

YUFENG ELECTRIC CO., LTD.

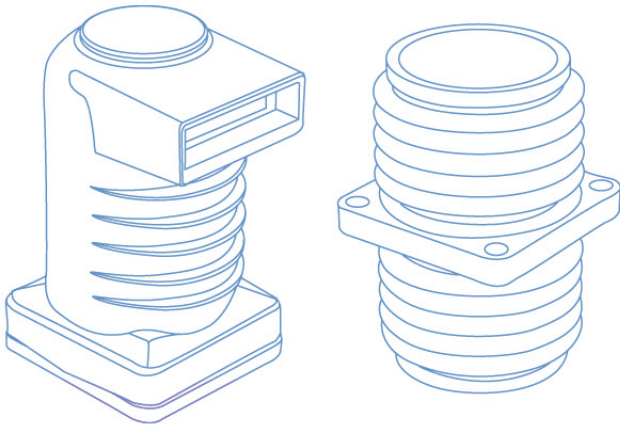
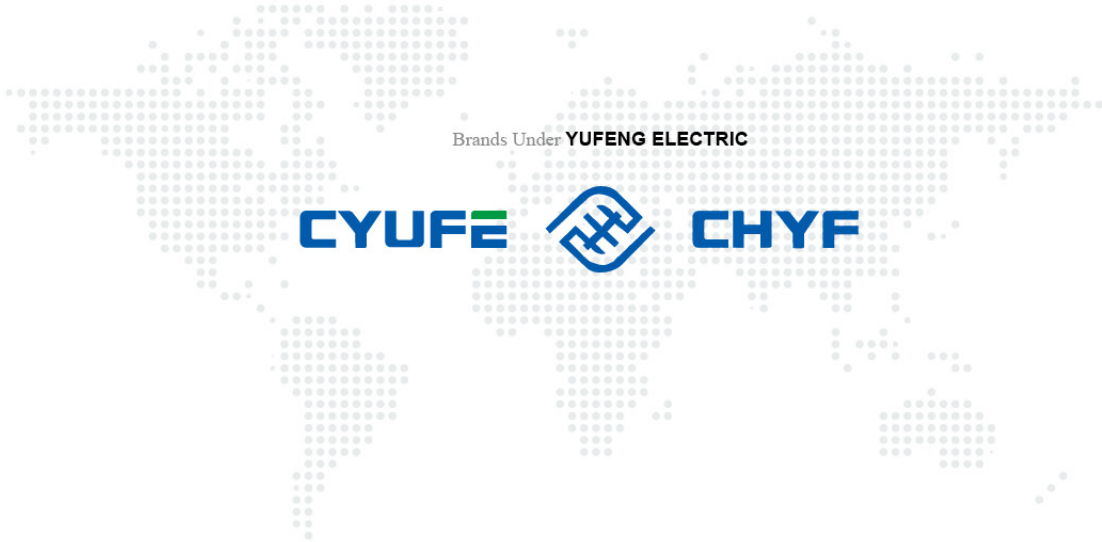
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YUFENG ELECTRIC

Component Of MV Switchgear

PRODUCT
SELECTION MANUAL



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• There's no prior notice if any change, Sincerely hope that this manual can bring convenience to you
• Products research and development, Continuous innovation of technology.....

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About Us

Yufeng Electric Co.,Ltd was founded in 2001 in the capital of electrical appliances--- Yueqing, Zhejiang Province. As a professional manufacturer and exporter, Yufeng specializes in components of switchgears from 7.2KV to 40.5 KV, such as earthing switch, interlocking device, insulating parts, chassis truck, vacuum circuit breaker and so on.

Covering an area of 10000 square meters, Yufeng now has over 320 staff, 25 technicians and total assets of 150 million RMB. We adhere to high starting point, high quality and high level of "three high" strategy and excellent management system, which helps us develop steadily. Passed ISO9001:2001, Yufeng gained praise in both domestic and international market for its good quality, best price and timely delivery.

In the future, Yufeng will never stop pursuing innovation and refinement to create values for customers and society, and strive to make it into a world-famous enterprise with model operation, scientific management and international brand.

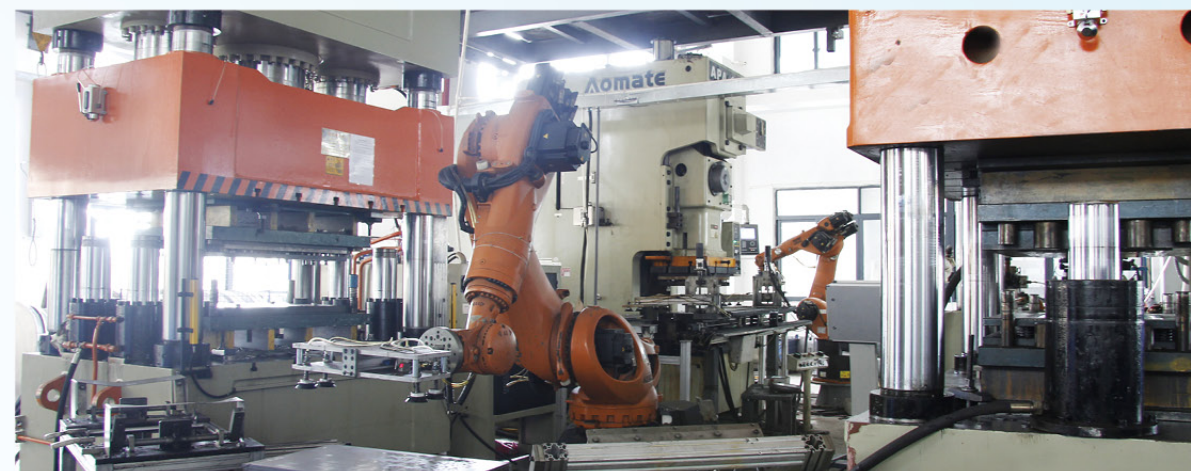


CHINA YUFENG ELECTRIC CO.,LTD.

Production Workshop



Fine business to meet customer' s needs ,make reliable products with the good quality and supply honest and good service.



Yufeng company looks forward to
working with every customer to
create a brilliant tomorrow.

Power driven civilization progress, the world is green bloom; The pursuit of excellence, technology
to lead the future...





CHINA YUFENG ELECTRIC CO.,LTD.

Production Workshop

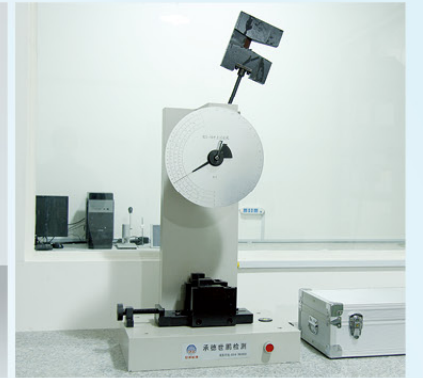
Pursue refinement to meet customers' needs, make reliable products with high quality, and supply honest and good service.



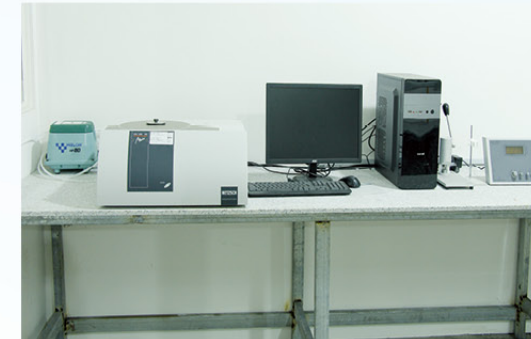
X-ray perspective testing(host computer)



X-ray perspective testing(console)



Impulse strength testing machine



Raw materials analysis lab



High & low temperature testing box



Salt mist test machine

Meticulously Make Professional Quality

With ingenuity, Yufeng manufactures high-quality products and provide sincere service.

Testing Equip- ment



Horizontal and vertical burning tester



Horizontal and vertical burning tester



KYN28-12KV

Removable AC Metal-clad Enclosed Switchgear

» General

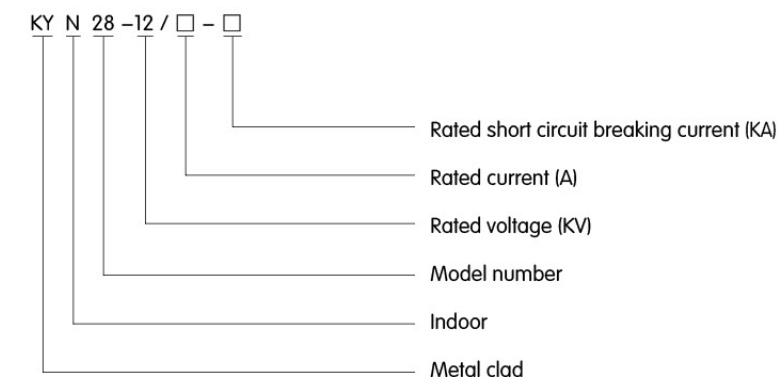
KYN28-12KV removable AC metal-clad switchgear (short for switchgear as below) is a new product designed and developed by our company. It is based on the introduction of advanced foreign design and manufacturing technology. Applied to 3.6~12KV, 3-phase AC50Hz network, the panel is used for the reception and distribution of power energy and the system's control, monitor and protection. It can be arranged for single busbar, single busbar sectionalized system and double busbar. The panel meets IEC298 "AC Metal Enclosed Switch and Control Equipment above 1KV and below 52KV", IEC 694 "Standard Common Clauses for High Voltage Switchgear", DIN.VDE "AC Switchgear at Rated Voltage above 1KV", GB3906 "3~35KV AV Metal Enclosed Switchgear" and so on. It has perfect and reliable prevention against misoperation.

KYN28-12KV Removable AC Metal-clad Enclosed Switchgear

» Working condition

- Ambient temperature: -25℃~+45℃, daily average: ≤35℃
- Altitude: 1000m (Standard); can up to 4500m for special ordering;
- Relative humidity: Daily average ≤95%, monthly average ≤90%;
- Earthquake intensity ≤8 degree;
- Applicable occasions should be free from inflammables, explosives, corrosives and severe vibration.

» Product definition



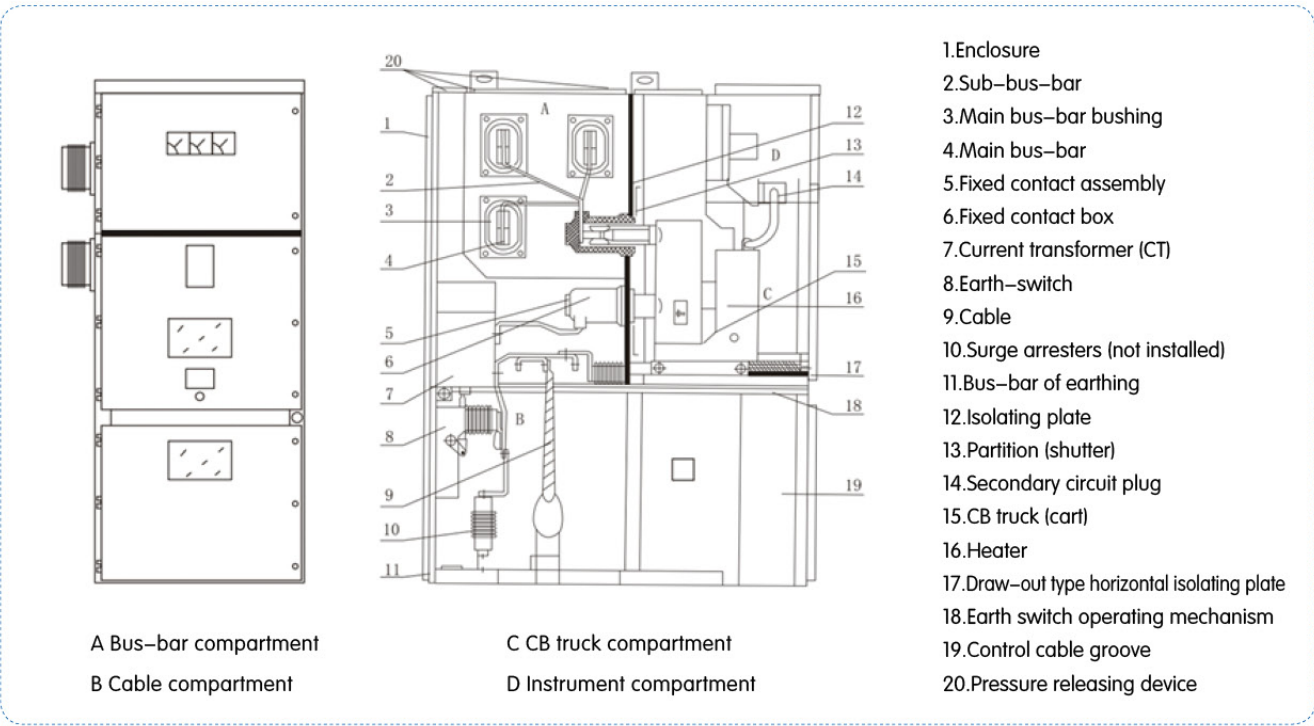
Note: Suitable for ABB/ Siemens, Schneider etc. brands of vacuum circuit breakers.

» Products feature

- This product is applicable for our own made GPVN-12KV embedded or insulating sleeve vacuum circuit breaker or ABB's VD4 vacuum circuit breaker.
- We produce and configure GPVC vacuum contactor- fuse combination or ABB company's VC vacuum contactors, which can be composed of F-C loop cubicle, to meet electricity system of power plants and.
- The cabinet adopts double bending process and excellent aluminum-zinc steel plate produced by precision CNC machining equipment, which improve its strength.
- The door surface adopts epoxy resin electrostatic powder spray process, with resistance of corrosion, oxidation and impact and strong adhesion.
- The cabinet with enclosed structure is fully armored and the function units are completely separated. When the door is closed, it can achieve the operation of circuit breaker and earthing switch.
- Precision screw drive mechanism measures the chassis with good interchangeability.
- The perfect primary plan meets the various needs of users and enables double chassis plan.
- Fast grounding switch for earthing and short circuits achieves electric (Motorized) operation.
- Simple and effective "Five Protection" interlocking device can reliably prevent misuse and ensure operator's safety.
- It is arc-proof type. There are pressure relief devices on the top bus compartment, vacuum circuit breaker compartment and cable terminal compartment.
- Cable compartment has enough space so it can be easy to connect several cables and ensure the right installation height of the cable plug.
- It has strict protection rating(IP4X) to effectively prevent foreign matter or pest invasion.
- The security monitoring device of the optional secondary system has a self-diagnostic function and computer with data communication and intelligent integration, to achieve remote control, telemetry, viewing and adjustment.
- It meets GB3906, GB/T11022, DL404 and IEC62271-1 standard, and passes a comprehensive test and plateau test (3000m).
- It passes electromagnetic compatibility tests in the high voltage equipment test laboratory.

