN-315



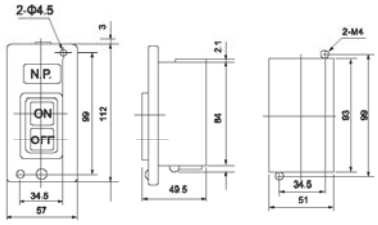
BSP-330



BSN-330



BSY-315,330



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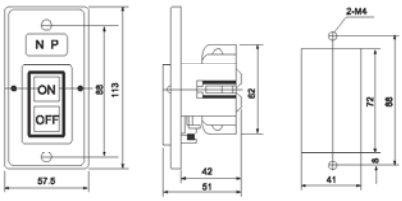
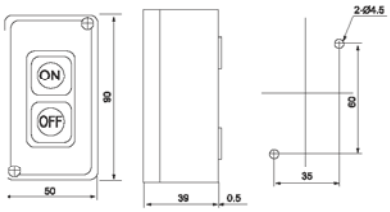
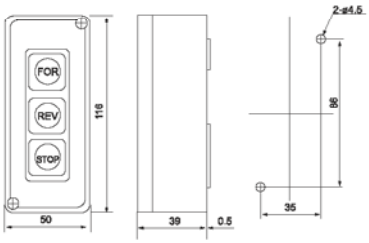


PB-2



PB-3



Limit Switch

Application

Limit switches are ideal electrical control switches in mechanical and other industries. They have features of complete specifications and varieties of types, compact structure, nice appearance, excellent performance, flexible and reliable action, easy installation, operation, maintenance and adjustment.

The switches are applicable to AC control circuits of 40 to 60Hz, with a voltage up to 500V or DC control circuits with a voltage up to 600V, and a current up to 10A to convert a mechanical signal into an electrical signal for the purpose of controlling mechanical movement or performing sequential control.

XCK-M102 XCK-M106 XCK-M110 XCK-M115 XCK-M121 XCK-M139 XCK-M141

XCK-P102 XCK-P106 XCK-P110 XCK-P118 XCK-P121 XCK-P127 XCK-P128 XCK-P139 XCK-P145 XCK-P155

XCK-T102 XCK-T106 XCK-T110 XCK-T118 XCK-T121 XCK-T127 XCK-T128 XCK-T145

XCK-T155 XCK-S101 XCK-S102 XCK-S121 XCK-S131 XCK-S141 XCK-S139

Limit Switch

XCK-J10511 XCK-J10531 XCK-J10541 XCK-J10559 XCK-J108 XCK-J121 XCK-J139 XCK-J161 XCK-J167

ME9101 ME8104 ME8107 ME8108 ME8111 ME8112 ME8122 ME8166 ME8169

MEA-9104 MEA-9107 MEA-9108 MEA-9111 MEA-9122 MEA-9124 MEA-9127 MEA-9128 MEA-9139 MEA-9161

MEA-9112 MEA-9166 MEA-9169 TZ-8104 TZ-8107 TZ-8108 TZ-8111 TZ-8112 TZ-8122

TZ-8166 TZ-8167 TZ-8169 WL-CA2 WL-CA2-2 WL-CA12 WL-CA12-2 WL-CA32-41 WL-CL WL-D

Limit Switch


WL-D2


WL-NJ


WL-NJ-S2


HL-5000


HL-5030


HL-5050


HL-5100


HL-5200


HL-5300


3SE3 120-1B


3SE3 120-1C


3SE3 120-1D


3SE3 120-1E


3SE3 120-1G


3SE3 120-1R


3SE3 120-1T


3SE3 120-1U


3SE3 120-1W


3SE3 100-1B


3SE3 100-1D


3SE3 100-1E


3SE3 100-1F


3SE3 100-1G


3SE3 100-1R


3SE3 100-1T


3SE3 100-1U


3SE3 100-1W


LXK3-20H/B


LXK3-20H/D


LXK3-20H/H


LXK3-20H/J


LXK3-20H/L


LXK3-20S/B


LXK3-20S/D


LXK3-20S/H_2


LXK3-20S/J


LXK3-20S/L


LXK3-20S/T


LXK3-20S/W


LXK3-20S/Z

Micro Switch

Application

General purpose micro switches are used in AC control circuits of 50/60Hz, with a voltage up to 380V and a rated control capacity of 100VA or in DC control circuits with a voltage up to 220V and a rated control capacity of 10W.


Z-15HW24-B


Z-15GD-B


Z-15GQ-B


Z-15GQ21-B


Z-15GQ22-B


Z-15GW-B


Z-15GW2-B


Z-15GW21-B


Z-15GW22-B


Z-15G-B


LXW5-11D


LXW5-11G1


LXW5-11G2


LXW5-11G3


LXW5-11M


LXW5-11N1


LXW5-11N2


LXW5-11Q1


LXW5-11Q2


LXW5-11Z


AZ-7100


AZ-7110


AZ-7120


AZ-7121


AZ-7124


AZ-7140


AZ-7141


AZ-7144


AZ-7166


AZ-7310

ANDELI

MJ1,D4MC

Micro Switch

V-15-1C25

V-151-1C25

V-152-1C25

V-153-1C25

V-154-1C25

V-155-1C25

V-156-1C25

MJ1-6101

MJ1-6102

MJ1-6102R

MJ1-6104

MJ1-6107

MJ1-6111

MJ1-6112

MJ1-6114

MJ1-6117

AZ-7311

AZ-7312

D4MC-1000

D4MC-1020

D4MC-2000

D4MC-2020

D4MC-3030

D4MC-5000

D4MC-5020

D4MC-5040

Toggle Switch

ON-OFF 1021

ON-OFF-ON 1122

ON-ON 1121

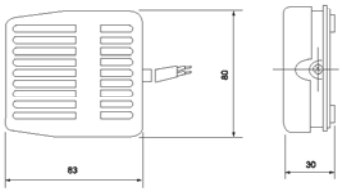
ON-OFF 1401

ON-ON 1402

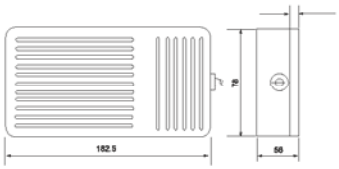
ON-OFF-ON 1403

FS Series Foot Control Switch

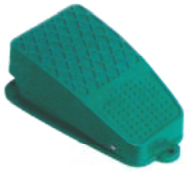
FS-201 202

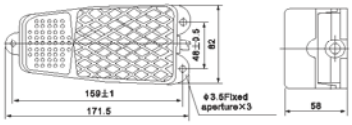


FS-01

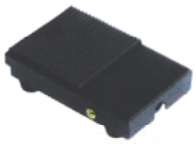


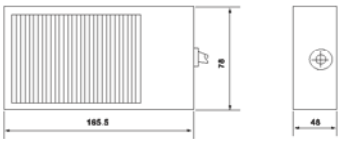
FS-101 102 105



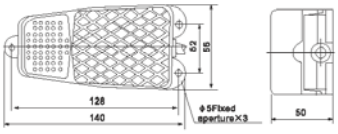


FS-1

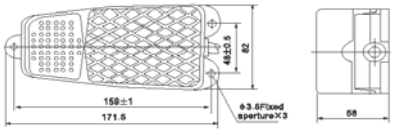




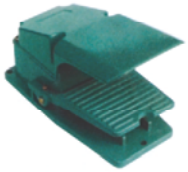
FS-2

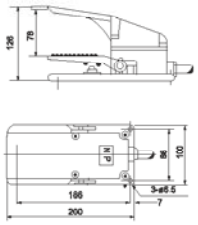


FS-3 3S

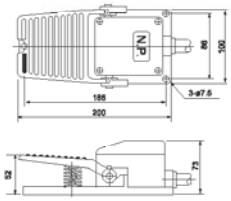


FS-302





FS-402



Foot Switch

SFMS-10

SFMS-15

SFMS-20

MD13HS

MD-88H

MD-68H

YDT1-101

8013

LW26 Series Rotary Switches

LW26-20

LW26-32

1. Working Conditions

Ambient temperature Do Not exceed 40˚C and the average temperature, measured over a period of 24 hours, Do Not exceed 35˚C.
Ambient temperature should not be below -5˚C.
Should not be installed over 2000m above sea level.
The humidity should not exceed 50% when the ambient temperature is 40˚C and higher humidity is allowed for lower temperature.

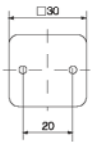
2. Installation Conditions

A clean environment is required.
Please follow our manual.

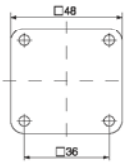
3. Escutcheon plate and handle

Escutcheon plate

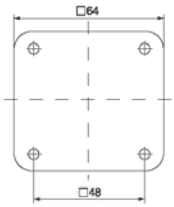
M0



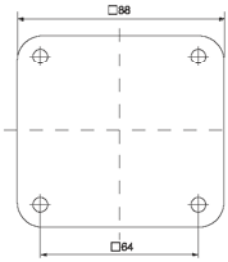
M1



M2



M3



Type of handle	Color	Escutcheon plate M0	M1	M2	M3
R Type 	Black Red White Gray	●	●	●	
F Type 	Black Red White Gray	●	●		
H Type 	Black Red White Gray	●			
P Type 	Black Red White Gray	●	●		

Type of handle	Color	Escutcheon plate M0	M1	M2	M3
I Type 	Black Red White Gray Yellow	●	●	●	
B Type 	Black Red White Gray		●	●	
L Type 	Black Red White Gray			●	
K Type 	Black Red White Gray			●	●

LW26 Series Rotary Switches

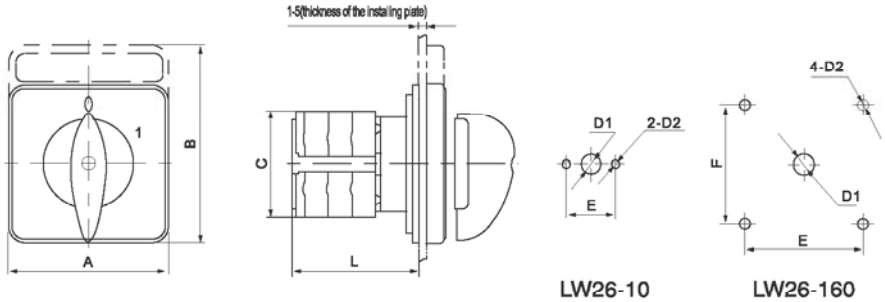
LW26-20

LW26-32

4. Dimensions

Dimensions and installation

Square escutcheon plate and rectangular escutcheon plate



LW26-10 Installation

LW26-160 Installation

Description	Escutcheon plate	Dimension(mm)				Installation(mm)			
		A	B	C	L	E	F	D1	D2
LW26-10	M0 square	30	30	28	22+8n	20		ø8	ø3.2
LW26X-10	M0 square	30	30	28	26.5+12n	20		ø8	ø3.2
LW26-20	M1 square	48	48	43	22+9.6n	36	36	ø8.5	ø4.5
	M1 rectangular	48	60	43	22+9.6n	36	36	ø8.5	ø4.5
	M2 square	64	64	43	25+9.6n	48	48	ø10	ø4.5
	M2 rectangular	64	80	43	25+9.6n	48	48	ø10	ø4.5
LW26X-20	M1 square	48	48	46	22+14n	36	36	ø8.5	ø4.5
	M1 rectangular	48	60	46	22+14n	36	36	ø8.5	ø4.5
	M2 square	64	64	46	25+14n	48	48	ø10	ø4.5
	M2 rectangular	64	80	46	25+14n	48	48	ø10	ø4.5
LW26-25	M1 square	48	48	45.2	23+12.8n	36	36	ø8.5	ø4.5
	M1 rectangular	48	60	45.2	23+12.8n	36	36	ø8.5	ø4.5
	M2 square	64	64	45.2	26.5+12.8n	48	48	ø10	ø4.5
	M2 rectangular	64	80	45.2	26.5+12.8n	48	48	ø10	ø4.5
LW26-32	M2 square	64	64	58	29.2+12.8n	48	48	ø10	ø4.5
	M2 rectangular	64	80	58	29.2+12.8n	48	48	ø10	ø4.5
LW26-32F	M1 square	48	48	48	23+14n	36	36	ø8.5	ø4.5
	M1 rectangular	48	60	48	23+14n	36	36	ø8.5	ø4.5
	M2 square	64	64	48	24.5+14n	48	48	ø10	ø4.5
	M2 rectangular	64	80	48	24.5+14n	48	48	ø10	ø4.5
LW26-63	M2 square	64	64	66	29.2+21.5n	48	48	ø10	ø4.5
	M2 rectangular	64	80	66	29.2+21.5n	48	48	ø10	ø4.5
	M3 square	88	88	66	29.2+21.5n	68	68	ø13	ø4.5
	M3 rectangular	88	107	66	29.2+21.5n	68	68	ø13	ø4.5
LW26-125	M3 square	88	88	84	35+26.5n	68	68	ø13	ø6
	M3 rectangular	88	107	84	35+26.5n	68	68	ø13	ø6
LW26-160	M3 square	88	88	88	35+26.5n	68	68	ø13	ø6
	M3 rectangular	88	107	88	35+26.5n	68	68	ø13	ø6

LW26GS Series Park-lock Type Switches

LW26GS-20/04-1

LW26GS-20/24-2

LW26GS-63/04-2

LW26GS-63/04-3

LW26GS-125/04-3

1. Classification

(1) The LW26GS switch has 6 current ratings: 20A, 25A, 32A, 63A, 125A and 160A. For 20A and 25A is able to install M1 or M2 plate, and for 32A and 63A is able to install M2 or M3 plate, for 125A and 160A is able to install M3 plate only. The M1 plate is able to put 2

Re: -1、-2、-3 represent M1、M2、M3.

(2) The LW 26GS switch has two types:

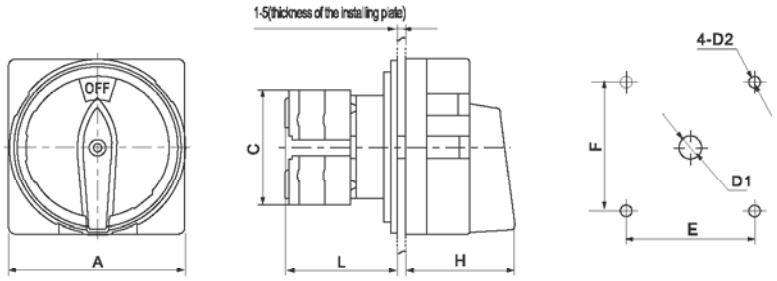
Common type, black plate black handle

Quick stop type, with quick stop mark, yellow plate and red handle.

2. Technical Parameters

Description		LWGS26-20	LWGS26-25	LWGS26-32	LWGS26-63	LWGS26-125	LWGS26-160
Rated working voltage(Ue)	V	440	440	440	440	440	440
Reted thermal current(Ith)	A	20	25	32	63	125	160
Rated working current(Ie)							
AC-21A	A	20	25	32	63	100	150
AC-22A	A	20	25	32	63	100	150
AC-23A	A	15	22	30	57	90	135
Power(P)							
AC-23A	KW	7.5	11	15	30	45	75
Operation							
Non-load		8500	8500	8500	8500	8500	8500
Load		1500	1500	1500	1500	1500	1500
Total		10000	10000	10000	10000	10000	10000

3. Dimension and Installation



Description	Escutcheon plate	Dimension(mm)				Installation(mm)			
		A	C	L	H	E	F	D1	D2
LW26GS-20	M1	□48	43	42	33	36	36	ø8.5	ø4.5
LW26GS-20	M2	□64	43	43	42	48	48	ø8.5	ø4.5
LW26GS-25	M1	□48	45.2	50	33	36	36	ø8.5	ø4.5
LW26GS-25	M2	□64	45.2	51	42	48	48	ø8.5	ø4.5
LW26GS-32	M2	□64	58	55	42	48	48	ø10	ø4.5
LW26GS-32	M3	□88	58	55	52	68	68	ø13	ø6
LW26GS-63	M2	□64	66	72.5	42	48	48	ø10	ø4.5
LW26GS-63	M3	□88	66	72.5	52	68	68	ø13	ø6
LW26GS-125	M3	□88	84	88	52	68	68	ø13	ø6
LW26GS-160	M3	□88	88	100	52	68	68	ø13	ø6

LW30 Series Rotary Switches

LW30-20、32

LW30-80、100

1. Designation

LW 30 - □ / □ □ □ □ □ □

- Type of box
- Way of installation
- Earthing terminal
- Neutral terminal
- Additional contacts
- Number of poles
- Rated thermal current
- Product code
- Rotary switch(Cam switch)

2. Working Conditions

Ambient temperature Do Not exceed 40˚C and the average temperature, measured over a period of 24 hours, Do Not exceed 35˚C.
Ambient temperature should not be below -5˚C.
Should not be installed above 2000m above sea level.
The humidity should not exceed 50% when the ambient temperature is 40˚C and higher humandity is allowed for lower temperature.

Current type: 50Hz AC
Number of main contact: ON and OFF
Frequency: 8 hours per day, 30 times per hour
Mechanism Life: 10000 times/AC-23, 6000 times/AC-3, 2000 times for additional contact.

3. Accessorial Code

Number of poles: 3P, 4P
Additional contacts: 0 for additional contacts not inclosed, 1 for with additional contacts
Neutral terminal: 0 for neutral terminal not inclosed, 1 for with earthing terminal.
Installation:

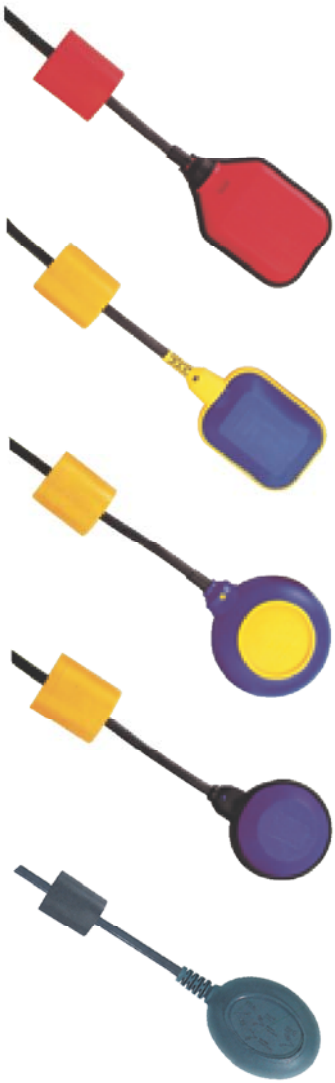
- Pad-lock escutcheon plate
- Escutcheon plate
- Single lock parallel installation
- Doorlock safety switch with padlock system
- Single hole installation

Type of box: 0 without protective box, 1 with IP65 plastic box

4. Installation Conditions

- A clean environment is required.
- Please follow our manual.

Float Switch



1. Application

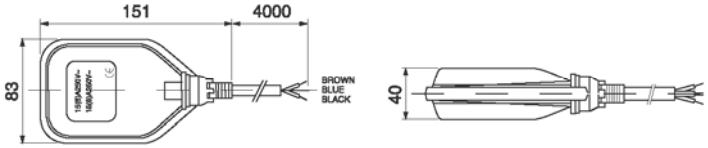
Note1(Outline code): "1"-Trapezium "2"-Rectangle "3"-Large circular
"4"-Small circular "5"-
Note2(Colour code): "R"-Red "Y"-Yellow "S"-Blue "G"-Gray "B"-Black
Note3(Weight code): "1"-Plasticsloop-tightened type(usually no marked)
"2"-Plastics clamp plate screw tightened type(marked must)

G M- □ □ □ / □

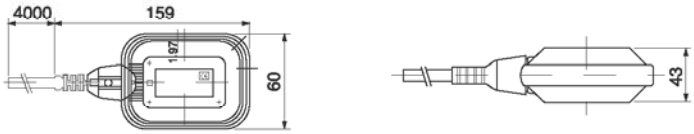
- Weight code(see note3)
- Enclosure edge colour code(see note2)
- Enclosure body colour code(see note2)
- Outline code(see note1)
- Fluid level controller code
- Code

2. Prodect Model & External Dimension Curve

GM-1



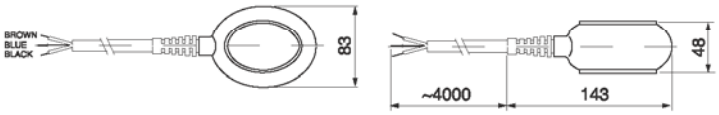
GM-2



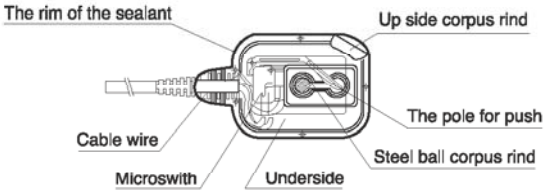
GM-3

GM-4

GM-5



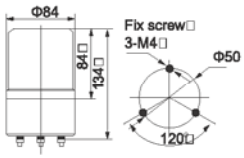
GM-1
GM-2
GM-3
GM-4



1081 Warning Light ø80

Bulb/Revolving

Outer Size



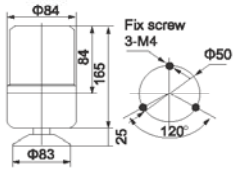
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1081	DC12V DC24V AC110V AC220V	5W
LTE1081J		
LTD1081		
LTD1081J		

1084 Warning Light ø80

Bulb/Revolving

Outer Size



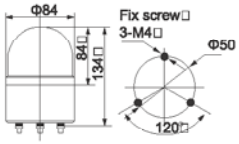
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1084	DC12V DC24V AC110V AC220V	5W

1082 Warning Light ø80

Bulb/Revolving

Outer Size



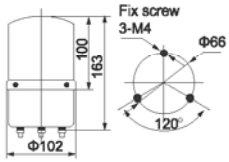
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1082	DC12V DC24V AC110V AC220V	5W
LTE1082J		

1101 Warning Light ø100

Bulb/Revolving

Outer Size



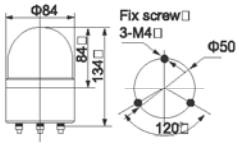
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1101	DC12V DC24V AC110V AC220V	10W
LTE1101J		
LTD1101		
LTD1101J		

2082 Warning Light ø80

Bulb/Flashing

Outer Size



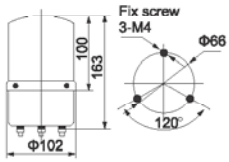
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE2082	DC12V DC24V AC110V AC220V	5W
LTE2082J		

5101 Warning Light ø100

LED/Strobe

Outer Size



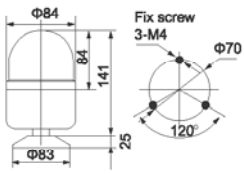
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE5101	DC12V DC24V AC110V AC220V	2W
LTE5101J		

1083 Warning Light ø80

Bulb/Revolving

Outer Size



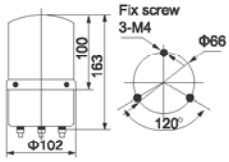
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1083	DC12V DC24V AC110V AC220V	5W

1102 Warning Light ø100

Bulb/Revolving

Outer Size



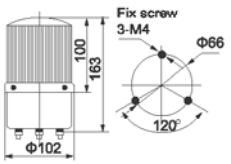
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1102	DC12V DC24V AC110V AC220V	10W
LTE1102J		

1103 Warning Light ø100

Bulb/Revolving

Outer Size



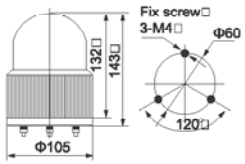
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1103	DC12V DC24V AC110V AC220V	10W
LTE1103J		

1105 Warning Light ø100

Bulb/Revolving

Outer Size



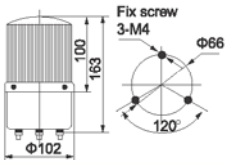
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1105	DC12V DC24V AC110V AC220V	5W
LTD1105		

5103 Warning Light ø100

LED/Strobe

Outer Size



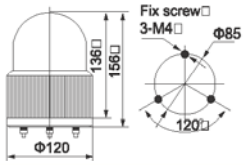
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE5103	DC12V DC24V AC110V AC220V	2W
LTE5103J		

1122 Warning Light ø120

Bulb/Revolving

Outer Size



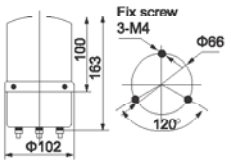
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1122	DC12V DC24V AC110V AC220V	10W
LTD1122		

1104 Warning Light ø100

Bulb/Revolving

Outer Size



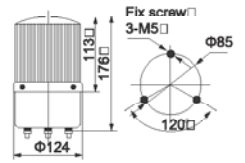
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1104	DC12V DC24V AC110V AC220V	10W
LTE1104J		

1121 Warning Light ø120

Bulb/Revolving

Outer Size



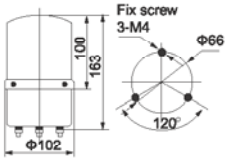
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1121	DC12V DC24V AC110V AC220V	10W
LTE1121J		
LTD1121		
LTD1121J		

5104 Warning Light ø100

LED/Strobe

Outer Size



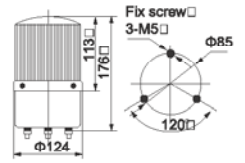
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE5104	DC12V DC24V AC110V AC220V	2W
LTE5104J		

5121 Warning Light ø120

LED/Strobe

Outer Size



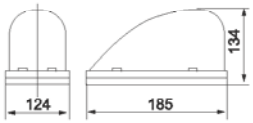
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE5121	DC12V DC24V AC110V AC220V	2W
LTE5121J		

1201 Warning Light

Bulb/Revolving

Outer Size



Color

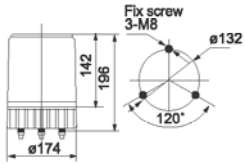
Red
Yellow
Blue

Model	Voltage	Light power
LTD1201	DC12V DC24V	23W

1181 Warning Light ø180

Bulb/Revolving

Outer Size



Color

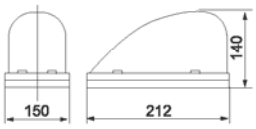
Red
Yellow
Blue

Model	Voltage	Light power
LTE1181	DC12V DC24V AC110V AC220V	35W
LTD1181		

1201J Warning Light

Bulb/Revolving

Outer Size



Color

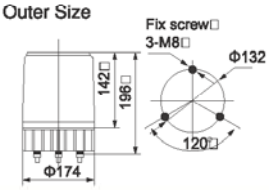
Red
Yellow
Blue

Model	Voltage	Light power
LTD1201J	DC12V DC24V	23W

5181 Warning Light ø180

LED/Strobe

Outer Size



Color

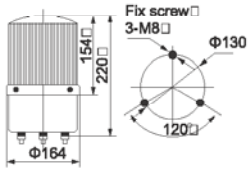
Red
Yellow
Blue

Model	Voltage	Light power
LTE5181	DC12V DC24V AC110V AC220V	3W
LTD5181		

1161 Warning Light ø160

Bulb/Revolving

Outer Size



Color

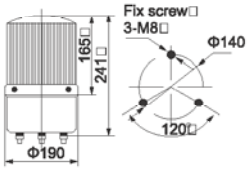
Red
Yellow
Green
Blue

Model	Voltage	Light power
LTE1161	DC12V DC24V AC110V AC220V	35W
LTD1161		

1191 Warning Light ø190

Bulb/Revolving

Outer Size



Color

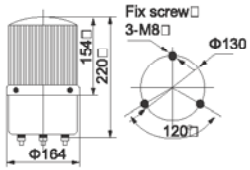
Red
Yellow
Green
Blue

Model	Voltage	Light power
LTE1191	DC12V DC24V AC110V AC220V	55W
LTD1191		

5161 Warning Light ø160

LED/Strobe

Outer Size



Color

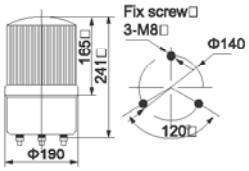
Red
Yellow
Green
Blue

Model	Voltage	Light power
LTE5161	DC12V DC24V AC110V AC220V	3W
LTD5161		

5191 Warning Light ø190

LED/Strobe

Outer Size



Color

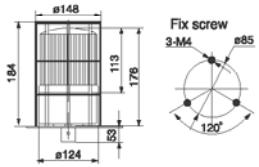
Red
Yellow
Green
Blue

Model	Voltage	Light power
LTE5191	DC12V DC24V AC110V AC220V	3W
LTD5191		

1121S Warning Light ø120

Bulb/Revolving

Outer Size



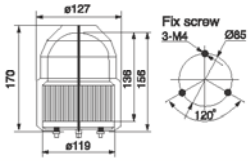
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTG1121S	DC12V DC24V AC110V AC220V	10W

1122S Warning Light ø120

Bulb/Revolving

Outer Size



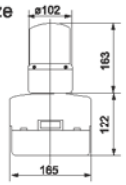
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE1122S	DC12V DC24V AC110V AC220V	10W

1104 Warning Light ø100

Bulb/Revolving

Outer Size



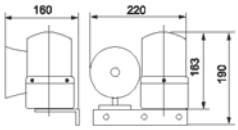
Color: Red, Yellow

Model	Voltage	Light power
LTB1104	DC6V	3W

1102+ML Warning Light

Bulb/Revolving

Outer Size



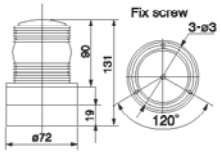
Color: Red, Yellow

Model	Voltage	Light power
LTE1102+ML	DC12V DC24V AC110V AC220V	30W

5062 Flash Beacon ø70

Bulb/Flashing

Outer Size



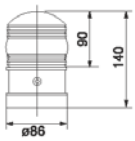
Color: Red, Yellow

Model	Voltage	Light power
LTD5062	DC6V	2W

5088 Flash Beacon ø80

Bulb/Flashing

Outer Size



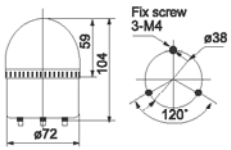
Color: Red, Yellow

Model	Voltage	Light power
LTD5088	DC6V	2W

2071 Flash Beacon ø70

Bulb/Flashing

Outer Size



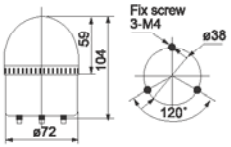
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE2071	DC12V DC24V AC220V	15W
LTD2071		

5071 Flash Beacon ø70

Bulb/Flashing

Outer Size



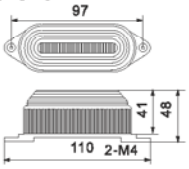
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE5071	DC12V DC24V AC220V	2W
LTD5071		

3051 Strobe Beacon

Xenon Strobe

Outer Size



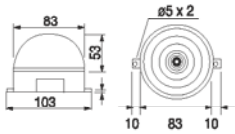
Color: Red, Yellow, Green, Blue, White

Model	Voltage	Light power
LTE3051	DC12V DC24V AC220V	10W

3072 Strobe Beacon ø80

Xenon Strobe

Outer Size



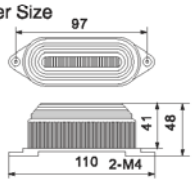
Color: Red, Yellow, Green, Blue, White

Model	Voltage	Light power
LTE3072	DC12V DC24V AC220V	10W

5051 Strobe Beacon

LED/Flashing

Outer Size



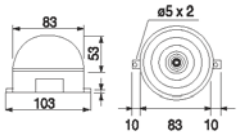
Color: Red, Yellow, Green, Blue, White

Model	Voltage	Light power
LTE5051	DC12V DC24V AC220V	2W

5072 Strobe Beacon ø80

LED/Flashing

Outer Size



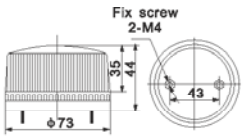
Color: Red, Yellow, Green, Blue, White

Model	Voltage	Light power
LTE5072	DC12V DC24V AC220V	2W

3061 Strobe Beacon ø70

Xenon Strobe

Outer Size



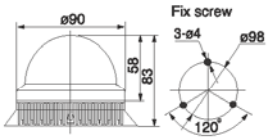
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE6061	DC12V DC24V AC220V	10W

3073 Strobe Beacon ø90

Xenon Strobe

Outer Size



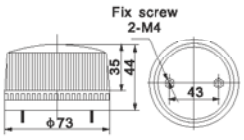
Color: Red, Yellow, Blue

Model	Voltage	Light power
LTE3073	DC12V DC24V AC220V	20W

5061 Strobe Beacon ø70

LED/Flashing

Outer Size



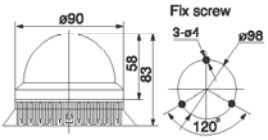
Color: Red, Yellow, Green, Blue

Model	Voltage	Light power
LTE5061	DC12V DC24V AC220V	2W

5073 Strobe Beacon ø90

LED/Flashing

Outer Size



Color: Red, Yellow, Blue

Model	Voltage	Light power
LTE5073	DC12V DC24V AC220V	2W

216 Multi-Level Rotator(Signal Tower)

Bulb Steady Burn
Flashing

Outer Size

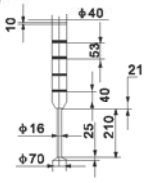
Color
Red
Yellow
Green
Blue
White

Model	Voltage	Light power	Function
LTA216-1	DC12V	5W	T-Steady burn W-Flash J-With buzzer
LTA216-2	DC24V	10W	
LTA216-3	AC110V	15W	
LTA216-4	AC220V	20W	

204 Signal Tower ø40

Bulb Steady Burn
Flashing

Outer Size



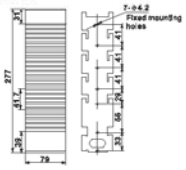
Color
Red
Yellow
Green
Blue

Model	Voltage	Light power	Function
LTA204-1	DC12V DC24V	3W	T-Steady burn W-Flash J-With buzzer
LTA204-2		6W	
LTA204-3		9W	
LTA204-4		12W	

209 Multi-Level Rotator(Signal Tower)

Bulb Steady Burn
Flashing

Outer Size



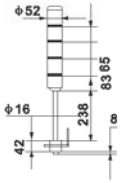
Color
Red
Yellow
Green
Blue
White

Model	Voltage	Light power
LTA209-1	DC12V DC24V AC110V AC220V	5W
LTA209-2		10W
LTA209-3		15W
LTA209-4		20W

205 Signal Tower ø52

Bulb Steady Burn
Flashing

Outer Size

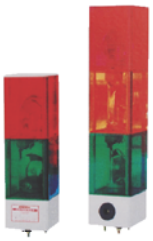


Color
Red
Yellow
Green
Blue
White

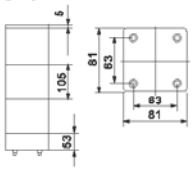
Model	Voltage	Light power	Function
LTA205-1	DC12V DC24V AC110V AC220V	5W	T-Steady burn W-Flash J-With buzzer
LTA205-2		10W	
LTA205-3		15W	
LTA205-4		20W	
LTA205-5		25W	