» Technical specification

Item		Unit	Data
Rated voltage		KV	6~12
Rated frequency		Hz	50/60
Rated current		A	630~4000
Rated insulation level	1min power frequency(Phase to earth / across open contacts)	KV	42/48
	Lightning impulse withstand voltage (Phase to earth/across open contacts)	KV	75/85
Main busbar rated current		A	1250,1600,2000,2500,4000
Sub-busbar rated current		A	630,1250,1600,2000,2500,3150
Rated short time withstand current(4s)		KA	16,20,25,31.5,40,50
Rated peak withstand current		KA	40,50,63,80,100,125
Protection degree			Enclosure IP4X, IP2X(VCB door opened)
Outline dimension(width/depth/height)		mm	650(800,1000) /1500(1300,1670,2000) /2300
Weight		KG	500~1200



» Outline dimension(mm)

Width	Depth	Height
800	1810	2430
1000	1810	2430



KYN28-24KV

Indoor AC Metal-Enclosed Switchgear

» General

KYN28-24KV type indoor metal-enclosed switchgear is suitable for three phase, AC 50/60Hz rated working voltage 24KV, rated working current 3150A and below. It is mainly used for power transmission of middle or small generators in power plants;power receiving and transmission for substations in power distribution and power system of industrial and mining enterprises,and starting of large high-voltage motor,etc., so as to control, protect and monitor. It has five-prevention locking function. The cabinet can be equipped with ZN63(VS1) vacuum circuit breaker or VD4 from ABB company. It is a kind of distribution device with superior performance.

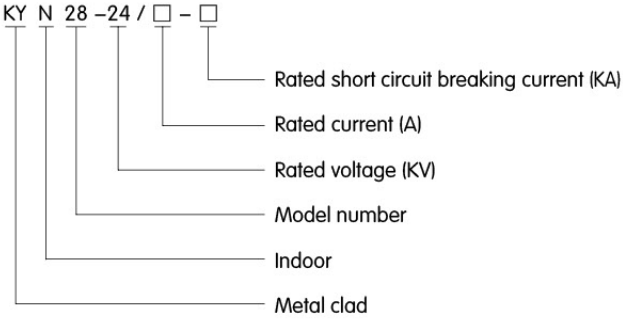


» Working condition

- Altitude: Not higher than 1000m;
- Ambient temperature: Upper limit +40℃,lower limit -15℃,and average value is not higher than 35℃ in 24 hours.
- Relative humidity: Daily average≤95%,monthly average ≤90%
- No obvious pollutions such as erosion or combustible gas;
- No frequent violent vibrations, earthquake intensity not above 8–magnitude;

Note: The customers shall consult any deviations from normal service conditions with the manufacturer.

» Product definition



Note: Suitable for ABB/ Siemens, Schneider etc. brands of vacuum circuit breakers.

» Technical specification

Item		Unit	Data
Rated Voltage		KV	24
Rated Current		A	630/1250/1600/2000/2500/3150
Rated Frequency		Hz	50/60
Insulation level	Rated power–frequency withstand voltage(1min)	KV	65/ 79 (to earth/ phase to phase)
	Rated lightning impulse withstand voltage	KV	125/145 (to earth/ phase to phase)
Rated short time withstand current		KA	20/25/31.5
4s Short–time withstand current (rms.)		KA	20/25/31.5
Peak withstand current (peak.)		KA	50/63/80
Cabinet Protection level			IP3X

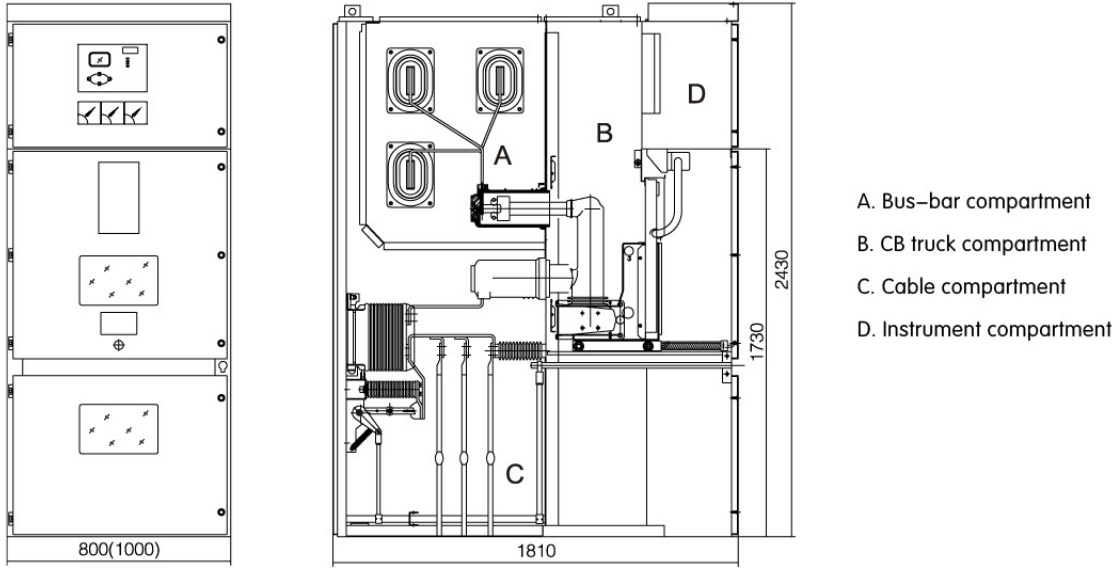


Figure1. Structural Representation of KYN28–24

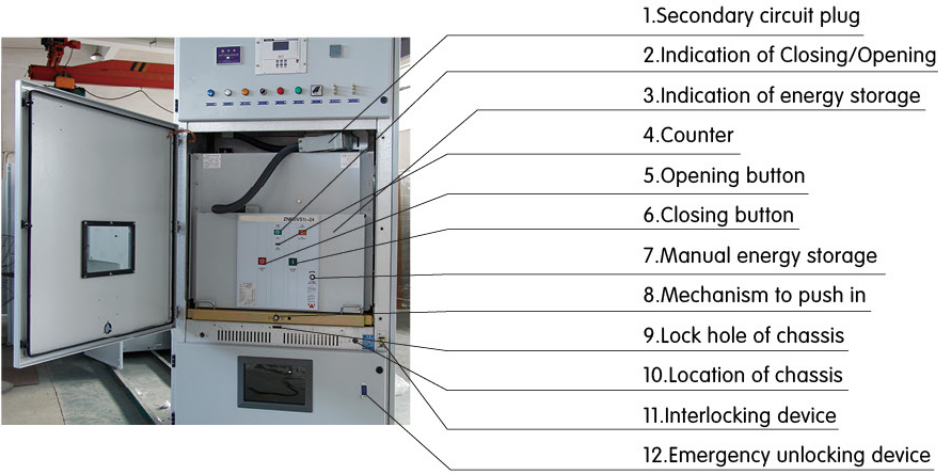


Figure2. Operation panel of KYN28–24

» Outline dimension(mm)

Width	Depth	Height
800	1810	2430
1000	1810	2430



KYN61□-40.5KV

Removable AC Metal-clad Enclosed Switchgear

» General

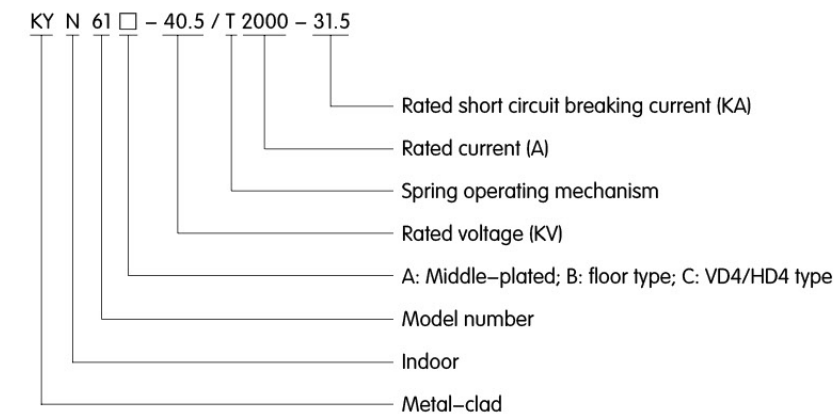
KYN61-40.5KV removable AC metal-clad switchgear (short for switchgear as below) applies to 40.5KV, 3 phase, AC and 50/60Hz electrical power network for receiving and distributing power energy and also for control, monitor and protection. It is applicable in general power system and occasions with frequent operation. The product conforms to GB 3906 "3~35KV AC Metal Enclosed Switchgear", GB/T 11022 "The common technical clauses of High Voltage Switchgear and controlgear Standard", DL/T 404-1997 "Order Technical term of Indoor AC High Voltage Switchgear" and IEC-298 "1~52KV AC Metal Enclosed Switchgear and Controlgear standard".

KYN61□-40.5KV Removable AC Metal-clad Enclosed Switchgear

» Working condition

- Ambient temperature: -25℃~+45℃, daily average: ≤35℃
- Altitude: 1000m(Standard); can up to 4500m for special ordering;
- Relative humidity: daily average ≤ 95%, monthly average ≤ 90%;
- Earthquake intensity ≤ 8 degree;
- Applicable occasions should be free from corrosives, inflammables and vapor.

» Product definition



» Product feature

The switchgear is an assembly unit and the circuit breaker adopts handcart floor model. It owns simply change and well exchange after equipping with advanced composite insulation vacuum circuit breaker. Lead screw nut propulsion mechanism is installed in the handcart frame for preventing from fault operating and damaging propulsion mechanism, the handcart can be remove easily; All of the operation steps can be carried out at closing condition; It is compulsory locking among main switch, handcart and panel door to meet five protection; wide space for connecting several cables in cable cubicle. Earthing switch is used in earthing and loop short circuit, protection degree of enclosure is IP3X, IP2X under opening condition.

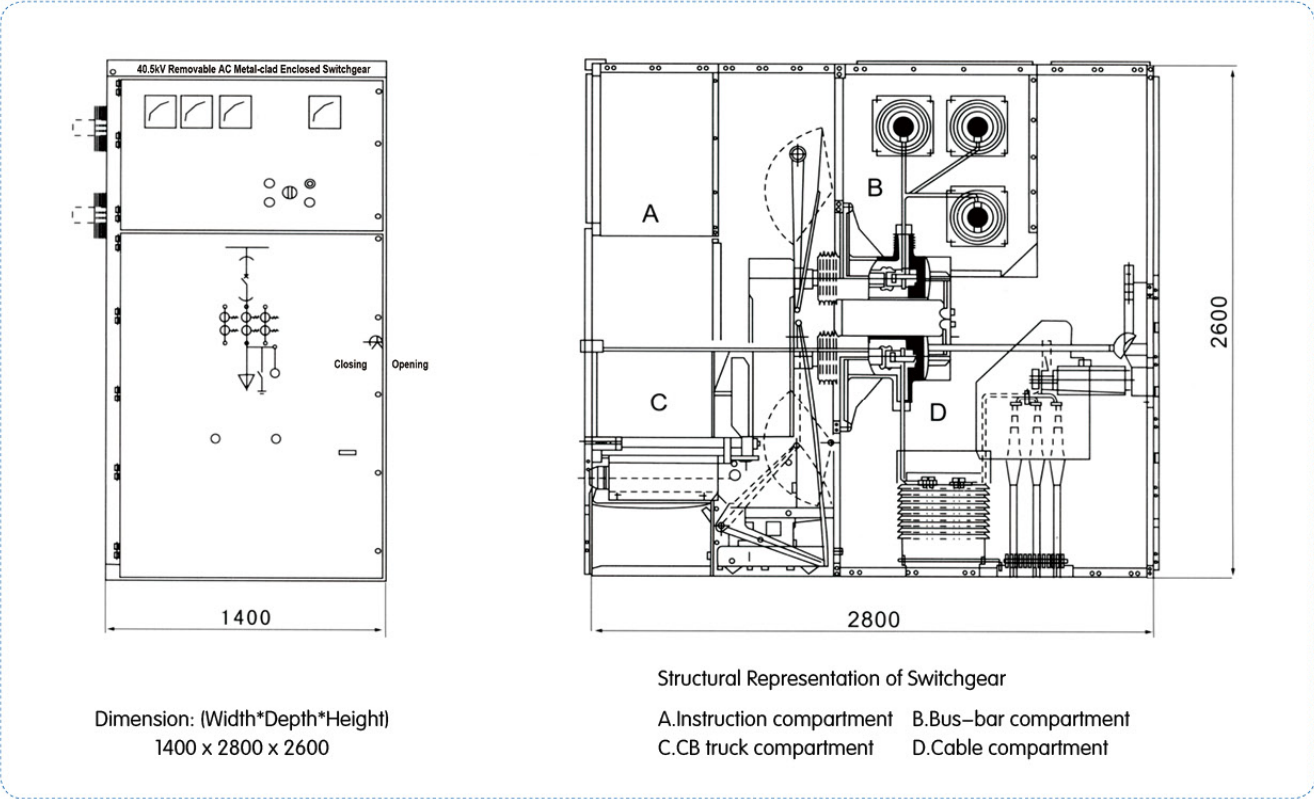
» Structure feature

The switchgear divides into enclosure and handcart, the enclosure is made of aluminum-zinc plated steel sheet after processed by CNC machine and multi-bending, then is assembled with bolts. So it has strong mechanical strength and can guarantee the neatness and good appearance. It consist of relay compartment, handcart compartment, cable compartment, protection degree is IP2X when CB handcart is on opening and testing position.