117 Multi-Level Rotator(Signal Tower)

Bulb/Revolving



Outer Size



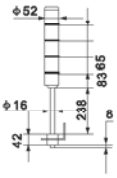
Color
Red
Yellow
Green

Model	Voltage	Lightpower	Function
LTA117-1	DC12V	5W	J-With buzzer
LTA117-2	DC24V AC110V	10W	
LTA117-3	AC220V	15W	

505 Signal Tower ø52

Bulb Steady Burn
Flashing

Outer Size

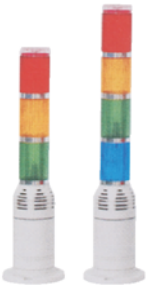


Color
Red
Yellow
Green
Blue
White

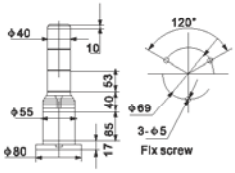
Model	Voltage	Lightpower	Function
LTA505-1	DC12V DC24V AC110V AC220V	2W	T-Steady burn W-Flash J-With buzzer
LTA505-2		4W	
LTA505-3		6W	
LTA505-4		8W	
LTA505-5		10W	

203 Signal Tower ø40

Bulb Steady Burn
Flashing



Outer Size



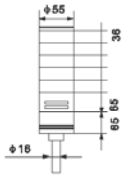
Color
Red
Yellow
Green
Blue

Model	Voltage	Light power	Function
LTA203-1	DC12V	3W	T-Steady burn W-Flash J-With buzzer
LTA203-2	DC24V	6W	
LTA203-3	AC110V	9W	
LTA203-4	AC220V	12W	

506 Signal Tower ø55

Bulb Steady Burn
Flashing

Outer Size



Color
Red
Yellow
Green
Blue
White

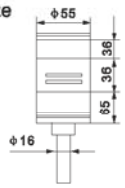
Model	Voltage	Light power	Function
LTA506-1	DC12V DC24V AC110V AC220V	2W	T-Steady burn W-Flash J-With buzzer
LTA506-2		4W	
LTA506-3		6W	
LTA506-4		8W	
LTA506-5		10W	

5001 Signal Tower ø55

LED Steady Burn/ Flashing(Three Colors)

Note:2-3 kinds of colors can be transformed in a lamp's lens

Outer Size



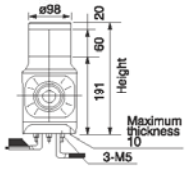
Color: Red, Yellow, Green, Blue, White

Model	Voltage	Light power	Function
LTA5001	DC12V DC24V AC110V AC220V	6W	T-Steady burn W-Flash J-With buzzer

520 Signal Tower ø98

LED Steady Burn Flashing

Outer Size



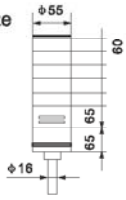
Color: Red, Yellow, Green

Model	Voltage	Light power	Function
LTA520-1J	DC12V DC24V AC110V AC220V	23W	T-Steady burn W-Flash J-With buzzer
LTA520-2J		26W	
LTA520-3J		29W	

207 Signal Tower ø55

Bulb Steady Burn Flashing

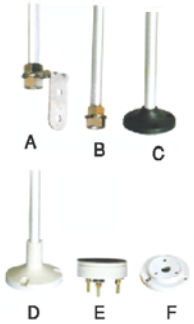
Outer Size



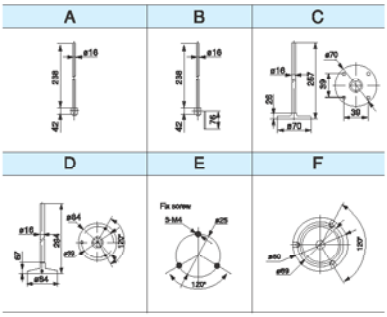
Color: Red, Yellow, Green, Blue, White

Model	Voltage	Light power	Function
LTA207-1	DC12V DC24V AC110V AC220V	5W	T-Steady burn W-Flash J-With buzzer
LTA207-2		10W	
LTA207-3		15W	
LTA207-4		20W	
LTA207-5		25W	

Stack Light's Mounting Base



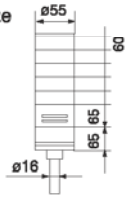
Outer Size



507 Signal Tower ø55

LED Steady Burn Flashing

Outer Size



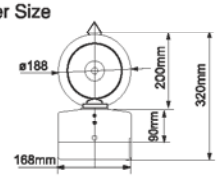
Color: Red, Yellow, Green, Blue, White

Model	Voltage	Light power	Function
LTA507-1	DC12V DC24V AC110V AC220V	2W	T-Steady burn W-Flash J-With buzzer
LTA507-2		4W	
LTA507-3		6W	
LTA507-4		8W	
LTA507-5		10W	

131 Road Block Traffic Light

Xenon Strobe LED/Flashing Bulb/Flashing

Outer Size



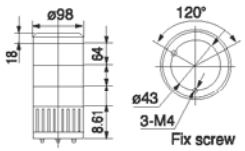
Color: Red, Yellow

Model	Voltage	Light power
LTB2131	DC6V	Halogen Bulb
LTB5131		LED
LTB3131		Xenon Tube

508 Signal Tower ø98

LED Steady Burn Flashing

Outer Size



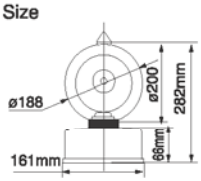
Color: Red, Yellow, Green, Blue, White

Model	Voltage	Light power	Function
LTA508-1	DC12V DC24V AC110V AC220V	3W	T-Steady burn W-Flash J-With buzzer
LTA508-2		6W	
LTA508-3		9W	

5132 Road Block Traffic Light

LED/Flashing

Outer Size



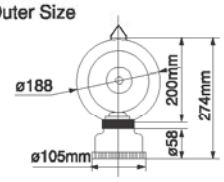
Color: Red, Yellow

Model	Voltage	Light power
LTB5132	DC6V	LED

5133 Road Block Traffic Light

LED/Flashing

Outer Size



Color

Red

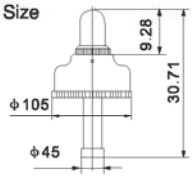
Yellow

Model	Voltage	Light power
LTB5133	DC3V	LED

5064 Road Block Traffic Light

LED/Flashing

Outer Size



Color

Red

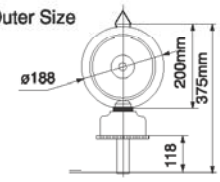
Yellow

Model	Voltage	Light power
LTB5064	DC3V	LED

5184 Road Block Traffic Light

LED/Flashing

Outer Size



Color

Red

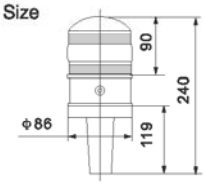
Yellow

Model	Voltage	Light power
LTB5184	DC3V	LED

5088 Road Block Traffic Light ø86

LED/Flashing

Outer Size



Color

Red

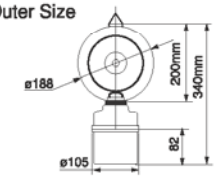
Yellow

Model	Voltage	Light power
LTB5088	DC6V	LED

5185 Road Block Traffic Light

LED/Flashing

Outer Size



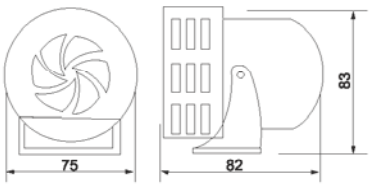
Color

Red

Yellow

Model	Voltage	Light power
LTB5185	DC6V	LED

MS-190 Mini Motor Siren

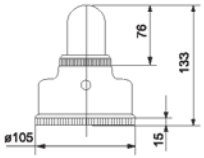


Voltage: DC12V, 24V, AC110V, 220V

5063 Road Block Traffic Light

LED/Flashing

Outer Size



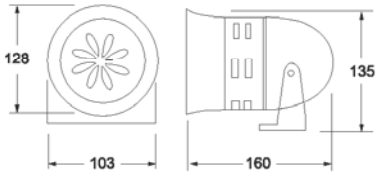
Color

Red

Yellow

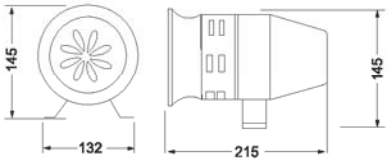
Model	Voltage	Light power
LTB5063	DC3V	LED

MS-290 Motor Siren



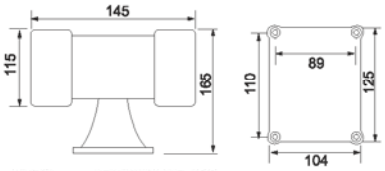
Voltage: DC12V, 24V, AC110V, 220V

MS-390 Motor Siren



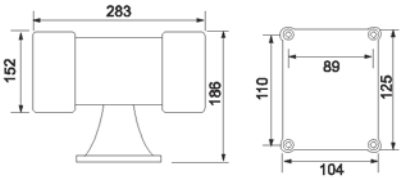
Voltage: DC12V, 24V, AC110V, 220V

MS-490 Double Motor Siren



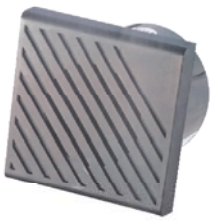
Voltage: AC110V, 230V

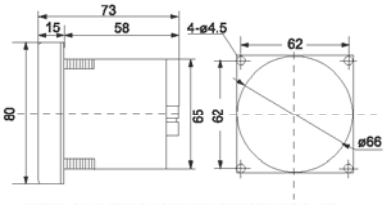
MS-590 Double Motor Siren



Voltage: AC230V

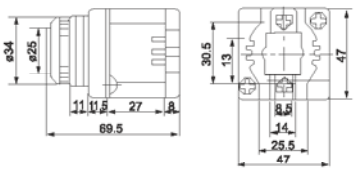
HPB-KM Buzzer





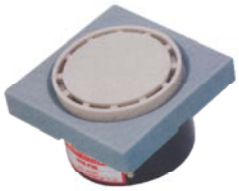
Voltage: DC12V, 24V, AC110V, 220V

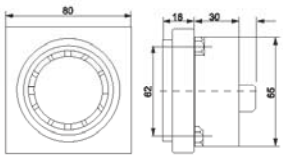
HPB-PS30 Buzzer



Voltage: DC12V, 24V, AC110V, 220V

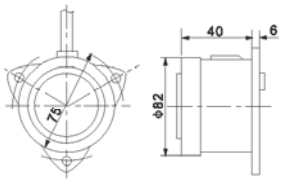
KRB-P80 Buzzer





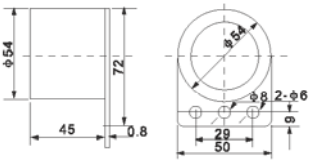
Voltage: DC12V, 24V, AC110V, 220V

KRB-N80 Buzzer



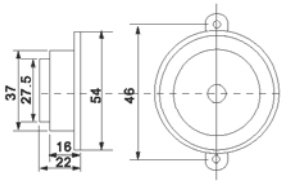
Voltage: DC12V,24V,AC110V,220V

BJ-1 Buzzer



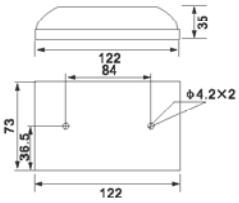
Voltage: DC6V,12V,24V, AC110V,220V

FMQ-3025 Buzzer



Voltage: DC6V, 12V, 24V

FMQ-5123 Buzzer



Voltage: DC12V, 24V, AC110V, 220V

Bell

1.Sepcification

YW01-9V

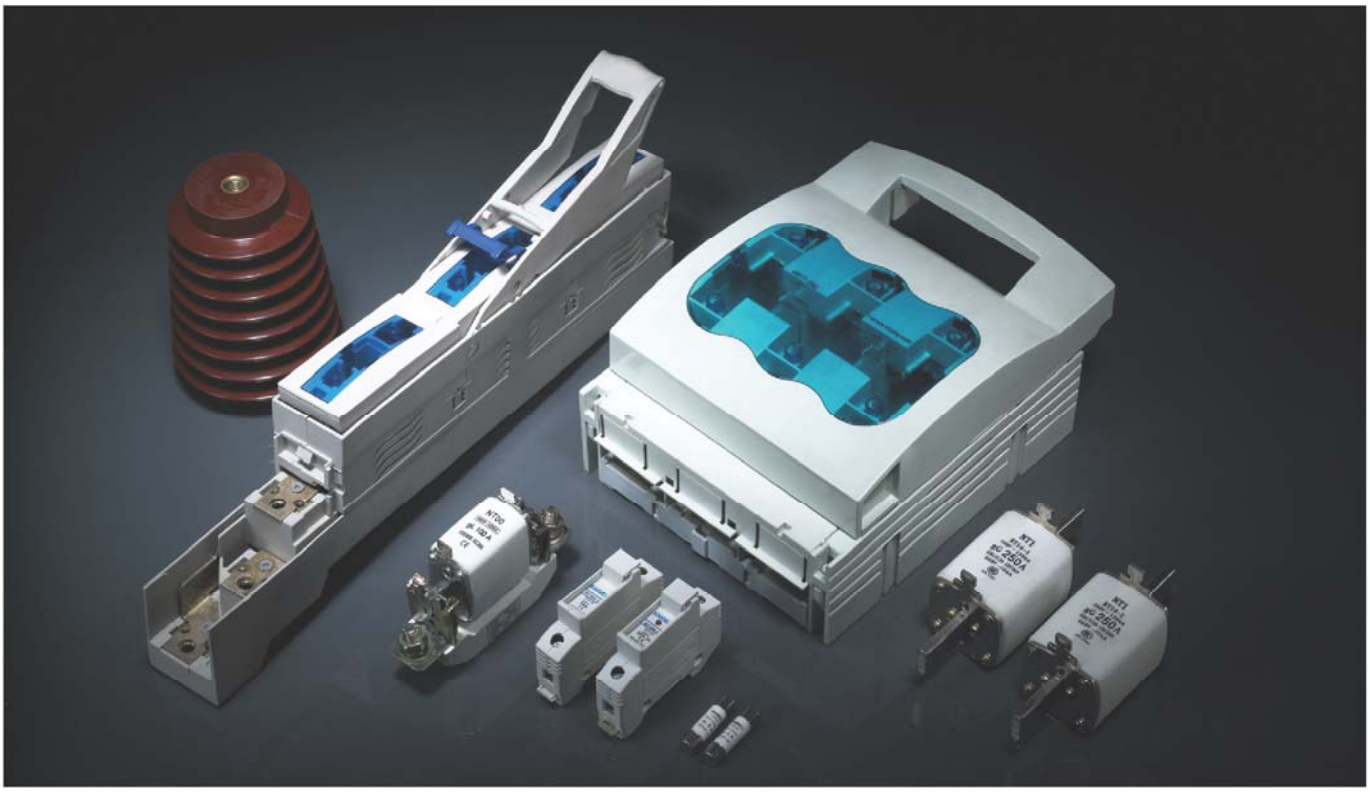
F2-8"

UC4

SCF-100MM

Model	Voltage	Size	Diz(mm)
YW01-9V	9V	6	150
YW04-9V	9V	4	100
F2-4"	DC6V DC12V DC24V AC110V AC120V AC130V AC220V AC230V AC240V	4	100
F2-6"		6	150
F2-8"		8	200
F2-10"		10	250
SB1-55MM	AC110V AC120V AC130V AC220V AC230V AC240V	2	ø55
SB1-75MM		3	ø75
SB1-100MM		4	ø100
SB1-150MM		6	ø150
SB1-200MM		8	ø200
SB1-250MM		10	ø250
SB1-300MM		12	ø300
UC4-55MM	DC6V DC12V DC24V AC110V AC120V AC130V AC220V AC230V AC240V	2	ø55
UC4-75MM		3	ø75
UC4-100MM		4	ø100
UC4-150MM		6	ø150
UC4-200MM		8	ø200
UC4-250MM		10	ø250
UC4-300MM		12	ø300
UC5-75MM	AC110V AC120V AC130V AC220V AC230V AC240V	3	ø75
SCF-75MM	AC110V AC120V AC130V AC220V AC230V AC240V	3	ø75
SCF-100MM		4	ø100
SCF-125MM		5	ø125
SCF-150MM		6	ø150
SCF-200MM		8	ø200
SCF-250MM		10	ø250
SCF-300MM		12	ø300

Fuse & Disconnector



NT Low Voltage Fuse

1. Application

NT low voltage H.R.C. fuse features light in weight, small in size, low in power loss and high in breaking capacity. This product has been widely used in overload and short circuit protection of electric installation. This product conforms to IEC 60269 standards with all of the rating at the world advanced level.

NT00C

NT00

NT0

2. Specifications

Type	Fuse link				Fuse base		
	Rated current (A)	Rated voltage (V)	Rated power loss (W)	Weight (kg)	Type	Rated current (A)	Weight (kg)
NT00C	2	500, 600	0.41	0.15	Sist 101	160	0.2
	4		0.62				
	6		0.81				
	10		1.08				
	16		1.60				
	20		1.81				
	25		2.31				
	32		3.07				
	36		3.17				
	40		4.05				
	50		4.25				
	63		4.70				
	80		5.7				
	100		7				
NT00	4	500, 600	0.67	0.15	Sist 101	160	0.2
	6		0.89				
	10		1.14				
	16		1.65				
	20		1.94				
	25		2.50				
	32		3.32				
	36		3.56				
	40		4.30				
	50		4.5				
	63		4.6				
	80		6				
	100		7.3				
	125	500	7.6				
	160		9.6				
NT0	6	500, 600	1.03	0.2	Sist 160	160	0.32
	10		1.42				
	16		2.45				
	20		2.36				
	25		2.7				
	32		3.74				
	35		4.3				
	40		4.7				
	50		5.5				
	63		6.9				
	80		7.6				
	100		8.9				
	125	500	10.1				
	160		15.2				

2. Specifications

NT1

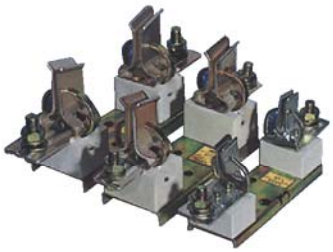
NT2

NT3

Type	Fuse link				Fuse base		
	Rated current (A)	Rated voltage (V)	Rated power loss (W)	Weight (kg)	Type	Rated current (A)	Weight (kg)
NT1	80	500, 600	6.2	0.36	Sist 201	250	0.8
	100		7.5				
	125		10.2				
	160		13				
	200		15.2				
	224	500	16.8				
	250		18.3				
NT2	125	500, 600	9	0.65	Sist401	400	1.2
	160		11.5				
	200		15				
	224		16.6				
	250		18.4				
	300		21				
	315		19.2				
	355		24.5				
	400		26				
NT3	315	500, 600	21.7	0.85	Sist601	630	1.5
	355		22.7				
	400		26.8				
	425		28.9				
	500	500	32				
	630		40.3				
NT4	800	380	62	1.95	Sist1001	1000	3.45
	1000		75				

NT4

NT00 3P



NT2 3P

Fuse Puller

H.R.C Fuse Core

1. Application

The fuses links having cylindrical contact caps are designed for protecting electrical distributing installations of rated voltage of 380V AC. with rated current up to 125A against damage due to overload and short circuit. Fuse links with the striker are supplied for the purpose of protecting motors against motor single phasing operation when fitted in fuse isolators.

RO14 RO15 RO16 RO21 RO22

2. Specifications

Type		Dimension	Rated Current
gG	aR	(mm)	(A)
RO14	RS14	8.5 x 31.5	1, 2, 4, 6, 10, 16, 20
RO14A	RS14A	8.5 x 23	1, 2, 4, 6, 10, 16, 20
RO15	RS15	10 x 38	2, 4, 6, 10, 16, 20, 25, 32
RO16	RS16	14 x 51	2, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63
RO17	RS17	22 x 58	10, 16, 20, 25, 32, 40, 50, 63, 80, 100
RO21	RS21	DII	2, 4, 6, 8, 10, 13, 16, 20, 25
RO22	RS22	DIII	35, 40, 50, 63
RO26	RS26	D01	2-6, 10, 16
		D02	20, 25, 35, 50, 63
		D03	80, 100

RO26

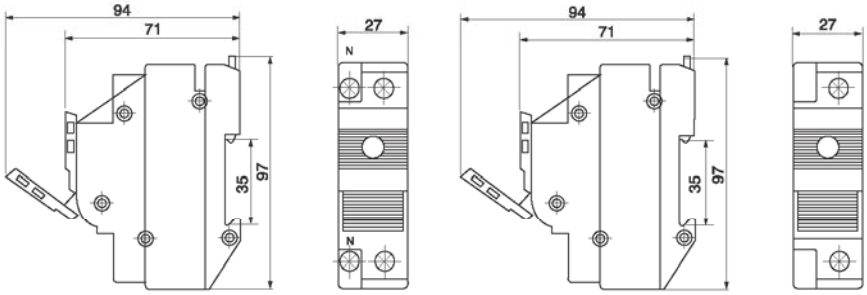
Fuse Holder

1. Specifications

Current	32A	63A
No. of poles	1P+N, 3P, 3P+N	1P, 1P+N, 2P, 3P, 3P+N
Size of fuse link	D02	

RD18-32 1P+N 32A

2.Dimension



32A 1P+N 63A 1P

RD18-63 3P 63A

Model	Current	No.of poles	Conductor cross-section mm²	No. of spacing units per 18mm
RD18-32	32A	1P+N	1.5-16	1.5
	32A	3P	1.5-16	4
RD18-63	63A	1P	1.5-16	1.5
	63A	1P+N	1.5-16	3
	63A	2P	1.5-16	3
	63A	3P	1.5-16	4
	63A	3P+N	1.5-16	6

Fuse Holder

RT18-32X 1P

RT18-63/2P

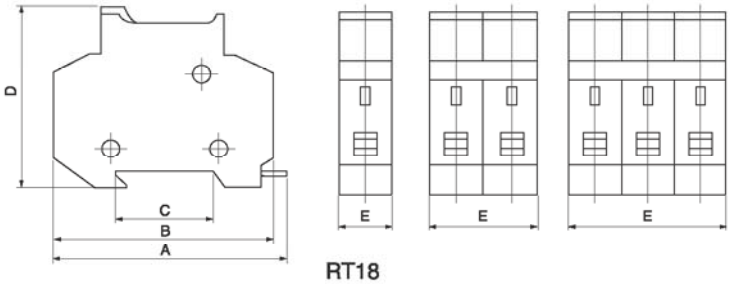
RT18M-32X/3P

RT18L

HG30

RT18

Type	Assorted Fuse	Rated Voltage (V)	Rated Current (A)	Weight (kg)	Dimension (mm)				
					A	B	C	D	E
RT18-32 1P	10 x 38	380	32	0.075	82	78	35	63	18
RT18-32 2P			32	0.15	82	78	35	63	36
RT18-32 3P			32	0.22	82	78	35	63	54
RT18-63 1P	14 x 51		63	0.18	106	103	35	80	26
RT18-63 2P			63	0.36	106	103	35	80	52
RT18-63 3P			63	0.54	106	103	35	80	78
RT18-32X 1P	10 x 38		32	0.075	82	78	35	63	18
RT18-32X 2P			32	0.15	82	78	35	63	36
RT18-32X 3P			32	0.22	82	78	35	63	54
RT18-63X 1P	14 x 51		63	0.18	106	103	35	80	26
RT18-63X 2P			63	0.36	106	103	35	80	52
RT18-63X 3P			63	0.54	106	103	35	80	78



RT18

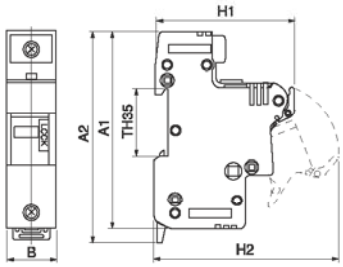
RT18L

Type	Assorted Fuse	Number of Poles	Rated Insulation Voltage (V)	Conventional heating current (A)	Dimension (mm)				
					A1	A2	B	H1	H2
RT18L-63	14 x 51	1, 2, 3, 4	690	63	108	115	27	78	100
RT18L-125	22 x 58			125	126	134	36	78	104

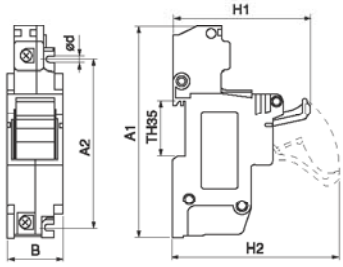
HG30

Type	Assorted Fuse	Number of Poles	Rated Insulation Voltage (V)	Conventional heating current (A)	Dimension (mm)					
					A1	A2	B	H1	H2	ød
HG30-63	14 x 51	1, 2, 3, 4	500	63	107	80	27	80	102	4.5
HG30-125	22 x 58			125	140	110	36	90	109	4.5

Dimension



RT18L



HG30

J Fuse Link

J Type

1. Specifications

size	Rated current (A)
76mm 3"	20 35 32 40 50 63 80 100 125 160 200
83mm 3¹/4"	20 25 32 40 50 63 80 100 125 160 200 250 315 355 400
92mm 3⁵/8"	20 25 32 40 50 63 80 100 125 160 200 250 315 355 400 450 500 560 630 800

Fuse Base

RL6-25 RL6-63

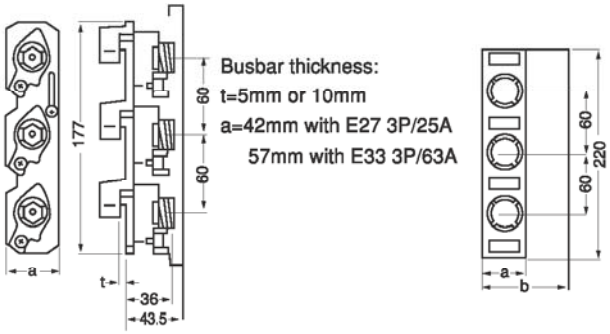
1. Specifications

Model	RL6-25	RL6-63
Rated Voltage	500V	500V
Rated Current of Fuse	25A	63A
Rated Current of Fusant	2,4,6,10,16,20,25A	35,50,63A
Rated Breaking Current	50KA cosø=0.1-0.2kg	50KA cosø=0.1-0.2kg
Overall dimension	66 x 43 x 80	89 x 54 x 82
Weight	0.20kg	0.25kg

2. Dimension

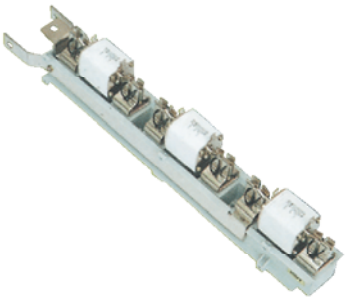
E27 3P

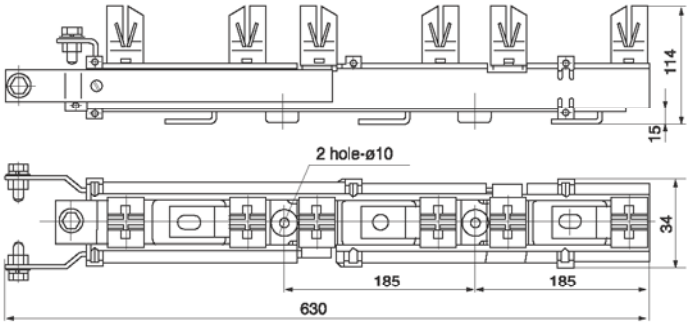
E33 3P



Size	a(1x)	b(2x)
E27 3P	42	84
E33 3P	57	114

E27 3P/E33 3P Veitrcal type





NT2-3J

Fuse link

Fuse link

1.Specification

Dimension mm	Rated current (A)	L	Hamx	ØC
		mm		
8.5 x 31.5	2,4,6,10,16	31.5± 0 0.6	8.5	8.5±0.1
10 x 38	2,4,6,10,16,20,25,32	33±0.6	10.5	10.3±0.1
14 x 51	2,4,6,10,16,20,25,32,40,50,63	51± 06 10	13.8	14.3±0.1
22 x 58	10,16,20,25,32,40,50,63,80,100	58± 01 20	16.2	22.2±0.1
30 x 58	63,80,100,125	58± 01 20	16.2	30±0.1

Cut Out Fuse

60# 60/80A

100# 1P+N 100A

1. Application

FS cutouts are made of high grade phenolic moulding power having high mechanical and dielectric strength. The body possesser non-hygroscopic and non-tracking qualities. Terminal contracts are of tinned brass with phosphor bronze back up compression spring capable of providing flawless service even after years of use.

It has features like: all components are inter-locked. Sealing provision to aviod unauthorised access. Common body from 15amps to 100amps. Terminal are suitable for aluminium/copper conductors upto 35sq.mm loop in and loop out cabling contacts available.

FS insulated service cutouts conform to BS 1361•1986 standard SR H fuses conform to BS1361.1986. The available current is 60# 60/80A, 100# 60/80A, 100# 100A, 100# 1P+N 60/80A, 100# 1P+N 100A.

Isolating Switch Fuse

HR5

1. Application

The product is used in distribution circuit and motor circuit of current 50Hz, rated operational frequency 660V under, and rated current 100-630A, also used in high-short-circuit as power switch, isolating switch and emergency switch protecting circuit. Fitted with NT(RT16)fuse. It conforms to IEC60947-3.

2. Spcifications

Model		100	200	400	630
Number of Main Poles		3			
Rated Insulation Voltage AC (V)		690			
Rated Operational Voltage (V)					
Rated Operational Current (A)	380V AC-23	100	200	400	630
	660V AC-22	100			
Rated Making Capacity	380V cosø0.35 AC-23		10		
	660V cosø0.65 AC-22	3			
Rated Breaking Capacity	380V cosø0.35 AC-23	8	8		
	660V cosø0.65 AC-22	3			
Rated Fused Short Circuit Current (KAr.m.s)	380V AC-23	100			
	660V AC-22				
Max.Fuse-Link (A)		160	250	400	630
Fuse Type (NT0)					
Mechanical Endurance/Electrical Endurance (Operations)		3000		1000	
Auxiliary Switch (380V AC-15)VA		300			

Fuse Disconnector

1. Specifications

HR17 3P

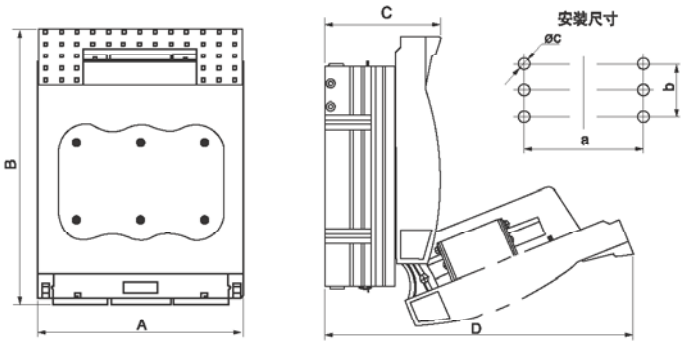
Switch Rating Heat Current (A)	Number of Poles	Assorted Fuse	Rated Current (A)
160	3, 4	NT00	4,6,10,16,20,25,32,35,40,50,63,80,100,125,160
250		NT1	80,100,125,160,200,224,250
400		NT2	125,160,200,224,250,300,315,355,400
630		NT3	315,335,400,425,500,630

2. Dimension

HR17

Model	Assorted Fuse	A	B	C	D	a	b	øc
HR17-160/30	NT00	106	200	83	205	66	25	ø7
HR17-250/30	NT1	185	247	110	295	114	50	ø11
HR17-400/30	NT2	210	290	125	340	130	50	ø11
HR17-630/30	NT3	256	300	145	360	162	50	ø11
HR17-160/40	NT00	138	200	83	205	100	25	ø7
HR17-250/40	NT1	242	247	110	295	172	50	ø11
HR17-400/40	NT2	276	290	125	340	195	50	ø11
HR17-630/40	NT3	340	300	145	360	243	50	ø11

HR17 4P

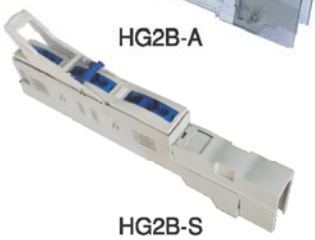


3. Dimension

HR18

Model	Assorted Fuse	A	B	C	D	E	a	b	øc
HR18-160	NT00	105	184	88	160	43	73	25	ø7
HR18-250	NT1	184	268	116	230	66	115	50	ø9
HR18-400	NT2	210	285	129	256	81	140	50	ø9
HR18-630	NT3	250	328	138	315	86	150	50	ø9

HG2B-A



HG2B-S

HG2B Fuse Disconnector

1.Specifications

Model	Assorted Fuse	Switch Rating Heat Current (A)	Rated Current (A)
HG2B-160A	NT00	160	4,6,10,16,20,25,32,35,40,50,63,80,100,125,160
HG2B-250A	NT1	250	80,100,125,160,200,224,250
HG2B-400A	NT2	400	125,160,200,224,250,300,315,355,400
HG2B-630A	NT3	630	315,335,400,425,500,630

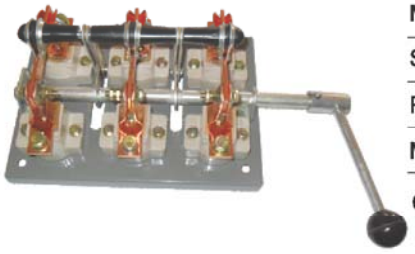
Disconnect Fuses

1. Application

Disconnect fuses PⅡC are used for passing the nominal currents, turning the power of the off-load electric networks with the nominal voltage up to 500V with the nominal frequency 50 and 60 Hz in the power distribution devices on and off.

2.Technical characteristics

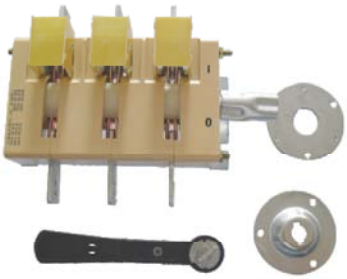
Name of the parameter	BP32-31B31250 PB-100-Ⅱ	BP32-35B31250 PB-250-Ⅱ	BP32-37B31250 PB-400-Ⅱ
Nominal working voltage, Uw, V	500	500	500
Nominal frequency,Hz	50and60	50and60	50and60
Nominal insulation voltage, Ui, V	660	660	660
Nominal working current, Iw, A, AC=20V	100	250	400
Nominal making and breaking capacity at the voltage U=1,05 Uw, I=1,5 Iw, cos φ =0,95	120kA	120kA	120kA
Nominal conventional short circuit current, Isc, kA	20	20	30
Nominal current of the fuse links, A	100	250	400
Max. power losses of the fuse links, W	16	34	56
Standard connection	M8	M10	M12
Protection level	IP00		
Mechanical indurance, not less (cycles)	2500		

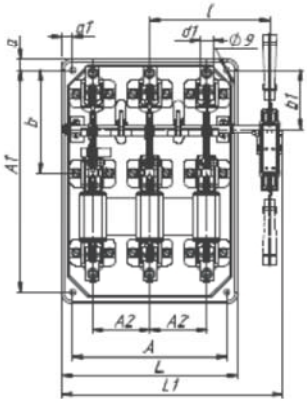


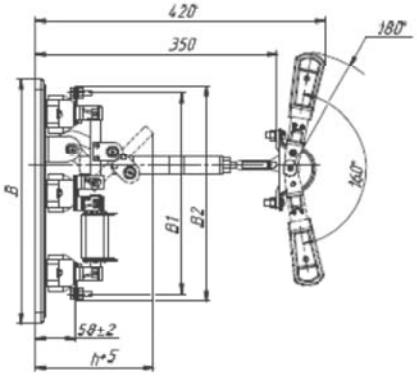
Current conducting elements are made of the high quality copper.

Disconnect fuses with the forward positioned handle for the currents up to 400 A.

Apparatus version	Conventional thermal current, A	Dimentions(mm)														
		A	A1	A2	a	a1	h	L	L1	I	B	B1	B2	b	b1	d
PIIC1/ Ⅱ (ⅠⅠ)	100	230	330	85	17	17	175	264	322	180	364	299	319	154	87	20
PIIC2/ Ⅱ (ⅠⅠ)	250						190					315	340	164		25
PIIC4/ Ⅱ (ⅠⅠ)	400						195					359	384	154		







ANDELI

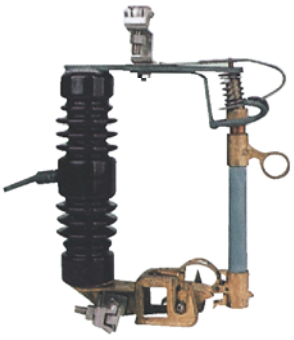
RS,RW,RH

High Voltage Cutout

12KV-15KV

15KV-18KV

24KV



33KV-35KV

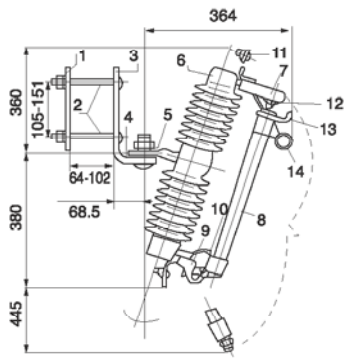
1. Description

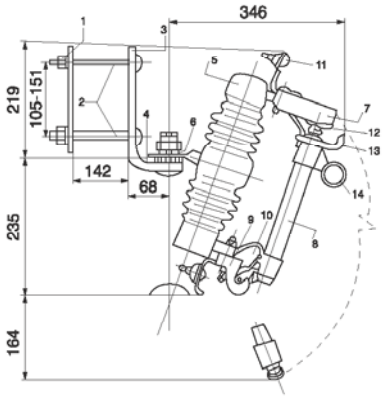
- Mounting Bracket
- Long Bolts
- Mounting Bracket
- External-Tooth Lock Washer
- Porcelain Insulator
- Lock Washer
- Upper Connection
- Fuse Holder
- Lower Connection
- Lifting Eye
- Connectors
- Steady Contacts
- Load Break Tool Attack Hook
- Opening Eye

2. Specification

Type	Rated Voltage (KV)	Rated Current (A)	Breaking Current (A)	Impulse Voltage (BIL)	Power-Frequency Withstand Voltage (KV)	Crawling Distance	Weight (kg)
RS-7	15	100	10000	110	42	230m/m	7
RS-7	15	100	12000	110	42	230m/m	7
RH-8	15	100	10000	110	42	230m/m	7.3
RH-8	15	100	12000	110	42	230m/m	7.3
RH-C	15	100	10000	110	42	320m/m	7.5
RH-C	15	100	12000	110	42	320m/m	7.5
RH-A	35	100	6000	180	70	800m/m	25
RH-A	35	100	8000	180	70	800m/m	25
R-98	18	100	8000	125	45	340m/m	8.8
R-98	18	100	10000	125	45	340m/m	8.8
R-97	24	100	8000	150	50	500m/m	12
R-97	24	100	10000	150	50	500m/m	12
RH-8	35	100	6000	170	70	660m/m	15
RH-8	35	100	8000	170	70	660m/m	15
RW10-10F/100	12	100	6300	70	42	230m/m	7
RW10-10F/100	12	200	6300	70	42	230m/m	7
RW11-10F-100	12	100	6300	70	42	330m/m	3.5
RW11-10F/100	12	200	6300	70	42	330m/m	3.5
PRWG-10F/100	12	100	6300	70	42	340m/m	8.5
PRWG-10F/100	12	200	6300	70	42	340m/m	8.5

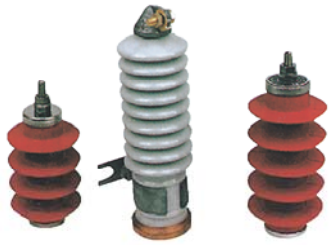
3. Dimension





Lightning Arrester

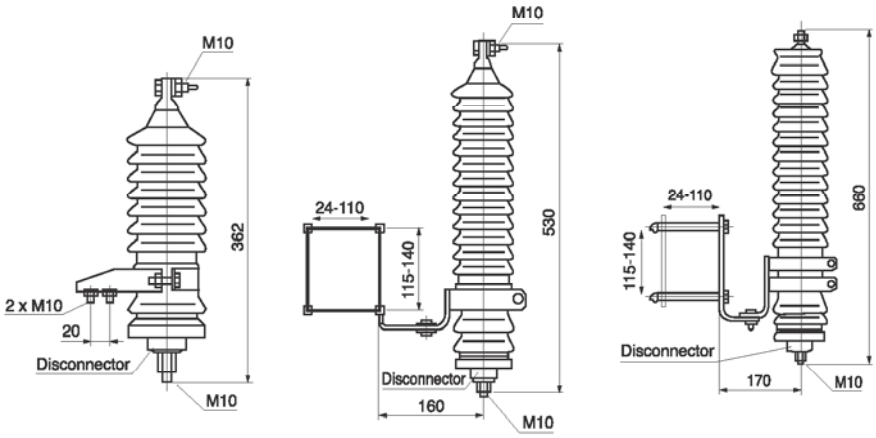
1. YHWS1 Lightning Arrester



YHWS1

Type	System Rated Voltage (KV)	Lightning Arrester Rated voltage (KV)	Lightning Arrester Continuous Operating Voltage (KV)	DC 1mA Voltage (KV)	Nominal Discharge Current Wire (KV)	Square Wage Impulse Current Endurance (A)
YHWS-3.8/17	3	3.8	2.0	7.5	17	100
YHWS-7.3/30	6	7.6	4.0	15	30	100
YHWS-10/30	6	10	4.0	15	30	100
YHWS-12.7/50	10	12.7	6.6	25	50	100
YHWS-17/45	10	17	12.7	25	50	100

2. Dimension



Y5C-Y10C

3. Y5C-Y10C Lightning Arrester

Type	Rated Voltage (KV)	Power Frequency Discharge Current ≤ KV	Impulse Discharge Voltage ≥ KV	8/20 μ S Residual Voltage for Lightning Impulse ≤ KV	Square Wave Through Discharge (A)	8/20 μ S Impulse Max Current 20 Times (KV)	Front-of-Wave Impulse Max Sparkover Voltage (KV)
Y5C-15	15	26	47	57	100	40	47
Y10C-15	15	26	43	51	150	65	43
Y5C-18	18	33	48	57	100	40	66
Y10C-18	18	33	48	60	200	65	70
Y5C-24	24	40	66	80	100	40	88
Y10C-24	24	40	66	80	200	65	92
Y5C-33	33	56	100	123	100	40	100
Y10C-33	33	56	93	113	200	65	93
Y5C-36	36	61	106	133	100	40	106
Y10C-36	36	61	99	120	200	65	99

Welding Machine & Rectifier

IGBT TYPE

1.Application

- totally 5.5KG, compact and portable, easy and simple to operate
- start arc easily, stable welding arc, deep weld pool and beatiful welding shape
- hot striking arc current is adjustable which can greatly improve the arc-starting function
- suitable for welding with different kinds of acid or basic electrode
- plastic box with complete accessories is optional: electrode holder, earth clamp, cable joint, welding mask and brush

2.Portable MMA Welding Machine

Mode	ARC-140G*	ARC-160G*	ARC-200G*	ARC-250G*	ARC-315G*	ARC-400G*	ARC-500G
Typel	IGBT Chip						
Rated input voltage (V)	single phase AC220 ±15%			three phase AC380 ±15%			
Rated frequency (Hz)	50/60			50/60			
Rated input power (KVA)	4.5	5.3	7	8	13	18	23
Rated input current (A)	20	24	32	12	20	27	34.6
Rated output	140A/25.6V	160A/26.4V	200A/28V	220A/28.8V	315A/32.6V	400A/36V	470A/38.8V
Output current (A)	20-140	20-160	20-200	20-220	20-315	20-400	20-470
No-load voltage (V)	56±5	56±5	62±5	60±5	60±5	65±5	65±5
Rated duty cycle (%)	60	60	60	60	60	60	60
Effciency (%)	85	85	85	85	85	85	85
Power factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Protection grade	IP21	IP21	IP21	IP21	IP21	IP21	IP21
Insulation grade	F	F	F	F	F	F	F
Net weight (KG)	5	5	5.9	11.6	19.7	26.3	29.3
Gross weight (KG)	5.9	5.9	6.8	12.9	22.3	29.3	32.3
Housing of machine	iron	iron	iron	iron	iron	iron	iron
Dimension of machine (mm)	330×120×200	330×120×200	330×120×200	350×130×260	495×200×392	495×200×392	540×280×470
Packing	carton	carton	carton	carton	carton	carton	carton
Dimension of packing 1V1 (mm)	428×206×220	428×206×220	428×206×220	472×237×336	581×297×427	581×297×427	640×410×510
Dimension of packing 4V1 (mm)	442×431×466	442×431×466	442×431×466	-	-	-	-
Including accessories: earth clamp×1pcs, cable joint×2pcs, inner hexagon spanner×1pcs							
Plastic box with complete accessories is optional: earth clamp×1pcs, cable joint×2pcs, electrode holder×1pcs, welding mask×1pcs,brush×1pcs							

* two options: iron panel and plastic panel

MOSFET TYPE

1.Application

ARC-200

- MOSFET inverter circuit, high frequency arc starting
- compact, portable, highly effective, low power consumption
- automatic compensation for voltage fuctuation, can work against input voltage fuctuation（V±15%）
- small splashing, great penetration, easy and simple to operate and aesthetic appearance of weld seam
- over-voltage protection, undervoltage protection, over current protection, over load protection

2.Inverter DC MMA Welding Machine

ARC-250

ARC-400

Model	ARC-160	ARC-200	ARC-250	ARC-315	ARC-400	ARC-500
Type	MOSFET					
Rated input voltage (V)	single phase AC220 ±15%		three phase AC380 ±15%			
Rated frequency (Hz)	50/60					
Rated input power (KVA)	5.3	7	7.9	13	17	24
Rated input current (A)	24	31.8	12	19.5	25.4	35.7
Rated output	160A/26.4V	200A/28V	220A/28.8V	315A/32.6V	380A/35.2V	480A/39.2V
Output current (A)	20-160	20-200	20-220	20-315	20-380	20-480
No-load voltage (V)	56±5	56±5	60±5	60±5	60±5	60±5
Rated duty cycle (%)	60	60	60	60	60	60
Effciency (%)	85	85	85	85	85	85
Power factor	0.85	0.85	0.85	0.85	0.85	0.85
Protection grade	IP21	IP21	IP21	IP21	IP21	IP21
Insulation grade	F	F	F	F	F	F
Net weight (KG)	7.6	8	16.4	23.9	29.9	31.5
Gross weight (KG)	8.4	9.5	18.2	27.3	33.2	35.1
Housing of machine	iron	iron	iron	iron	iron	iron
Dimension of machine (mm)	400×155×300	412×155×300	495×203×359	571×324×431	571×324×431	571×324×431
Packing	carton	carton	carton	carton	carton	carton
Dimension of packing (mm)	477×271×320	507×271×320	550×260×450	620×400×500	620×400×500	620×400×500
Including accessories: earth clamp×1pcs, cable joint×2pcs, inner hexagon spanner×1pcs						

IGBT MODULE TYPE

1.Application

- adopts IGBT module technology
- soft-switching technology brings higher effciency and more stable performance
- automatic compensation for voltage fuctuation, can work against input voltage fuctuation（V±15%）
- small splashing, great penetration, easy and simple to operate and aesthetic appearance of weld seam
- over-voltage protection, undervoltage protection, over current protection, over load protection
- suitable for welding with different kinds of acid or basic electrode

※ARC-400X support down weld with cellulose type electrode

2.Inverter DC MMA Welding Machine

Model	ARC-400*	ARC-500*	ARC-630	ARC-1000	ARC-1250
Type	IGBT Module				
Rated input voltage (V)	three phase AC380 ±15%				
Rated frequency (Hz)	50/60				
Rated input power (KVA)	18.4	25	35	55	69
Rated input current (A)	28	38	52	84	104
Output current (A)	20-400	20-500	50-630	60-1000	60-1250
Rated working voltage (V)	36	40	44	44	44
Drive adjustment (A)	0-100	0-100	0-100	0-100	0-100
No-load voltage (V)	79	79	79	95	95
Rated duty cycle (%)	60	60	60	60	60
Effciency (%)	85	85	85	85	85
Power factor	0.93	0.93	0.93	0.93	0.93
Protection grade	IP21	IP21	IP21	IP21	IP21
Insulation grade	F	F	F	F	F
Net weight (KG)	37.6	45	55.2	74	96
Gross weight (KG)	42.5	50	67.6	85	113
Housing of machine	iron	iron	iron	iron	iron
Dimension of machine (mm)	642×323×573	642×323×573	700×360×638	777×380×830	830×390×820
Packing	carton	carton	wooden box	wooden box	wooden box
Dimension of packing (mm)	700×390×660	700×390×660	760×450×705	830×480×910	915×480×930
Including accessories: earth clamp×1pcs, cable joint×2pcs, inner hexagon spanner×1pcs					

* two options: iron panel and plastic panel

IGBT TYPE

1.Application

- support TIG & MMA two kinds of welding
- compact and portable, easy and simple to operate
- start arc easily, stable welding arc, deep weld pool and beatiful welding shape
- suitable for welding with different kinds of acid or basic electrode
- plastic box with complete accessories is optional: electrode holder, earth clamp, cable joint, grounding cable, welding mask, brush and QQ150A TIG torch

2.Portable TIG/MMA Welding Machine

Model	TIG-180G*	TIG-200G*	TIG-250G*
Type	IGBT Chip		
Rated input voltage (V)	single phase AC220 ±15%		three phase AC380 ±15%
Rated frequency (Hz)	50/60		50/60
Rated input power (KVA)	5	5.7	8
Rated input current (A)	23	26	12
Rated output	155A/26.2V	170A/26.8V	220A/28.8V
Output current (A)	TIG: 20-175 MMA: 20-155	TIG: 20-190 MMA: 20-170	TIG: 20-220 MMA: 20-220
No-load voltage (V)	56±5	62±5	62±5
Rated duty cycle (%)	60	60	60
Effciency (%)	80	80	80
Power factor	0.7	0.7	0.7
Protection grade	IP21	IP21	IP21
Insulation grade	F	F	F
Net weight (KG)	5.5	6	20
Gross weight (KG)	6.5	7	22
Housing of machine	iron	iron	iron
Dimension of machine (mm)	335×120×200	335×120×200	480×200×375
Dimension of packing 1V1 (mm)	428×228×226	428×228×226	472×237×336
Dimension of packing 4V1 (mm)	475×445×485	475×445×485	-
Including accessories: earth clamp×1pcs, cable joint×2pcs, inner hexagon spanner×1pcs, grounding cable×3meters, TIG torch×1set (QQ150A for TIG-180G/200G, WP-26 for TIG-250G)			
Plastic box with complete accessories is optional			

* two options: iron panel and plastic panel

MOSFET TYPE

TIG-200

1.Application

- support TIG & MMA two kinds of welding
- MOSFET inverter circuit, high frequency arc starting
- compact, portable, highly effective, low power consumption
- automatic compensation for voltage fuctuation, can work against input voltage fuctuation（V±15%）
- small splashing, great penetration, easy and simple to operate and aesthetic appearance of weld seam
- over-voltage protection, undervoltage protection, over current protection, over load protection

2.Inverter DC TIG/MMA Welding Machine

TIG-250

TIG-400

Model	TIG-160	TIG-200	TIG-250	TIG-315	TIG-400	TIG-500
Type	MOSFET					
Rated input voltage (V)	single phase AC220 ±15%		three phase AC380 ±15%			
Rated frequency (Hz)	50/60		50/60			
Rated input power (KVA)	5.3	7	7.9	13	17	24
Rated input current (A)	24	31.8	12	19.5	25.4	35.7
Rated output	TIG/MMA: 160A/26.4V	TIG/MMA: 200A/28V	TIG/MMA: 220A/28.8V	TIG/MMA: 315A/32.6V	TIG/MMA: 380A/35.2V	TIG/MMA: 480A/39.2V
Output current (A)	20-160	20-200	20-220	20-315	20-380	20-480
No-load voltage (V)	56±5	56±5	60±5	60±5	60±5	60±5
Rated duty cycle (%)	60	60	60	60	60	60
Effciency (%)	85	85	85	85	85	85
Power factor	0.85	0.85	0.85	0.85	0.85	0.85
Protection grade	IP21	IP21	IP21	IP21	IP21	IP21
Insulation grade	F	F	F	F	F	F
Net weight (KG)	8.5	9.4	17.5	25.3	31.9	32.7
Gross weight (KG)	11.5	13.2	22	30.9	38.5	39.7
Housing of machine	iron	iron	iron	iron	iron	iron
Dimension of machine (mm)	400×155×300	412×155×300	500×210×370	580×330×440	580×330×440	580×330×440
Packing	carton	carton	carton	carton	carton	carton
Dimension of packing (mm)	477×271×320	507×271×320	560×270×460	640×400×510	640×400×510	640×400×510
Including accessories: earth clamp×1pcs, cable joint×2pcs, grounding cable×3meters, TIG torch×1set (QQ150 for TIG-160, air cooled WP-26 for TIG-200, water cooled WP-18 for TIG-315/400/500)						

IGBT MODULE TYPE

1.Application

- support TIG & MMA two kinds of welding
- adopts IGBT module technology
- soft-switching technology brings higher effciency and more stable performance
- automatic compensation for voltage fuctuation, can work against input voltage fuctuation（V±15%）
- over-voltage protection, undervoltage protection, over current protection, over load protection
- suitable for welding with different kinds of acid or basic electrode, MMA support down weld with cellulose type electrode

2.Inverter DC TIG/MMA Welding Machine

Model	TIG-400*	TIG-500*	TIG-630
Type	IGBT Module		
Rated input voltage (V)	three phase AC380 ±15%		
Rated frequency (Hz)	50/60		
Rated input power (KVA)	18.4	25	35
Rated input current (A)	28	38	52
Output current (A)	20-400	20-500	50-630
Rated working voltage (V)	36	40	44
Drive adjustment (A)	0-100	0-100	0-100
No-load voltage (V)	79	79	79
Diameter of tungsten needle (mm)	1.6-4.0	1.6-4.0	1.6-4.0
Rated duty cycle (%)	60	60	60
Effciency (%)	85	85	85
Power factor	0.93	0.93	0.93
Protection grade	IP21	IP21	IP21
Insulation grade	F	F	F
Net weight (KG)	41.4	47.6	51
Gross weight (KG)	49.6	55.8	60
Housing of machine	iron	iron	iron
Dimension of machine (mm)	642×323×573	642×323×573	697×350×635
Packing	carton	carton	wooden box
Dimension of packing (mm)	700×390×660	700×390×660	760×450×705

Including accessories: earth clamp×1pcs, cable joint×2pcs, grounding cable×3meters, air cooled QQ300 TIG torch×1set (water cooled QS300 is optional)

* two options: iron panel and plastic panel

MOSFET TYPE

1.Application

- suitable for welding metal plate with thickness above 0. 8mm
- low cost but with high effciency
- both output current and voltage could be adjustable to satisfy different welding requirement
- small splashing, great penetration
- two options of wire feeder: built-in or separated

2.Inverter CO2 Gas Shielded Welding Machine

Model	MIG-200Y*	MIG-250Y*	MIG-200F	MIG-250F
Type	MOSFET			
Rated input voltage (V)	single phase AC220 ±15%	three phase AC380 ±15%	single phase AC220 ±15%	three phase AC380 ±15%
Rated frequency (Hz)	50/60	50/60	50/60	50/60
Rated input current (A)	23.5	10.5	23.5	10.5
Output current (A)	180	220	180	220
Output voltage (V)	23	25	23	25
Duty cycle (%)	60	60	60	60
Effciency (%)	85	85	85	85
Power factor	0.93	0.93	0.93	0.93
Diameter of wire (mm^2)	Φ0.8	Φ1.0	Φ0.8	Φ1.0
Type of wire feeder	built-in	built-in	separated	separated
Net weight of machine(KG)	36	36	14.5	14.5
Net weight of wire feeder (KG)	-	-	18	18
Dimension of machine (mm)	580×290×550	580×290×550	500×210×370	500×210×370
Dimension of packing- machine (mm)	610×400×605	610×400×605	560×270×460	560×270×460
Dimension of packing-wire feeder (mm)	-	-	555×435×410	555×435×410
Including accessories: earth clamp×1pcs, cable joint×1pcs, grounding cable×3meters, pressure regulator×1pcs, MIG torch×1pcs,				
Additional accessories for MIG-200F/MIG-250F: double drive wire feeder×1pcs, control cable×5meters				

* two options: iron panel and plastic panel

IGBT MODULE TYPE

1.Application

- adopts IGBT module technology
- suitable for welding metal plate with thickness above 1.0mm
- soft-switching technology brings higher effciency and more stable performance
- both output current and voltage could be adjustable, could work with various automatic appliances
- small splashing, great penetration, easy and simple to operate and aesthetic appearance of weld seam
- models of MIG-S have decrease characteristic, with the functions of MMA & MIG & carbon arc gouging

2.Inverter CO2 Gas Shielded Welding Machine

Model	MIG-350*	MIG-500*	MIG-630	MIG-350S*	MIG-500S*	MIG-630S
Type	IGBT Module			IGBT Module		
Function	MIG			MIG/MMA/carbon arc welding		
Rated input voltage (V)	three phase AC380 ±15%			three phase AC380 ±15%		
Rated frequency (Hz)	50/60			50/60		
Rated input power (KVA)	14	25	35	14	25	35
Rated input current (A)	21	38	53	21	38	53
Input protection circuit breaker (A)	40	63	100	40	63	100
Rated working voltage (V)	34	40	45	34	40	45
Output current (A)	60-350	60-500	60-630	MIG: 60-350 MMA: 30-350	MIG: 60-500 MMA: 30-500	MIG: 60-630 MMA: 50-630
Output voltage (V)	15-40	15-50	15-50	MIG: 15-40 MMA: ------	MIG: 15-50 MMA: ------	MIG: 15-50 MMA: ------
No-load voltage (V)	50	75	95	75	75	95
No-load loss (W)	100	150	150	100	150	150
Rated duty cycle (%)	80	80	80	80	80	80
Effciency (%)	85	85	85	85	85	85
Power factor	0.93	0.93	0.93	0.93	0.93	0.93
Wire feeder	separated			separated		
Net weight (KG)	42.6	50.3	62	43	51.6	64
Housing of machine	iron	iron	iron	iron	iron	iron
Dimension of machine (mm)	642×323×573		690×350×640	642×323×573		690×350×640
Packing	carton		wooden box	carton		wooden box

Including accessories: earth clamp × 1pcs, cable joint × 2pcs, gas regulator × 1pcs, double drive wire feeder × 1pcs, grounding cable × 3meters, control line × 5meters, MIG torch × 1pcs

Additional accessories for NB-350S/500S/630S: cable joint × 1pcs, inner hexagon spanner × 1pcs

* two options: iron panel and plastic panel

MOSFET TYPE

1.Application

TIG-200

- MOSFET inverter circuit, high frequency arc starting
- AC square wave is specially suitable for welding aluminum and aluminum alloy products
- DC function for welding stainless steel, alloy steel, carbon steel, copper and other non-ferrous metal
- small splashing, great penetration, easy and simple to operate and aesthetic appearance of weld seam
- foot pedal is optional

2.Inverter TIG-AC/DC Square Wave Welding Machine

TIG-250

TIG-315

Model	TIG-200AC/DC	TIG-250AC/DC	TIG-315AC/DC
Type	MOSFET		
Rated input voltage (V)	single phase 220V±15%	three phase 380V±15%	
Rated frequency (Hz)	50/60	50/60	
Rated input current (A)	24	9.6	11.4
No-load voltage (V)	56	45	45
Output current (A)	10-160	10-250	10-280
Pre-fow time (s)	0-2	0-2	0-2
Gas delay time (s)	2-10	2-10	2-10
Duty ratio	20%-80%	20%-80%	20%-80%
Decay time (s)	0-5	0-5	0-5
Duty cycle (%)	60	60	60
No-load loss (W)	60	60	60
Arc starting	high frequency arc starting	high frequency arc starting	high frequency arc starting
Effciency (%)	85	85	85
Power factor	0.93	0.93	0.93
Insulation grade	F	F	F
Protection grade	IP21	IP21	IP21
Net weight (KG)	23.4	31.2	31.2
Dimension of packing (mm)	640×400×510	640×400×510	640×400×510
Including accessories: earth clamp×1pcs, cable joint×1pcs, grounding cable×3meters, TIG torch×1set (air cooled WP-26 for TIG-200AC/DC & TIG-250AC/DC; water cooled WP-18 for TIG-315AC/DC)			

IGBT MODULE TYPE

1.Application

- IGBT high frequency soft switch transform, high effciency and reliability
- MCU controlled technology, multi-function in one machine, convenient to use
- foot pedal to control current is optional
- passive power factor correction makes power factor higher
- easy to arc starting, stable arc, high performance
- accurate adjustment can achieve great penetration, aesthetic appearance of weld seam and low electrode consumption

2.Inverter TIG-AC/DC Square Wave Welding Machine

Model	TIG-315AC/DC*	TIG-500AC/DC	TIG-630AC/DC
Type	IGBT Module		
Rated input voltage (KVA)	three phase 380V±10% / 50Hz		
Rated input capacity (A)	13	25.7	34.9
Rated input current (A)	20	39	53
Constant current (A)	5-315	20-500	20-630
Peak current (A)	5-315	20-500	20-630
Welding current for MMA (A)	20-315	20-500	20-630
Drive current for MMA (A)	10-200	10-200	10-200
Base current (A)	5-315	20-500	20-630
Start arc current (A)	20-160	20-160	20-160
Crater arc current (A)	5-315	20-500	20-630
Duty ratio	1-100%	1-100%	1-100%
AC bias ratio	-50%~+30%	-50%~+30%	-50%~+30%
Pulse frequency (Hz)	0.2-20	0.2-20	0.2-20
AC frequency (Hz)	20-200	20-100	20-100
Pre-fow time (s)	0.1-15	0.1-15	0.1-15
Gas delay time (s)	0.1-15	0.1-15	0.1-15
Current slow up time (s)	0.1-10	0.1-10	0.1-10
Current decay time (s)	0.1-15	0.1-15	0.1-15
Cleaning ratio	-40%~+40%	-40%~+40%	-40%~+40%
Rated duty cycle	60%	60%	35%
No-load voltage (V)	74	79	83
Effciency	79%	77%	77%
Power factor	0.95	0.95	0.95
Net weight (KG)	47.2	75	80
Insulation of main transformer	H	H	H
Insulation of output reactor	B	B	B
Including accessories: earth clamp×1pcs, cable joint×2pcs, grounding cable×3meters, air cooled QQ300 TIG torch (water cooled QS300 is optional)×1set			
Note: the rated AC is defned in the condition of 50Hz.			

* two options: iron panel and plastic panel

MOSFET TYPE

1.Application

TIG-200P

- MOSFET inverter circuit
- DC MMA & DC TIG & DC pulse TIG, 3 functions in 1
- detailed adjustable parameters lead to more accurate performance, such as pre-fow, gas delay, current slow up, current decay,frequency ratio and so on
- can work on many different materials of metal such as stainless steel, carbon steel, alloy steel, cooper, silver, titanium and so on

2.Inverter TIG Pulse Welding Machine

TIG-315P

TIG-400P

Model	TIG-160P	TIG-200P
Type	MOSFET	
Rated input voltage	single phase 220V±10% / 50Hz	
Rated input capacity (KVA)	5.0	6.6
Rated input current (A)	7.6	10.1
Rated duty cycle	60%	60%
Pre-fow time (s)	0.1-15	0.1-15
Start arc current (A)	10-100	10-100
Current slow up time (s)	0.1-10	0.1-10
Arcing current (A)	20-100	20-100
Constant current (A)	5-160	5-200
Force current (A)	10-100	10-100
Peak current (A)	5-160	5-200
Ducy ratio	1%-100%	1%-100%
Pulse frequency (Hz)	0.2-50	0.2-50
Base current (A)	5-160	5-200
Current decay time (s)	0.1-15	0.1-15
Crater arc current (A)	5-160	5-200
Gas delay time (s)	0.1-15	0.1-15
Effciency	89%	89%
Power factor	0.95	0.95
Net weight (KG)	8.5	8.5
Insulation of main transformer	H	H
Insulation of output reactor	B	B
Including accessories: earth clamp×1pcs, cable joint×2pcs, grounding cable×3meters, QQ150 TIG torch×1set		

IGBT MODULE TYPE

1.Application

- IGBT module technology
- digital control
- DC MMA & DC TIG & DC pulse TIG, 3 functions in 1
- detailed adjustable parameters lead to more accurate performance, such as pre-fow, gas delay, current slow up, current decay,frequency ratio and so on
- can work on many different materials of metal such as stainless steel, carbon steel, alloy steel, cooper, silver, titanium and so on

2.Inverter TIG Pulse Welding Machine

Model	TIG-315P*	TIG-400P*	TIG-500P*
Type	IGBT Module		
Rated input voltage	three phase 380V±10% / 50Hz		
Rated input capacity (KVA)	12.1	17	25
Rated input current (A)	21	28	38
Rated duty cycle	35%	60%	60%
Pre-fow time (s)	0.1-15	0.1-15	0.1-15
Start arc current (A)	10-160	10-160	10-160
Current slow up time (s)	0.1-10	0.1-10	0.1-10
Arcing current (A)	20-160	20-160	20-160
Constant current (A)	5-315	5-400	5-500
Force current (A)	10-200	10-200	10-200
Peak current (A)	5-315	5-400	5-500
Ducy ratio	1%-100%	1%-100%	1%-100%
Pulse frequency (Hz)	0.2-50	0.2-50	0.2-50
Base current (A)	5-315	5-400	5-500
Current decay time (s)	0.1-15	0.1-15	0.1-15
Crater arc current (A)	5-315	5-400	5-500
Gas delay time (s)	0.1-15	0.1-15	0.1-15
Effciency	89%	89%	89%
Power factor	0.95	0.95	0.95
Net weight (KG)	42	42	50
Insulation of main transformer	H	H	H
Insulation of output reactor	B	B	B
Including accessories: earth clamp×1pcs, cable joint×2pcs, grounding cable×3meters, air cooled QQ300 TIG torch(water cooled QS300 is optional)×1set			

* two options: iron panel and plastic panel

MOSFET TYPE

1.Application

CUT-40

- small size, light weight, easy to carry
- more economical and effcient than the traditional cutting machine due to the high speed, high temperature and high energy plasma draught
- adjustable output current to satisfy the cutting demands based on different kinds of material and thickness of working plate
- small and smooth cutting seam, little transmutation
- built-in over-heat protection, over-voltage protection, under voltage protection and lack of compressed air pressure protection

2.Portable DC Air Plasma Cutter

CUT-60

Model	CUT-40	CUT-60
Type	MOSFET	
Rated input voltage (V)	single phase AC220 ±15%	three phase AC380 ±15%
Rated frequency (Hz)	50/60	50/60
Rated input capacity (KVA)	6.6	7.9
Rated input current (A)	30	12
No-load voltage (V)	230	260
Output current (A)	20-40	20-60
Rated working voltage (V)	96	104
Duty cycle (%)	60	60
No-load loss (W)	100	100
Effciency (%)	80	80
Power factor	0.73	0.73
Net weight (KG)	8.7	16.6
Gross weight (KG)	12	21
Dimension of machine (mm)	400×163×290	500×210×370
Dimension of packing (mm)	450×235×390	560×270×460
Method of arc start	contact	contact
Cutting thickness (mm)	steel: 0.3-16	steel: 1-25
Optimum thickness of work piece (mm)	steel: 0.3-8	steel: 1-15
	aluminum/copper: 0.3-4	aluminum/copper: 1-7
Including accessories: earth clamp×1pcs, cable joint×1pcs, grounding cable×3meters, pressure regulator×1pcs, gas hose×0.6meter, hose hoop×2pcs, cutting torch×1pcs		

IGBT MODULE TYPE

1.Application

- IGBT soft-switch technology, more stable performance
- high duty cycle result in less power consumption
- more economical and effcient than the traditional cutting machine due to the high speed, high temperature and high energy plasma draught
- adjustable output current to satisfy the cutting demands based on different kinds of material and thickness of working plate
- small and smooth cutting seam, little transmutation
- built-in over-heat protection, over-voltage protection, under voltage protection and lack of compressed air pressure protection

2.Inverter DC Air Plasma Cutter

Model	CUT-100*	CUT-120*	CUT-160	CUT-200
Type	IGBT Module			
Rated input voltage (V)	three phase AC380 ±15%			
Rated frequency (Hz)	50/60			
Rated input capacity (KVA)	15	18	30	41
Rated input current (A)	23	27	45	62
No-load voltage (V)	380	280	380	380
Output current (A)	30-100	30-120	40-160	40-200
Rated working voltage (V)	120	128	144	160
Duty cycle (%)	60	60	60	60
No-load loss (W)	100	100	100	100
Effciency (%)	85	85	85	85
Power factor	0.93	0.93	0.93	0.93
Net weight (KG)	40.3	40.3	56.9	59
Gross weight (KG)	48.2	48.6	74	77
Packing	carton	carton	wooden box	wooden box
Dimension of machine (mm)	645×335×576	645×335×576	700×360×638	700×360×638
Dimension of packing (mm)	700×390×660	700×390×660	760×450×735	760×450×735
Method of arc start	uncontact	uncontact	uncontact	uncontact
Thickness of work piece (mm)	steel: 1-30 aluminum/copper: 1-15	steel: 1-35 aluminum/copper: 1-17	steel: 1-40 aluminum/copper: 1-20	steel: 1-60 aluminum/copper: 1-30
Including accessories: earth clamp×1pcs, cable joint×1pcs, grounding cable×3meters, pressure regulator×1pcs, gas hose×0.6meter, hose hoop×2pcs, cutting torch×1pcs				