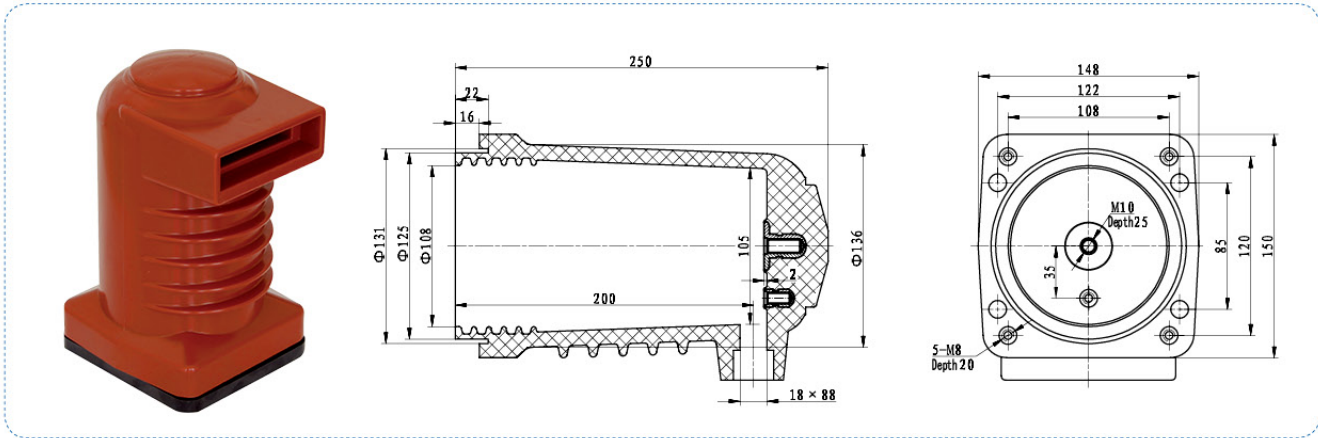
The switchgear is metal-clad removable type, main circuit adopts composite insulation processing, emergency spreading to other parts. CT and earthing switch are mounted in cable compartment and busbar compartment. The protection degree of enclosure is IP3X, the protection and large space for several cables. The structural design of new completely insulated VCB or SF6 CB and spring operating mechanism is integrated console model with such excellence of well exchange and simply change.

» Technical specification

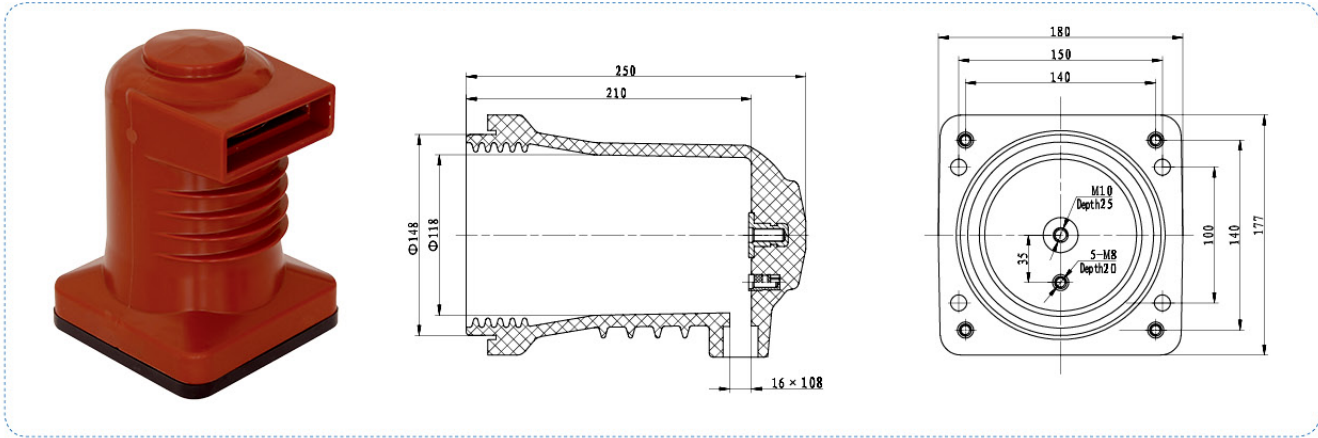
Item		Unit	Data
Rated voltage		KV	36/38/40.5
Rated current		A	1250, 1600, 2000, 2500
Rated frequency		Hz	50/60
Rated short circuit breaking current		KA	25, 31.5
4s rated short time withstand current		KA	25, 31.5
Rated short circuit making current (peak)		KA	63, 80
Rated peak withstand current		KA	63, 80
Insulation level	Rated lightning impulse withstand voltage	KV	185 (phase to phase: 215)
	Main circuit 1min power frequency withstand voltage	KV	95 (phase to phase: 110)
	Auxiliary circuit 1min power frequency withstand voltage	KV	2
Outline dimension(W)*(D)*(H)		MM	1400/2800/2600 (GPN1 type) 1200/2600/2400 (For VD4/HD4 type)
Protection degree			IP3X (compartment IP2X)
Weight		KG	1000-1850 (GPN1 type) 850-1850 (For VD4/HD4 type)



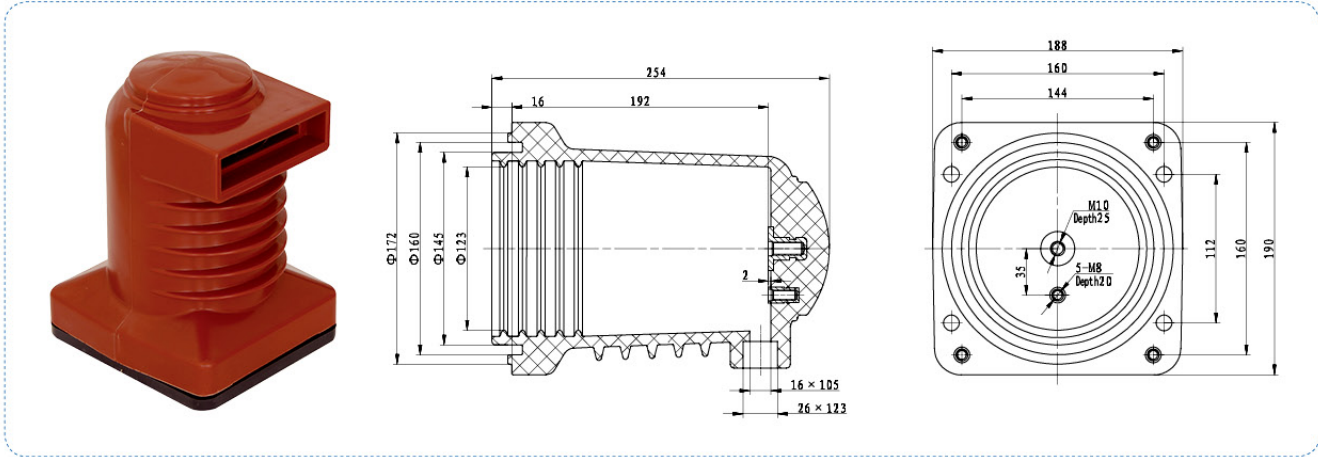
© CH1-12-150 Contact box(rated current 630~1250A), outline and installation dimension



© CH2-12-180 Contact box(rated current 1250A), outline and installation dimension

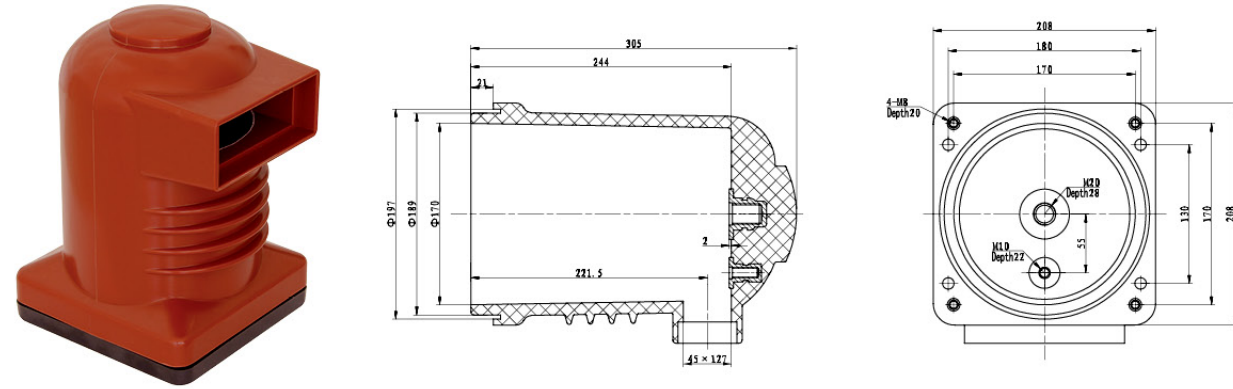


© CH3-12-190 Contact box(rated current 1250~1600A), outline and installation dimension

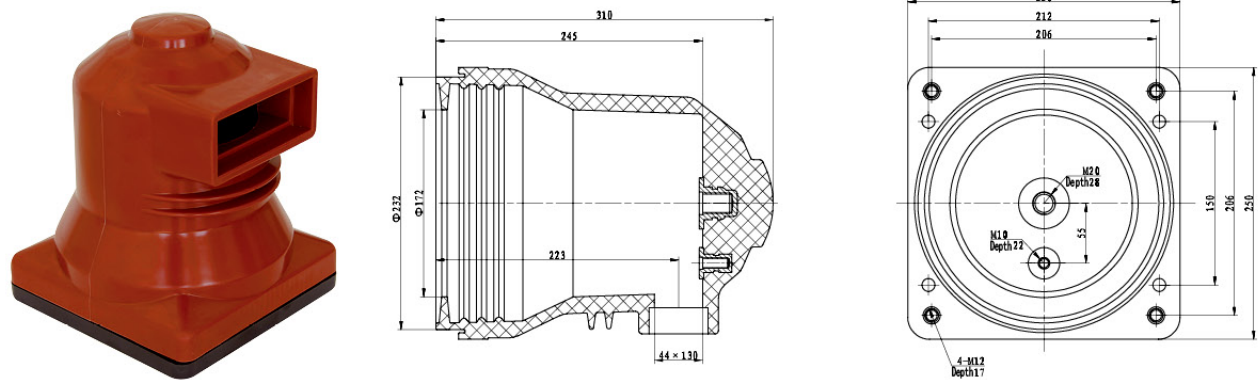




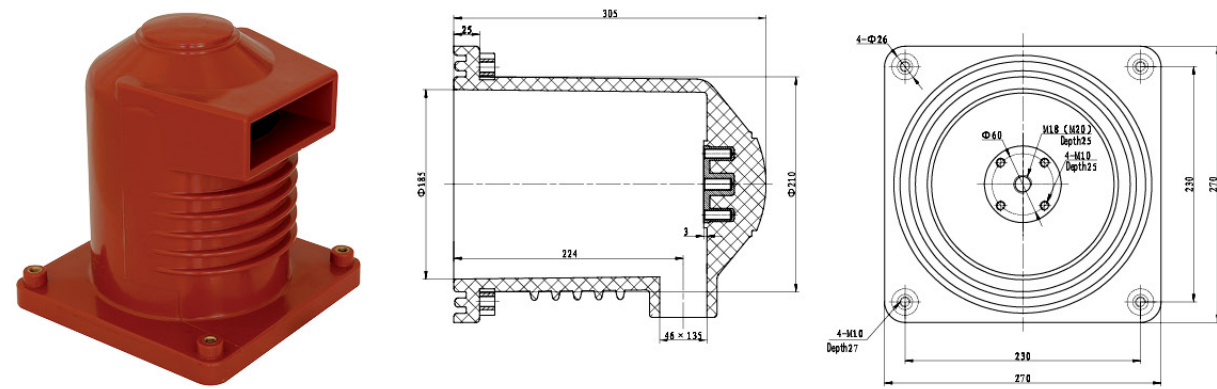
© CH4-12-208 Contact box(rated current 1600~2000A),outline and installation dimension



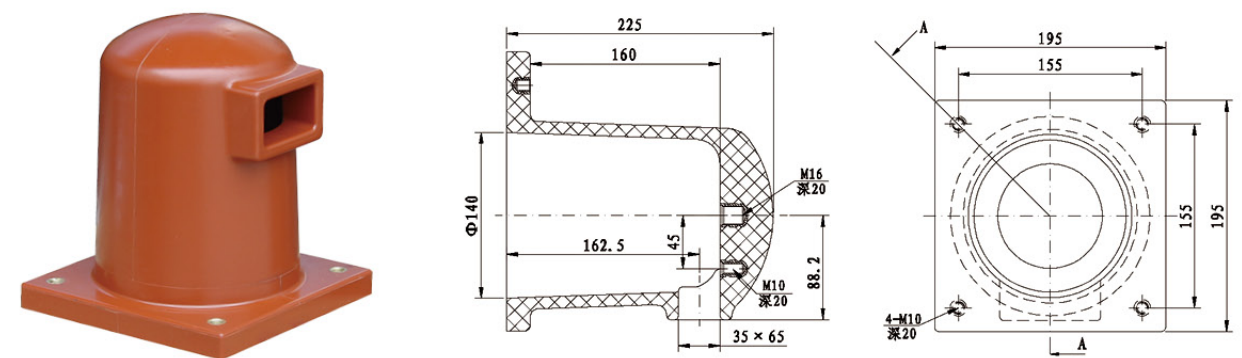
© CH5-12-250 Contact box(rated current 2500~3150A),outline and installation dimension



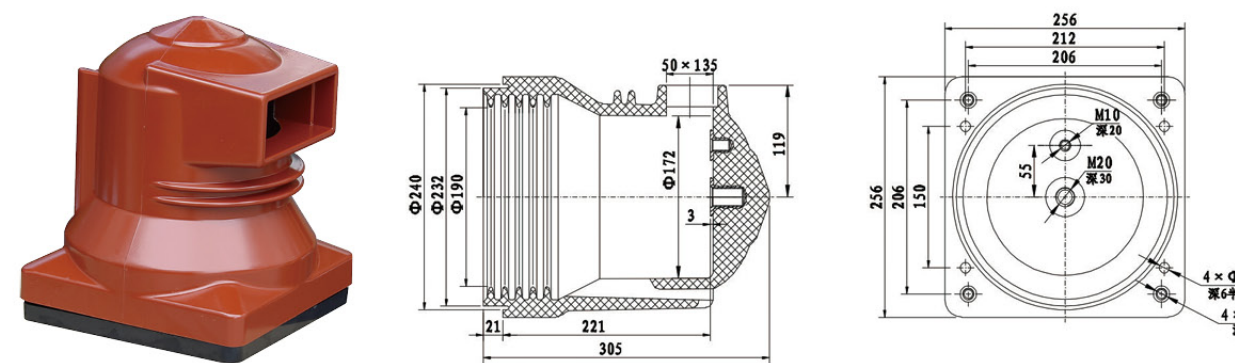
© CH6-12-280 Contact box(rated current 3150~4000A),outline and installation dimension