* two options: iron panel and plastic panel

IGBT MODULE TYPE

1.Application

MZ-1000

- multifunction: submerged arc welding & MMA & carbon arc air gouging
- arc current and drive current can be adjusted continously
- duty cycle up to 100%
- automatic compensation for voltage fuctuation, can work normally against input voltage fuctuation
- extensive welding parameters, reliable and excellent performance
- could choose to add serrated guide rail, make submerged welding on big slope realized
- suitable inductry line: ship building, boiler, chemical vessel, bridge girder, lifting equipment and metallurgical
- suitable for carbon steel, stainless steel, heat-resisting steel and alloy metal

2.Inverter DC Auto Submerged Arc Welding Machine

MZ-1250

Model	MZ-630	MZ-1000	MZ-1250
Type	IGBT Module		
Rated input voltage (V)	three phase AC380 ±15%		
Rated frequency (Hz)	50/60		
Rated input current (A)	53	84	104
Duty cycle (%)	100	100	100
No-load voltage (V)	SAW: 90±10%, MMA: 75±10%		
Output current (A)	60-630	60-1000	60-1250
Output voltage (V)	20-50	20-50	20-50
Effciency (%)	92	92	92
Power factor	0.93	0.93	0.93
Output characteristic	decrease characteristic / fat characteristic		
Diameter of welding wire (mm)	Φ2-Φ4	Φ3-Φ6	Φ3-Φ6
Net weight (KG)	52	85	107.6
Dimension of machine (mm)	700×350×638	777×380×830	830×390×820
Packing of machine	wooden box	wooden box	wooden box
Packing of accessories	carton box	carton box	carton box
Included accessories: control tractor×1set, output cable(negative cable)×5meters, positive cable×10meters, control cable×10meters, 5A protective tube×2pcs, 10A protective tube×2pcs			

IGBT MODULE TYPE

1.Application

- MIG/MAG, P-MIG/MAG, DOUBLE P-MIG, CO2, TIG, P-TIG, MMA, carbon arc gouging
- DSP control system, more accurate welding process and stable arc
- DSP control wire feed, feeding wire more acuurately and smoothly
- preprogrammed expert database, intelligentize parameters combination
- one knob synergic operation, simple and easy for everyone to use
- up to 100 user defned programs can be saved
- special 4T function is suitable for metals of good heat conductivity, perfect starts and fnishes to all welds
- reserved interfaces to connect with welding robot and different variants
- soft switch inverter technology leads to unbeatable long term reliability and very energy effcient
- could equip digital welding torch, quicker and more convenient

2.Inverter Pulse MIG/MAG Welding Machine

Model	Pulse MIG-350*	Pulse MIG-500*	Pulse MIG-350H*	Pulse MIG-500H*
Type	IGBT Module			
Rated input voltage (V)	three phase AC380 ±10% / 50Hz			
Rated input capacity (KVA)	14.4	25	14.4	25
Rated input current (A)	25	46	25	46
Rated duty cycle (%)	60	60	60	60
Output current adjustment (A)	25-350	25-500	25-350	25-500
Output voltage adjustment (V)	14-40	14-50	14-40	14-50
Open-circuit voltage (V)	96	98	96	98
Effciency (%)	≥89	≥89	≥89	≥89
Power factor	≥0.87	≥0.87	≥0.87	≥0.87
Diameter of welding wire (mm)	Φ0.8, Φ1.0, Φ1.2, Φ1.6	Φ0.8, Φ1.0, Φ1.2, Φ1.6	Φ0.8, Φ1.0, Φ1.2, Φ1.6	Φ0.8, Φ1.0, Φ1.2, Φ1.6
Net weight (KG)	45	50	45	50
Dimension of machine (mm)	660×297×548	655×322×558	660×297×548	655×322×558
Flow rate of shielded gas (L/min)	15-20	15-20	15-20	15-20
Insulation of main transformer	H	H	H	H
Insulation of output reactor	B	B	B	B
Including accessories: earth clamp×1pcs, cable joint×3pcs, grounding cable×3meters, control cable×5meters, pressure regulator×1pcs, water cooled MIG torch×1pcs, water tank×1set, wire feeder×1set				

* two options: iron panel and plastic panel

ANDELI

ZP,ZA,ZT

Standard Recovery Diodes

ZP5-20A

ZP20-500A

ZP50-300A

ZA Disc Model

ZTa Disc Model

ZT Disc Model

1. Feature

- IF(AV)=5-5000A
- V RRM=100-5000V
- Hermetic metal case with ceramic insulator
- Hermetic glass-metal seal
- Metal case with ceramic insulator
- Conform to partial national standard GB/T8949.2-1999
- Capacity of supporting high surge current
- Stud cathode and stud anode version

2. Typical Application

- AC/DC Converters
- DC power supplies
- Mechine tool controls

3. Characteristics

Stud-model

Type	$I_{F(AV)}$ A	I_{FSM} A	V_{FM} V	V_{RRM} V	I_{RRM} mA	Rjc ℃/w	Tj ℃	Wejght g	Outine No
ZP5A	5	7.9	⩽ 1.6	100 ~ 5000	⩽ 2	⩽ 4.0	-40 ~ 150	10	A1
ZP10A	10	16				⩽ 2.5		25	A2
ZP20A	20	31			⩽ 6	⩽ 1.4		27	A3C1
ZP30A	30	47				⩽ 1.0		110	C2
ZP50A	50	79			⩽ 12	⩽ 0.6		1140	C3
ZP100A	100	160	⩽ 1.8			⩽ 0.3		205	C4
ZP200A	200	310				⩽ 0.2		325	C5
ZP300A	300	470			⩽ 15	⩽ 0.11		470	C6
ZP500A	500	630				⩽ 0.068		925	C7

Disc model

Type	$I_{F(AV)}$ A	I_{FSM} A	V_{FM} V	V_{RRM} V	I_{RRM} mA	Rjc ℃/w	Tj ℃	Wejght g	Outine No
ZP100A	100	160	⩽ 1.8	100 ~ 5000	⩽ 5	⩽ 0.30	-40 ~ 150	70	F1
ZP200A	200	310			⩽ 10	⩽ 0.20		85/200	F2E1
ZP300A	300	470				⩽ 0.11		100/285	F3E2
ZP5000A	500	790			⩽ 20	⩽ 0.095		200/370	F4E3
ZP800A	800	1300				⩽ 0.068		225/425	F5E4
ZP1000A	1000	1600			⩽ 25	⩽ 0.042		290/535	F6E4
ZP1500A	1500	2400				⩽ 0.034		650	E7
ZP2000A	2000	3100				⩽ 0.021		755	E8
ZP2500A	2500	4000				⩽ 0.020		1210	E9
ZP3000A	3000	4700			⩽ 30			1260	E9E10E11
ZP3500A	3500	5500						1290	E9E10E11
ZP4000A	4000	6200				⩽ 0.011		1320	E9E10E11
ZP5000A	5000	7900						1380	E9E10E11

Phase Control Thyristors

KP5-20A

KP20-300A

KP20-5300A

KA Disc Model

KTa Disc Model

KT Disc Model

KTT Disc Model

1. Feature

- IT(AV)=5-5000A
- V DRM/V RRM=100-5000V
- Hermetic metal case with ceramic insulator
- Hermetic glass-metal seal
- Metal case with ceramic insulator
- Conform to national standard GB/T8950.2-1999
- In accordance with IEC international electrical commoittee standard

2. Typical Application

- DC motor controls
- Controlled DC power supplies
- AC switch and thermal control
- Synchronous motor esxitation

3. Characteristic

Stud-model

Type No	$I_{T(AV)}$ A	I_{TSM} A	V_{TM} V	V_{DRM} V	I_{DRM} mA	I_{GT} mA	V_{GT} V	I_H mA	dv/dt V/μs	di/dt A/μs	Tj ℃	Rjc ℃/w	Weight g	Outine No
KP5A	5	8										≤ 3.0	12	B1
KP10A	10	16	≤ 2.2		≤ 8.0	5~45		5~45	≥ 50	--		≤ 2.5	27	B2
KP20A	20	32										≤ 1.0	29	B3D1
KP30A	30	48		100		5~50	≤	5~50			-40	≤ 0.5	112	D2
KP50A	50	80	≤ 2.4	~	≤ 10	5~150	2.5	5~150	≥ 100		~	≤ 0.14	142	D3
KP100A	100	160		2000						≥	+125	≤ 0.11	207	D4
KP200A	200	320				5~200		5~200	≥ 200	100		≤ 0.11	327	D5
KP300A	300	480	≤ 2.6		≤ 30							≤ 0.08	472	D6
KP500A	500	800										≤ 0.04	927	D7

Disc types

Type No	$I_{T(AV)}$ A	I_{TSM} A	V_{TM} V	V_{DRM} V	I_{DRM} mA	I_{GT} mA	V_{GT} V	I_H mA	dv/dt V/μs	di/dt A/μs	Tj ℃	Rjc ℃/w	Weight g	Outine No
KP100A	100	160										≤ 0.11	75	F1
KP200A	200	320				15~200		15~200				≤ 0.11	90/205	F2E2
KP300A	300	480			≤ 15		≤ 2.5					≤ 0.08	105/290	F3E3
KP500A	500	800										≤ 0.04	205/375	F4E4
KP800A	800	1280				15~250		15~250				≤ 0.026	230/430	F5E5
KP1000A	1000	1600	≤ 2.6	100	≤ 30	15~300	≤ 3.0	15~300	≥	≥	-40	≤ 0.020	300/540	F6E6
KP1500A	1500	2400		~					200	100	~	≤ 0.020	655	E7
KP2000A	2000	3200		5000							+125	≤ 0.012	760	E8
KP2500A	2500	4000										≤ 0.010	1215	E9
KP3000A	3000	4800				15~400		15~400				≤ 0.010	1265	E9E10E11
KP3500A	3500	5600			≤ 45		≤ 3.5					≤ 0.010	1295	E9E10E11
KP4000A	4000	6400										≤ 0.010	1325	E9E10E11
KP5000A	5000	8000										≤ 0.010	1385	E9E10E11

Inverter Grade Thyristors

KS5-20A

KS30-200A

1. Feature

- IT(AV)=100-2500A
- V DRM/V RRM=100-2500V
- Metal case with ceramic insulator
- Conform to national standard GB4193-1986
- In accordance with IEC international electrical committee standard
- High surge current capabilities
- All diffused design, Center amplifying gate
- Guaranteed high dV/dt
- Guaranteed high dI/dt
- Low thermal impedance,High speed performance

2. Typical Application

- Inverters
- Induction heating
- Intermediate frequency power supply

Type	$I_{T(AV)}$ A	I_{TSM} A	V_{FM} V	V_{RRM} V_{DRM} V	I_{RRM} I_{DRM} MA	I_{GT} mA	V_{GT} V	I_H mA	dv/dt mA	di/dt A/μs	tq μs	Tj ℃	Rjc ℃/W	Weight g	Out-line No
KK100A	100	160	≤ 2.6	600 ~ 2500	≤ 30	30-150	0.5 -3.0	30-150	≥ 200	≥ 100	≤ 30	-40 ~ +125	<0.11	75	F1
KK200A	200	320											<0.11	90/205	F2E2
KK300A	300	480				30-200		30-200					<0.08	105/290	F3E3
KK500A	500	800	≤ 3.0		≤ 40								<0.05	205/375	F4E4
KK800A	800	1280				30-250		30-250					<0.04	230/430	F5E5
KK1000A	1000	1600			≤ 80								<0.02	300/540	F6E6
KK1500A	1500	2400				30-300		30-300					<0.02	670	E7

BI-directional triode thyristor(triacs)

KA Disc Model

KTa Disc Model

KT Disc Model

1. Feature

- IT(AV)=5-1000A
- V DRM/V RRM=100-2000V
- Hermetic metal case with ceramic insulator
- Hermetic glass-metal seal
- Metal case with ceramic insulator
- Conform to partial national standard GB4193-1986
- In accordance with IEC international electrical committee standard

2. Typical Application

- Quickspeed motor control
- Thermal control
- AC switch

3. Characteristic

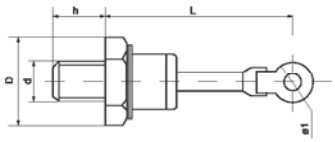
Stud-model

Type No	$I_{T(RSM)}$ A	V_{TM} V	V_{RRM} V	I_{RRM} mA	I_{GT} mA	V_{GT} V	I_H mA	dv/dt V/μs	Tj ℃	Rjc ℃/W	Weight g	Outline No
KS5A	5	≤ 2.6	100 ~ 2000	≤ 30	≤ 350	≤ 3.5	≤ 250	≥ 100	-40 ~ +125	≤ 0.11	10	B1
KS10A	10										25	B2
KS20A	20										27	B3
KS30A	30										110	D2
KS50A	50										130	D3
KS100A	100										165	D4
KS200A	200										335	D5

Disc model

KS200A	200	≤ 2.6	100 ~ 2000	≤ 30	≤ 350	≤ 3.5	≤ 350	≥ 200	-40 ~ +125	≤ 0.11	90/205	F2E2
KS300A	300									≤ 0.08	105/290	F3E3
KS500A	500			≤ 40	≤ 400		≤ 400			≤ 0.04	205/375	F4E4
KS800A	800										230/430	F5E5
KS1000A	1000										300/540	F6E6

A



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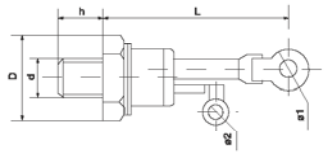
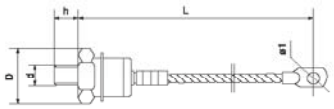


Stud-Outine

Outine	Dimension(mm)					
	d	D	L	h	1	2
A1B1	6	16	31	9	3	2
A2B2	8	22	41	12	4	2
A3B3	10	22	41	12	4	2
C1D1	10	27	190	13	5	4
C2D2	12	32	177	13	6.5	4
C3D3	12	34	179	13	6.5	4
C4D4	16	34	180	16	8	4
C5D5	20	45	220	20	10	4
C6D6	20	45	240	20	12	4
C7D7	30	57	350	30	15	4

C



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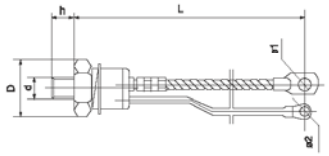


Convex Outline

Outline	Dimension(mm)		
	D	D1	A
E1	48	25	26
E2	52	31	26
E3	57	36	26
E4	65	41	26
E5	70	47	26
E6	75	52	26
E7	80	57	26
E8	85	63	26
E9	100	76	26
E10	110	78	26
E11	110	78	35

Conave-Outline

Outline	Dimension(mm)		
	D	D1	A
F1	39	22	14
F2	49	26	14
F3	56	32	13
F4	62	36	15
F5	66	40	15
F6	75	54	15

Bridge Rectifier

5-35A

1. Feature

Current:5-200A

Voltage:100-1600V

All models feature the same compact dimensions to provide a uniform mounting pitch

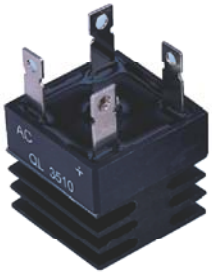
Glass passivated diode chips

Excellent power/volume ratio

High thermal conductivity packge, electrically insulated case

2. Typical Application

- Eliminator supply
- Industrial automatic control
- Numierial-controlled machinery,telecontrol system



5-40A

3. Characteristic

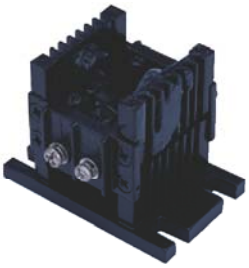
Type	VFM V	VRRM V	IRRM mA	VISOL V	Tvj ℃	Weight g	Outine NO
KBPC5A-35A	≤ 1.30	100-1600V	5	2500V	-40℃ ~ +125℃	29	M
$QL_1$15A-40A	≤ 1.30	100-1600V	5	2500V		35	N
$QL_2$25A-50A	≤ 1.30	100-1600V	5	2500V		47	O
$QL_3$20A-100A	≤ 1.40	100-1600V	7	2500V		315	P
$QL_4$80A-200A	≤ 1.50	100-1600V	10	2500V		1200	Q
$SQL_3$20A-100A	≤ 1.40	100-1600V	7	2500V		315	P
$SQL_4$80A-200A	≤ 1.50	100-1600V	10	2500V		1200	Q
ZPQ5A-40A	≤ 1.30	100-1600V	5	2500V		220	S
4ZQ5A-40A	≤ 1.30	100-1600V	5	2500V		150	R
6ZQ5A-40A	≤ 1.30	100-1600V	5	2500V		395	T
MDQ20A-100A	≤ 1.30	100-1600V	7	2500V		200	K
MDQ100A-200A	≤ 1.30	100-1600V	7	2500V		400	L
MDS20A-100A	≤ 1.30	100-1600V	7	2500V		205	K
MDS100A-200A	≤ 1.30	100-1600V	7	2500V		410	L

5-40A

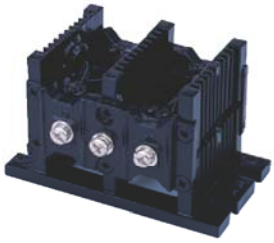
SQL4 80-200A

ZPQ 10-40A

SQL3 20-100A



4ZQ 10-40A



6ZQ 10-40A

ANDELI

MD,MT

Standard Recovery Power Modules

MD25-110A

MD130-160A

MD130-250A

MT200-300A

MT350-500A

1. Feature

- IT(AV)=5-5000A
- V DRM/V RRM=100-5000V
- 6000RMS base plate ≥ 3000RMS
- Industrial Standard Package
- High Surge Capability
- Simple Mounting
- Conform to national standard
- In accordance with IEC international electrical committee standard

2. Typical Application

- DC Motor Control and Drives
- Battery Charges
- Welders
- AC/DC Converters
- DC power supplies
- Machine tool controls

3. Characteristic

Series	$I_{F(AV)}$ A	$I_{T(RSM)}$ A	V_{FM} V	V_{RRM} V	I_{RRM} mA	Tj ℃	Rjc ℃/W	V_{ISO} V	Weight g	Outine NO
MD	25	40	≤ 1.4	500 ~ 2500	≤ 5	-40 ~ 150	≤ 1.10	≥ 2500	160	A
	55	90					≤ 0.51		160	
	90	140					≤ 0.31		160	
	100	155					≤ 02			
	110	170					≤ 0.28		160	
	130	210			≤ 8		≤ 0.17		370	B,C
	160	250					≤ 0.15		370	
	200	320					≤ 0.11		845	C,D
	250	400					≤ 0.10		845	
	300	480	≤ 1.6		≤ 10		≤ 0.08		1410	E
	350	400					≤ 0.06		1420	
	400	640					≤ 0.04		1430	
	450	720					≤ 0.04		1440	
	600	910					≤ 0.03			F
	800	1250					≤ 0.02			

Series	$I_{T(AV)}$ A	$I_{T(RSM)}$ A	V_{TM} V	V_{RRM} V_{DRM} V	I_{RRM} mA	I_{GT} mA	V_{GT} V	I_H mA	dv/dt V/μs	Tj ℃	Rjc ℃/W	V_{ISO} V	Weight g	Outine NO
MT	25	40	≤ 1.5	600 ~ 2500	≤ 5	20 ~ 150	0.5 ~ 2.5	20 ~ 150	≥ 200	-40 ~ +125	≤ 1.10	≥ 2500	160	A
	55	88									≤ 0.51		160	
	90	144									≤ 0.31		160	
	110	176	≤ 1.8		≤ 10						≤ 0.28		160	
	130	208									≤ 0.17		370	B,C
	160	256	≤ 2.0		≤ 15						≤ 0.15		370	
	200	320									≤ 0.11		845	C,D
	250	400									≤ 0.10		845	
	300	480			≤ 20						≤ 0.08		1410	E
	350	560									≤ 0.06		1420	
	400	640									≤ 0.04		1430	
	450	720									≤ 0.04		1440	
	600	910									≤ 0.03			Fa
	800	1250									≤ 0.02			

ANDELI

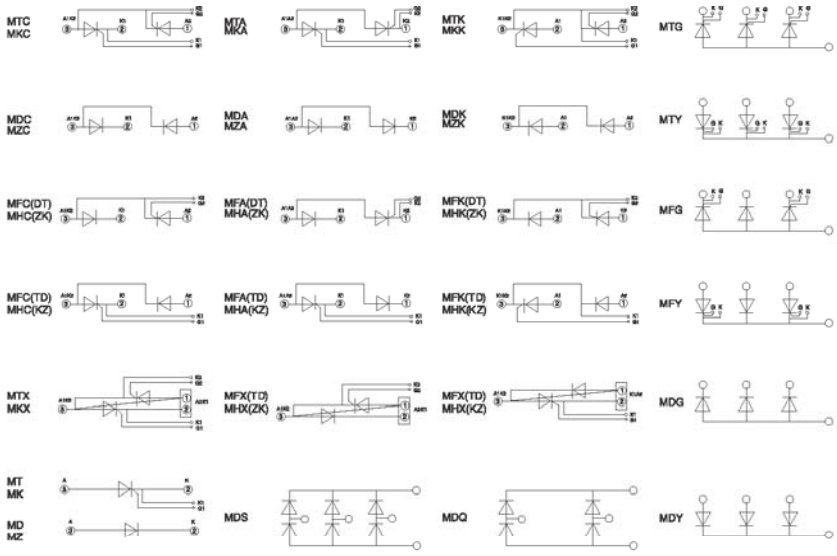
MT,MDS

MT600-1000A

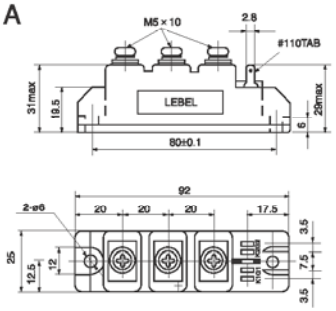
MDS20-100A

MDS150-200A

MT(D) Welding

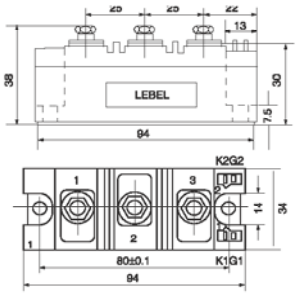


A



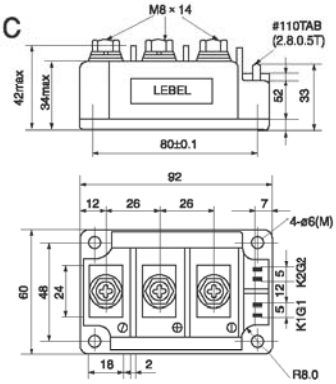
M** 25-110A Module

B



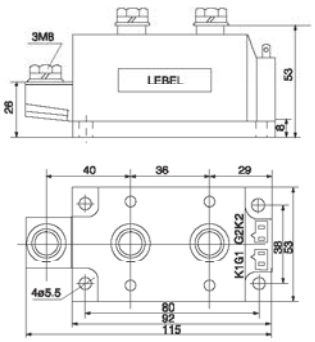
M** 130-160A Module

C



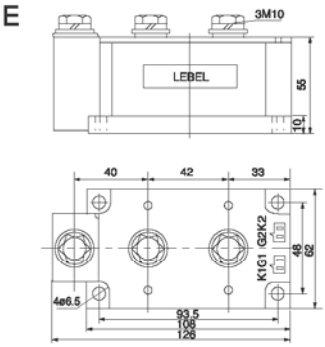
M** 130-250A Module

D



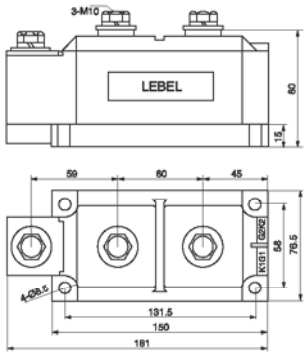
M**200-300A Module

E



M** 350-500A Module

F



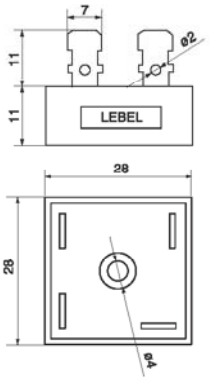
M** 600-1000A Module

ANDELI

Dimension

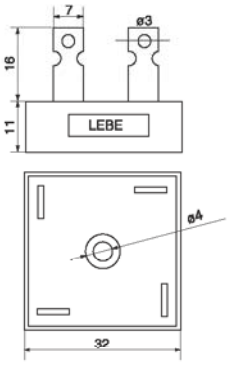
Bridge rectifier KBPC 5-35A

M



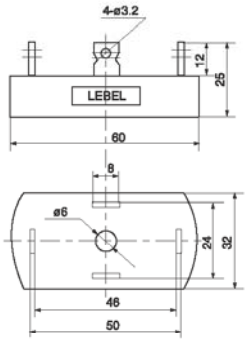
Bridge rectifier QL1 5-40A

N



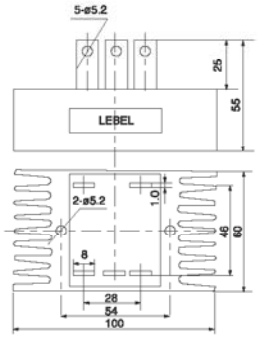
Bridge rectifier QL 5-40A

O



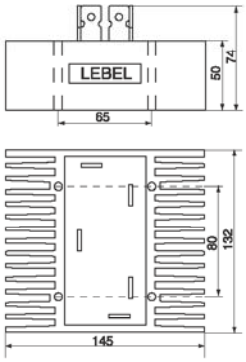
Bridge rectifier MD*20-100A

P



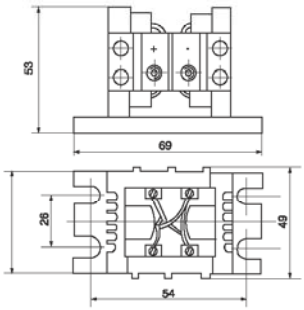
Bridge rectifier MD80*-280A

Q



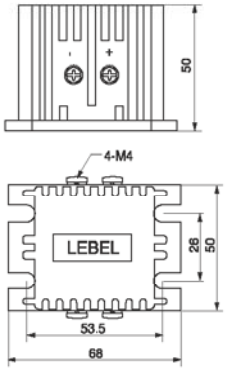
Bridge rectifier 4ZQ10-40A

R



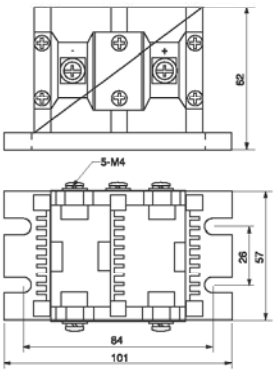
Bridge rectifier ZPQ10-40A

S



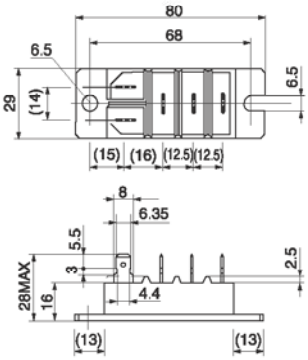
Bridge rectifier 6ZQ10-40A

T



MDS 150-200A bridge module

L



D、T Series recorery diode

D、T Series recorery diode

D、T Series recorery diode

Industrial Plug & Socket & Weather Protected & Isolating Switch Poetable Powerhouse Boards & Distribution Box

PC Plug Socket Coupling

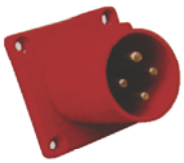
1. Technical data

	Model	Poles	Voltage	Amp
 013/023	012	2P+E	220V-350V~	16A
	013-4	2P+E	110V-130V~	16A
	013	2P+E	220V-250V~	16A
 014/024	014	3P+E	380V-415V~	16A
	015	3P+N+E	220V-380V	16A
	023-4	2P+E	110V-130V~	32A
 034/044	023	2P+E	220V-250V~	32A
	024	3P+E	380V-415V~	32A
	025	3P+N+E	240V-415V~	32A
 113/123	033	2P+E	220V-250V~	63A
	034	3P+E	380V-415V~	63A
	035	3P+N+E	220V-380V~	63A
	043	2P+E	220V-250V~	125A
 114/124	044	3P+E	380V-415V~	125A
	045	3P+N+E	240V-415V~	125A
	113-4	2P+E	110V-130V~	16A
 113-4/123-4	113	2P+E	220V-250V~	16A
	114	3P+E	380V-415V~	16A
	115	3P+N+E	220V-380V~	16A

	Model	Poles	Voltage	Amp
 123 / IP67	123-4	2P+E	110V-130V~	32A
	123	2P+E	220V-250V~	32A
	124	3P+E	380V-415V~	32A
	125	3P+N+E	240V-415V~	32A
 115/125	133	2P+E	220V-250V~	63A
	134	3P+E	380V-415V~	63A
	135	3P+N+E	220V-380V~	63A
 133/143	143	2P+E	220V-250V~	125A
	144	3P+E	380V-415V~	125A
	145	3P+N+E	240V-415V~	125A
 135/145	213-4	2P+E	110V-130V~	16A
	213	2P+E	220V-250V~	16A
	214	3P+E	380V-415V~	16A
 214/224	215	3P+N+E	240V-415V~	16A
	223-4	2P+E	110V-130V~	32A
	223	2P+E	220V-250V~	32A
	224	3P+E	380V-415V~	32A
 233/243	225	3P+N+E	240V-415V~	32A
	233	2P+E	220V-250V~	63A

PC Plug Socket Coupling

	Model	Poles	Voltage	Amp
 235/245	234	3P+E	380V-415V~	63A
	235	3P+N+E	220V-380V~	63A
	243	2P+E	220V-250V~	125A
	244	3P+E	380V-415V~	125A
	245	3P+N+E	240V-415V~	125A
 313/323	313-4	2P+E	110V-130V~	16A
	313	2P+E	220V-250V~	16A
	314	3P+E	380V-415V~	16A
	315	3P+N+E	220V-380V~	16A
 313-4/323-4	323-4	2P+E	110V-130V~	32A
	323	2P+E	220V-250V~	32A
	324	3P+E	380V-415V~	32A
	325	3P+N+E	220V-380V~	32A
 333/343	333	2P+E	220V-250V~	63A
	334	3P+E	380V-415V~	63A
	335	3P+N+E	220V-380V~	63A
 413-4/423-4	343	2P+E	220V-250V~	125A
	344	3P+E	380V-415V~	125A
	345	3P+N+E	220V-380V~	125A
	413-4	2P+E	110V-130V~	16A

	Model	Poles	Voltage	Amp
 413/423	413	2P+E	220V-250V~	16A
	414	3P+E	380V-415V~	16A
	415	3P+N+E	220V-380V~	16A
	423-4	2P+E	110V-130V~	32A
 415/425	423	2P+E	220V-250V~	32A
	424	3P+E	380V-415V~	32A
	425	3P+N+E	240V-415V~	32A
 513/523	513	2P+E	220V-250V~	16A
	514	3P+E	380V-415V~	16A
	515	3P+N+E	220V-380V~	16A
	523	2P+E	220V-250V~	32A
 514/524	524	3P+E	380V-415V~	32A
	525	3P+N+E	240V-415V~	32A
	613	2P+E	220V-250V~	16A
 614/624	614	3P+E	380V-415V~	16A
	615	3P+N+E	220V-250V~	16A
	623	2P+E	220V-250V~	32A
 0132/0232	624	3P+E	380V-415V~	32A
	625	3P+N+E	240V~415V	32A
	0132	2P+E	220V-250V~	16A

PC Plug Socket Coupling

0152/0252

1012-4

1013-4

1013

1152/1252

Model	Poles	Voltage	Amp
0142	3P+E	380V-415V~	16A
0152	3P+N+E	220V-380V~	16A
0232	2P+E	220V~250V~	32A
0242	3P+E	380V~415V~	32A
0252	3P+N+E	240V-415V~	32A
1012-4	2P+E	220V~	16A
1012	2P+E	220V~	16A
1013-4	2P+E	220V~	16A
1013	2P+E	220V~	16A
1132	2P+E	220V-250V~	16A
1232	2P+E	220V-250V~	32A
1142	3P+E	380V-415V~	16A
1242	3P+E	380V-415V~	32A
1152	3P+N+E	220V-380V~	16A
1252	3P+N+E	240V-415V~	32A
2132	2P+E	220V-250V~	16A
2232	2P+E	220V-250V~	32A
2142	3P+E	380V-415V~	16A
2242	3P+E	380V-415V~	32A
2152	3P+N+E	220V-380V~	16A

2152/2252

013L-4/023L-4

113L/123L

213L-4 / 223L-4

214L/224L

Model	Poles	Voltage	Amp
2252	3P+N+E	240-415V~	32A
013L-4	2P+E	110V-130V~	16A
013L	2P+E	220V-250V~	16A
014L	3P+E	380V-415V~	16A
015L	3P+N+E	220V-380V~	16A
023L-4	2P+E	110V-130V~	32A
023L	2P+E	220V-250V~	32A
024L	3P+E	380V-415V~	32A
025L	3P+N+E	240V-514V~	32A
113L-4	2P+E	110V-130V~	16A
113L	2P+E	220V-250V~	16A
114L	3P+E	380V-415V~	16A
115L	3P+N+E	240V-415V~	16A
123L-4	2P+E	110V-130V~	32A
123L	2P+E	220V-250V~	32A
124L	3P+E	380V-415V~	32A
125L	3P+N+E	240V-415V~	32A
213L-4	2P+E	110V-130V~	16A
213L	2P+E	220V-250V~	16A
214L	3P+E	380V-415V~	16A

PC Plug Socket Coupling

	Model	Poles	Voltage	Amp
 013n/023n	215L	3P+N+E	220V-380V~	16A
	223L-4	2P+E	110V-130V~	32A
	223L	2P+E	220V-250V~	32A
	224L	3P+E	380V-415V~	32A
 014n/024n	225L	3P+N+E	240V-514V~	32A
	013n-4	2P+E	110V-130V~	16A
	013n	2P+E	220V-250V~	16A
	014n	3P+E	380V-415V~	16A
 015n/025n	015n	3P+N+E	220V-380V~	16A
	023n-4	2P+E	110V-130V~	32A
	023n	2P+E	220V-250V~	32A
	024n	3P+E	380V-415V~	32A
 013n-4/023n-4	025n	3P+N+E	240V-415V~	32A
	113n-4	2P+E	110V-130V~	16A
	113n	2P+E	220V-250V~	16A

	Model	Poles	Voltage	Amp
 115n/125n	114n	3P+E	380V-415V~	16A
	115n	3P+N+E	240V-415V~	16A
	123n-4	2P+E	110V-130V~	32A
	123n	2P+E	220V-250V~	32A
 123n / IP44	124n	3P+E	380V-415V~	32A
	125n	3P+N+E	240V-415V~	32A
	213n-4	2P+E	110V-130V~	16A
	213n	2P+E	220V-250V~	16A
 214n/224n	214n	3P+E	380V-415V~	16A
	215n	3P+N+E	220V-380V~	16A
	223n-4	2P+E	110V-130V~	32A
	223n	2P+E	220V-250V~	32A
 105-02HC	224n	3P+E	380V-415V~	32A
	225n	3P+N+E	240V-415V~	32A
	105-02HC	2P+E	220V-250V~	16A

105-02HP

105-02HL

1132/1232 IP67

Socket Outlets

110-250V Socket Outlets

IP56 Series 110-250V Socket Outlets feature a patented transparent hinged flap which snaps shut and locks over the socket when the plug is withdrawn, forming an automatic IP66 seal. The flap is transparent so the pin configuration can be readily identified without opening.