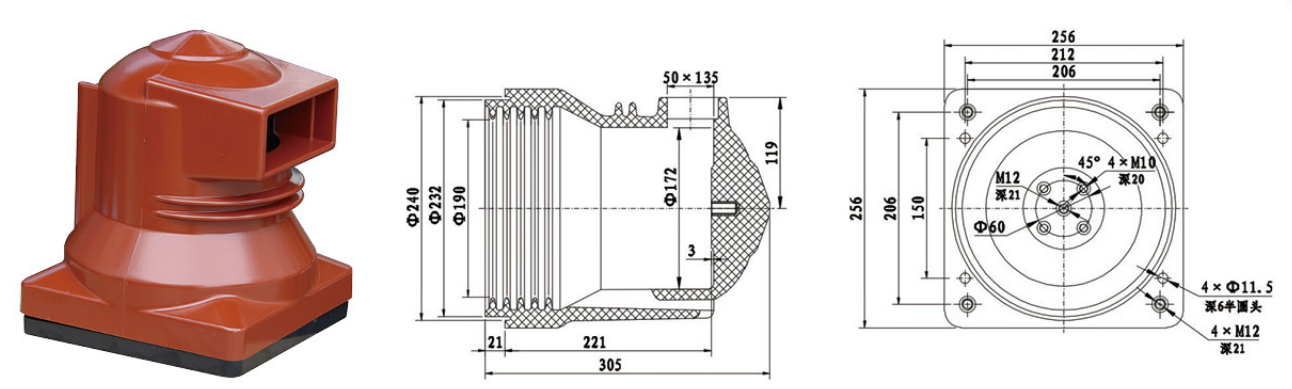
© CH7-12 Contact box, outline and installation dimension



© CH9-12-256 Two holes contact box with heat sink, outline and installation dimension

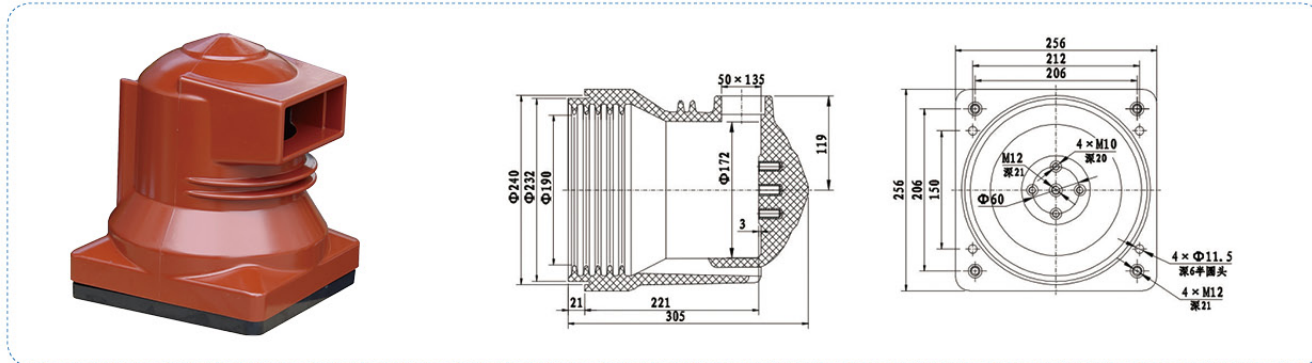


© CH9-12-256 in M12 side 4-m10 45 ° with heat sink contact box, outline and installation dimension

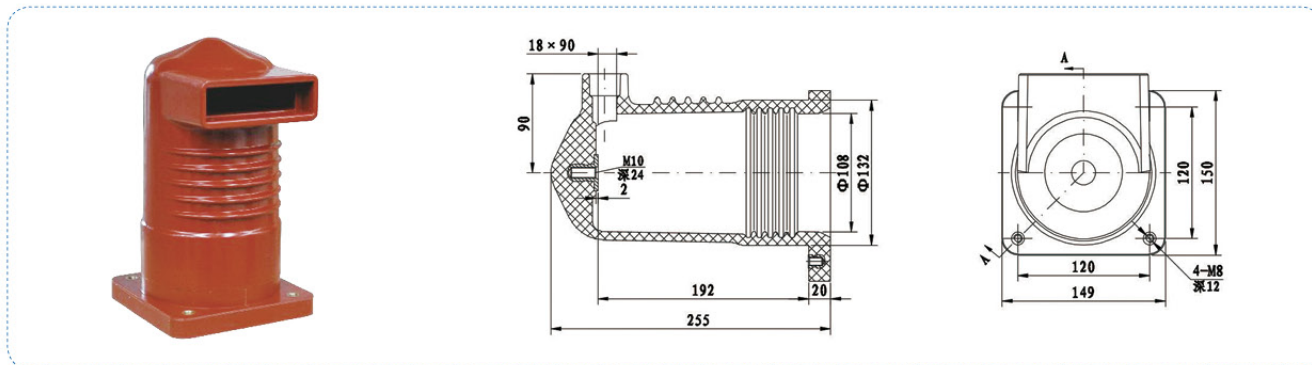




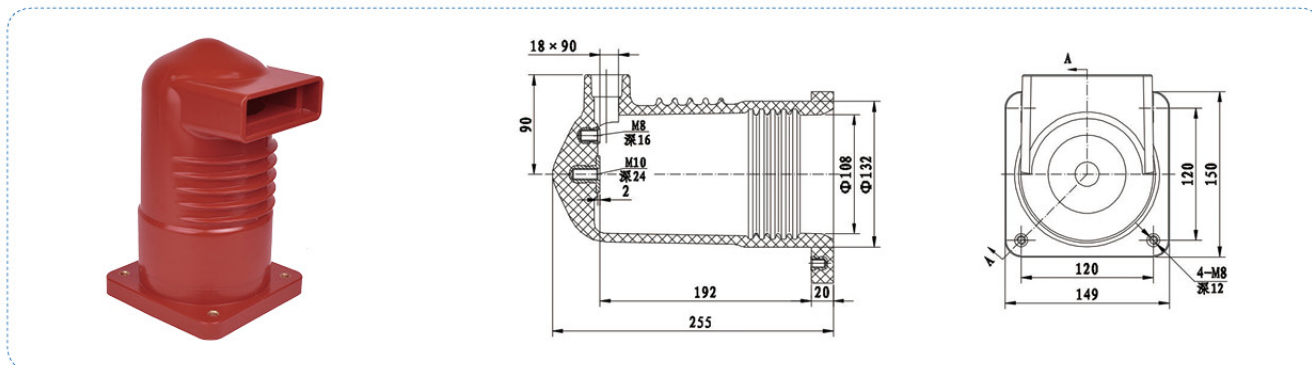
◎ CH9-12-256 Medium M12 side 4-m10 90 ° with heat sink contact box,outline and installation dimension



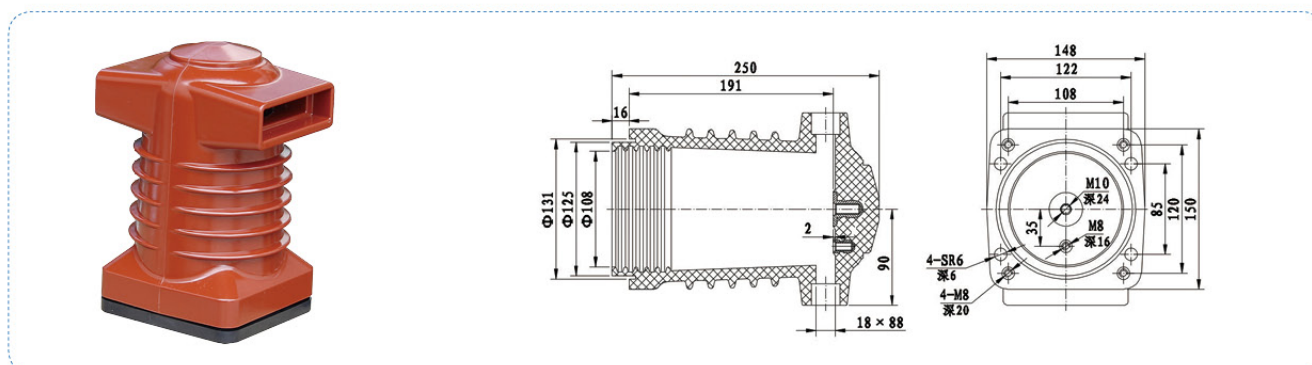
◎ CH10-12-150 II Single Hole/reverse contact box,outline and installation dimension



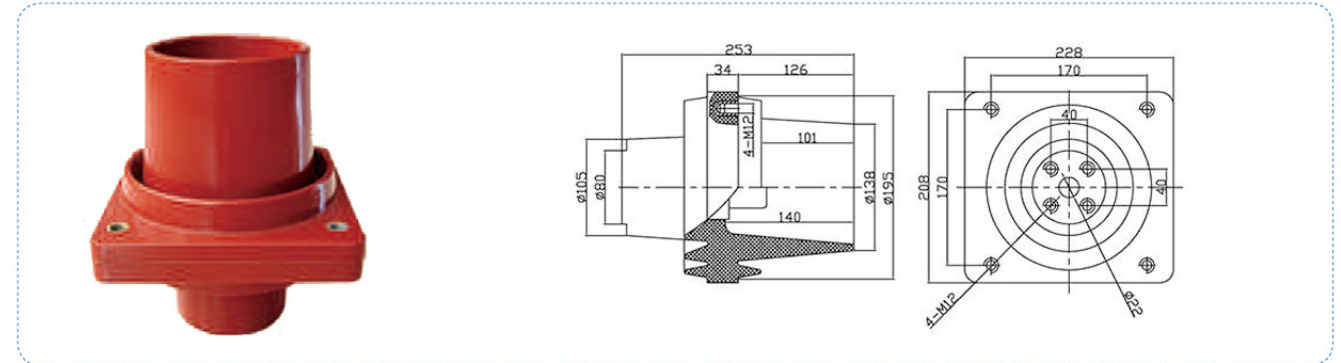
◎ CH10-12-150 II Two-hole reverse contact box,outline and installation dimension



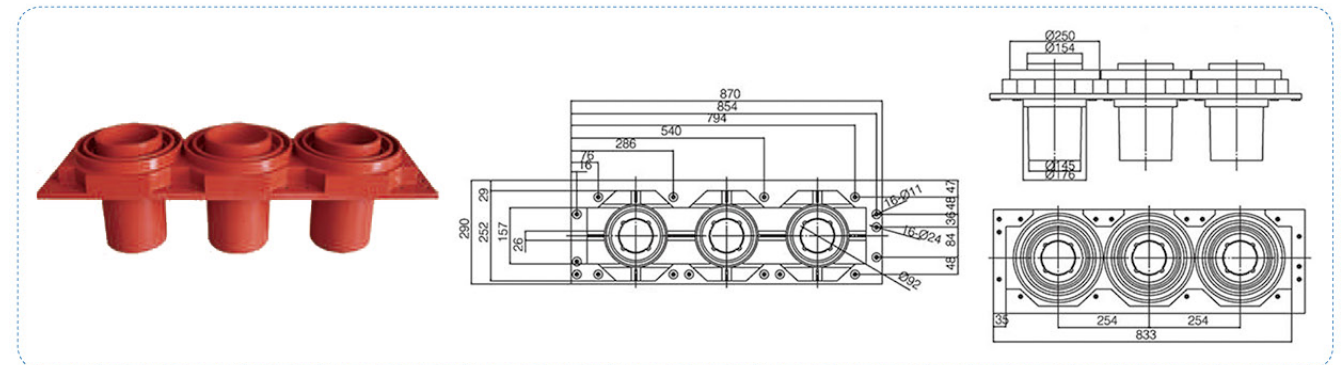
◎ CH11-12-150 Three-way contact box,outline and installation dimension



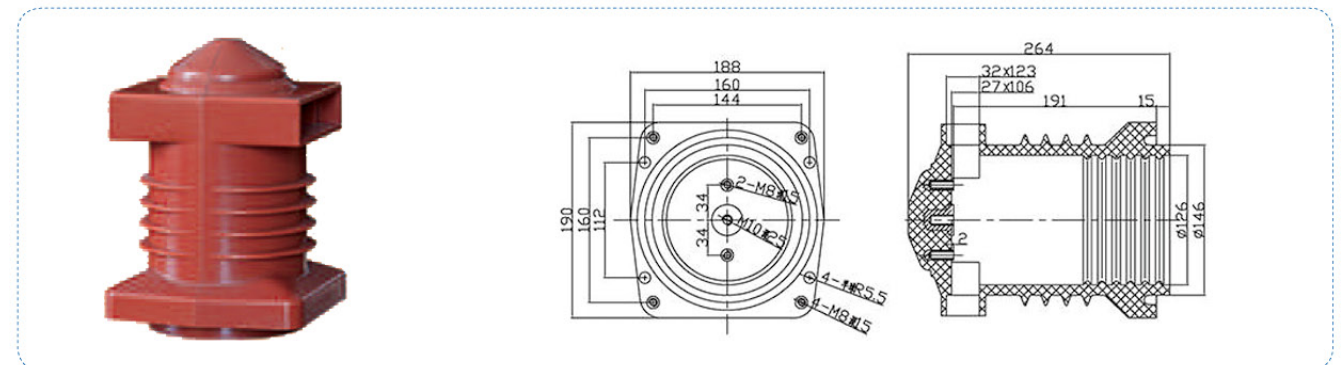
◎ CHJ14-12 Contact Box for Kyn cabinets (1600A-3150A) ,outline and installation dimension