Catalogue Number		56SO 310	56SO 310/2	56SO 315	56SO 313	56SO 316/110	56SO 316/240	56SO 320	56SO 332
Rated Operational Voltage Ue(-50Hz)	Volts	250	250	250	250	110 Yellow	230 Blue	250	250
Rated Thermal Current Emclosed	Amps	10	10	15	15	16	16	20	32
Number of Socket Pins(Including Earth)		3	3	3	3	3	3	3	3
Description		NZ/Aust	NZ/Aust Twin Socket Outlet	NZ/Aust	BS Square Pin	CEE17.6h	CEE17.6h	AS3123	AS1323
Socket configuration									
Cable cross sections solid or stranded mm²	Min	0.75	0.75	0.75	0.75	0.75	0.75	1.0	1.0
	Max	10	10	10	10	6	6	10	10
IP Rating		IP66	IP66	IP66	IP66	IP66 Without Plug IP44 With Plug	IP66 Without Plug IP44 With Plug	IP66	IP66

500V Socket Outlets

Socket units are standard one gang module use with 56E1 enclosures combining with other accessories in a larger enclsure.

Catalogue Number		56SO 416	56SO 416K	56SO 420	56SO 432	56SO 435	56SO 440	56SO 450	56SO 516	56SO 520	56SO 532	56SO 535	56SO 540	56SO 550	56SO 616	56SO 716	56SO 720
Rated Operational Voltage Ue(-50Hz)	Volts	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Rated Thermal Current Enclosed	Amp	16	16	20	32	35	40	50	16	20	32	35	40	50	20	16	20
Number of Socket Pins (Including Earth)		4	4	4	4	4	4	4	5	5	5	5	5	5	5	7	7
Socket Configuration																	
Cable Cross Sections Solid or Streanded mm²	Min	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		10	10	10	16	16	16	25	10	10	16	16	16	25	10	10	10
IP Rating		IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66

ANDELI

56CV

Combination Switched Sockets

1. Application

The 56 Series includes an extensive range of one piece combination Switched Sockets.

Optional keylocking OFF facility(quote " CVK " when ordeting keylock type,e.g.cat no. 56CVK310).For NEON indicator option add " N " after catalogue number.

110-250V Combination Switched Sockets

Catalogue Number		56CV310	56CV315	56CV313	56CV316/110	56CV316/240	56CV320	56CV332
Rated Operational Voltage Ue(-50Hz)	Volts	250	250	230	110	230	250	250
Rated Thermal Current Enclosed	Amps	10	15	13	16	16	20	32
Description		Switched NZ/Aust Socket	Switched NZ/Aust Socket	Switched British Square Pin Sicket	Switched CEE17-4h Socket (Yellow)	Switched CEE17-4h Socket (Blue)	Switched AS1323 Socket	Switched AS1323 Socket
SWITCH Description		1 way Single Pole	1 way Double Pole	1 way Double Pole	1 way Double Pole	1 way Double Pole	1 way Double Pole	1 way Double Pole
Utilisation Category								
AS3133 250V	Amps	10AxM50	16AxM120	16AxM120	16AxM120	16AxM120	20AxM150	32AxM180
AC23A 240V	Amps	15	15	15	15	15	21	28
	kW	2.2	2.2	2.2	2.2	2.2	3.0	4.0
Cable Cross Section	Min	0.75	1.0	1.0	1.0	1.0	1.0	1.0
Solid or Stranded mm²	Max	6	1.6	1.6	1.6	1.6	1.6	1.6
SOCKET Number of Socket Pins Including(Earth)		3	3	3	3	3	3	3
Socket configuration								
Cable Cross section	Min	10	10	10	10	10	10	10
solid or stranded mm²	Max	10	10	10	10	10	10	10
IP Rating		IP66	IP66	IP66	IP66 without plug IP44 with plug	IP66 without plug IP44 with plug	IP66	IP66

ANDELI

56CV

500V Combination Switched Sockets

All 500V Switched Sockets rated 32A and above have an internal interlocking feature(plugs cannot be withdrawn or inserted when the switch is in the ON position. This feature is also avaiable for 16A and 20A upon request.

Optional keylocking OFF facility(quote " cvk " when ordering keylock type,e.g.cat no.56CVK432).

For NEON indicator option add " N " after catalogue number.

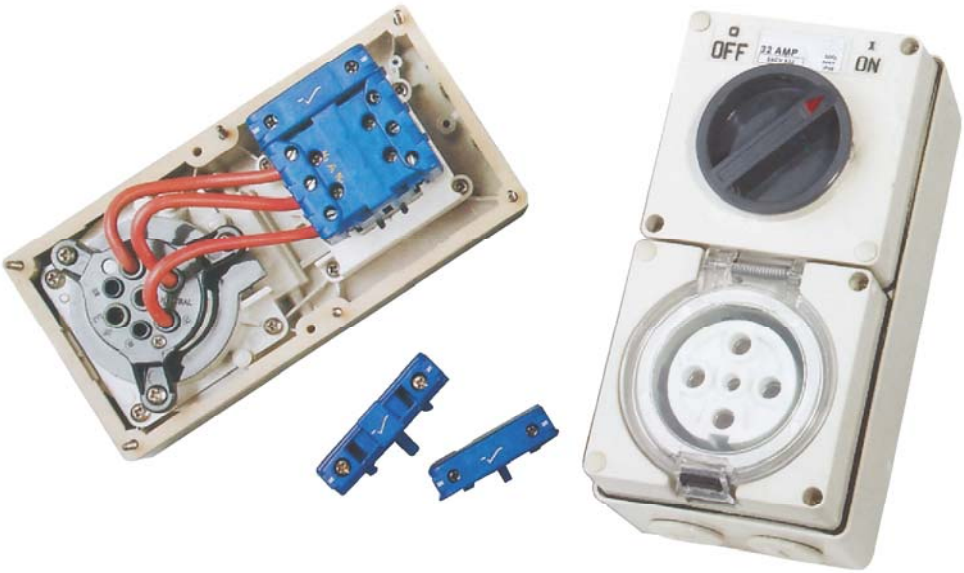
Catalogue Number		56CV 416	56CV 416K	56CV 420	56CV 432	56CV 435	56CV 440	56CV 450	56CV 516	56CV 520	56CV 532	56CV 535	56CV 540	56CV 550	56CV 616	56CV 716	56CV 720
Rated Operational Voltage Ue(-50Hz)	Volts	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Rated Thermal Current Enclosed	Amps	16	20	32	35	35	40	50	16	20	32	35	40	50	16	16	20
SWITCH Description		3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole	3Pole
Utilisation Category	Amps	16AX	20AX	32AX	32AX	32AX	50AX	50AX	16AX	20AX	32AX	32AX	50AX	50AX	16AX	16AX	20AX
		M120	M180	M180	M250	M250	M250	M120	M150	M160	M180	M250	M250	M120	M120	M120	M150
AS3133 250V	kW	7.5	11.0	15.0	15.0	15.0	18.5	18.5	7.5	11.0	15.0	15.0	18.5	18.5	7.5	7.5	11.0
AC23A 240V	Amps	15	21	28	28	28	35	35	15	21	28	28	35	35	15	15	21
Cable Cross Section	Min	1	1	1	1	1	1	6	6	1	1	1	6	6	1	1	1
Solid or Stranded mm²	Max	16	16	16	16	16	16	35	35	16	16	16	35	35	16	16	16
SOCKET Number of Socket Pins Including(Earth)		4	4	4	4	4	4	4	5	5	5	5	5	5	6	7	7
Socket Configuration																	
IP Rating		IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66

ANDELI

56CV

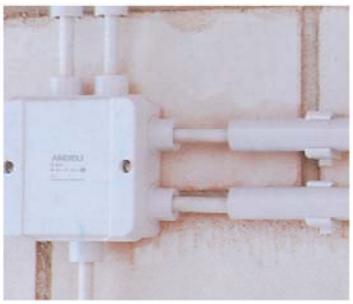
500V KG Combination Switched Sockets For Use With Extra Poles

IP56 has utilised the proven ANDELI KG series of switches in this range of 56 Series Combination Switched Sockets. Combination switched sockets from this range are suitable for use with the fully motor rated KG Series Extra Poles available from IP56.

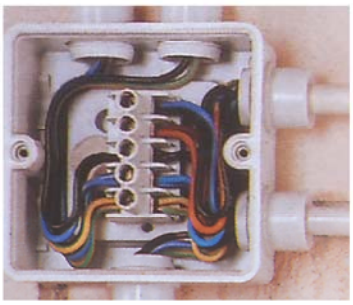


Catalogue Number		56CV 416KG	56CV 420KG	56CV 432KG	56CV 435KG	56CV 440KG	56CV 450KG	56CV 516KG	56CV 520KG	56CV 532KG	56CV 535KG	56CV 540KG	56CV 550KG	56CV 616KG	56CV 716KG	56CV 720KG
Rated Operational Voltage Ue(-50Hz)	Volts	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Rated Thermal Current Enclosed	Amps	16	20	32	35	40	50	16	20	32	35	40	50	16	16	20
SWITCH																
Utilisation Category		20	20	32	40	40	63	20	20	32	40	40	63	20	20	20
AC21A 500V	Amps	7.5	7.5	11	15	15	22	7.5	7.5	11	15	15	22	7.5	7.5	7.5
AC23A 415V	kW	5.5	5.5	7.5	11	11	15	5.5	5.5	7.5	11	11	15	5.5	5.5	5.5
ACS415V	kW															
Cable Cross Section	Min	1	1	1	6	6	6	1	1	1	6	6	6	1	1	1
Solid or Stranded mm²	Max	6	6	6	16	16	16	6	6	6	16	16	16	6	6	6
SOCKET																
Number of Socket (Including Earth)		4	4	4	4	4	4	5	5	5	5	5	5	6	4	4
Socket Configuration																
IP Rating		IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66

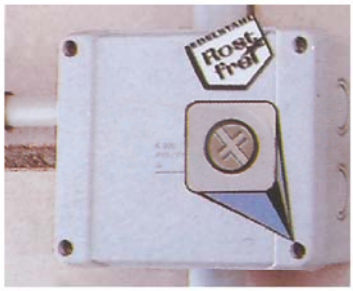
Terminal Junction Boxes[IP54/IP65]



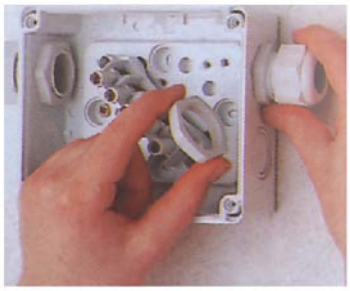
Expensive impact resistance of plastic (thermal plastic) forms a fashionable and attractive appearance.



Advanced terminal technology and flexible support position for termina (five-position)



Corrosion resistance of metric screw of V2A with large screw pitch to make the handling for screw fastening two third the normal one.



Compression geands must be used to achieve IP65 rating when conditions requines.

ANDELI

56C,56P

Mounting Enclosures[back Boxes]

All ANDELI Mounting Back Boxes are moulded in UV stabilised rigid RVC to facilitate glueing of fittings for conduit entry.

Ample conduit and cable entries are provided and there is plenty of wiring room for easy installation.

All screwed conduit entries are provided with plugs. The multigang enclosures feature moulded bridges between modules to ensure switches and sockets sit flush on a continuous surface. Moulded dividers are also available for multigang boxes to Segregate services and are standard with 4,6,8,9, and 16 gang enclosures.

Each enclosure has a number of mounting points and 220/10 Sealing Plugs are provided to double insulate mounting screw heads and ensure the IP rating.

Moulde gaskets are supplied with switch and socket modules.

Options Available

- Resistant Orang-add RO to Catalog Number e.g.56E2 becomes 56E2RO.

Options Available

Stainess steel pole mounting bracket kit to suit 56E2,56E3 and 56E4VH Modules. Catologue No 56PMK. Stainless steel mounting feet suit all enclosures. Catalogue Number56MF.

Catalogue Numer	No.of Gangs	O/A*Dims. (H)x(W)x(D)	Mouting Points	No.of Conduit Entries(mm)	Cut Out Provision (mm)
56E1	1	101 x 101 x 63	8	2 x 25.1 x 32	1 x 25/32
56ES1	1	101 x 101 x 38	4	1 x 25.1 x 20	1 x 20/25
56E2	2	198 x 101 x 63	8	2 x 25.1 x 32	1 x 25.1/32
56ED2	2	198 x 101 x 100	8	2 x 40	1 x 25.1/32
56ES2	2	198 x 101 x 38	4	1 x 25.2 x 32	2 x 20/25
56E2/4EL	2	198 x 101 x 105	8	2 x 25.1 x 32	1 x 25.1x32
56E3	3	294 x 101 x 63	16	2 x 25.1 x 32	2 x 25.1 x 32
56E4	4	198 x 198 x 63	16	2 x 25.2 x 32	2 x 25.1 x 322.1 x 40
56E4VH	4	391 x 101 x 63	16	2 x 25.1 x 32	2 x 25.1 x 32.1 x 40
56E6	6	294 x 198 x 63	24	2 x 25.2 x 32	2 x 25.2 x 32.2 x 40
56E8	8	391 x 198 x 63	28	2 x 25.2 x 32	4 x 25.2 x 32.2 x 40
56E9	9	294 x 294 x 63	28	2 x 25.2 x 32	4 x 25.1 x 32.1 x 40
56E16	16	391 x 391 x 63	48	2 x 25.2 x 32	6 x 25.6 x 32.4 x 40

56E2/4EL denotes an E2 enclosure complete with 56EL4N Cover and DIN rail to suit 4EL RCDs.

Portable Combination Switched Sockets with RCD

Ruggedly constructed, these portable units feature an easy to carry handle, a hanging facility for builder's poles and 3 metres of heavy duty flexible cord.

Catalogue Numer	No.of Phases	I_{the} (A)	U_e (V)	No.of Sockets	Tripping Sensitivity	Catalogue Number Matching Plug	Catalogue Number Angled Plug	Overall Dimensions (H)x(W)x(D)	Socket Config
56C310EL2P	1	10	250	2(3 flat pins)	30mA	56P310	-	243 x 294 x 105	A
56C315ELP	1	15	250	1(3 flat pins)	30mA	56P315	-	243 x 195 x 105	G
56C420ELP	3	20	415	1(4 round pins)	30mA	56P420	56PA420	243 x 195 x 105	L
56SO4ELP15	1	10	250	4(auto,3 flat pins)	30mA	56P310	-	243 x 294 x 105	A

Refer to pgae 24 & 25 for explanation of pin configurations.

Note:Combinations with various pin configurations, current ratings and 100mA

Special order are available upon request

ANDELI

56L,56C

Enclosures[back boxes]

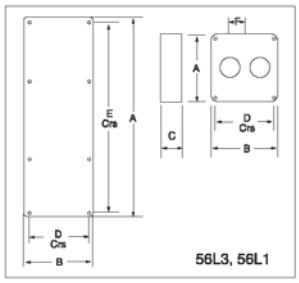
Enclosure Lids(Covers)

Mounting enclosure lids are moulded in UV stabilised polycarbonate.

All are 28mm high and supplied complete with sealing gasket.

Option available

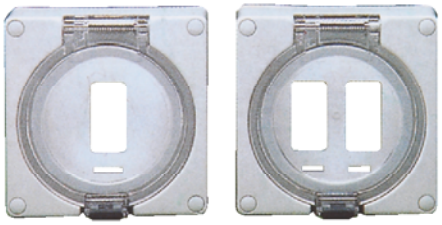
- Resistant Orange-add RO to Cat. No.e.g.56L1 becomes 56L1RO.
- 56L1 available in Chemical Resistant Grey-add CG to Cat. NO.e.g.56L1 becomes 56L1CG.



Catalogue Number	Catalogue Number	Dimensions(mm)				
		A	B	C	D	E
56L1	56L1	95	95	28	84	84
56L2	56L2	192	95	28	84	181
56L3	56L3	288	95	28	84	277
56L4	56L4	192	192	28	181	181

Rockergrid cover modules

	PACK QTY	
1 gang	4	9581/RG
2 gang	4	9582/RG



- Suitable for any Rockergrid moudule.
- Rockergrind modules fix directly into moulded-in grid sing screw fixing.
- Enables a wide range of switch variations in IP66 rated enclosures.
- Can be used to provide 2 gang switch option where space is insufficient for standard Weatherseal module.

Switchgear Cover Assemblies

The 56 Series Two Gang Cover Assembies are moulded in hi-impact polycarbonate and feature a specially designed mounting bracket which will accommo-date the full range of circuit breakers, RCDs and combination MCB/RCDs.

Covers suit all 56 Series Enclosures(minimum standard depth 63mm) and are supplied with neon indicators which can be wired from either the line or load side of the switch.

Catalogue Number	Mondule Type	No.of Poles	Module Width
56CB1N	MCB	1	1
56CB2N	MCB	2	2
56CB3N	MCB	3	3
56OB4N	MCB	4	4
56EL2N	4EL RCD	2	2 1/2
*56EL2	4EL RCD	2	2 1/2
56EL4N	4EL RCD	4	4

Option available

- Resistant Orange-add RO to Catalogue Number e.g.56CB1N becomes 56CB1NRO.
- Chemical Grey-add CG to Catalogue Number e.g.56CBIN becomes 56CBINCG.

56 Series

56C313/2

250V 13A 2
Gang Surface Switched
Socket Outlet

56C315RP/2

250V 13A 2
Gang Surface Switched
Socket Outlet

56C313H2

250V 13A Twin
Gang Surface Switched
Socket Outlet(Horizontal
Mounting)

56C315RPH2

250V 15A Twin
Gang Surface Switched
Socket Outlet(Horizontal
Mounting)

56C313RC

250V 13A 1-2
Round pins surface mount
-30mA RCD protection

56C410RC

500V 10A-4 Round pins
surface mount-30mA RCD
protection

9566/E+9569/L9561/2L+
9561/L+9570/2+224/030
Multi-gang enclosure any
combination

56C310/2 RCD/2P

250V 10A
2 Gang Surface Socket
Outlet with RCD Protection
IP56

UK215/110

Rated current:32A
Switch:32A 1
Socket 63A(3,4,5 pole)
Socket 32A(3,4,5 pole)
Socket 16A(3,4,5 pole)

UK215/125

Rated current:50A
Switch:32A 1,16A 2,10A 2
Socket 32A(3,4,5 pole)
Socket 16A(3,4,5 pole)
Socket 10A(3,4,5 pole)

PLUGS

Extension Sockets & Appliance Connectors

ANDELI's Three Phase Extension Socket/Appliance Connector is an important design breakthrough.
Now there is a common unit for both cord extension socket and appliance connector applications.
All connectors have impact resistant, UV stabilised mouldings.

The IP66 rating can be achieved when extension socket/connectors are used in conjunction with compatible accessories such as 56P Plugs, 56PA Plugs and 56A1 Appliance Inlets.

IP66 rated units feature a hose proof cap which maintains the International Protection rating when the accessory is not being used.

Note:Cap not provided as standard with single phase extension sockets.
Refer 56T Series for terminators to connect hose to non standard gland nut thread.

Options available

- 56SC2 Socket Cap to suit single phase extension sockets.
- 56CSC310 and 56CSC315 avail able in Resistant Orange-add RO to Catalogue Number e.g. 56CSC310 becomes 56CSC310RO.

Catalogue Numer	I_{th} (A)	U_i (V)	No.OF Sockets	Conductor Term. size in mm²		Cable Nominal Diameter in mm²		IP Rating	Mtching Plug Straight	Mtching Plug Angle	Gland Nut Thread
				Min.	Max.	Min.	Max.				
56CSC310	10	250	3 Flat	1.0	6	6	12.5	66	56P310	56PA310	20mm
56CSC315	15	250	3 Flat	1.0	6	6	12.5	66	56P315	56PA315	20mm
56CSC410	10	500	4 Round	1.0	6	6	15.7	66	56P410	56PA410	23mm
56CSS420	20	500	4 Round	1.0	6	6	15.7	66	56P420	56PA420	23mm
56CSC432	32	500	4 Round	2.5	16	9	28	66	56P432	56PA432	37mm
56CSC440	40	500	4 Round	2.5	16	9	28	66	56P440	56PA440	37mm
56CSC450	50	500	4 Round	2.5	16	9	28	66	56P450	56PA450	37mm
56CSC510	10	500	5 Round	1.0	6	6	15.7	66	56P510	56PA510	23mm
56CSC520	20	500	5 Round	1.0	6	6	15.7	66	56P520	56PA520	23mm
56CSC532	32	500	5 Round	2.5	16	9	28	66	56P532	56PA532	37mm
56CSC540	40	500	5 Round	2.5	16	9	28	66	56P540	56PA540	37mm
56CSC550	50	500	5 Round	2.5	16	9	28	66	56P550	56PA550	37mm

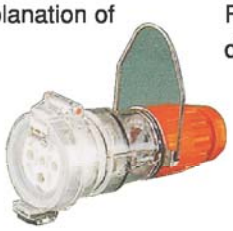
U_i Insulation Voltage
I_{th} Conventional Free Air Current

Refer to gage 43 for explanation of socket configurations

Refer to rear of catalogue for further details

Pendant Outlets

ANDELI 56PO Three Phase prndant Outlets are a hanging version of our 56CSC Commectors.
All have impact resistant UV stabilised mouldings.



Catalogue Numer	I_{th} (A)	U_i (V)	No.OF Sockets	Conductor Term. size in mm²		Cable Nominal Diameter in mm²		IP Rating	Mtching Plug Straight	Mtching Plug Angle	Gland Nut Thread
				Min.	Max.	Min.	Max.				
56PO410	10	500	4 Round	1.0	6	6	15.7	66	56P410	56PA410	23mm
56PO420	20	500	4 Round	1.0	6	6	15.7	66	56P420	56PA420	23mm
56PO432	32	500	4 Round	2.5	16	9	28	66	56P432	56PA432	37mm
56PO440	40	500	4 Round	2.5	16	9	28	66	56P440	56PA440	37mm
56PO450	50	500	4 Round	2.5	16	9	28	66	56P450	56PA450	37mm
56PO510	10	500	5 Round	1.0	6	6	15.7	66	56P510	56PA510	37mm
56PO520	20	500	5 Round	1.0	6	6	15.7	66	56P520	56PA520	37mm
56PO532	32	500	5 Round	2.5	16	9	28	66	56P532	56PA532	37mm
56PO540	40	500	5 Round	2.5	16	9	28	66	56P540	56PA540	37mm
56PO550	50	500	5 Round	2.5	16	9	28	66	56P550	56PA550	37mm

U_i Insulation Voltage I_{th} Conventional Free Air Thermal Current

ANDELI

56P,56PA




250V Plugs

The 56 Series single phase plugs are available in 10A, 15A, 20A and 32A Pin configurations to suit the Australian and New Zealand markets and in the British 13A square pin configuration.All plugs are IP66 rated.

Catalogue Numer(Angled) Catalogue Number(Straight)		56P310	56P315	56P313	56P320 56PA320	56P332 56PA332
Rated Operation Voltage Ue(-50Hz)	Volts	250	250	250	250	250
Max.Thermal Current Enclosed	Amps	10	15	13	20	32
Number of Pins (Including Earth)		3	3	3	3	3
Pin Configuration						
Cable Entry Diameter	Min Max	6 9	8 11	6 10	7 16	10 27
Capacity mm²	Min Min	0.75 1.5	1.0 1.5	0.75 1.5	1 6	2.5 16

500V Plugs

There plugs are all rated IP66 when fitted to a 56 Series cord connector or Socket Outlet. The body section is transparent for quick and easy inspection of the terminals and cable entry. Plugs are available with 4 to 7 pins. 16A to 50A to cover most applications.

Catalogue Numer(Angled) Catalogue Number(Straight)		56P 416 56PA 416	56P 416 56PA 416K	56P 420 56PA 420	56P 432 56PA 432	56P 432RF* 56PA 432RF*	56P 435 56PA 435	56P 440 56PA 440	56P 450 56PA 450	56P 516 56PA 516	56P 520 56PA 520	56P 532 56PA 532	56P 535 56PA 535	56P 540 56PA 540	56P 550 56PA 550	56P 616 56PA 616	56P 716 56PA 716	56P 720 56PA 716
Rated Operation Voltage Ue(-50Hz)	Volts	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Rated Thermal Current Enclosed	Amps	16	16	20	32	32	35	40	50	16	20	32	35	40	50	16	16	20
Number of Pins (Including Earth)		4	4	4	4	4	4	4	4	5	5	5	5	5	5	6	7	7
Pin Configuration																		
Cable Entry Diameter	Min Max	7 16	7 16	7 16	10 27	10 27	10 27	10 27	10 27	7 16	7 16	10 27	10 27	10 27	10 27	7 16	7 16	7 16
Capacity mm²	Min Min	1 6	1 6	1 6	2.5 16	2.5 16	2.5 16	2.5 16	4 16	1 6	1 6	2.5 16	2.5 16	2.5 16	4 6	4 6	4 6	4 6
Auxiliary Pins C1-C2 Maximum Current																10A	10A	10A

Switchgear Cover Assemblies

With indicator

The 56 Series Two Gang Cover Assemblies are moulded in hi-impact polycarbonate and feature a specially designed mounting bracket which will accommodate the full range of Clipsal circuit breakers, RCDs and combination MCB/RCDs.

Covers suit all 56 Series Enclosures (minimum standard depth 63mm) are supplied with neon indicators which can be wired from either the line or load side of the switch.

The unique protective membrane versions offer the same level of safety even when the flap is opened. A special membrane, incorporated into the units covers MCBs, RCDs and accessories to provide a barrier against dust and water, including wet hands when the flap is opened to reset switches.

Option Available

Resistant Orange - add RO to Catalogue Number e.g. 56CB4N becomes 56CB4NRO.
Resistant White - add RW to Catalogue Number e.g. 56CB4N becomes 56CB4NRW.
Chemical Grey - add CG to Catalogue Number e.g. 56CB4N becomes 56CB4NCG.
Protective membrane - add M to catalogue number e.g. 56CB4N becomes 56CB4NM.

Without indicator

Catologue Number	Neon Voltage	Module Type	No.of Poles	Module Width	Protective Membrane
56CB4N	240/415	MCB+RCD's	4	4	no
56CB4	-	MCB+RCD's	4	4	no
56CB4NM	240/415	MCB+RCD's	4	4	Yes

Poetable Powerhouse Boards

NB01A

Side: A
3X3P 10 or 15A Waterproof Socket and RCBO
Code: NB01A

NB01B

Side:B
3X3P 10 or 15A Waterproof Socket and RCBO
Code: NB01B

NB01C

Side:C
1x1.8M Wire and 3P 15A Waterproof Plug
1x2P 20A 30mA RCBO
Code: NB01C

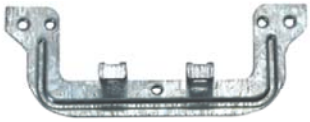
Side:
380x250x260mm(h,w,d)

Conduit Saddles

SAD20

Description: Zinc plated single sided saddles. Available in 16,20, 25,32 & 40mm with a 5.5mm fixing hole.SAD20A and SAD25A have a 6.5mm fixing hole.
Code: SAD16,SAD20,SAD20A, SAD25,SAD25A,SAD32,SAD40

Plaster Clip



PCLIP

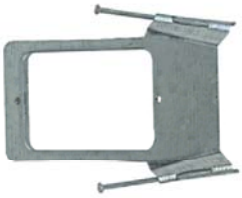
Description: Metal mounting wallboard clip to suit plaster/stud walls.
Code: PCLIP

Flat Bracket

FB155HV

Description: Metal mounting horizontal/vertical flat bracket to suit plaster & stud walls.
Code: FB155HV

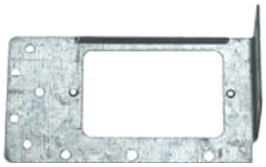
Flat Bracket With Nails



FB155HV/N

Description: Metal mounting horizontal bracket with screw fixing nails to suit plaster/stud walls.
Code: FB155HV/N

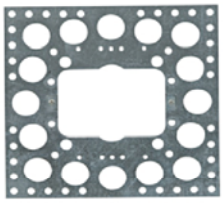
Stud Bracket



FB155HV/B

Description: Metal mounting horizontal/vertical bracket with 90 degree bend to suit plaster sud walls
Code: FB155HV/B

Behind Plaster Bracket



BHP400

Description: Metal mounting bracket to suit rendered/plaster walls.
Code: BHP400

ANDELI

UKF

Weather Protected Isolating Switches

1. Application

The UKF Series of Weatherprotected Isolating Switches is a robust range of switches suitable for virtually any external application.

Included in the range are singe, double and triple pole switches from 20 to 80 Amps. The base mounted mechanism provides for easier termination and more wiring room. Switch dimensions are 165mm x 82mm with an overall height of 85mm.

Fixed Earth and Neutral connector bars with dual clamping screws per tunnel provide equal stripping lengths and secure clamping for all cables. Terminal bore size 5-6mm.

A safety feature for mounting switches to metal structures is the insulating caps that cover base mounting screws to totally protect them from any live cables.

Each unit supplied with screwed conduit plugs and screwed reducers for easy connection to 25mm or 20mm conduits and screw caps. Screw caps must be instsalled to ensure IP Rating.

The impact Resistant base and cover will survive the hardest knocks in almost any installation. The two sections are sealed with a weather seal gasket.

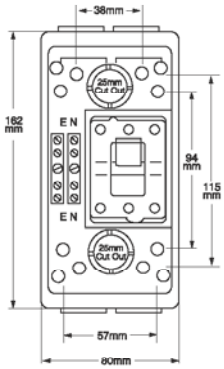
For security, a 7mm diameter hole is provided for padlocking the lever in the OFF position. Deep moulsed barriers protect the operating lever from physical abuse or accidental switching.

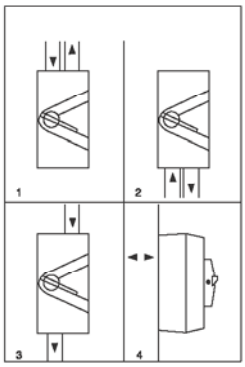
All units comply to IEC60947-3.

Mines, and, Energy, south, Australia, Approvais.

Standard coloure are Grey & White.

1. Cables looped in and out from overhead.
2. In and out from underground.
3. In and out straight through the switch.
4. two 25mm rear knockouts are moulded in the base for surface mounting with concealed wiring.





ANDELI

UKF

Dual 25mm screwed conduit entries top and bottom(up to 55 amp.) allows four ways to surface wire the switch.

Products Available		IP Rating
UKF1-20	20A 250V Single pole surface switch. Terminals accommodate 16mm² cable.M Rating 220.	56
UKF1-35 UKF1-63	35A/63A 250V Single pole. Terminals accommodate 16mm² cables.M Rating220.	56

Products Available		IP Rating
UKF2-20	20A 440V double. Terminals accommodate 16mm² cables. M Rating 180.	56
UKF2-35	35A 440V double. Terminals accommodate 16mm² cables. M Rating 180.	56
UKF2-63	63A 440V double. Terminals accommodate 16mm² cables. M Rating 180.	56

Products Available		IP Rating
UKF3-20	20A 440V Triple Pole. Terminals accommodate 16mm² cables. M Rating 180.	56
UKF3-35	35A 440V Triple Pole. Terminals accommodate 16mm² cables. M Rating 180.	56
UKF3-63	53A 440V Triple Pole. Terminals accommodate 16mm² cables. M Rating 160.	56
UKF4-20	20A 440V Triple Pole. Terminals accommodate 16mm² cables. M Rating 180.	56
UKF4-35	35A 440V Triple Pole. Terminals accommodate 16mm² cables. M Rating 180.	56
UKF4-63	53A 440V Triple Pole. Terminals accommodate 16mm² cables. M Rating 160.	56
UKF3-55-32CE	55A 440V Triple Pole. With 32mm conduit entry at each end. erminals accommodate 25mm² cables. M Rating 160.	56
UKF3-63-32CE	63A 440V Triple Pole. With 32mm conduit entry at each end. erminals accommodate 25mm² cables. M Rating 160.	56
UKF3-80-CE	80A 440V Triple Pole. With 32mm conduit entry at each end. erminals accommodate 25mm² cables. M Rating 150.	56

ANDELI

DS-AG

Switch & Push Button Box(Indoor Use)

Protection Degree: IP66

Description	Description	
	PART NO.	W x H x D(m/m)
Material ABS	DS-AG-0506	50 x 65 x 55
	DS-AG-0609	65 x 95 x 55
	DS-AG-0811-S	80 x 110 x 45
	DS-AG-0811	80 x 110 x 70
	DS-AG-0813	80 x 130 x 70
	DS-AG-0816	80 x 160 x 55
	DS-AG-0818	80 x 180 x 70
	DS-AG-0825	80 x 250 x 70
	DS-AG-0811-1	80 x 110 x 85
	DS-AG-0813-1	80 x 130 x 85
	DS-AG-0818-1	80 x 180 x 85
	DS-AG-0825-1	80 x 250 x 85
Color: Grey	DS-AG-1212-S	125 x 125 x 75
	DS-AG-1212	125 x 125 x 100
	DS-AG-1217	125 x 175 x 75
	DS-AG-1217-1	125 x 175 x 100
Door Solid	DS-AG-1417	140 x 170 x 95
	DS-AG-1520	150 x 200 x 100
	DS-AG-1520-1	150 x 200 x 130
	DS-AG-1525	150 x 250 x 100
	DS-AG-1525-1	150 x 250 x 130
	DS-AG-2020	200 x 200 x 130
	DS-AG-2020-S	200 x 200 x 95
	DS-AG-1717-1	175 x 175 x 100
	DS-AG-1725	175 x 250 x 75
	DS-AG-0712	75 x 125 x 75
	DS-AG-0712-1	75 x 125 x 100
	DS-AG-1423	140 x 230 x 90
	DS-AG-1717	175 x 175 x75

Description	Description	
	PART NO.	W x H x D(m/m)
Material ABS	DS-AT-0506	50 x 65 x 55
	DS-AT-0609	65 x 95 x 55
	DS-AT-0811-S	80 x 110 x 45
	DS-AT-0811	80 x 110 x 70
	DS-AT-0813	80 x 130 x 70
	DS-AT-0816	80 x 160 x 55
	DS-AT-0818	80 x 180 x 70
	DS-AT-0825	80 x 250 x 70
	DS-AT-0811-1	80 x 110 x 85
	DS-AT-0813-1	80 x 130 x 85
	DS-AT-0818-1	80 x 180 x 85
	DS-AT-0825-1	80 x 250 x 85
Color: Grey	DS-AT-1212-S	125 x 125 x 75
	DS-AT-1212	125 x 125 x 100
	DS-AT-1217	125 x 175 x 75
	DS-AT-1217-1	125 x 175 x 100
Door Solid	DS-AT-1417	140 x 170 x 95
	DS-AT-1520	150 x 200 x 100
	DS-AT-1520-1	150 x 200 x 130
	DS-AT-1525	150 x 250 x 100
	DS-AT-1525-1	150 x 250 x 130
	DS-AT-2020	200 x 200 x 130
	DS-AT-2020-S	200 x 200 x 95
	DS-AT-1717-1	175 x 175 x 100
	DS-AT-1725	175 x 250 x 75
	DS-AT-0712	75 x 125 x 75
	DS-AT-0712-1	75 x 125 x 100
	DS-AT-1423	140 x 230 x 90
	DS-AT-1717	175 x 175 x75

ANDELI

HT,HK

Distribution Box IP65

HT-5WAYS
(120 x 160 x 92)

HT-8WAYS
(200 x 150 x 92)

HT-12WAYS
(255 x 200 x 108)

HT-15WAYS
(310 x 200 x 108)

HT-18WAYS
(370 x 198 x 108)

HT-24WAYS
(275 x 355 x 108)

HK-5WAYS
(140 x 140 x 105)

HK-8WAYS
(185 x 185 x 105)

HK-12WAYS
(270 x 195 x 105)

HK-18WAYS
(370 x 195 x 105)

HA2-4WAYS
(140 x 210 x 100)

HA-8WAYS
(215 x 210 x 100)

HA-12WAYS
(300 x 260 x 140)

HA-18WAYS
(410 x 285 x 140)

HA-24WAYS
(300 x 415 x 140)

HA-54WAYS
(410 x 655 x 141)

ANDELI

TSM

Distribution Box


TSM-6N


TSM-8N


TSM-12N


TSM-18N


TSM-6


TSM-8


TSM-12


TSM-18


10WAY


18WAY

MG Window: white or transprent

Available Way: 2, 4, 6, 8, 10, 12, 15, 18, 24, 36, 45


1P


2P


4P

AD Available Way: 1, 2, 4, 6, 8, 12, 18, 24


ZY-4


ZY-8

Available Way: 4, 6, 8, 10, 12, 16, 18, 24


ABC-500


ABC-900

Available Way: 8, 12, 14, 18, 24

Distribution Box

50 x 30

50 x 50

80 x 50

80 x 80 x 50

85 x 85 x 50

100 x 100 x 70

150 x 110 x 70

150 x 150 x 70

200 x 100 x 70

200 x 155 x 80

200 x 200 x 80

255 x 200 x 80

300 x 250 x 120

400 x 350 x 120

200 x 150 x 60

200 x 150 x 80

300 x 200 x 40

300 x 200 x 60

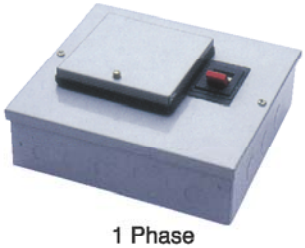
300 x 200 x 80

400 x 300 x 80

ANDELI

PZ30-1M

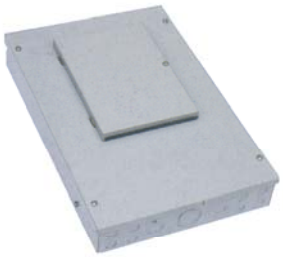
Distribution Board PZ30-1M



1 Phase
4 Lines

1 Phase
6 Lines

1 Phase
8 Lines



3 Phase
9 Lines

3 Phase
12 Lines

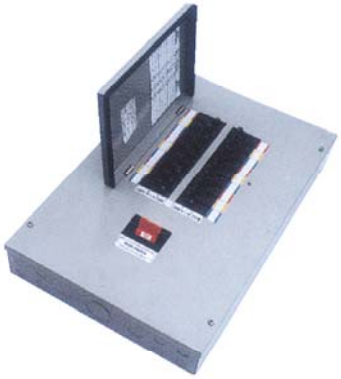
1.Application

PD30-1M distribution system is suitable for circuit of AC 50/60 Hz, rated voltage up to AC 660V, rated current up to 125A of distributing control of modern building such as large office mansion, hotel, commerce department, industrial and mining enterprises and so on. It can protect electric appliances from overload voltage & current. It also can short and frequent switch ON/OFF under normal operating condition. It is one of the most reliable general distribution systems in the world. 1 phase 4lines, 6lines, 8lines, 12lines, and 3phase 9lines, 12lines, 18lines, 24lines, 36lines are available.

1 Phase	4 Lines	6 Lines	8 Lines	12 Lines	
3 Phase	9 Lines	12 Lines	18 Lines	24 Lines	36 Lines

3 Phase
12 Lines

3 Phase
18 Lines



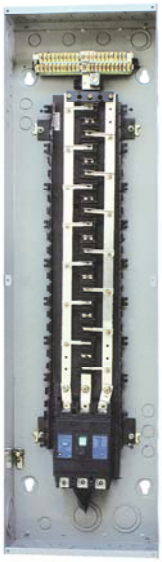
3 Phase
18 Lines

3 Phase
24 Lines

ANDELI

PZ30DB

Distribution Board PZ30DB



PZ30DB1

PZ30DB2

PZ30DB M 24 3 10 H F

- F — Enclosure Type
  F:Flush S: Surface
- H — Main Breaker
  BH H:HBH
  SS:NF100-SS C:NF250-CS
- 10 — Main Breaker Ratings
  10:100A 12:125A 15:150A 17:175A
  20:200A 22:225A 25:250A
- 3 — 3:3-Phase
  1:1-Phase
- 3 — Blank:W/O main breaker
- 24 — Max.no.of breaker spaces
- M — With main breaker
- PZ30DB — Series

PZ30DB-04-112F

PZ30DB-08-112F

PZ30DB-12-310F

PZ30DB-18-310F

PZ30DB-24-310F

PZ30DB-M18-310SSF

PZ30DB-M24-310SSF

PZ30DB-M30-310SSF

PZ30DB-M36-310SSF

PZ30DB-M42-310SSF

ANDELI

PZ30FE

PZ30FE-8#

PZ30FE-8#
Single Phase

PZ30FE-4#
Three Phase

PZ30FE2-6#
Three Phase

PZ30FE2-27#
Three Phase

Distribution Board PZ30FE1

1.Application

This is an assembly of electro-conductive parts consisting of miniature circuit breakers(MCB) of various ratings,isolator switch,bus-bars,neutral & earth bars, all enclosed in a steel metal case for circuits of single-phase or three-phase.

They contain equipment for protecting,switching and controlling cables and apparatus.

Distribution boards are used in household,commercial and industrial installations for distributing of power to final sub-circuits e.g.lighting for cable entries,They could be surface-mounted or flush-mounted with removable cover and breakable inlet on both top and bottom sides for cable entries.

Every final sub-circuit is connected to one way of the distribution board via the MCB.The sizes of the circuit MCB depends on the rating of the final sub-circuits.

2.Specification

Model	Size	Surface install
		H x W x D / mm
Single phase	PZ30FE1-4#	315 x 260 x 112
	PZ30FE1-6#	365 x 260 x 112
	PZ30FE1-8#	415 x 260 x 112
	PZ30FE1-12#	515 x 260 x 112
Three phase	PZ30FE1-4#	510 x 390 x 100
	PZ30FE1-6#	590 x 390 x 100
	PZ30FE1-8#	660 x 390 x 100
	PZ30FE1-12#	820 x 390 x 100

Distribution Board PZ30FE2

1.Application

The series in safe type which has short-rib over-loading,short circuit protective function.It is applicable to multicircuits of 225v rated current in different buildings for lighting and switchboard of 225v rated current in different buildings for lighting and switchboard,The crust is powder-coating and looks handsome.

2.Specification

Model	Size	Surface install
		H x W x D / mm
Three phase	PZ30FE2-4#	510 x 350 x 100
	PZ30FE2-6#	560 x 350 x 100
	PZ30FE2-8#	610 x 350 x 100
	PZ30FE2-10#	660 x 350 x 100
	PZ30FE2-12#	710 x 350 x 100

ANDELI

PZ30ME

Distribution Board PZ30ME1

PZ30ME1-4#
Single Phase

PZ30ME1-8#
Single Phase

Model	Size	H x W x D / mm
Single phase	PZ30ME1-4#	208 x 228 x 90
	PZ30ME1-6#	208 x 279 x 90
	PZ30ME1-8#	208 x 330 x 90
	PZ30ME1-10#	208 x 381 x 90
	PZ30ME1-12#	208 x 432 x 90
Three phase	PZ30ME1-3#	390 x 370 x 100
	PZ30ME1-4#	470 x 370 x 100
	PZ30ME1-6#	545 x 370 x 100
	PZ30ME1-8#	620 x 370 x 100
	PZ30ME1-10#	695 x 370 x 100
	PZ30ME1-12#	770 x 370 x 100

Distribution Board PZ30ME6

PZ30ME1-4#
Three Phase

Model	Size	H x W x D / mm
Single phase	PZ30ME6-4#	228 x 248 x 90
	PZ30ME6-6#	228 x 299 x 90
	PZ30ME6-8#	228 x 350 x 90
	PZ30ME6-10#	228 x 401 x 90
	PZ30ME6-12#	228 x 452 x 90
Three phase	PZ30ME6-4#	493 x 398 x 100
	PZ30ME6-6#	568 x 398 x 100
	PZ30ME6-8#	643 x 398 x 100
	PZ30ME6-10#	718 x 398 x 100
	PZ30ME6-12#	793 x 398 x 100

Busbar Chamber AMBC-M

AMBC-M busbar chamber system is designed to provide either compact, wall-mounting installations or by using optional pedestal sets easily assembled switchboards. Every facility is provided to enable it to be mounted easily and economically to busbar chambers which can be applied either to a suitable load-bearing vertical surface; or by means of a pedestal set, affixed to a vertical surface which need not be load-bearing. These are produced in 100, 200, 400, 630 and 800 Amp.

144BBC

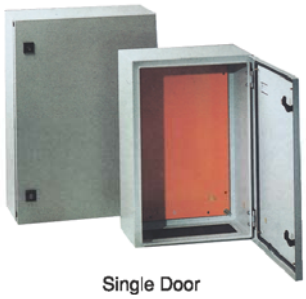
244BBC

Current (A)	List No. according to nominal length (mm)			
	550	900	1350	1800
100	142 BBC	143 BBC	144 BBC	146 BBC
200	242 BBC	243 BBC	244 BBC	246 BBC
400	442 BBC	443 BBC	444 BBC	446 BBC
630	–	643 BBC	644 BBC	646 BBC
800	–	843 BBC	844 BBC	846 BBC

Nominal length (mm)	A	B	C	D	E	F	G
	mm	mm	mm	mm	mm	mm	mm
1800	1812	364	222	280	1724	862	6
1350	1362	364	222	280	1274	–	4
900	912	364	222	280	824	–	4
550	562	364	222	280	474	–	4

ST Waterproof Panel board

1.Specifications



Single Door

Single Door

External dimension (mm) Height	Width	Depth	mounting plates metal	insul.	pert.	mounting plate adjustable supports	19"RAC swing frame	Internal doors
250	200	150	●	●				
300	250	150	●	●	●			
300	250	200	●	●	●	●		
300	300	150	●	●	●			
300	300	200	●	●	●	●		
400	300	150	●	●	●			●
400	300	200	●	●	●	●		
400	400	200	●	●	●	●		
400	600	250	●	●	●	●		
400	600	300	●	●	●	●		
500	400	150	●	●	●			
500	400	200	●	●	●	●		●
500	400	250	●	●	●	●		●
500	500	250	●	●	●	●		
600	400	150	●	●	●			
600	400	200	●	●	●	●		●
600	400	250	●	●	●	●		●
600	500	150	●	●	●			
600	500	200	●	●	●	●		
600	500	250	●	●	●	●		
600	600	250	●	●	●	●	●	
600	600	300	●	●	●	●	●	
700	500	200	●	●	●	●		●
700	500	250	●	●	●	●		●
800	600	200	●	●	●	●		●
800	600	250	●	●	●	●	●	●
800	600	300	●	●	●	●	●	●
800	800	200	●	●	●	●		
800	800	300	●	●	●	●		
1000	600	250	●	●	●	●	●	
1000	600	300	●	●	●	●	●	
1000	800	250	●	●	●	●		●
1000	800	300	●	●	●	●		●
1000	1000	300	●	●	●	●		
1200	800	300	●	●	●	●		
1200	1000	300	●	●	●	●		

Double Doors

Double Doors

External dimension (mm) Height	Width	Depth	mounting plates	19"RAC swing frame	Internal doors
1000	1000	300	●		●
1200	800	300	●		●
1200	1000	300	●		●
1200	1200	400			●
1400	800	400	●	●	●
1600	800	300	●	●	●
1600	800	400	●	●	●
1600	1000	200	●		●
1600	1000	400	●		●
1600	1000	400	●		●
1300	1200	300	●		●
1600	1200	400	●		●
1800	800	400	●	●	●
1800	1200	400	●		●
1800	1600	400	●		
2000	800	400	●		●
2000	1000	400	●	●	●
2000	1200	400	●		●

Fiberglass Box

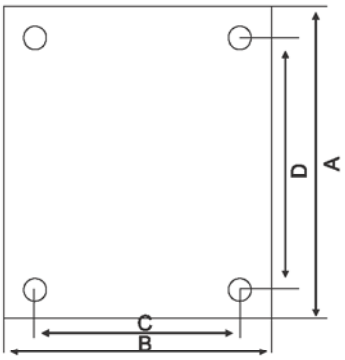
Model	Dimension:W × H × D (mm)	Dimension:W × H × D (mm)	Weight(kg)	Descripition
AL-SMC-302514	300 × 250 × 140	350 × 300 × 190	3.5	Box Material:DMC Fix plate:steel
AL-SMC-403020	400 × 300 × 200	450 × 350 × 250	5.0	
AL-SMC-504020	500 × 400 × 200	550 × 450 × 250	8.0	
AL-SMC-604023	600 × 400 × 230	650 × 450 × 280	10.5	
AL-SMC-605023	600 × 500 × 230	650 × 550 × 280	14	
AL-SMC-806030	800 × 600 × 300	850 × 650 × 350	20	

Fix Plate

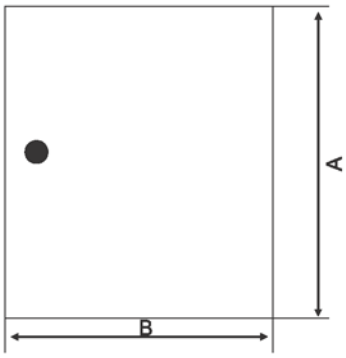
Model	Dimension:A (mm)	Dimension:B (mm)	Dimension:C (mm)	Dimension:D (mm)
AL-SMC-302514	268	213	248	175
AL-SMC-403020	358	260	338	222
AL-SMC-504020	158	360	438	322
AL-SMC-604023	558	360	538	322
AL-SMC-605023	558	460	538	422
AL-SMC-806030	754	556	734	518

Door

Model	Dimension:A (mm)	Dimension:B (mm)
AL-SMC-403020	366	258
AL-SMC-504020	466	358
AL-SMC-604023	566	358
AL-SMC-605023	566	458
AL-SMC-806030	766	658



Fix Plate



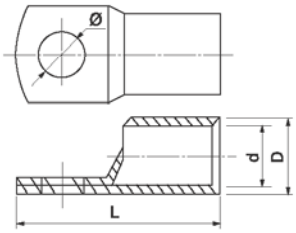
Door

Terminal & Cable Tie & Clips & Cable Gland & Cabinet Lock Axial Fan & Ex Products

SC Copper Cable Lug

1. Application

SC copper cable lugs are suitable for the connection of copper conductors (section 1.5-1000mm²) in power cable with electronic equipment. They are made of 99.9% pure tin coated copper tube T2. Working temperature is from -55°C to +150°C.



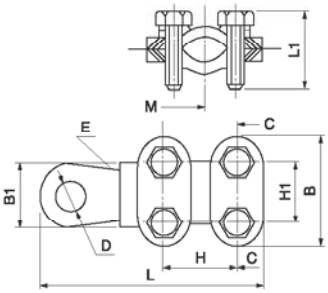
2. Specifications

Type	Ø	D	d	L
SC-1.5	f4, f5	3.5	1.8	18
SC-2.5	f4, f5, f6	4	2.5	19
SC-4	f5, f6	4.8	3.1	21
SC-6	f5, f6, f8	5.5	3.8	24
SC-10	f6, f8	6.8	4.8	25.5
SC-16	f6, f8, f10	7.5	5.5	30.5
SC-25	f6, f8, f10, f12	9	7	34
SC-35	f8, f10, f12	10.5	8.2	38
SC-50	f8, f10, f12	12.5	9.8	45
SC-70	f8, f10, f12	14.5	11.5	50
SC-95	f10, f12	17.5	13.8	55.5
SC-120	f12, f16	19.5	15.5	63
SC-150	f12, f16	20.5	16.5	70
SC-185	f16	23.5	18.8	78
SC-240	f16	26	21	92
SC-300	f16, f20	30	24	102
SC-400	f16, f20	34	27	113
SC-500	f16, f20	38	30	123
SC-630	f20	45	35	135
SC-800	f22	50	40	170
SC-1000	f22	56	44	200

A Wintersweet Shaped Red Copper Jointing Clamp

1. Application

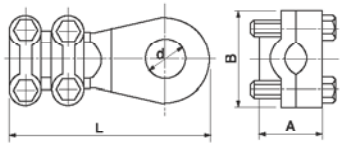
It is suitable for transition connection of the electric appliances of indoors distributing device and kinds of wire cables. It adopts T2 red copper, the surface nickle plating.



2. Specifications

Type	L	L1	B	B1	H	H1	D	M
A16-25-1	39.5	15	25	16.5	13	13	8.5	5
A16-25-2	45	15	22	18	13	13	8.5	5
A25-35	52.5	15	24.5	21.2	13.5	13.5	10.5	5
A50-70	61	21	31	23	18.5	18.5	10.5	6
A70-95	69	24	35	23.5	20	20	10.5	6
A95-120	74	20.5	42	28.5	22.5	22.5	13.5	7
A120-150	73.5	30	41	27	24	24	13.5	8
A150-185	76	30	42	28	24.5	24.5	13.5	8
A185-240	80	32	44	30	25	25	13.5	8

B Wintersweet Shaped Copper Jointing Clamp



1. Application

It is suitable for transition connection of electronic apparatus with wire and cable in indoor distribution equipment, made of brass by die cast and coated nickle.

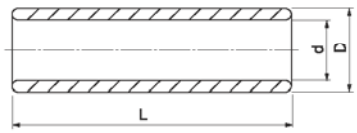
2. Specifications

Type	L	A	B	d
B16-25	37	10	21	7.5
B25-35	48	13	22	11
B50-70	60	17	31	11
B120-150	70	23	35	15
B210-250	90	30	46	17

GT Copper Cable Connector

1. Application

GT series copper cable connectors are applicable for the connection of the circular wire with power supply cable in distribution equipment. They are made of tin coated 99.9% pure copper tube.



2. Specifications

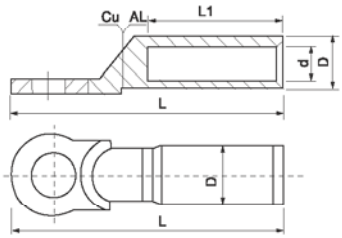
Type	D (mm)	d (mm)	L (mm)
GT-1.5	3.7	1.8	20
GT-2.5	4	2.5	20
GT-4	4.8	3.1	20
GT-5.5	5.5	3.8	25
GT-10	6.8	4.8	30
GT-16	7.5	5.5	35
GT-25	9	7	40
GT-35	10.5	8.2	45
GT-50	12.5	9.8	50
GT-70	14.5	11.5	55
GT-95	17.5	13.5	60
GT-120	19.5	15	65
GT-150	21	16.5	70
GT-85	23.5	18.5	75
GT-240	26.5	21	80
GT-300	30	24	85
GT-400	34	27	90
GT-500	38	30	100
GT-630	45	35	110
GT-800	50	39	150
GT-1000	56	44	170

DTL Copper-aluminium Cable Lug

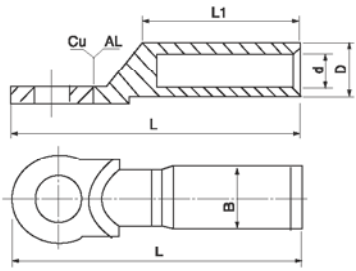
1. Application

DTL series of copper-aluminum cable lug are suitable for transition connection of the circular aluminium wires, hemicyce-sector aluminium wires, power supply cables in the distribution equipment and copper terminals of the electrical equipment. The material of aluminium and copper is that of L3 and T2 respectively. The technology of friction welding is wonderfully adopted. Therefore they have disinguishing features of strong weld intensity, good nature in electrification, resistant galvanic corrosion and long service life.

2. Specifications



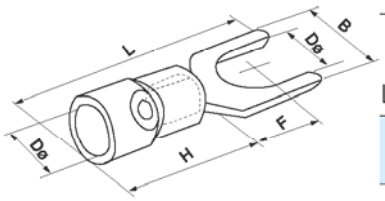
Type	ø (mm)	D (mm)	d (mm)	L (mm)	L1 (mm)
DTL-2-16	13	16	5.5	87	42
DTL-2-25	13	16	6.5	87	42
DTL-2-35	13	16	8	87	42
DTL-2-50	13	20	9	87	43
DTL-2-70	13	20	11	87	43
DTL-2-95	13	20	12.5	87	43
DTL-2-120	13	25	13.5	111	60
DTL-2-150	13	25	15.5	111	60
DTL-2-185	13	32	17.5	116	60
DTL-2-240	13	32	19.5	116	60
DTL-2-300	13	34	22.5	120	62



Type	ø (mm)	D (mm)	d (mm)	L (mm)	L1 (mm)	B (mm)
DTL-1-10	8.5	10	6	68	28	16
DTL-1-16	8.5	11	6	70	30	16
DTL-1-25	8.5	12	7	75	34	18
DTL-1-35	10.5	14	8.5	85	38	20.5
DTL-1-50	10.5	16	9.8	90	40	23
DTL-1-70	12.5	18	11.5	102	48	26
DTL-1-95	12.5	21	13.5	112	50	28
DTL-1-120	14.5	23	15	120	53	30
DTL-1-150	14.5	25	16.5	126	56	34
DTL-1-185	16.5	27	18.5	133	58	37
DTL-1-240	16.5	30	21	140	60	40
DTL-1-300	21	34	23.5	160	65	50
DTL-1-400	21	38	27	170	70	50
DTL-1-500	21	47	29	225	75	60
DTL-1-630	–	54	35	245	80	80
DTL-1-800	–	60	38	270	90	100

Spade Shaped Insulated Terminal

1. Specifications



Lead section: 0.5~1.5mm²(22~16) Max current: =9A

ITEM.NO.	Number of ANSI bolt	Diameter of bolt mouth d2	B (mm)	L (mm)	F (mm)	H (mm)	DØ (mm)	Color
SV1.25-3	#4	3.2mm	5.7	21.2	6.5	10.0	4.3	Red
SV1.25-3.5	#6	3.7mm	5.7	21.2	6.5			
SV1.25-3.5	#6	3.7mm	6.4	21.2	6.5			
SV1.25-4	#8	4.3mm	6.4	21.2	6.5			
SV1.25-4	#8	4.3mm	7.2	21.2	6.5			
SV1.25-4	#8	4.3mm	8.1	21.2	6.5			
SV1.25-5	#10	5.3mm	8.1	21.2	6.5			
SV1.25-5	#10	5.3mm	9.5	21.2	6.5			
SV1.25-6	1/4	6.5mm	9.5	21.2	6.5			
SV1.25-6	1/4	6.5mm	12.0	21.2	11.0			

Lead section: 1.5~2.5mm²(16~14) Max current: =27A

ITEM.NO.	Number of ANSI bolt	Diameter of bolt mouth d2	B (mm)	L (mm)	F (mm)	H (mm)	DØ (mm)	Color
SV2-3	#4	3.2mm	5.7	21.2	6.5	10.0	4.9	Blue
SV2-3.5	#6	3.7mm	5.7	21.2	6.5			
SV2-3.5	#6	3.7mm	6.4	21.2	6.5			
SV2-4	#8	4.3mm	6.4	21.2	6.5			
SV2-4	#8	4.3mm	7.2	21.2	6.5			
SV2-4	#8	4.3mm	8.1	21.2	6.5			
SV2-5	#10	5.3mm	8.1	21.2	6.5			
SV2-5	#10	5.3mm	9.5	21.2	6.5			
SV2-6	1/4	6.5mm	9.5	21.2	6.5			
SV2-6	1/4	6.5mm	12.0	12.0	11.0			

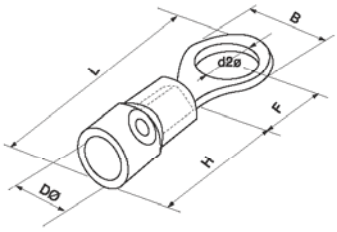
Lead section: 2.5~4mm²(14~12) Max current: =37A

ITEM.NO.	Number of ANSI bolt	Diameter of bolt mouth d2	B (mm)	L (mm)	F (mm)	H (mm)	DØ (mm)	Color
SV3.5-4	#8	4.3mm	8.0	24.8	7.0	12.5	6.2	Black
SV3.5-5	#10	5.3mm	8.0	24.8	7.0			
SV3.5-6	1/4	6.5mm	12.0	28.0	12.1			

Lead section: 4~6mm²(12~10) Max current: =48A

ITEM.NO.	Number of ANSI bolt	Diameter of bolt mouth d2	B (mm)	L (mm)	F (mm)	H (mm)	DØ (mm)	Color
SV5.5-3.5	#6	3.7mm	8.3	25.2	7.5	12.5	6.7	Yellow
SV5.5-4	#8	4.3mm	8.3	25.2	7.5			
SV5.5-4	#8	4.3mm	9.0	23.9	7.5			
SV5.5-5	#10	5.3mm	9.0	23.9	7.5			
SV5.5-6	1/4	6.5mm	9.0	23.9	7.5			
SV5.5-6	1/4	6.5mm	12.0	31.2	12.0			
SV5.5-8	5/16	8.4mm	14.0	30.0	11.5			

Ring Shaped Insulated Terminal



1. Specifications

Lead section: 0.5~1.5mm²(22~16) Max current: =9A

ITEM.NO.	Number of ANSI bolt	Diameter of bolt mouth d2	B (mm)	L (mm)	F (mm)	H (mm)	DØ (mm)	Color
RV1.25-3	#4	3.2mm	5.7	17.8	4.95	10.0	4.3	Red
RV1.25-3.5	#6	3.7mm	5.7	17.8	4.95			
RV1.25-3.5	#6	3.7mm	6.6	20.1	6.3			
RV1.25-3.5	#6	3.7mm	8.0	21.5	7.0			
RV1.25-4	#8	4.3mm	6.6	20.1	6.3			
RV1.25-4	#8	4.3mm	8.0	21.5	7.0			
RV1.25-5	#10	5.3mm	8.0	21.5	7.0			
RV1.25-6	1/4	6.5mm	11.6	27.5	11.1			
RV1.25-8	5/16	8.4mm	11.6	27.5	11.1			
RV1.25-10	3/8	10.5mm	13.6	31.6	13.9			

Lead section: 1.5~2.5mm²(16~14) Max current: =27A

ITEM.NO.	Number of ANSI bolt	Diameter of bolt mouth d2	B (mm)	L (mm)	F (mm)	H (mm)	DØ (mm)	Color
RV2-3	#4	3.2mm	6.6	17.8	4.3	10.0	4.9	Blue
RV2-3.5	#6	3.7mm	6.6	17.8	4.3			
RV2-3.5	#6	3.7mm	6.6	21.0	7.0			
RV2-3.5	#6	3.7mm	8.5	22.5	7.75			
RV2-4	#8	4.3mm	6.6	21.0	7.0			
RV2-4	#8	4.3mm	8.5	22.5	7.75			
RV2-5	#10	5.3mm	8.5	22.5	7.75			
RV2-5	#10	5.3mm	9.5	22.5	7.25			
RV2-6	1/4	6.5mm	12.0	27.6	11.0			
RV2-8	5/16	8.4mm	12.0	27.6	11.0			
RV2-10	3/8	10.5mm	13.6	30.2	13.9			

Lead section: 2.5~4mm²(14~12) Max current: =37A

ITEM.NO.	Number of ANSI bolt	Diameter of bolt mouth d2	B (mm)	L (mm)	F (mm)	H (mm)	DØ (mm)	Color
RV3.5-4	#8	4.3mm	8.0	24.5	7.7	12.5	6.2	Black
RVS3.5-5	#10	5.3mm	8.0	24.6	7.7			
RVL3.5-5	#10	5.3mm	12.0	27.9	7.7			
RV3.5-6	1/4	6.5mm	12.0	27.9	7.7			

Lead section: 4~6mm²(12~10) Max current: =48A

ITEM.NO.	Number of ANSI bolt	Diameter of bolt mouth d2	B (mm)	L (mm)	F (mm)	H (mm)	DØ (mm)	Color
RV5.5-3.5	#6	3.7mm	7.2	21.4	5.9	12.5	6.7	Yellow
RV5.5-4	#8	4.3mm	7.2	21.5	5.9			
RV5.5-4	#8	4.3mm	9.5	25.5	8.3			
RV5.5-5	#10	5.3mm	9.5	25.5	8.3			
RV5.5-6	1/4	6.5mm	12.0	31.5	13.0			
RV5.5-8	5/16	8.4mm	15.0	33.7	13.7			
RV5.5-10	3/8	10.5mm	15.0	33.7	13.7			
RV5.5-12	1/2	13.0mm	19.2	38.1	16.0			

Pin Shaped Insulated Terminal

1. Specifications

Lead section: 0.5~1.5mm²(22~16) Max current: =19A

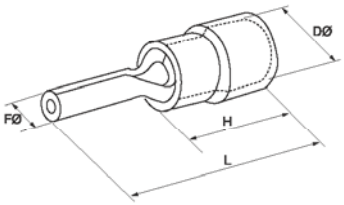
ITEM.NO.	FØ (mm)	Dimension (mm)			Color
		L	H	DØ	
PTV1.25-9	1.9	19.0	10.0	4.3	Red
PTV1.25-10	1.9	20.0			
PTV1.25-12	1.9	22.0			
PTV1.25-13	1.9	23.0			

Lead section: 1.5~2.5mm²(16~14) Max current: =27A

ITEM.NO.	FØ (mm)	Dimension (mm)			Color
		L	H	DØ	
PTV2-9	1.9	19.0	10.0	4.9	Blue
PTV2-10	1.9	20.0			
PTV2-12	1.9	22.0			
PTV2-13	1.9	23.0			

Lead section: 4~6mm²(12~10) Max current: =48A

ITEM.NO.	FØ (mm)	Dimension (mm)			Color
		L	H	DØ	
PTV5.5-13	2.8	25.5	12.5	6.7	Yellow



Lead section: 0.5~1.5mm²(22~16) Max current: =19A

ITEM.NO.	Dimension (mm)			
	W	L	F	C
DBV1.25-10	2.3	20.0	10.0	4.3
DBV1.25-11	3.0	21.0	11.0	
DBV1.25-14	3.0	24.0	14.0	
DBV1.25-18	2.3	28.0	18.0	

Lead section: 1.5~2.5mm²(16~14) Max current: =27A

ITEM.NO.	Dimension (mm)			
	W	L	F	C
DBV2-9	2.8	19.0	9.0	4.9
DBV2-18	2.3	28.0	18.0	

Lead section: 4~6mm²(12~10) Max current: =48A

ITEM.NO.	Dimension (mm)			
	W	L	F	C
DBV5.5-10	2.8	22.5	10.0	5.6

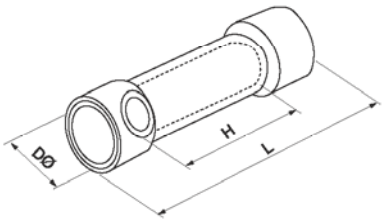
Butt Shaped Insulated Terminal

1. Specifications

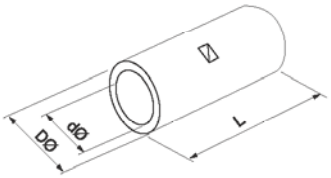
ITEM.NO.	AWG	mm²	Dimension (mm)			Max	Color
			l	DØ	L		
BV1.25	22~16	0.5~1.5	15.0	1.7	26.0	19A	Red
BV2	16~14	1.5~2.5	15.0	2.3	26.0	27A	Blue
BV5.5	12~10	4~6	15.0	3.4	26.0	48A	Yellow
BV8	#8	6~10	21.0	4.5	32.0	62A	Red
BV14	#6	10~16	26.0	5.8	42.0	88A	Blue
BV22	#4	16~25	29.0	7.7	50.0	115A	Yellow
BV38	#2	35~50	32.0	9.4	55.0	160A	Red

ITEM.NO.	AWG	mm²	Dimension (mm)			Max	Color
			l	DØ	L		
PVT1.25	22~16	0.5~1.5	8.0	1.7	16.0	19A	Red
PVT2	16~14	1.5~2.5	8.0	2.3	16.0	27A	Blue
PVT5.5	12~10	4~6	8.5	3.4	20.5	48A	Yellow

ITEM.NO.	Dimension (mm)			Wire Range		
	l	DØ	dØ	Single (mm)	Twin (mm²)	A.W.G
B-1.25	16.5	3.3	1.9	0.57~1.44	0.25~1.65	22~16
B-2	16.5	4.0	2.6	1.44~1.82	1.04~2.63	16~14
B-5.5	16.5	5.5	3.7	1.82~2.89	2.63~6.64	12~10
B-8	22.5	7.1	5.1	2.89~3.56	6.64~10.52	8
B-14	27.5	9.0	6.4	3.56~4.62	10.52~16.78	6
B-22	30.5	11.4	8.2	4.62~5.81	16.78~26.66	4
B-38	33.5	13.3	10.1	5.81~7.34	26.66~42.42	2
B-60	36.0	15.4	12.0	7.34~8.26	42.42~60.57	1/0
B-70	37.8	17.4	14.0	8.26~9.27	60.57~76.28	2/0
B-80	39.5	19.4	15.4	9.27~10.41	76.28~96.3	3/2
B-100	39.5	22.0	17.6	10.41~11.68	96.6~117.2	4/0
B-125	43.4	24.1	19.2	10.01~12.7	107.2~130.4	4/0
B-150	55.5	26.0	20.9	11.68~13.8	117~152.05	250~300MCM
B-180	58.5	28.6	22.0	13.8~15.6	152.05~192.6	300~350MCM
B-200	64.5	32.5	25.7	15.6~17.5	192.6~242.2	400MCM
B-250	64.5	32.5	25.7	15.6~17.5	192.6~242.2	400MCM
B-325	73.5	37.0	29.0	17.5~20.3	242.2~325	500~600MCM