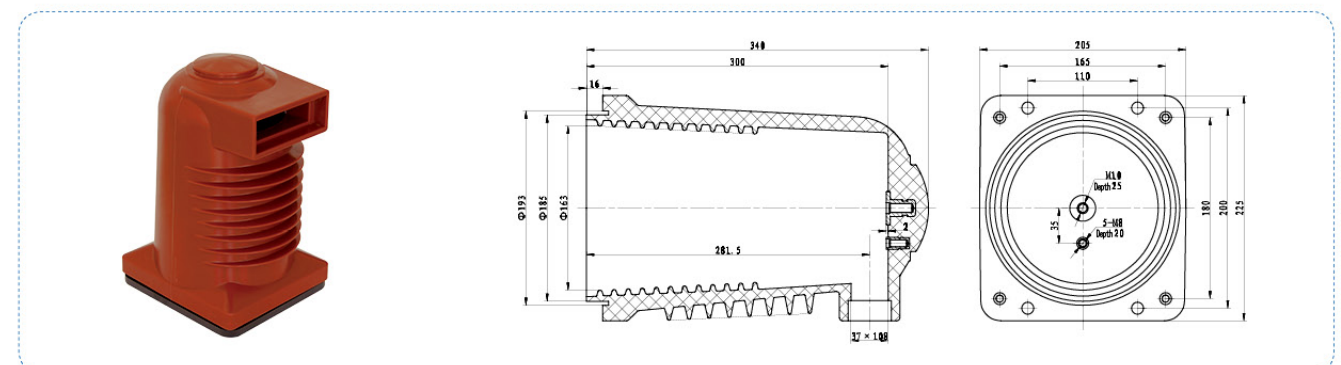
◎ CHJ22-12 Contact Box,outline and installation dimension



◎ CHJ26-12(190 tee) contact box,outline and installation dimension

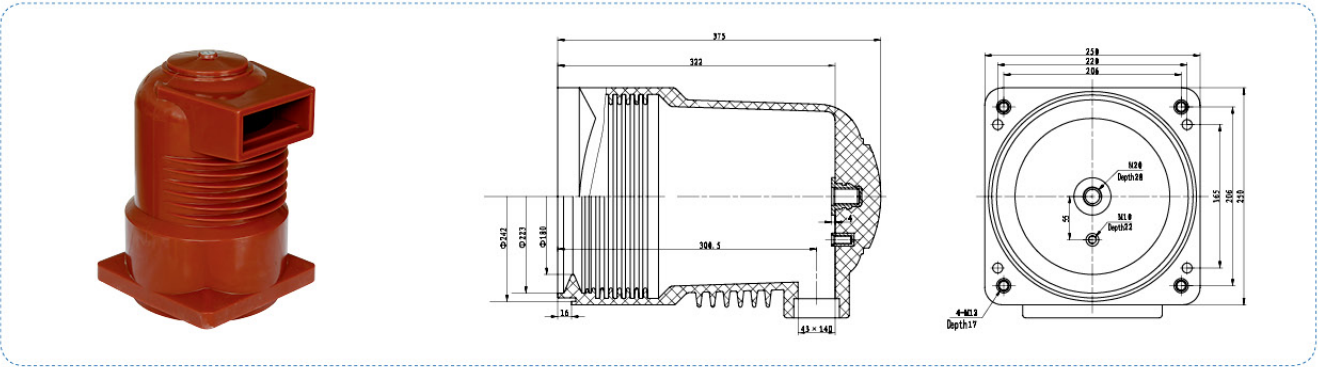


◎ CH1-24-225 Contact box(rated current ≤ 630A~1600A),outline and installation dimension

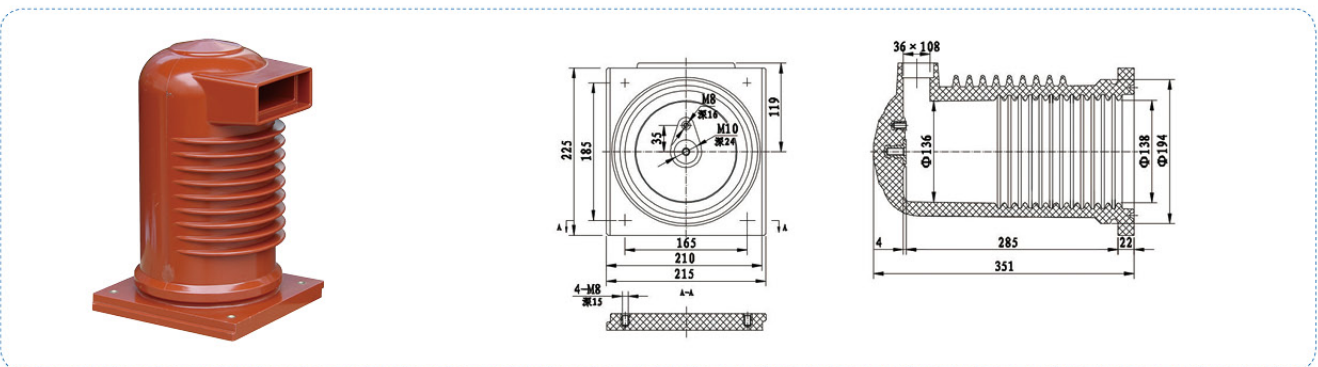




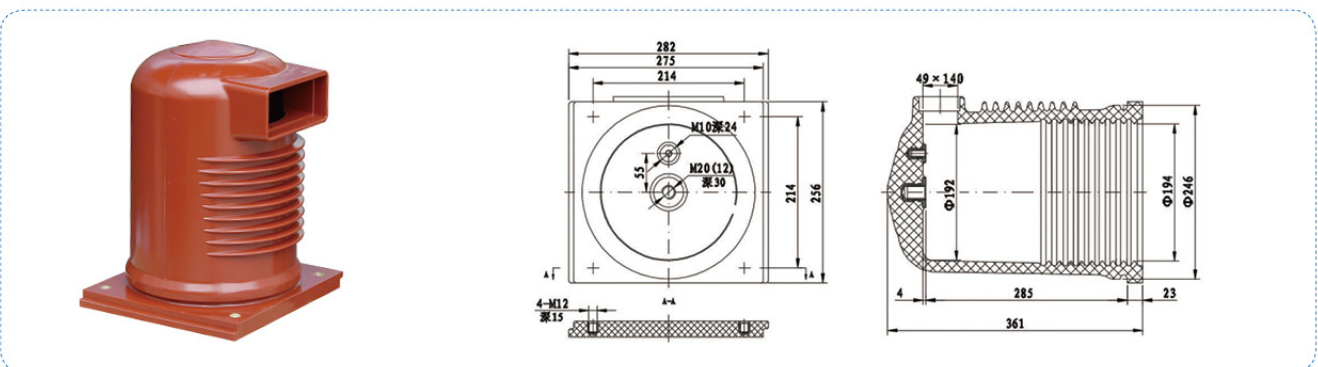
CH2-24-250 Contact box(rated current ≤ 2000~2500A),outline and installation dimension



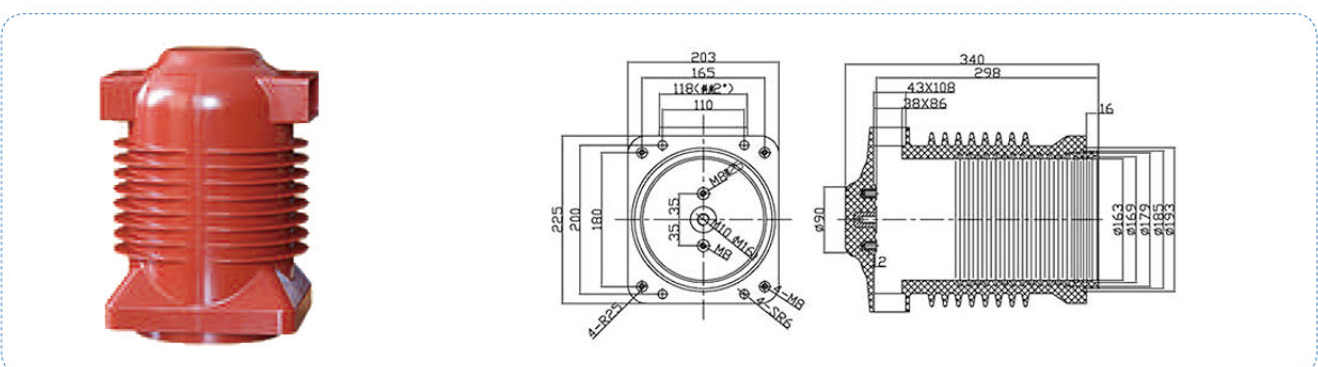
CH3-24-225 Reverse contact box,outline and installation dimension



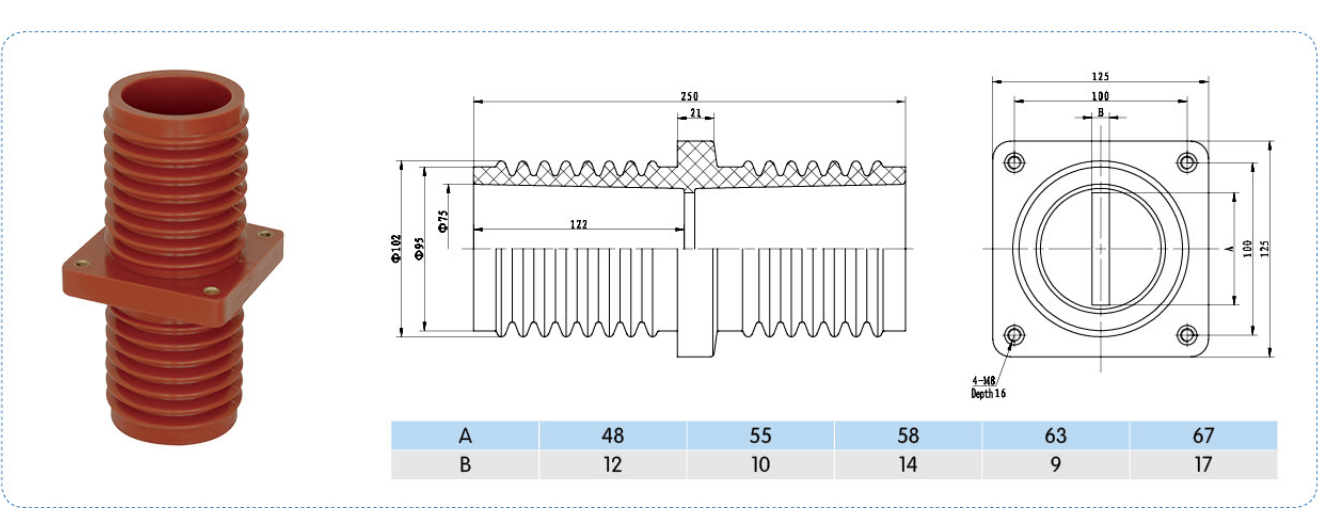
CH4-24-282 Two-hole reverse contact box,outline and installation dimension



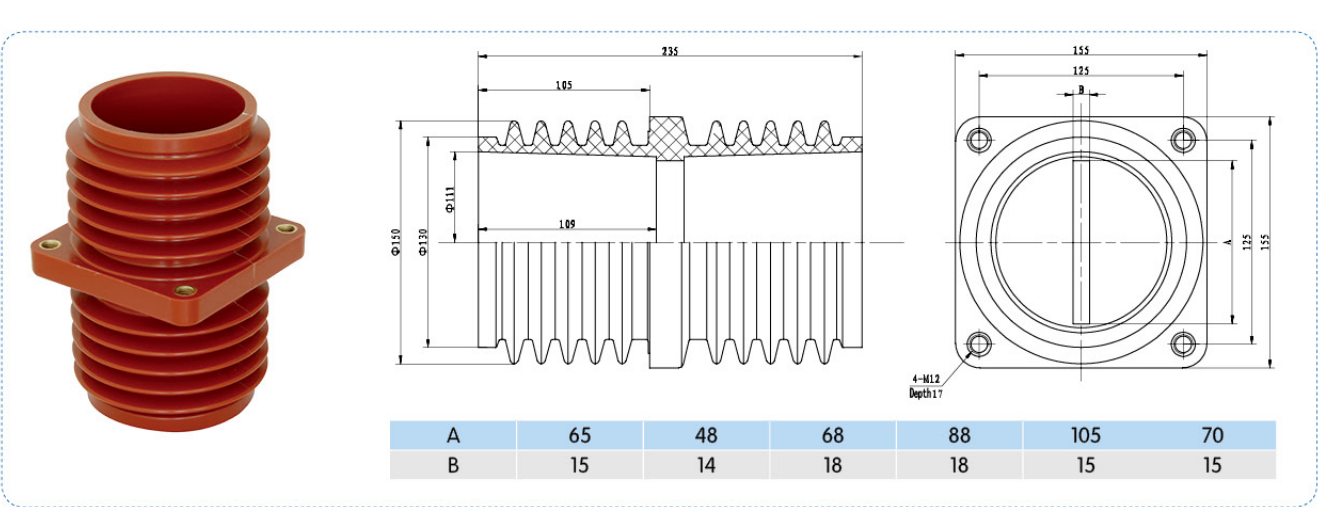
CHJ14-24(three-way contact box) contact box,outline and installation dimension



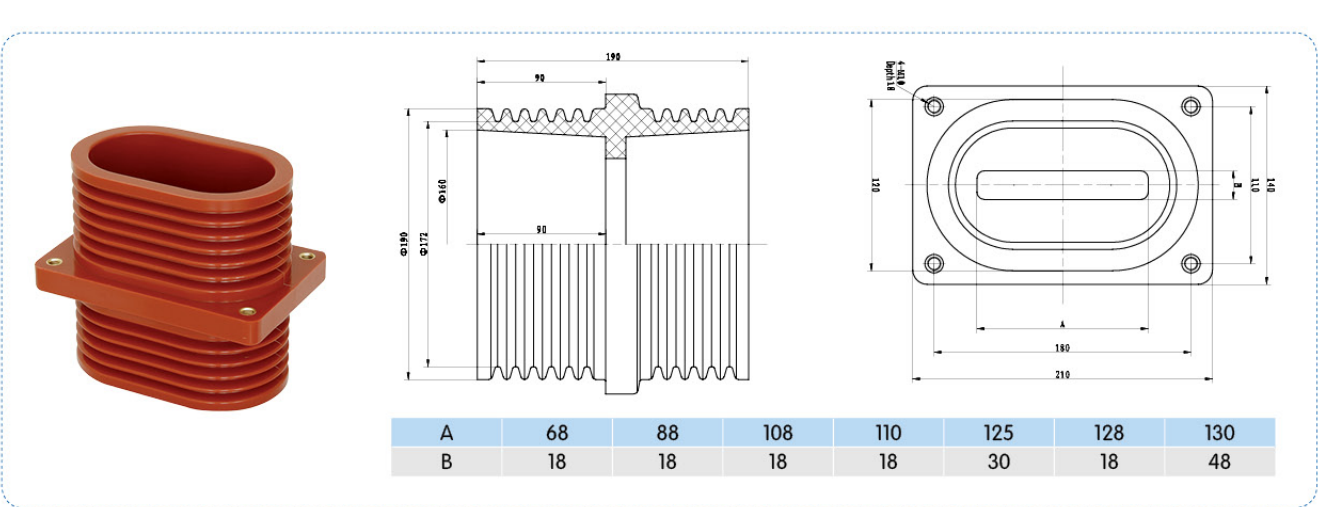
TG1-12-100×100 Wall bushing,outline and installation dimension



TG2-12-125×125 Wall bushing,outline and installation dimension

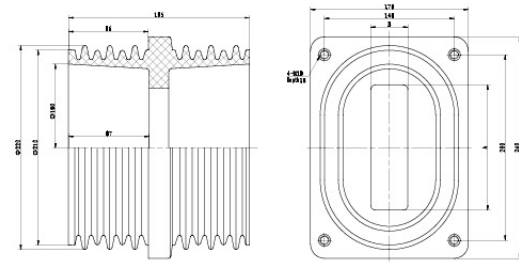


TG3-12-110×180 Wall bushing,outline and installation dimension



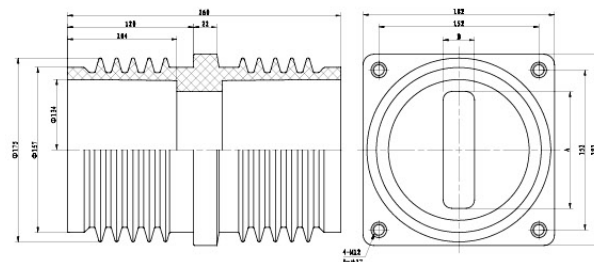


© TG4-12-140×200 Wall bushing, outline and installation dimension



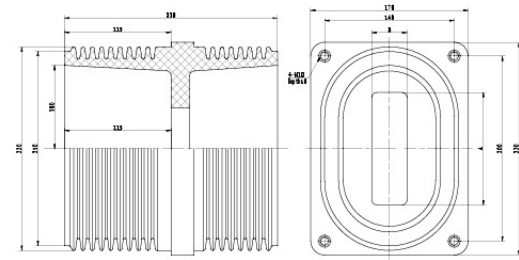
A	68	85	108	128	130	135
B	18	15	18	18	48	45

© TG5-12-152×152 Wall bushing, outline and installation dimension



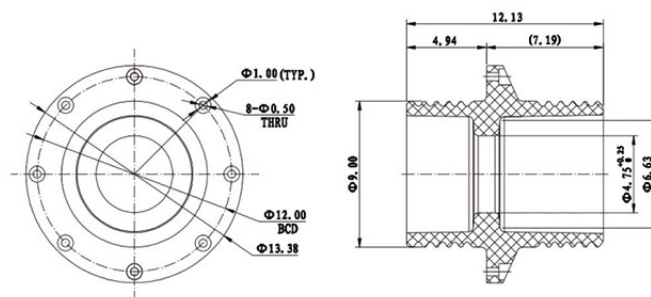
A	Round 110	88	108	128	70	68
B		18	18	18	30	18

© TG6-12-170×230 Wall bushing, outline and installation dimension

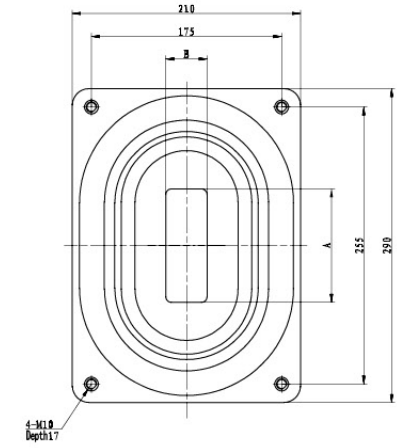
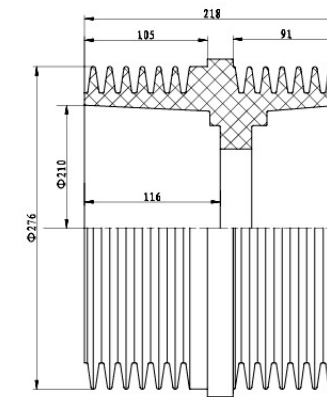
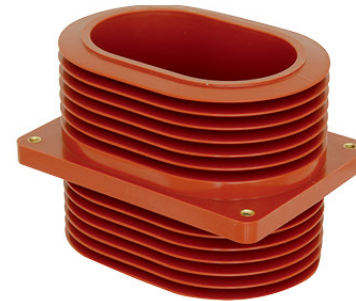


A	110	110	135	135	135	88	90	135	130
B	18	40	45	60	40	18	40	20	60

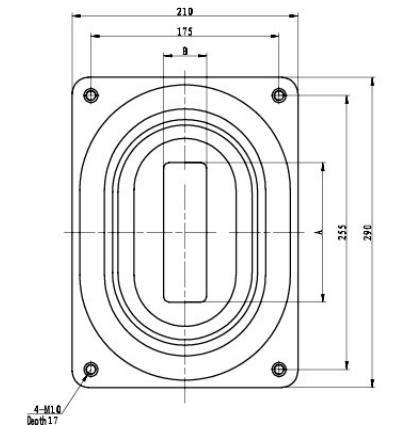
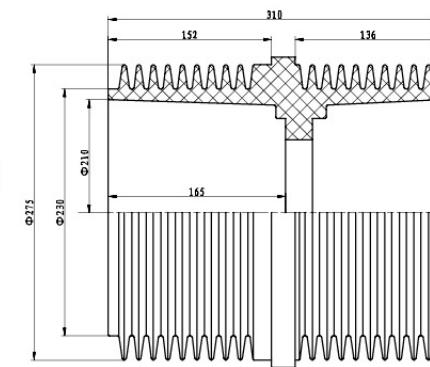
© TG7-15 Wall bushing, outline and installation dimension



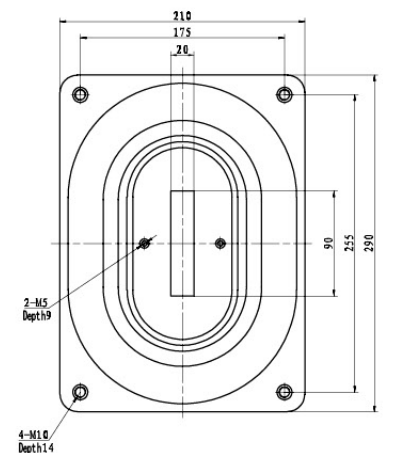
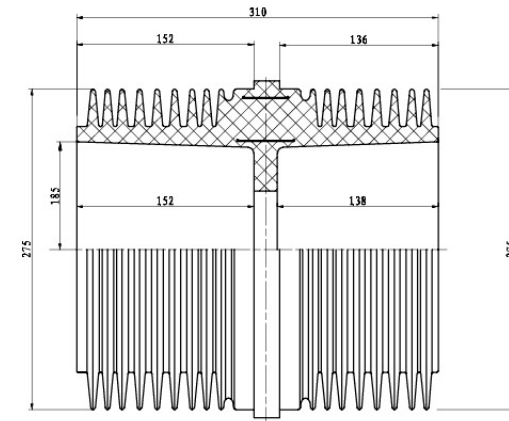
© TG1-24-175×255×218 Wall bushing, outline and installation dimension



© TG2-24-175×255×310 Wall bushing, outline and installation dimension

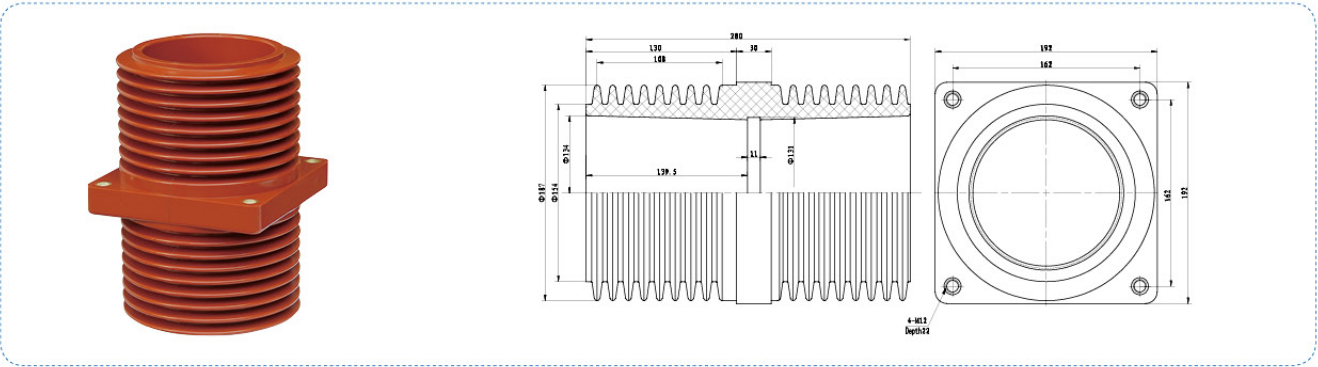


© TG2A-24-175×255×310 Wall bushing, outline and installation dimension

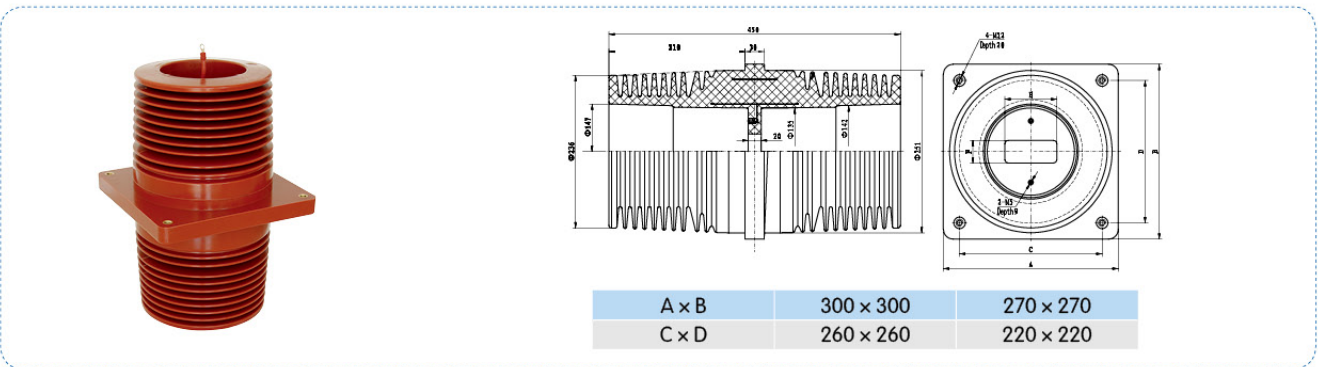




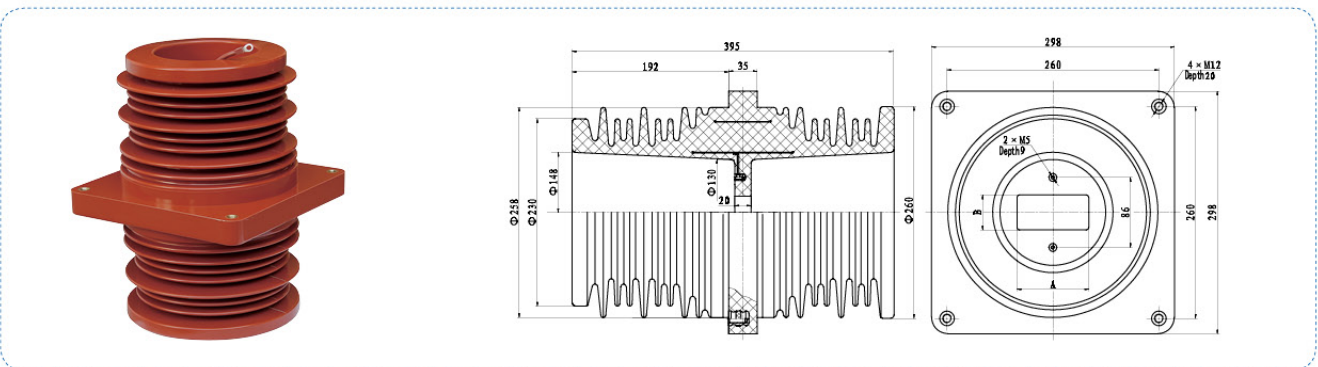
◎ TG3-24-162×162 Wall bushing, outline and installation dimension



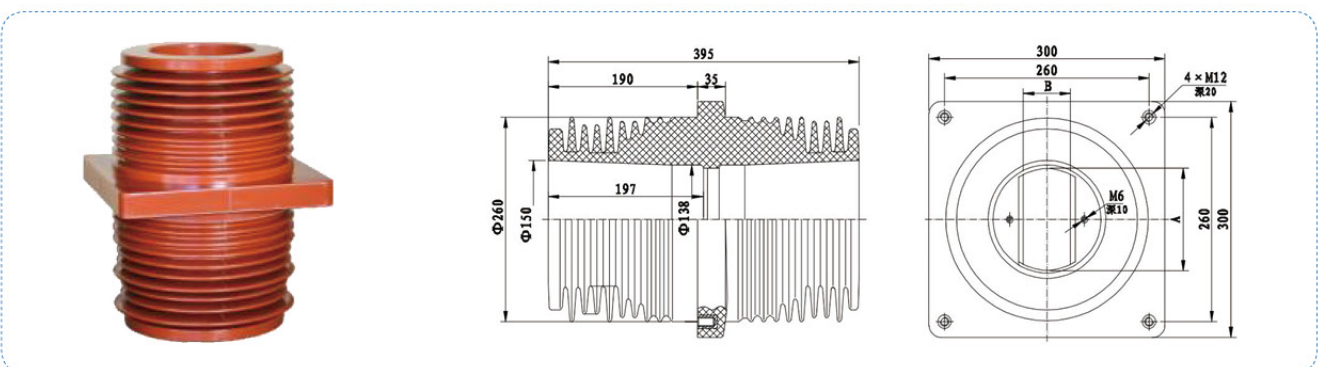
◎ TG1A-40.5-(450) Wall bushing, outline and installation dimension