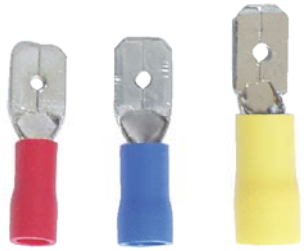
Butt Insulated Terminal



Butt Terminal

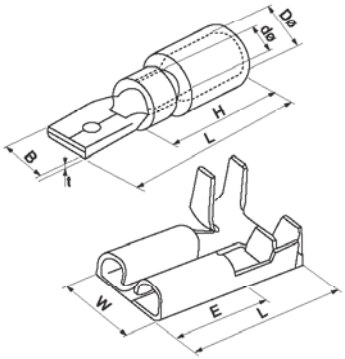
Male Insulated Disconnector

1. Specifications



Lead section: 0.5~1.5mm²(22~16) Max current: =10A

ITEM.NO.	Meme Tab (mm)	Thickness (mm)	Dimension (mm)				
			B	dØ	DØ	L	H
MDD1.25-11(8)	0.8 x 2.8	0.8	2.8	1.70	4.3	17.7	10
MDD1.25-187(5)	0.5 x 4.75	0.5	4.75	1.70	4.3	20.0	10
MDD1.25-187(8)	0.8 x 4.75	0.8	4.75	1.70	4.3	18.5	10
MDD1.25-250	0.8 x 6.35	0.4	6.35	1.70	4.3	21.0	10



Lead section: 1.5~2.5mm²(16~14) Max current: =15A

ITEM.NO.	Meme Tab (mm)	Thickness (mm)	Dimension (mm)				
			B	dØ	DØ	L	H
MDD2-187(5)	0.5 x 4.75	0.5	4.75	2.3	4.3	20.0	10
MDD2-187(8)	0.8 x 4.75	0.8	4.75	2.3	4.3	18.5	10
MDD2-250	0.8 x 6.35	0.4	6.35	2.3	4.3	21.0	10

Lead section: 4~6mm²(12~10) Max current: =24A

ITEM.NO.	Meme Tab (mm)	Thickness (mm)	Dimension (mm)				
			B	dØ	DØ	L	H
MDD5.5-250	0.8 x 6.35	0.4	6.35	3.4	5.7	25.0	14.0

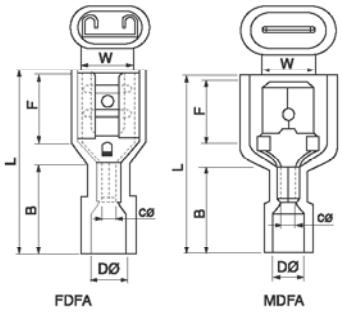
Male and Female Full-Insulated Terminal

• Max. Current: 10A • Metal: Brass • Insulated Material: Nylon

Item.No.	Specification	Dimension(mm)							Fig	A.W.G mm²	Color
		W	F	L	B	DØ	CØ	T			
FDFN 1.25-250	0.8 x 6.35	6.6	7.3	22.0	11.0	4.0	1.7	0.4	1	22-16A.W.G 0.5-1.5mm²	Red
MDFN 1.25-250		6.35	7.7	23.0					2		

• Max. Current: 15A • Metal: Brass • Insulated Material: Nylon

Item.No.	Specification	Dimension(mm)							Fig	A.W.G mm²	Color
		W	F	L	B	DØ	CØ	T			
FDFN 2-250	0.8 x 6.35	6.6	7.3	22.0	11.0	4.0	2.3	0.4	1	16-14A.W.G 1.5-2.5mm²	Blue
MDFN 2-250		6.35	7.7	24.0					2		

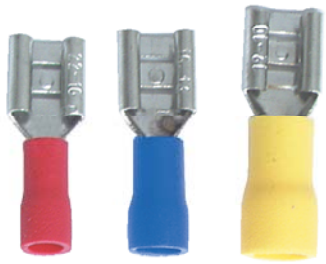


• Max. Current: 24A • Metal: Brass • Insulated Material: Nylon

Item.No.	Specification	Dimension(mm)							Fig	A.W.G mm²	Color
		W	F	L	B	DØ	CØ	T			
FDFN 5.5-250	0.8 x 6.35	6.6	7.3	22.0	13.0	6.3	3.4	0.4	1	12-10A.W.G 4-6mm²	Yellow
MDFN 5.5-250		6.35	7.7	25.0					2		

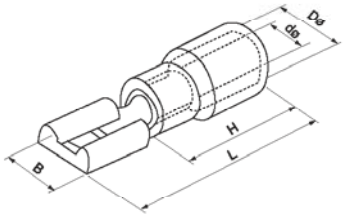
Female Insulated Disconnector

1. Specifications



Lead section: 0.5~1.5mm²(22~16) Max current: =10A

ITEM.NO.	Meme Tab (mm)	Thickness (mm)	Dimension (mm)				
			B	dØ	DØ	L	H
FDD1.25-110(5)	0.5 x 2.8	0.3	3.8	1.70	3.80	19.0	19.0
FDD1.25-110(8)	0.8 x 2.8	0.3	3.8	1.70	3.80	19.0	19.0
FDD1.25-187(5)	0.5 x 4.75	0.35	5.6	1.70	3.80	19.0	19.0
FDD1.25-187(8)	0.8 x 4.75	0.35	5.6	1.70	3.80	19.0	19.0
FDD1.25-250	0.8 x 6.35	0.4	7.4	1.70	3.80	21.0	21.0



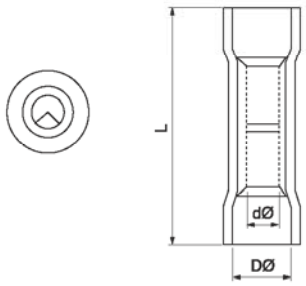
Lead section: 1.5~2.5mm²(16~14) Max current: =15A

ITEM.NO.	Meme Tab (mm)	Thickness (mm)	Dimension (mm)				
			B	dØ	DØ	L	H
FDD2-110(5)	0.5 x 0.8	0.3	3.8	2.3	4.3	19.0	10
FDD2-110(8)	0.8 x 2.8	0.3	3.8	2.3	4.3	19.0	10
FDD2-187(5)	0.5 x 4.75	0.35	5.6	2.3	4.3	19.0	10
FDD2-187(8)	0.8 x 4.75	0.35	5.6	2.3	4.3	19.0	10
FDD2-250	0.8 x 6.35	0.4	7.4	2.3	4.3	21.0	10
FDD2-312	0.8 x 0.8	0.4	9.0	2.3	4.3	23.0	10

Lead section: 1.5~2.5mm²(16~14) Max current: =15A

ITEM.NO.	Meme Tab (mm)	Thickness (mm)	Dimension (mm)				
			B	dØ	DØ	L	H
FDD5.5-250	0.5 x 3.65	0.4	7.4	3.4	5.7	25.0	14.0
FDD5.5-375	1.2 x 9.4	0.5	10.9	3.4	5.7	25.0	14.0

Long Full Insulated Middle Terminal



- Max. Current: 26-22A.W.G: 9A 22-16A.W.G: 19A
  16-14A.W.G: 27A 12-10A.W.G: 48A
- Max. Endure Voltage: 105°C Ui=600V
- Insulated Material: Nylon

Item.No.	Dimension(mm)			A.W.G mm²	Color
	L	DØ	CØ		
BNY-1.25	27.3	3.2	1.7	22-16 A.W.G 0.5-1.5mm²	Red
BNY-2	27.3	3.8	2.3	16-14 A.W.G 1.5-2.5mm²	Blue
BNY-5.5	27.3	5.3	3.4	12-10 A.W.G 4-6mm²	Yellow

Bullet & Receptacle Insulated Disconnector

1. Specifications

Lead section: 0.5~1.5mm²(22~16) Max current: =10A

ITEM.NO.	Thickness (mm)	Dimension (mm)						Color
		bØ	F	DØ	dØ	H	L	
MPD1.25-156	0.4	4.0	11.0	2.7	1.7	10.0	21.0	Red

Lead section: 1.5~2.5mm²(16~14) Max current: =15A

ITEM.NO.	Thickness (mm)	Dimension (mm)						Color
		bØ	F	DØ	dØ	H	L	
MPD2-156	0.4	4.0	16.0	2.7	1.7	10.0	21.0	Blue
MPD2-195	0.4	5.0	16.0	2.7	1.7	10.0	21.0	

Lead section: 4~6mm²(12~10) Max current: =24A

ITEM.NO.	Thickness (mm)	Dimension (mm)						Color
		bØ	F	DØ	dØ	H	L	
MPD5.5-195	0.4	4.0	11.0	4.5	3.4	14.0	25.0	Yellow

Lead section: 0.5~1.5mm²(22~16) Max current: =10A

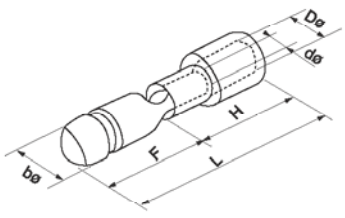
ITEM.NO.	Thickness (mm)	Dimension (mm)						Color
		bØ	F	DØ	dØ	H	L	
FRD1.25-156	0.4	4.0	16.0	2.7	1.7	13.0	24.5	Red

Lead section: 1.5~2.5mm²(16~14) Max current: =15A

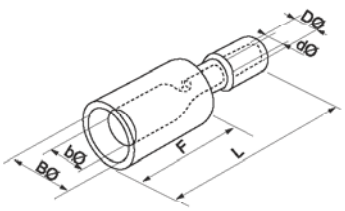
ITEM.NO.	Thickness (mm)	Dimension (mm)						Color
		bØ	F	DØ	dØ	H	L	
FRD2-156	0.4	4.0	6.3	3.3	2.3	14.0	24.5	Blue
FRD2-195	0.4	5.0	7.0	3.3	2.3	14.0	24.5	

Lead section: 4~6mm²(12~10) Max current: =24A

ITEM.NO.	Thickness (mm)	Dimension (mm)						Color
		bØ	F	DØ	dØ	H	L	
FRD5.5-195	0.4	5.0	7.0	4.5	3.4	14.0	29.5	Yellow



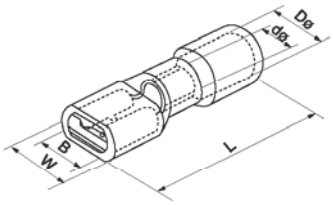
MALE



FEMALE

Fully Vinyl Insulated Disconnector

1. Specifications



Lead section: 0.5~1.5mm²(22~16) Max current: =10A

ITEM.NO.	Meme Tab (mm)	Dimension (mm)				
		W	B	DØ	dØ	L
FDFD1.25-187(5)	0.5 x 4.75	5.6	3.28	4.0	1.7	20.0
FDFD1.25-187(8)	0.8 x 4.75	5.6	3.28	4.0	1.7	20.0
FDFD1.25-250	0.8 x 6.35	7.4	3.28	4.0	1.7	21.5

Lead section: 1.5~2.5mm²(16~14) Max current: =15A

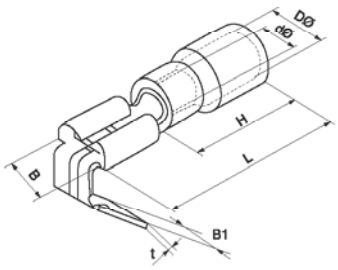
ITEM.NO.	Meme Tab (mm)	Dimension (mm)				
		W	B	DØ	dØ	L
FDFD2-187(5)	0.5 x 4.75	5.6	5.0	4.5	2.3	20.0
FDFD2-187(8)	0.8 x 4.75	5.6	5.0	4.5	2.3	20.0
FDFD2-250	0.8 x 6.35	7.4	5.0	4.5	2.3	21.5

Lead section: 4~6mm²(12~10) Max current: =24A

ITEM.NO.	Meme Tab (mm)	Dimension (mm)				
		W	B	DØ	dØ	L
FDFD5.5-250	0.8 x 6.35	7.4	6.6	5.7	3.4	25.5

Piggy Back Disconnector

1. Specifications



Lead section: 0.5~1.5mm²(22~16) Max current: =10A

ITEM.NO.	Meme Tab (mm)	Dimension (mm)					
		B	B1	B	DØ	dØ	L
PBDD1.25-250	0.8 x 6.35	7.4	6.3	10.0	3.8	1.7	21.5

Lead section: 1.5~2.5mm²(16~14) Max current: =15A

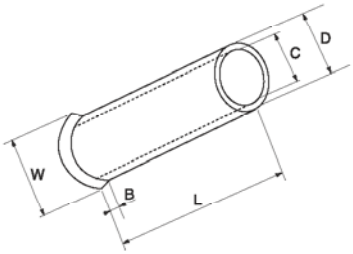
ITEM.NO.	Meme Tab (mm)	Dimension (mm)					
		B	B1	B	DØ	dØ	L
PBDD2-250	0.8 x 6.35	7.4	6.3	10.0	4.3	2.3	21.5

Lead section: 4~6mm²(12~10) Max current: =24A

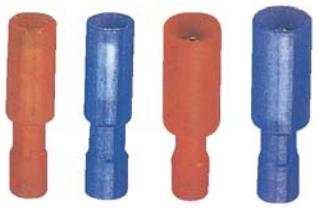
ITEM.NO.	Meme Tab (mm)	Dimension (mm)					
		B	B1	B	DØ	dØ	L
PBDD5.5-250	0.8 x 6.35	7.4	6.3	14.0	5.7	3.4	25.0

Insulated Ring Shaped Terminal

1. Specifications

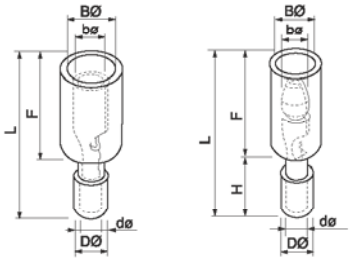


ITEM.NO.	Dimension (mm)					A.W.G	mm²
	L	D	C	B	W		
EN0506	6.0	1.3	1.0	0.7	2.1	#22	0.5
EN75.6	6.0	1.5	1.2	0.7	2.5	#20	0.75
EN1006	6.0	1.7	1.4	0.7	2.7	#18	1.0
EN1010	10.0						
EN1507	7.0	2.0	1.7	1.0	3.5	#16	1.5
EN1510	10.0						
EN2507	7.0	2.5	2.2	1.0	2.5	#14	2.5
EN2512	12.0						
EN4009	9.0	3.2	2.8	1.0	4.0	#12	4.0
EN4012	12.0						
EN6010	10.0	3.9	3.5	1.0	4.8	#10	6.0
EN6012	12.0						
EN6015	15.0						
EN10-12	12.0	4.9	4.5	1.2	5.8	#7	10.0
EN10-15	15.0						
EN10-18	18.0						
EN16-12	12.0	6.2	5.8	1.5	7.5	#5	16.0
EN16-15	15.0						
EN16-18	18.0						
EN25-16	16.0	7.9	7.5	1.8	9.2	4	25
EN25-22	22.0						
EN35-16	16.0	8.7	8.3	2.0	10	2	35
EN35-25	25.0						
EN50-20	20.0	10.9	1.3	2.0	12.4	1	50
EN50-25	25.0						



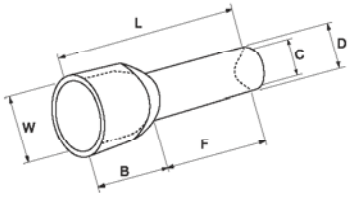
Bullet Shaped Male and Female Full-Insulated Terminal

- Max. Current: 22-16A.W.G: 19A 16-14A.W.G: 27A
- Metal: Brass • Insulated Material: Nylon



Item.No.	Dimension(mm)							Fig	A.W.G mm²	Color
	BØ	bØ	DØ	dØ	L	F	H			
FDFNY 1.25-156	6.9	6.9	3.2	1.8	26.0	15.0	11.0	1	22-16A.W.G 0.5-1.5mm²	Red
MPFNY 1.25-156	7.4	3.9	3.2	1.8	27.5	16.5	11.0	2	22-16A.W.G 0.5-1.5mm²	Red
FRFNY 2-156	6.9	4.0	3.9	2.4	26.0	15.5	11.0	1	16-14A.W.G 1.5-2.5mm²	Blue
MPFNY 2-156	7.4	4.0	3.9	2.4	27.5	16.5	11.0	2	16-14A.W.G 1.5-2.5mm²	Blue

Cord Insulated End Terminal



1. Specifications

ITEM.NO.	Dimension (mm)						A.W.G	mm²	Insulation Color
	F	L	W	B	D	C			
E0506	6.0	12.0	2.6	6.0	1.3	1.0	#22	0.5	Orange White
E0508	8.0	14.0							
E0510	10.0	16.0							
E7506	6.0	12.4	2.8	6.4	1.5	1.2	#20	0.75	White Blue
E7508	8.0	14.6							
E7510	10.0	16.4							
E7512	12.0	18.4							
E1008	8.0	14.6	3.0	6.4	1.7	1.4	#18	1.0	Yellow Red
E1010	10.0	16.4							
E1012	12.0	18.4							
E1508	8.0	14.6	3.5	6.4	2.0	1.7	#16	1.5	Red Black
E1510	10.0	16.4							
E1518	18.0	24.4							
E2508	8.0	15.2	4.0	7.5	2.6	2.3	#14	2.5	Blue Grey
E2512	12.0	19.0							
E2518	18.0	25.0							
E4009	9.0	16.5	4.4	7.5	3.2	2.8	#12	4.0	Grey Orange
E4012	12.0	19.5							
E4018	18.0	25.5							
E6012	12.0	20.0	6.3	8.0	3.9	3.5	#10	6.3	Black Green
E6018	18.0	26.0							
E10-12	12.0	24.5	7.6	9.5	4.9	4.5	#7	10.0	Milky White Brown Green
E10-18	18.0	27.5							
E16-12	12.0	22.0	8.8	10.2	6.2	5.8	#5	16.0	Green Milky White
E16-18	18.0	28.2							
E25-16	18.0	29.0	11.2	13.0	7.9	7.5	#4	25.0	Brown Green Black
E25-22	22.0	35.0							
E35-16	16.0	30.0	12.7	14.0	8.7	8.3	#2	35.0	Greyish Brown
E35-25	25.0	39.0							
E50-20	20.0	36.0	15.3	16.0	10.9	10.3	#1	50.0	Olive
E50-25	25.0	41.0							

Cable Clamp

AL16²-70²-1

AL16²-70²-2

AL16²-150²

AL25²-185²

AL95²-120²

AL50²-70²

AL25²-35²

CU8-50²
AL16-70²/12M²

CU8-50²
AL16-70²-1

CU8-50²
AL16-70²-2

CU10-95²
AL25-150²

CU35-240²
AL35-300²

16mm

35mm

50mm

70mm

TB TC Terminal Connector

1. Specification

TB

TC

Type	Current	No. of poles	Dimension (mm)								
			L	L	A	B	C	D	E	F	G
TB-1503	15A	3	46	36.5	7.5	9	M3	22	17		
TB-1504		4	55	45.5	7.5	9	M3	22	17		
TB-1506		6	73	63.5	7.5	9	M3	22	17		
TB-1512		12	127	118	7.5	9	M3	22	17		
TB-2503	25A	3	50	40	10.5	12	M4	30	20		
TB-2504		4	62.5	57	10.5	12	M4	30	320		
TB-2506		6	91	81.5	10.5	12	M4	30	20		
TB-2512		12	163	153	10.5	12	M4	30	20		
TB-3503	35A	3	50	40	10.5	12	M4	30	20		
TB-3504		4	62.5	57	10.5	12	M4	30	20		
TB-3506		6	91	81.5	10.5	12	M4	30	20		
TB-3512		12	163	153	10.5	12	M4	30	20		
TB-4503	45A	3	70	60.5	15	17	M5	38	23.5		
TB-4504		4	86	75.5	15	17	M5	38	23.5		
TB-4506		6	120.5	110	15	17	M5	38	23.5		
TB-603	60A	3	70.5	65.5	15.5	18	M6	38	31		
TB-604		4	93.5	82.5	15.5	18	M6	38	31		
TB-606		6	129	118	15.5	18	M6	38	31		
TB-1003	100A	3	86.5	75.5	22	20	M6	43.5	35		
TB-1004		4	108	96	22	20	M6	43.5	35		
TB-1006		6	153	140	22	20	M6	43.5	35		
TC-603	60A	3	28.5	86.5	38	42.7	25.5	31	15	17	M6
TC-604		4	28.5	115	38	42.7	25.5	31	15	17	M6
TC-1003	100A	3	34.5	113.5	46.5	55.2	28	36.3	17.3	22.5	M6
TC-1004		4	34.5	137.5	46.5	55.2	28	36.	17.3	22.5	M6
TC-1503	150A	3	38.5	115	57.2	67	30.5	340	19.8	25.3	M8
TC-1504		4	38.5	153	57.2	67	30.5	40	19.8	25.3	M8
TC-2003	200A	3	44.5	133	63	72.1	34	44.4	23	28.3	M8
TC-2004		4	44.5	177	63	72.1	34	44.4	23	28.3	M8
TC-3003	300A	3	55	164	78	89.4	47.5	50.6	27	30	M10
TC-3004		4	55	218	78	89.4	47.5	50.6	27	30	M10
TC-4003	400A	3	55	164	78	89.4	47.5	50.6	27	36	M10
TC-4004		4	55	218	78	89.4	47.5	50.6	27	36	M10

Terminal Blocks

TERAMINAL BLOCKS H, U(W), V(F) TYPE

Material: made from PA, PE or PP.

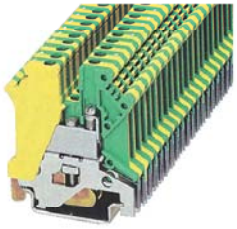
Item NO.	L	W	H	A	B	mm²	VOLT	AMP	Packing
TBS-3A	93	16	12	6	8	4	400V	3A	10PCS
TBS-6A	115	15.7	13	6.5	9.5	6	400V	6A	
TBS-10A	126	20.2	15.5	8.4	10.5	10	400V	10A	
TBS-16A	139	23	17.7	10.3	12	12	400V	16A	
TBS-20A	155	25	19.2	11.5	13.5	14	400V	20A	
TBS-30A	171	26	20.5	12	14.5	16	400V	30A	
TBS-60A	192	30	26	13.5	16.5	25	400V	60A	
TBS-80A	205	33	27	15	17	35	400V	80A	
TBS-100A	250	46	31	22	21	40	400V	100A	

SM Insulating Connector

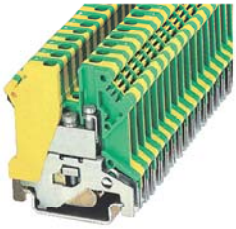
Values	Style					
	SM-25	SM-30	SM-35	SM-40	SM-51	SM-76
Tensile strength (1bs)	500	550	600	650	1000	1500
Tongue strength (ft 1bs)	6	8	10	10	20	40
Voltage withstand (kv)	6	8	10	12	15	25
Screw (mm)	6	8	8	8	8	10
Weight (g)	28	44	50	86	83	233

SM

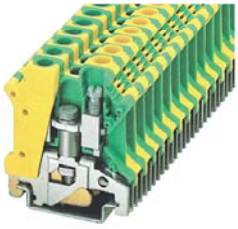
UK Terminal Block



USLKG 4N



USLKG 6N



USLKG 10N

USLKG 16N

UK 2.5N

UK 3N

UK 5N

UK 10N

UK 16N

Model	Hard Wire (mm^2)	Soft Wire (mm^2)	Rated Current (A)	Rated Voltage (V)	Dimension (mm)
UK2.5B	0.2-4	0.2-2.5	32	690	6.2 x 42.5 x 42
UK3N	0.2-4	0.2-2.5	32	800	6.2 x 42.5 x 42
UK5N	0.2-6	0.2-4	41	800	6.2 x 42.5 x 47
UK6N	0.2-10	0.2-2.5	57	800	6.2 x 42.5 x 47
UK10N	0.5-16	0.5-10	76	800	10.2 x 42.5 x 47
UK16N	2.5-25	4-16	101	800	12.2 x 42.5 x 54
UK35N	0.75-50	0.75-35	150	1000	15.2 x 50.0 x 62
UKH50	16-50	25-50	150	1000	20 x 70.5 x 83.5
UKH95	25-95	35-95	232	1000	25 x 83 x 97.5
UKH150	35-150	50-150	309	1000	31 x 100 x 118.5

Model	Hard Wire (mm^2)	Soft Wire (mm^2)	Rated Current (A)	Dimensions (mm)
USLKG2.5	0.2-4	0.2-2.5	32	6.2 x 42.5 x 42
USLKG3	0.2-4	0.2-2.5	32	6.2 x 42.5 x 47
USLKG5	0.2-6	0.2-4	41	6.2 x 42.5 x 47
USLKG6N	0.2-10	0.2-6	57	8.2 x 42.5 x 47
USLKG10N	0.5-16	0.5-10	76	10.2 x 42.5 x 47
USLKG16N	2.525	4-16	101	12.2 x 42.5 x 54
USLKG35N	0.75-50	0.75-35	150	15.2 x 50.0 x 62
USLKG50	16-50	25-50	150	20 x 70.5 x 81.5

Terminal Block


JXB 2.5/35

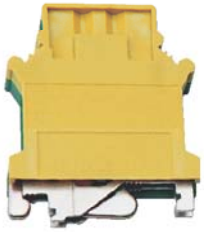

JXB 4/35


JXB 6/35


JXB 10/35


JXB 16/35


JXB 35/35


JB 2.5/35


JB 4/35


JB 6/35

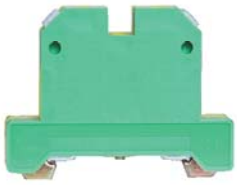

End Stopper


Separator

1. Specifications

Terminal Connector	JXB-2.5/35	JXB-4/35	JXB-6/35	JXB-10/35	JXB-16/35	JXB-35/35	JXB-50/35	JXB-70/35	JXB-95/35	JXB-150/35
Earth Connector	JB-2.5/35	JB-4/35	JB-6/35	JB-10/35	JB-16/35	JB-35/35				


EK 4/35


EK 6/35


EK 10/35


EK 16/35


EK 35/35

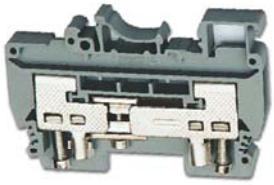

USLKG 2.5/35

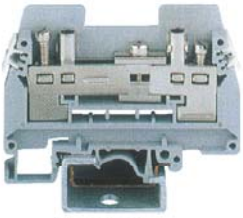

USLKG 3/35


USLKG 10/35


USLKG 16/35


USLKG 35/35


URTK


URTKSS


E/UK


E/MK


End Stopper

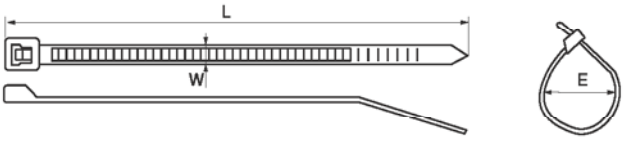
Nylon Cable Tie

1. Application

Material: Nylon 66, 94V-2 certificated by UL.
Heat-resisting, erosion control & insulate.
Operating temperature: -40°C to 85°C.
Color: Natural (or white, standard color), UV black and other colors are available as requested.

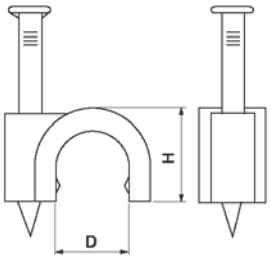
2. Specifications

Item NO.	L (mm)	W (mm)		Bundle diameter (mm)	Min.loop tensile strength	
		Model A	Model B		LBS	KGS
3 x 60	60	2.5	2	2-11	18	8
3 x 80	80	2.5	2	2-16	18	8
3 x 90	90	2.5	2	2-18	18	8
3 x 100	100	2.5	2.2	2-22	18	8
3 x 120	120	2.5	2.2	2-0	18	8
3 x 140	140	2.5	2.2	2-33	18	8
3 x 150	150	2.5	2.2	2-35	18	8
3 x 160	160	2.5	2.2	2-40	18	8
3 x 200	200	2.5	2.2	3-50	18	8
4 x 140	140	3.5	3.2	3-33	40	18
4 x 150	150	3.5	3.2	3-35	40	18
4 x 180	180	3.5	3.2	3-42	40	18
4 x 200	200	3.5	3.2	3-50	40	18
4 x 250	250	3.5	3.2	3-65	40	18
4 x 280	280	3.5	3.2	3-70	40	18
4 x 300	300	3.5	3.2	3-80	40	18
4 x 370	370	3.5	3.2	3-102	40	18
5 x 120	120	4.8	4.2	3-24	50	22
5 x 180	180	4.8	4.2	3-42	50	22
5 x 190	190	4.8	4.2	3-46	50	22
5 x 200	200	4.8	4.2	3-50	50	22
5 x 250	250	4.8	4.2	3-65	50	22
5 x 280	280	4.8	4.2	3-70	50	22
5 x 300	300	4.8	4.2	3-82	50	22
5 x 350	350	4.8	4.2	3-90	50	22
5 x 380	380	4.8	4.2	3-102	50	22
5 x 400	400	4.8	4.2	3-105	50	22
5 x 430	430	4.8	4.2	3-110	50	22
5 x 450	450	4.8	4.2	3-130	50	22
8 x 150	150	7.0	6.6	3-33	120	55
8 x 180	180	7.0	6.6	3-42	120	55
8 x 200	200	7.0	6.6	3-50	120	55
8 x 250	250	7.0	6.6	4-63	120	55
8 x 300	300	7.0	6.6	4-82	120	55
8 x 350	350	7.9	6.6	4-90	120	55
8 x 400	400	7.9	6.6	4-105	120	55
8 x 450	450	7.9	6.6	4-118	120	55
8 x 500	500	7.9	6.6	4-150	120	55
9 x 550	550	9.0	8.2	8-160	175	80
9 x 650	650	9.0	8.2	8-190	175	80
9 x 760	760	9.0	8.2	10-225	175	80
9 x 920	920	9.0	8.2	10-265	175	80
9 x 1020	1020	9.0	8.2	10-295	175	80
10 x 450	450	10.0	8.2	10-125	200	91
10 x 500	500	10.0	8.2	12-150	200	91
10 x 600	600	10.0	8.2	12-175	200	91
10 x 700	700	10.0	8.2	12-205	200	91
12 x 650	650	12.0	10.5	14-190	250	114
12 x 750	750	12.0	10.5	10-220	250	114



Cable Clips

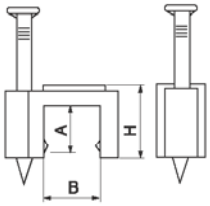
- PE(white, grey), elasticity and shock resisting.
- Inserting type, nail attached in clips.
- Save time and cost.



1. Specifications

Round nail clips

Item.No.	H (mm)	D (mm)	Nail
R-3.5MM	4.5	3.5	1.7 x 14
R-4MM	5.3	4.0	1.7 x 14
R-5MM	6.3	5.0	1.7 x 14
R-6MM	7.4	6.0	1.85 x 16
R-7MM	8.4	7.0	1.85 x 18
R-8MM	9.4	8.0	1.95 x 19
R-9MM	10.4	9.0	2.05 x 22
R-10MM	11.4	10.0	2.20 x 23
R-12MM	13.4	12.0	2.35 x 25
R-14MM	16.4	14.0	2.35 x 30
R-16MM	17.7	16.0	2.35 x 32
R-18MM	19.7	18.0	2.6 x 38
R-20MM	22.2	20.0	2.7 x 40
R-22MM	25.0	22.0	2.9 x 43
R-25MM	27.7	25.0	3.2 x 50
R-30MM	33.1	30.0	3.5 x 55
R-32MM	35.6	32.0	3.5 x 55
R-35MM	36.6	35.0	3.5 x 60
R-40MM	45.2	40.0	3.5 x 65



Flat nail clips

Item.No.	H (mm)	A (mm)	B (mm)	Nail
F-4MM	6.0	3.8	4	1.7 x 14
F-5MM	6.0	3.8	5	1.7 x 14
F-6MM	6.5	4.1	6	1.7 x 16
F-7MM	7.0	4.7	7	1.9 x 16
F-8MM	7.5	5.0	8	2.1 x 19
F-9MM	8.2	5.4	9	2.1 x 20
F-10MM	8.6	5.7	10	2.3 x 21
F-12MM	9.0	6.1	12	2.3 x 23
F-14MM	11.0	8.0	14	2.3 x 25

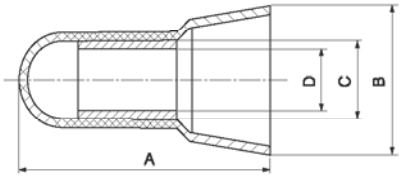
Coaxial cable nail clips

Item.No.	W (mm)	Nail
C-0305	3-5	1.2 x 20.0
C-0406	4-6	1.4 x 20.5
C-0508	5-8	2.0 x 25.5
C-0607	6-7	2.0 x 20.0
C-0610	6-10	2.0 x 25.5
C-0812	8-12	2.0 x 30.0
C-1014	10-14	2.0 x 30.5

P6 End Wire Connector

- Material: Nylon 66, 94V-2 with UL approval.
- Usage: Peel the coat of wire, then insert to tube, use pincers to fix them.
- Feature: Nylon shell, long copper tube, easy to conduct electricity and hold wire tightly.

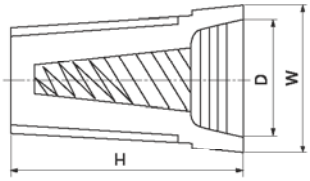
Item.No.	A (mm)	W		D (mm)	Suitable Wires	
		B (mm)	C (mm)		mm^2	AWG
P6-Ø3	17.8	7.2	3.6	2.5	1.25	22-16
P6-Ø4	21.0	8.2	4.0	2.9	2	16-14
P6-Ø5	22.5	9.0	4.8	3.9	5.5	12-10
P6-Ø6	25.0	10.0	5.6	4.5	8	8
P6-Ø7	24.2	11.0	6.5	5.4	10	8-6
P6-Ø8	25.6	11.8	7.5	6.0	13	6
P6-Ø10	29.5	13.5	9.3	7.5	16	4



P7 Self-screw Shell End Wire Connector

- Material: Nylon 66, with spring inside.
- Usage: peel wire coat, insert the wire in, then tighten.

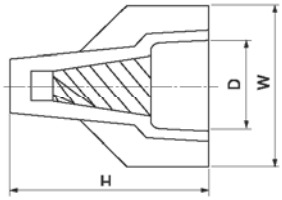
Item.No.	H (mm)	W (mm)	D (mm)	Suitable Wire (mm)
P7-1	15	8.7	6.5	MIN#20 x 1+#22 x 1, MAX#16 x 2
P7-2	18	10.0	7.5	MIN#20 x 3, MAX#16 x 3
P7-3	23	11.2	9.5	MIN#20 x 3, MAX#16 x 3+#18 x 1
P7-4	24.2	13.6	10.8	MIN#14 x 1+#18 x 1, MAX#14 x 4+#18 x 1
P7-5	27.8	16.1	12.7	MIN#14 x 2, MAX#10 x 2+#12 x 2



P8 Double Wings End Wire Connector

- Material: Nylon 66, with spring inside.
- Usage: peel wire coat, insert the wire in, then tighten.