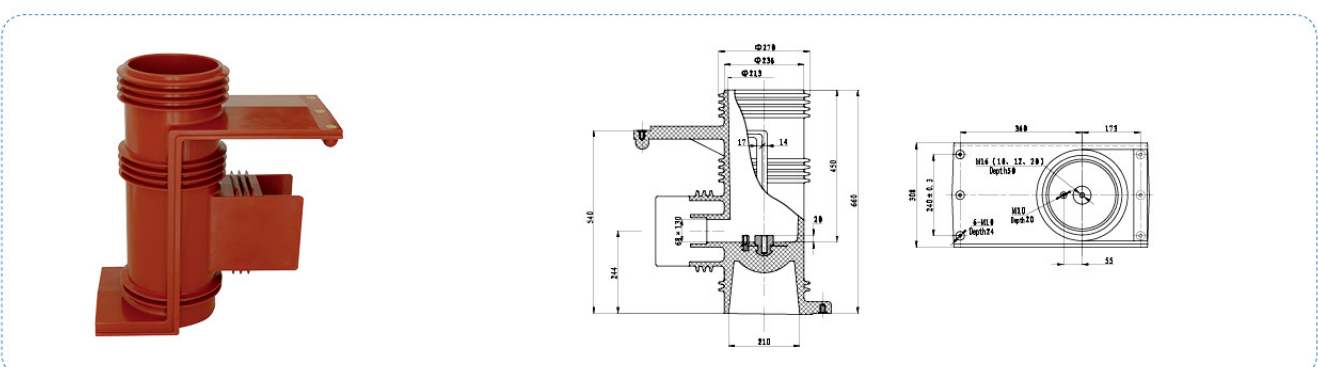
◎ TG2A-40.5-(395) Wall bushing, outline and installation dimension



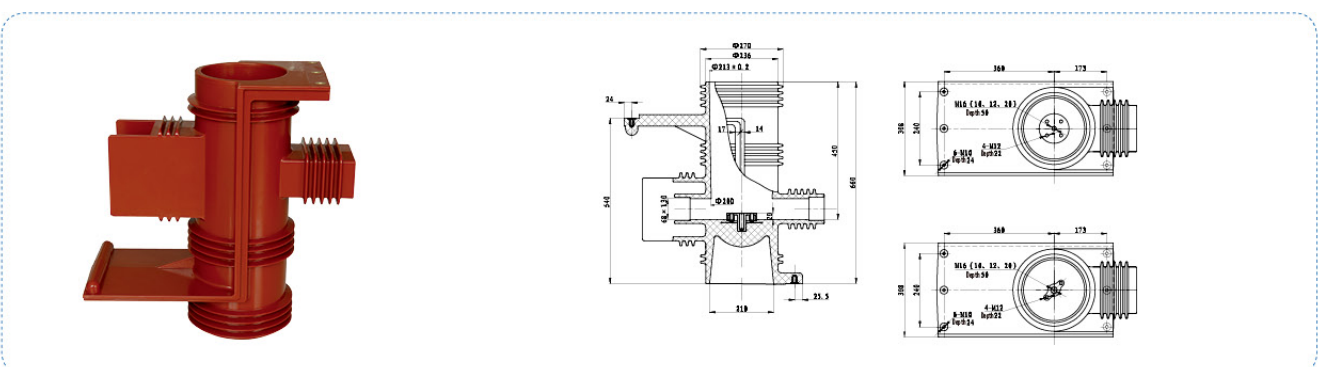
◎ TG3A-40.5/395 Wall bushing, outline and installation dimension



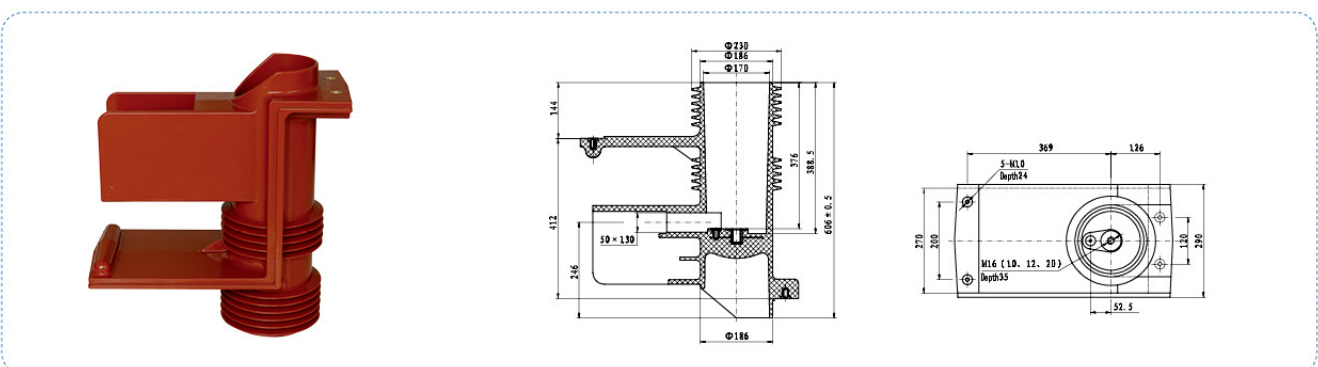
◎ CH1A-40.5 Contact box outline and installation dimension



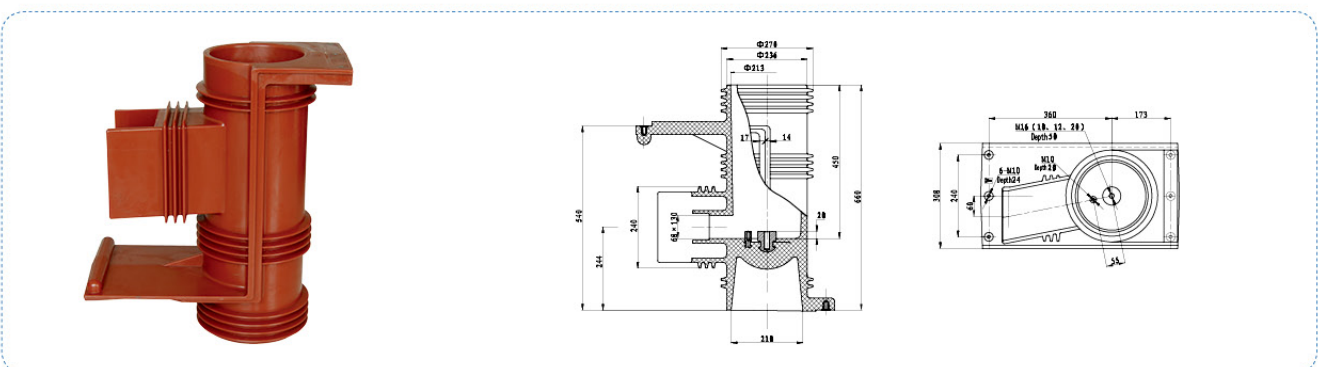
◎ CH2A-40.5 Contact box tee outline and installation dimension



◎ CH3A-40.5 (ABB) Contact box outline and installation dimension

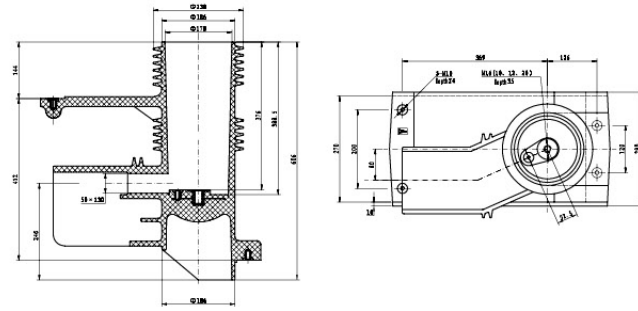


◎ CH1A-40.5-A/B Outline and installation dimension

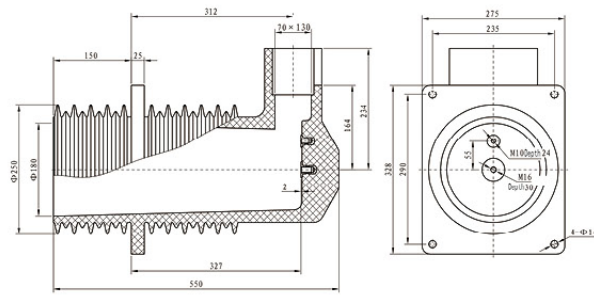




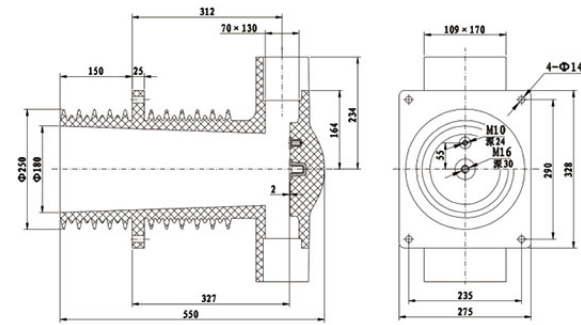
© CH3A-40.5-A/B(ABB) Outline and installation dimension



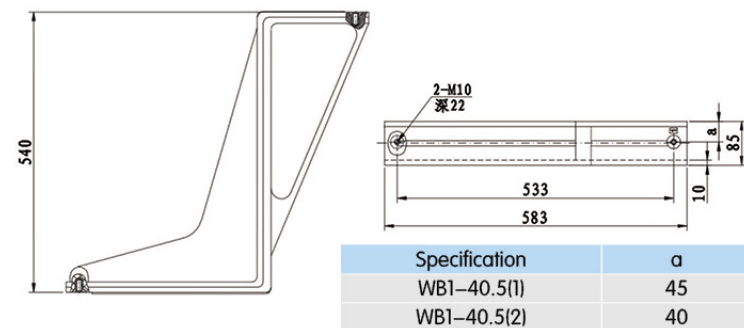
© CH5A-40.5 Outline and installation dimension



© CH6A-40.5-550 Three Outline and installation dimension



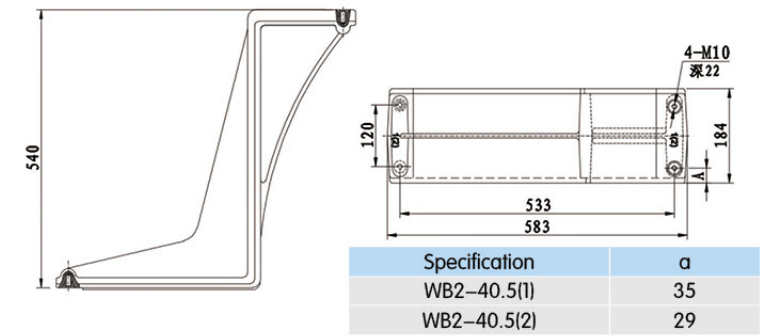
© WB1-40.5 Outline and installation dimension



Specification	α
WB1-40.5(1)	45
WB1-40.5(2)	40

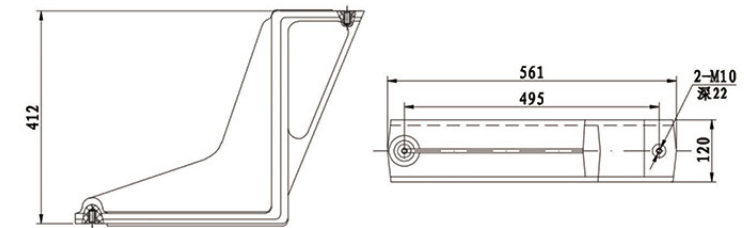


© WB2-40.5 Outline and installation dimension

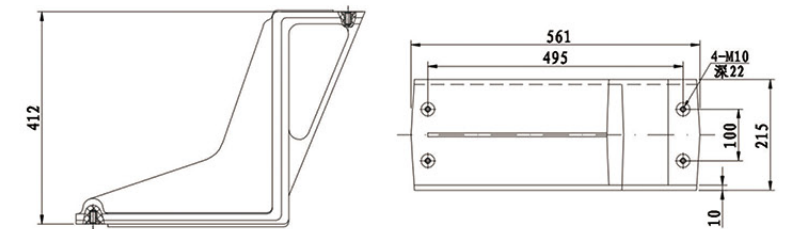


Specification	α
WB2-40.5(1)	35
WB2-40.5(2)	29

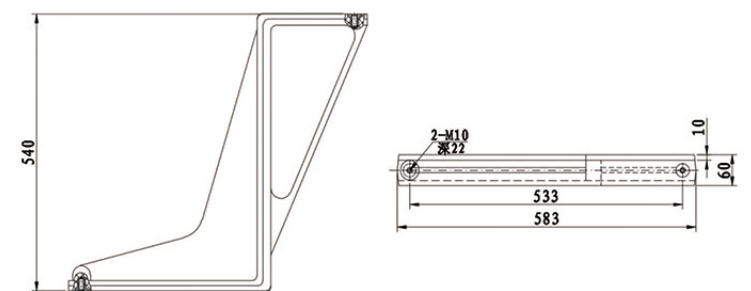
© WB3-40.5(ABB) Outline and installation dimension