Item.No.	H (mm)	W (mm)	D (mm)	Wrapping Range (mm)	Color
P8-1	22.0	19.0	9.8	MIN#18 x 2, MAX#12 x 3	Yellow
P8-2	29.0	22.0	12.5	MIN#14 x 2, MAX#10 x 4	Red

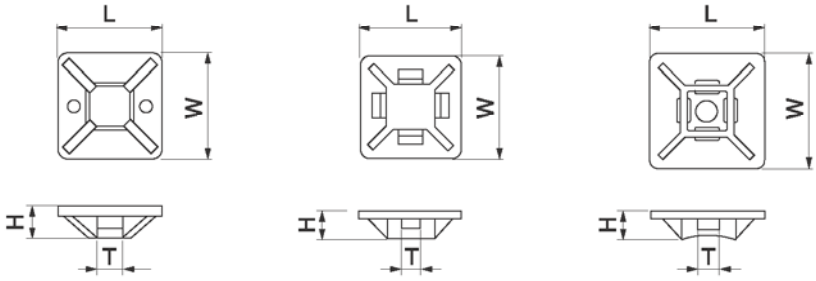


Self-Adhesive Cable Tie Base

• Material: Nylon 66, 94V-2, certificated by UL, the back attached foam type double coated tape
• Application: for bundling wires and other things.Used for the places where you don't drill hole

1. Specifications

Item.No.	L x W	H (mm)	T (mm)	Screw Hole (mm)
TM-20	20 x 20	6.1	5.0	2.9
TM-25	25 x 25	7.5	6.2	3.5
TM-30	30 x 30	8.7	6.4	4.5
TM-40	40 x 40	6.4	10.8	/
AAM-1	19 x 19	4.6	4.4	/
AAM-2	28 x 28	6.4	5.4	5.5



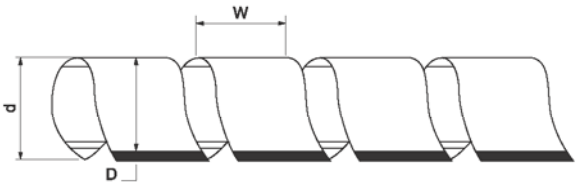
TM AAM-1 AAM-2

Spiral Wrapping Band

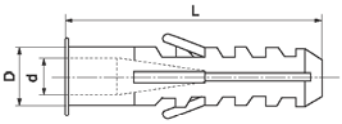
• Material: Made From PE
• Usage: Fix one end with safety belt first, then circle the wires clockwise to make them tighten.
• Appliaction: a protection wear for electric wires, and make them insulation and look nice.

1. Specifications

Item.No.	D (mm)	d (mm)	W (mm)	Wrapping Range (mm)	Packing
SWB-06	4	6	7.0	4-50	10M/Roll
SWB-08	6	8	10.8	6-60	
SWB-10	7.5	10	11.4	7.5-60	
SWB-12	9	12	13.9	9-65	
SWB-15	12	15	15.0	12-75	
SWB-19	15	19	18.2	15-100	
SWB-24	20	24	19.6	20-130	



Expand Nail



- Material: made of pE.
- Color: White, Grey.

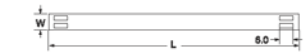
Item.No.	L (mm)	D (mm)	d (mm)
EN-06	29.8	6.0	4.9
EN-08	38.6	7.9	5.3
EN-10	42.7	9.9	5.8
EN-12	47.9	11.6	6.3

Cable Marker

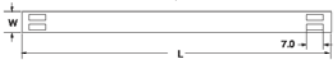
- Material: made from PVC, oil and erosion control, heat resisting up to 85°C,
- Struction: the inside is hollow, but elastic. The diameter can change with the needed wire.

Item.No.	Approx Wire		markers	Packing
	SQ (mm^2)	mm		
EC-0	0.75~1.5	2.0~3.2	0~9 A~Z + - / \	1000PCS/Roll
EC-1	0.75~3.5	3.0~4.2		1000PCS/Roll
EC-2	3.5~8.0	3.6~7.4		500PCS/Roll
EC-3	5.2~10.0	5.2~10.0		250PCS/Roll
EC-J	2~8	0.5~7		500PCS/Roll

Cable Marker Strip



MS-65,100

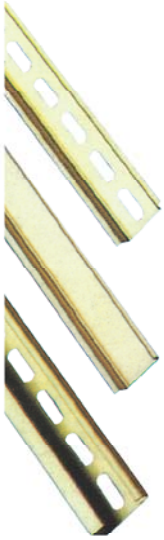


MS-135

- Material: Nylon66 94V-2
- Usage: Nylon Olate with cable tie fastening hole to accommodate marker piecces for easy identification of cable runs.

Item.No.	Length	Width	Cable tie hole (mm)	Available loaded quantity of FM-1 Cable Marker	Packing
MS-65	65	9	6.0	9pcs	100
MS-100	100	9	6.0	16pcs	100
MS-135	135	9	7.0	23pcs	100

Din Rails



1. Application

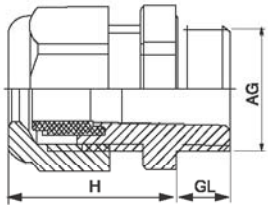
Suitable for mounting various modular units.

2. Technical Data

- Material: steel, zinc electroplated with yellow achromate passivation. aluminium alloy optional.
- Color: yellow or silver gray.
- Length: 2m, 1m and other lengths upon request.
- Standards: DIN 46277, CENELEC EN 50.0222, EN50.023, EN50.035.

Cat.No.: DR101
Dimensions (mm): 35 × 7.5 × 1(W × H × T)
Length Meters(m): 1, 2
Cat.No.: DR102
Dimensions (mm): 35 × 7.5 × 1(W × H × T)
Length Meters(m): 1, 2
Cat.No.: DR201
Dimensions (mm): 35 × 15 × 1.5(W × H × T)
Length Meters(m): 1, 2

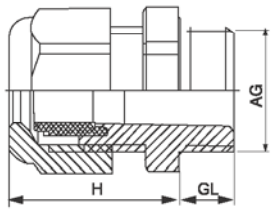
PG Cable Gland



1. Specifications

Model	(mm)	GL (mm)	H (mm)	(mm)
PG7	3-6.5	8	22	16
PG9	4-8	8	26	19
PG11	5-10	8	27	22
PG13.5	6-12	9	28	24
PG16	10-14	10	30	27
PG21	13-18	10	35	33
PG29	18-25	12	40	41/42
PG36	20-32	14	48	52/53
PG42	32-38	14	49	60/61
PG48	37-44	14	50	64/65

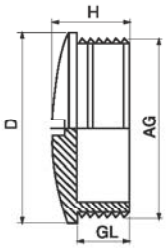
PGL Cable Gland



1. Specifications

Model	(mm)	GL (mm)	H (mm)	(mm)
PGL-7	3-6.5	15	22	16
PGL-9	4-8	15	26	19
PGL-11	5-10	15	27	22
PGL-13.5	6-12	15	28	24
PGL-16	10-14	15	30	27
PGL-21	13-18	15	35	33
PGL-29	25-28	18	40	41
PGL-36	22-32	18	48	52/53
PGL-42	32-38	18	49	60/61
PGL-48	37-44	18	50	64

JG Insulating Closeover

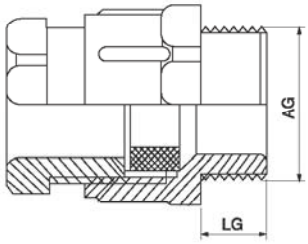


1. Specifications

Model	GL (mm)	H (mm)	D (mm)
JG7	6	8	15
JG9	6	9	19
JG11	6	9	22
JG13.5	6	9.5	25
JG16	6	9.5	27
JG21	8	11	33
JG29	8	12	44
JG36	10	15	55
JG42	10	16	62
JG48	12	16	69

Color: light grey or black

PG-N Cable Gland

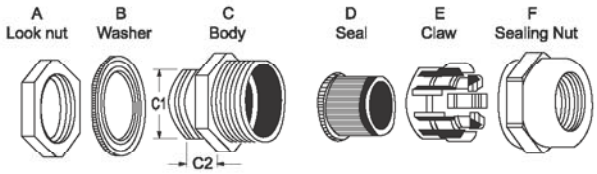


1. Specifications

Model	⌀ (mm)	GL (mm)
PG-7N	5-7	8
PG-9N	6-8	8
PG-11N	8-10	8
PG-13.5N	10-12	9
PG-16N	12-14	10
PG-21N	15-17	11
PG-29N	24-26	11
PG-36N	31-33	13
PG-42N	39-41	13
PG-48N	45-47	14

Color: light grey or black

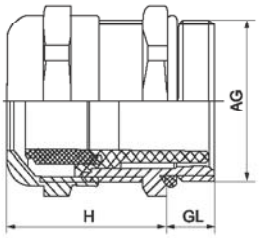
MG Cable Gland



1. Specifications

Model	(mm)	C1 (mm)	C2 (mm)	(mm)
MG12	3-5.3	12	9	17/19
MG16	4-7	16	15	22
MG20	6-11	20	15	26/27
MG25	10-16	25	15	32/33
MG32	15-22	32	15	41
MG40	20-25	40	20	50
MG50	26-32	50	23	60/62
MG63	38-46	63	24	73/75

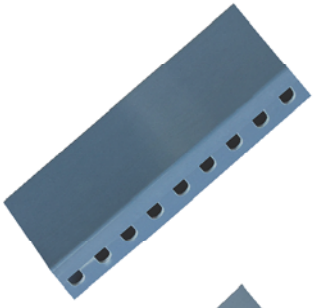
PGM Metal Cable Gland

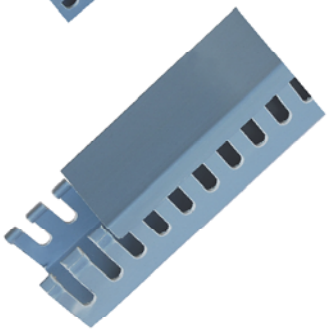


1. Specifications

Model	(mm)	GL (mm)	GL(Long) (mm)	H (mm)	(mm)
PGM-7	3-6.5	5	10	19	14
PGM-9	4-8	6	10	20	17
PGM-11	5-10	6	10	21	20
PGM-13.5	6-12	6.5	10	22	22
PGM-16	10-14	6.5	10	23	24
PGM-21	13-18	7	12	25	30
PGM-29	18-25	8	12	29	40
PGM-36	22-32	8	15	35	50
PGM-42	32-38	9	15	37	57
PGM-48	37-44	10	15	38	64

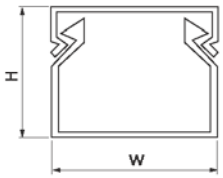
Wiring Duct(Slotted)

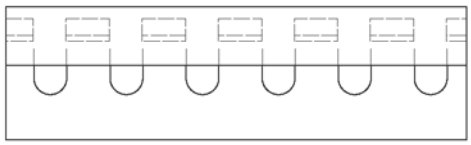




- Material: made from PVC(grey), good insulation and heat-resisting up to 85°C.
- Struction: made up to duct bottom and lid, with two out-holes designed at the bottom.

Item.No.	H x W	Contained Wire (1.5^2)	Length
PXC-2015	20 x 15	5-10PCS	
PXC-2020	20 x 20	10-15PCS	
PXC-2025	20 x 25	10-20PCS	
PXC-2525	25 x 25	10-25PCS	
PXC-2545	25 x 45	25-40PCS	
PXC-3015	30 x 15	5-15PCS	
PXC-3020	30 x 20	10-20PCS	
PXC-3025	30 x 25	15-25PCS	
PXC-3030	30 x 30	20-30PCS	
PXC-3035	30 x 35	30-45PCS	
PXC-3040	30 x 40	35-50PCS	
PXC-3050	30 x 50	45-60PCS	
PXC-3525	35 x 25	25-35PCS	
PXC-3535	35 x 35	40-55PCS	
PXC-4025	40 x 25	20-40PCS	
PXC-4030	40 x 30	35-50PCS	
PXC-4035	40 x 35	40-50PCS	
PXC-4040	40 x 40	45-55PCS	
PXC-4060	40 x 60	60-80PCS	
PXC-4525	45 x 25	25-40PCS	
PXC-4535	45 x 35	40-55PCS	
PXC-4545	45 x 35	60-70PCS	
PXC-4565	45 x 65	90-100PCS	2M
PXC-5015	50 x 15	25-35PCS	
PXC-5025	50 x 25	25-45PCS	
PXC-5030	50 x 30	30-55PCS	
PXC-5035	50 x 35	50-60PCS	
PXC-5040	50 x 40	60-70PCS	
PXC-5045	50 x 45	70-85PCS	
PXC-5050	50 x 50	90-100PCS	
PXC-5055	50 x 55	100-110PCS	
PXC-5060	50 x 60	95-105PCS	
PXC-5080	50 x 80	180-200PCS	
PXC-50100	50 x 80	220-250PCS	
PXC-6040	60 x 40	90-100PCS	
PXC-6060	60 x 60	140-160PCS	
PXC-6525	65 x 25	100-110PCS	
PXC-6545	65 x 45	180-200PCS	
PXC-6565	65 x 65	140-160PCS	
PXC-8035	80 x 35	160-180PCS	
PXC-8045	80 x 45	180-200PCS	
PXC-8050	80 x 50	200-220PCS	
PXC-8055	80 x 55	240-290PCS	
PXC-8080	80 x 80	280-350PCS	
PXC-80100	80 x 100	300-400PCS	
PXC-100100	100 x 100	300-400PCS	





PZC Wiring Duct

- Material: made from PVC(White), good insulation and heatresisting up to 85°C.
- Struction: made up of duct bottom and lid.
- Application: used in stage, electric, air conditioning or indoors.
- Feature: solid design, especially for anti-dust and mouse.

Item.No.	H x W (mm)	Contained Wire (1.5^2)	length
PZC-1015	10 x 15	3-5PCS	2M
PZC-1020	10 x 20	3-6PCS	
PZC-1025	10 x 25	5-10PCS	
PZC-1525	15 x 25	5-10PCS	
PZC-2030	20 x 30	10-20PCS	
PZC-2035	20 x 35	15-25PCS	
PZC-2540	25 x 40	20-40PCS	
PZC-3050	30 x 50	30-50PCS	
PZC-3060	30 x 60	55-65PCS	
PZC-5080	50 x 80	180-200PCS	
PZC-50100	50 x 100	220-250PCS	
PZC-80100	80 x 100	260-350PCS	
PZC-100100	100 x 100	300-400PCS	

Telephone Wiring Duct

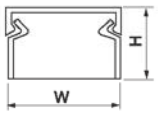
- Material: made from PVC(White), good insulation and heatresisting up to 85°C.
- Feature: spacious designed, and the strong adhesive tape in the duct button.

Item.No.	W1(mm)	W2(mm)	H(mm)	L (mm)
JTD-1	10.40	7.30	8.0	1M
JTD-2	14.50	11.80	8.0	
JTD-3	17.50	15.60	11.0	
JTD-4	23.50	19.50	12.0	

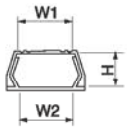
Round Type Wiring Duct

- Material: High impact, rigid, self-extinguishing P.V.C
- Service temperature: 85°C
- Backed with high quality double sided tape for permanent stick.

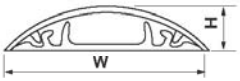
Item.No.	W1(mm)	W2(mm)	Length	color
RTD-1	24	8	1M	White Grey Green
RTD-2	31.7	8.5		
RTD-3	39.2	11		
RTD-4	52	11.3		
RTD-5	63	12.5		
RTD-6	70	13.2		



PZC Wiring duct



Telephone wiring duct



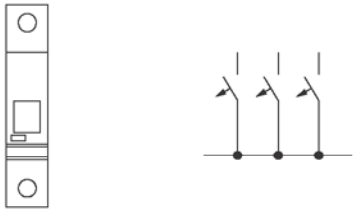
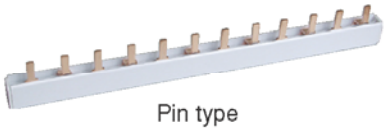
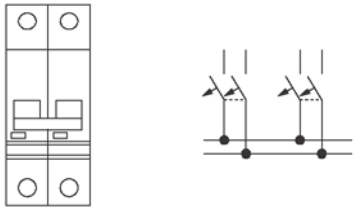
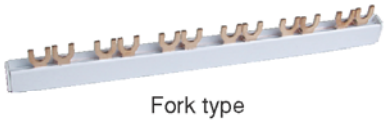
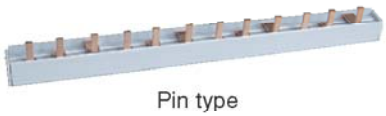
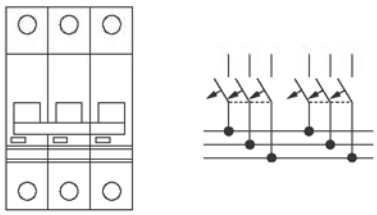
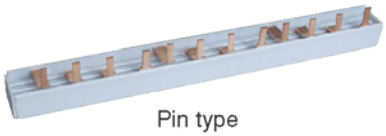
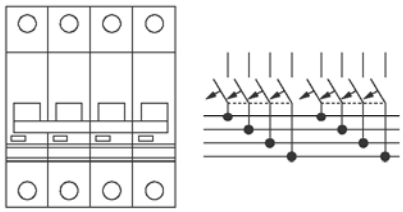
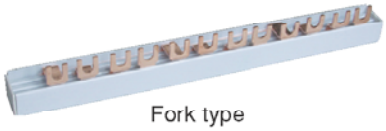
Round type wiring duct

Comb Busbar

1. Application

- The busbars ease wiring of electrical item, enlarge connection area, decrease temperature rise and thus increase the electrical reliability of electrical items.
- Material is of fire-resistant PVC and red copper
- Current rating is up to 100A
- Rated voltage is up to 415V
- Applicable ambient temperature -25°C~50°C
- Standard length 1m, other length to be made upon request.

2. Specifications

Busbar connection		Rated Current (A)	Number of Poles	Cross Section (mm)	Length (mm)
 Pin type	For single pole MCBs 	63	54 x 1	20	100
		100	54 x 1	20	100
 Fork type		63-100	54 x 1	20	100
 Pin type	For 2 pole MCBs & single pole MCBs with disconecting neutral NA 	63	27 x 2	20	100
		100	27 x 2	20	100
 Fork type		63-100	27 x 2	20	100
 Pin type	For 3 pole MCBs 	63	18 x 3	20	100
		100	18 x 3	20	100
 Fork type		63-100	18 x 3	20	100
 Pin type	For 4 pole MCBs & 3 pole MCBs with disconecting neutral NA 	63	14 x 4	20	100
		100	14 x 4	20	100
 Fork type		63-100	14 x 4	20	100

HEAT Shrinkable Kits

HEAT Shrinkable Anti-tracking Tubz

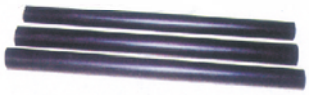
ANTI-TRACKING TUBE is applied for the power cable terminations accessories with insulation, resistance to weather and UN-ray,even in severest outdoor conditions.
Size:Ø30/12,Ø35/15,Ø40/18,Ø50/20,Ø50/75,Ø60/25,Ø70/25.

HEAT Shrinkable Stress Control Tube

STRESS CONTROL TUBE control the electrical stress at the end of the copper screen.
Size:ø30/12,ø35/15,ø40/18,ø50/20,ø50/25,ø60/25.

HEAT Shrinkable Oil-resisi Ant Tube

HEAT SHRINKABLE OIL-RESISTANT is applied to PILC cable for preventing the cable oil from dripping out and increasing the insulation.
Size:ø25/10,ø30/14,ø60/20.



HEAT Shrinkable Semi-conductive Tube

SEMI-CONDUCTIVE TUBE is mainly applied for the XLPE or PILC power cables in order to improve the cable surface screen.
Size:Ø30/12,Ø35/12,Ø40/14,Ø45/14,Ø50/18,Ø55/18,Ø60/20,Ø65/20,Ø70/20.

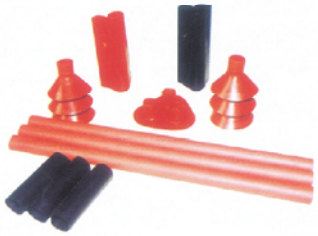
HEAT Shrinkable Anti-breakout

HEAT SHRINKABLE ANTI-BREAKOUT is applied to branch of power cable.Its action is airproof.

HEAT Shrinkable Accessories

11KV HEAT SHRINKABLE KITS

TYPE		OUT DOOR		IN DOOR		JOINT KITS	
No.	DIAMETER mm²	SINGLE POLE	THREE POLE	SINGLE POLE	THREE POLE	SINGLE POLE	THREE POLE
1	25-50	WSY-10/1.1	WSY-10/3.1	NSY-10/1.1	NSY-10/3.1	JSY-10/1.1	JSY-10/3.1
2	70-120	WSY-10/1.2	WSY-10/3.2	NSY-10/1.2	NSY-10/3.2	JSY-10/1.2	JSY-10/3.2
3	150-240	WSY-10/1.3	WSY-10/3.3	NSY-10/1.3	NSY-10/3.3	JSY-10/1.3	JSY-10/3.3
4	300-630	WSY-10/1.4	WSY-10/3.4	NSY-10/1.4	NSY-10/3.4	JSY-10/1.4	JSY-10/3.4



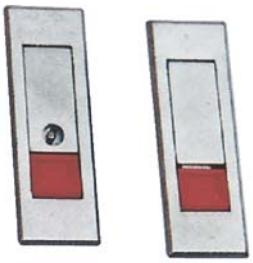
11kV OILED XLPE HEAT-SHRINKABLE KITS

TYPE		OUT DOOR TYPE		IN DOOR TYPE		JOINT KITS	
No.	DIAMETER mm²	SINGLE POLE	THREE POLE	SINGLE POLE	THREE POLE	SINGLE POLE	THREE POLE
1	25-50	WSZ-10/1.1	WSZ-10/3.1	NSZ-10/1.1	NSZ-10/3.1	JSY-10/1.1	JSY-10/3.1
2	70-120	WSZ-10/1.2	WSZ-10/3.2	NSZ-10/1.2	NSZ-10/3.2	JSY-10/1.2	JSY-10/3.2
3	150-240	WSZ-10/1.3	WSZ-10/3.3	NSZ-10/1.3	NSZ-10/3.3	JSY-10/1.3	JSY-10/3.3

35kV XLPE HEAT-SHRINKABLE KITS

TYPE		OUT DOOR		OUT DOOR	
No.	DIAMETER mm²	SINGLE POLE	THREE POLE	SINGLE POLE	THREE POLE
1	50-120	WSY-35/1.1	WSY-35/3.1	NSY-35/1.1	NSY-35/3.1
2	150-300	WSY-35/1.2	WSY-35/3.2	NSY-35/1.2	NSY-35/3.2
3	400-630	WSY-35/1.3	WSY-35/3.3	NSY-35/1.3	NSY-35/3.3

Lock



240-3/A

240-3/B

480-3-2

601

603

501-2

301-1

480-1

480-2

508

402 (18 × 16)

403 (18 × 20)

405 (18 × 30)

401

407

GCS

240 250

88-1

88-2

MS-3

KY-2

Lock

GGD-1

GGD-2

99-B2

99-B1

100-5

100-1

100-3

970

308-2

305A

308-3

305B

306

307

30211

3021

100-2

HJ-010

B

107-B

708

708-2

AC-Axial Fan

AD0822A

AD0922A

AD1222A

Type	Air flow (m^3/h)	Nominal voltage (V)	Frequency (Hz)	Power input (Watt)	Sintec~ball bearings ■ / Sleeve bearings ■	Dimension (mm)
AD0822ASN	29	230	50	10	■	80 x 80 x 25
AD0822ABN	29	230	50	10	■	
AD0822ASH	35	230	50	11.5	■	
AD0822ABH	35	230	50	11.5	■	
AD0821ASN	30	115	60	11	■	
AD0821ABN	30	115	60	11	■	
AD0821ASH	36	115	60	12	■	
AD0821ABH	36	115	60	12	■	
AD0922ASN	35	230	50	9	■	92 x 92 x 25
AD0922ABN	35	230	50	9	■	
AD0922ASH	49	230	50	12	■	
AD0922ABH	49	230	50	12	■	
AD0921ASN	43	115	60	11	■	
AD0921ABN	43	115	60	11	■	
AD0921ASH	60	115	60	12	■	
AD0921ABH	60	115	60	12	■	
AD1122ASN	61	230	50	13	■	108 x 108 x 25
AD1122ABN	61	230	50	13	■	
AD1122ASH	75	230	50	15	■	
AD1122ABH	75	230	50	15	■	
AD1121ASN	64	115	60	14	■	
AD1121ABN	64	115	60	14	■	
AD1121ASH	82	115	60	15.5	■	
AD1121ABH	82	115	60	15.5	■	
AD1223ASH	120	380	50	15.5	■	120 x 120 x 25
AD1223ABH	120	380	50	15.5		
AD1222ASN	108	230	50	14	■	
AD1222ABN	108	230	50	14	■	
AD1222ASH	125	230	50	16	■	
AD1222ABH	125	230	50	16	■	
AD1221ASN	115	115	60	15	■	
AD1221ABN	115	115	60	15	■	
AD1221ASH	130	115	60	16.5	■	
AD1221ABH	130	115	60	16.5	■	
AD1233ASN	135	380	43	21	■	120x 120 x 38
AD1233ABN	135	380	43	21	■	
AD1233ASH	160	380	48	22	■	
AD1233ABH	160	380	48	22	■	
AD1232ASN	140	230	44	21	■	
AD1232ABN	140	230	44	21	■	
AD1232ASH	155	230	49	22	■	
AD1232ABH	155	230	49	22	■	

AC-Axial Fan

AD1232A

AD125FZy

AD1550A

Type	Air flow (m^3/h)	Nominal voltage (V)	Frequency (Hz)	Power input (Watt)	Sintec~ball bearings ■ / Sleeve bearings ■	Dimension (mm)
AD1231ASN	140	115	44	22	Sleeve bearings	120 x 120 x 38
AD1231ABN	140	115	44	22	Sintec~ball bearings	
AD1231ASH	165	115	49	23	Sleeve bearings	
AD1231ABH	165	115	49	23	Sintec~ball bearings	
AD125FZy3-S	230	380	50	26	Sintec~ball bearings	135 x 135 x 32
AD125FZy3-B	230	380	50	26		
AD125FZy2-S	180	230	50	24.5	Sleeve bearings	
AD125FZy2-B	180	230	50	24.5	Sintec~ball bearings	
AD125FZy2-S	210	230	50	25	Sleeve bearings	
AD125FZy2-B	210	230	50	25	Sintec~ball bearings	
AD125FZy1-S	190	115	60	24.5	Sleeve bearings	
AD125FZy1-B	190	115	60	24.5	Sintec~ball bearings	
AD125FZy1-S	240	115	60	26	Sleeve bearings	
AD125FZy1-B	240	115	60	26	Sintec~ball bearings	
AD1231MABH	94/2.70	115	50	19	Sintec~ball bearings	120 x 120 x 38
AD1231MABH	112/3.20	115	60	18	Sintec~ball bearings	
AD1232MABH	94/2.70	230	50	20	Sintec~ball bearings	
AD1232MABH	112/3.20	230	60	17	Sintec~ball bearings	
AD1233MABH	94/2.70	380	50	32	Sintec~ball bearings	
AD1553ABN	280	380	50	26	Sintec~ball bearings	172 x 150 x 51
AD1553ABH	340	380	50	29	Sintec~ball bearings	
AD1552ASN	280	230	50	24	Sleeve bearings	
AD1552ABN	280	230	50	24	Sintec~ball bearings	
AD1552ABH	340	230	50	26.5	Sintec~ball bearings	
AD1551ABN	320	115	60	26	Sintec~ball bearings	
AD1551ABH	370	115	60	28	Sintec~ball bearings	
AD15503ABN	280	380	50	26	Sintec~ball bearings	150 x 150 x 50
AD15503ABH	340	380	50	29	Sintec~ball bearings	
AD15502ASN	280	230	50	24	Sleeve bearings	
AD15502ABN	280	230	50	24	Sintec~ball bearings	
AD15502ABH	340	230	50	26.5	Sintec~ball bearings	
AD15501ABN	320	115	60	26	Sintec~ball bearings	
AD15501ABH	370	115	60	28	Sintec~ball bearings	
AD1753ABN	280	380	50	26	Sintec~ball bearings	172 x 172 x 51
AD1753ABH	340	380	50	28	Sintec~ball bearings	
AD1752ASN	280	230	50	24.5	Sleeve bearings	
AD1752ABN	280	230	50	24.5	Sintec~ball bearings	
AD1752ABH	340	230	50	28	Sintec~ball bearings	
AD1751ABN	320	115	60	26	Sintec~ball bearings	
AD1751ABH	370	115	60	28	Sintec~ball bearings	
AD145FZy3-S	300	380	50	29	Sintec~ball bearings / Sleeve bearings	172 x 145 x 38
AD145FZy3-S	350	380	50	29	Sintec~ball bearings	

AC-Axial Fan

AD1552AB

AD1752AB

AD20060AB

Type	Air flow (m^3/h)	Nominal voltage (V)	Frequency (Hz)	Power input (Watt)	Sintec~ball bearings ■ / Sleeve bearings ■	Dimension (mm)
AD145FZy2-S	300	230	50	26	Sleeve bearings	172 x 145 x 38
AD145FZy2-S	300	230	50	27	Sintec~ball bearings	
AD145FZy2-S	350	230	50	29	Sintec~ball bearings	
AD145FZy1-S	330	115	60	27	Sleeve bearings	
AD145FZy1-S	390	115	60	29	Sintec~ball bearings	
AD150FZY1-D	216	115	50	25	Sintec~ball bearings	150 x 160 x 60
AD150FZY2-D	216	220	50	30	Sintec~ball bearings	
AD150FZY7-D/(1)	216	380	50	35	Sintec~ball bearings	
AD150FZY4-D/(3)	216	380	50	40	Sintec~ball bearings	
AD200FZY2-D	459	220	50	65	Sintec~ball bearings	200 x 210 x 71
AD200FZY7-D/(1)	459	380	50	65	Sintec~ball bearings	
AD200FZY4-D/(3)	459	380	50	65	Sintec~ball bearings	
AD1863ABM	420	380	50	48	Sintec~ball bearings / Sleeve bearings	180 x 180 x 60
AD1863ABH	420	380	50	49	Sintec~ball bearings	
AD1862ABN	470	230	50	45	Sleeve bearings	
AD1862ABM	420	230	50	48	Sintec~ball bearings	
AD1863ABH	450	230	50	49	Sintec~ball bearings	
AD20060MBL-1	245	115	50	65	Sintec~ball bearings	200 x 200 x 60
AD20060MBL-2	285	230	50	70	Sleeve bearings	
AD20060MBL-3	285	380	50	70	Sintec~ball bearings	
AD2363ABN	700	380	50	68	Sintec~ball bearings	230 x 200 x 65
AD2363ABM	630	380	50	65	Sintec~ball bearings	
AD2363ABH	850	380	50	65	Sintec~ball bearings	
AD2362ABN	700	230	50	68	Sintec~ball bearings	
AD2362ABM	630	230	50	58	Sintec~ball bearings	
AD2362ABH	850	230	50	65	Sintec~ball bearings	
AD2283ABN	455	380	50	30	Sintec~ball bearings	225 x 225 x 80
AD2283ABH	1030	380	50	80	Sintec~ball bearings	
AD2282ABN	520	230	50	30	Sintec~ball bearings	
AD2282ABM	820	230	50	64	Sintec~ball bearings	
AD2282ABH	1030	230	50	80	Sintec~ball bearings	
AD2281ABN	520	115	60	28	Sintec~ball bearings	
AD2281ABM	1030	115	60	80	Sintec~ball bearings	
ADF4A2-300	1800	230	50	73		Ø 300
ADF4B2-300	2100	230	60	100		
ADF4A3-300	1800	230	50	65		
ADF4B3-300	2100	230	60	80		
ADF4A2-350	3100	230	50	130		Ø 350
ADF4B2-350	3500	230	60	190		
ADF4A3-350	3100	380	50	115		
ADF4B3-350	3600	380	60	160		

AC-Axial Fan

AD2362AB

Type	Air flow (m^3/h)	Nominal voltage (V)	Frequency (Hz)	Power input (Watt)	Sintec~ball bearings ■ / Sleeve bearings ■	Dimension (mm)
AD300A2LBL (300FZY2-D)	1320	220	50	80	■	300 x 300 x 100
AD300A3LBL (300FZY3-D)	1320	380	50	80	■	
AD300A3LBL (300FZY4-D)	1320	380	50	80		
AD300A2HBL (300FZY6-D)	2040	220	50	200	■	
AD300A3HBL (300FZY7-D)	2040	380	50	180	■	
AD300A3HBL (300FZY8-D)	2040	380	50	200	■	
AD250A2LBL (250FZY2-D)	720	220	50	40	■	250 x 250 x 90
AD250A3LBL (250FZY3-D)	720	380	50	40	■	
AD250A3LBL (250FZY4-D)	720	380	50	40	■	
AD250A3HBL (250FZY6-D)	1200	220	50	100	■	
AD250A3HBL (250FZY7-D)	1200	380	50	100	■	
AD250A3HBL (250FZY8-D)	1200	380	60	100	■	
AD2260A1HSL-1	335	110	50/60	77/55	■	200 x 200 x 60
AD2260A1HBL-1	335	110	50/60	77/55	■	
AD2260A2HSL-1	335	220	50/60	72/50	■	
AD2260A2HBL-1	335	220	50/60	72/50	■	

Filter

Ex Products

CBD51 type flame-proof, explosion-proof luminaire(IIB)

CBD52 type flame-proof, explosion-proof luminaire(IIB)

CBD53 type flame-proof, explosion-proof luminaire(IIB)

CBD54 type flame-proof, explosion-proof luminaire(IIB)

CBD56 type flame-proof, explosion-proof luminaire(IIB)

CBZM-10 type explosion-proof illumination switch(IIB)

CBZK type explosion-proof conversion switch(IIB, IIC)

CBA5821 type explosion-proof control button(IIB)

CBA8060 type explosion-proof corrosion-proof master controller(IIC)

CBJH type explosion-proof junction box(IIB, IIC, e)

CBCH type explosion-proof cable-passing box(e)

CBR type explosion-proof flexible connecting pipe(dII)

CBGJ type explosion-proof pipe connector(d II)

CBHJ type explosion-proof active connector(A, B, C)

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