© WB4-40.5(ABB) Outline and installation dimension

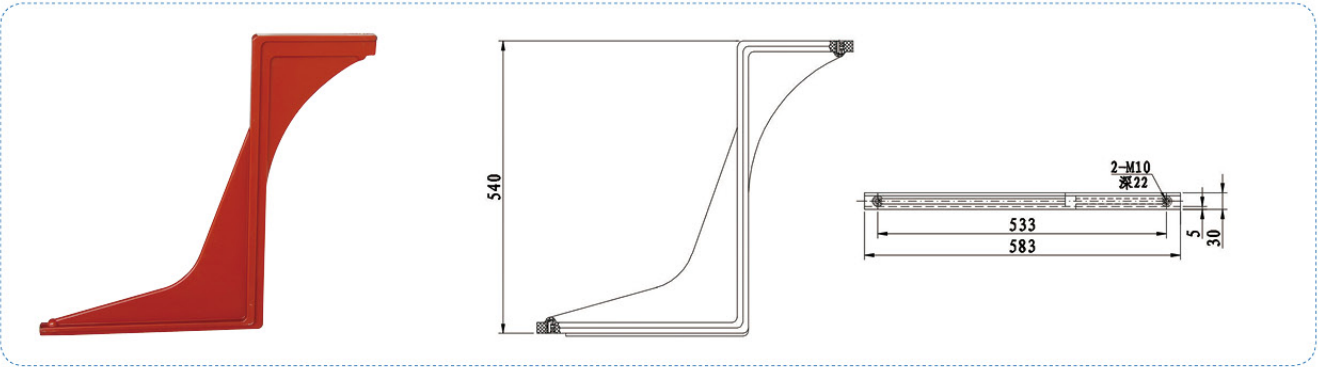


© WB5-40.5 Outline and installation dimension

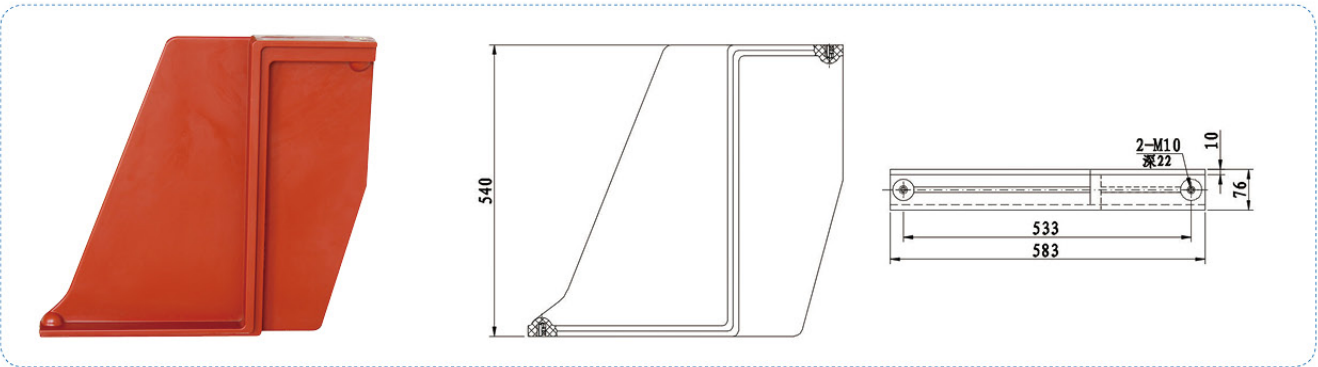




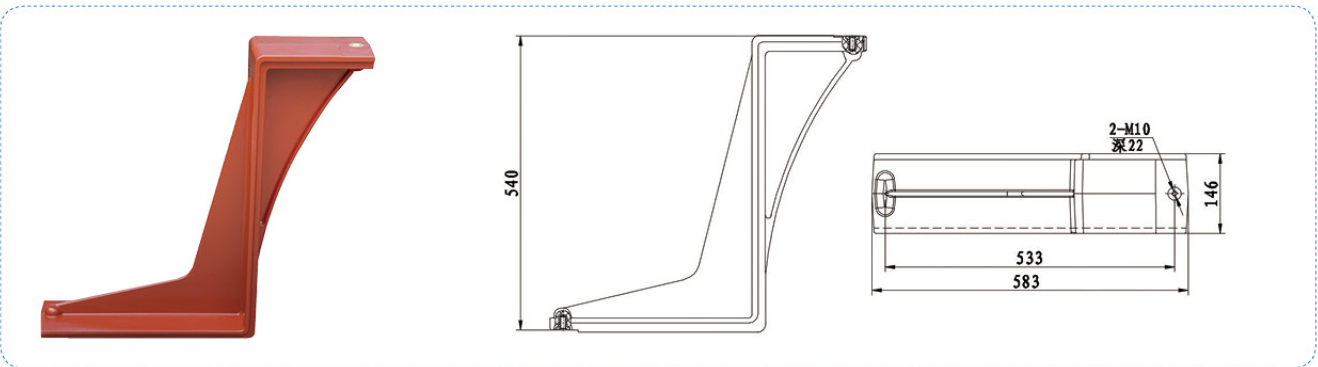
WB6-40.5 Outline and installation dimension



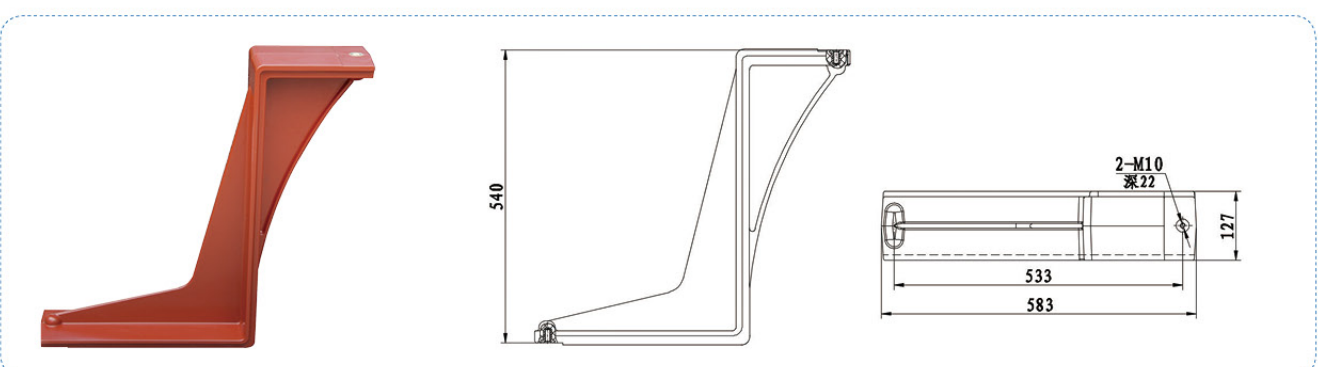
WB7-40.5 Outline and installation dimension



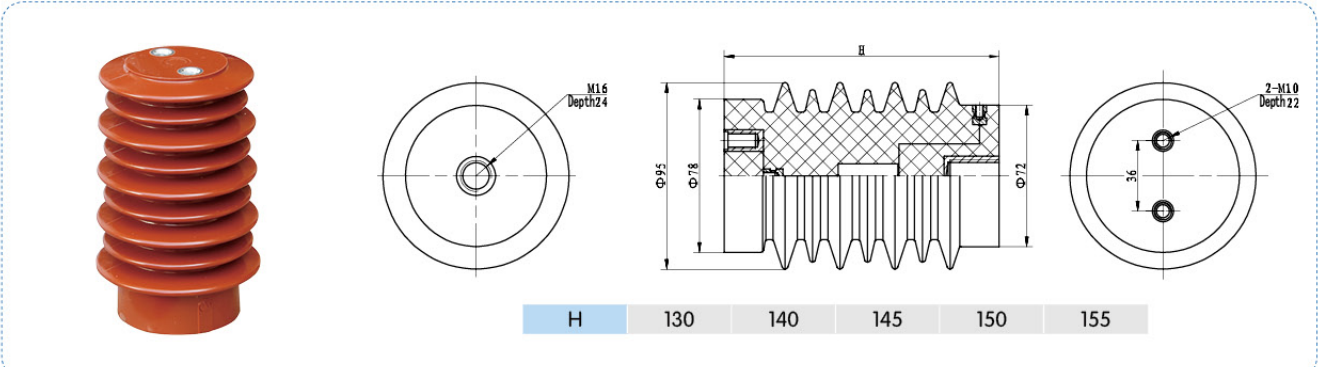
WB8-40. 5/146 Outline and installation dimension



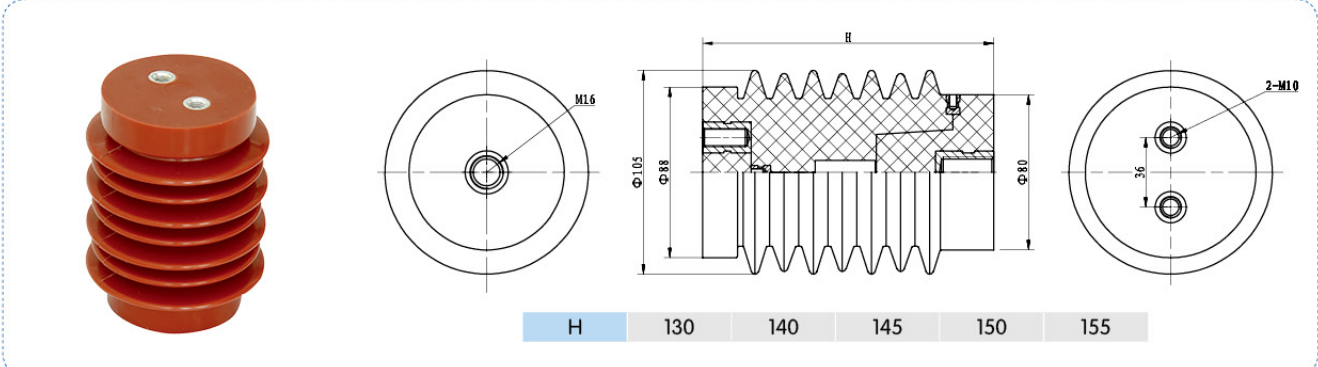
WB9-40. 5/146 Outline and installation dimension



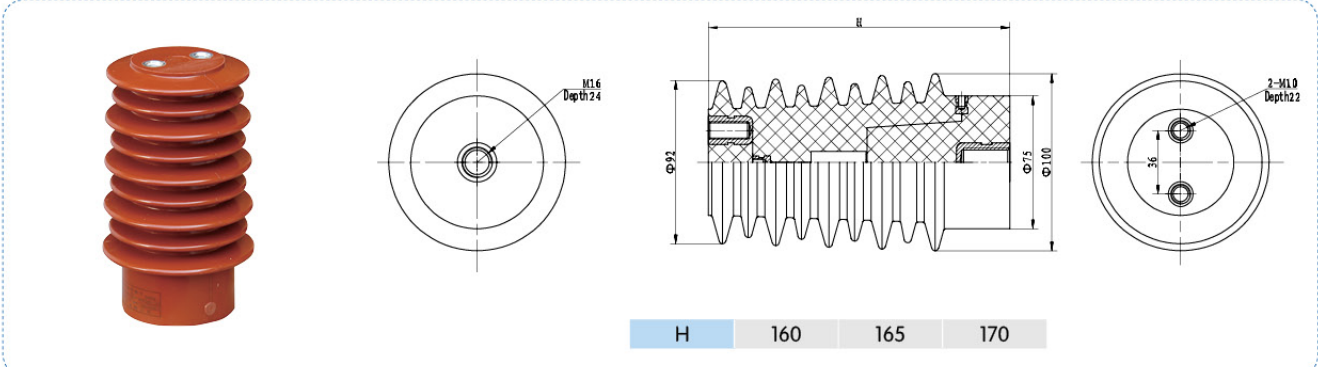
CG102-12/ $\phi 95 \times (130-155)$ Sensor outline and installation dimension



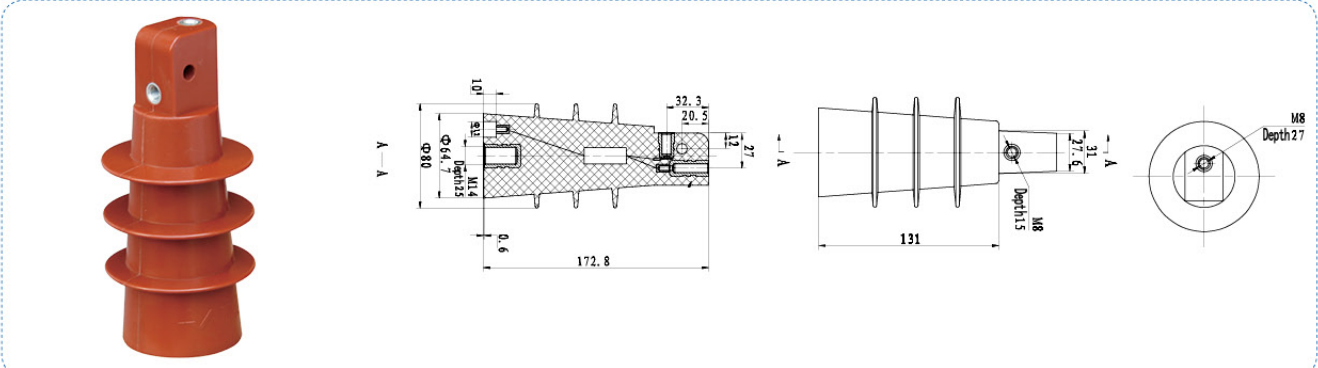
CG103-12/ $\phi 105 \times (130-155)$ Sensor outline and installation dimension



CG104-12/ $\phi 100 \times (160, 170)$ Sensor outline and installation dimension

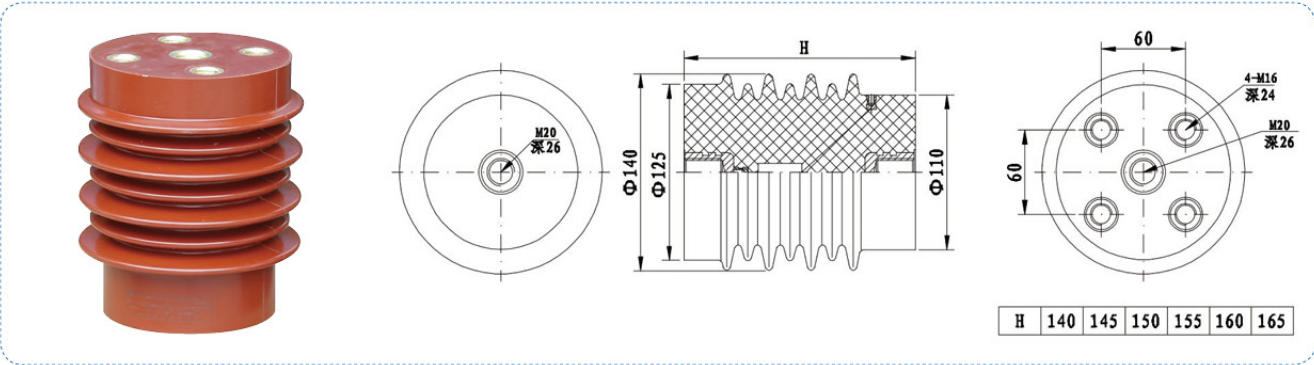


CG105-12/ $\phi 80 \times 172.8$ Sensor outline and installation dimension

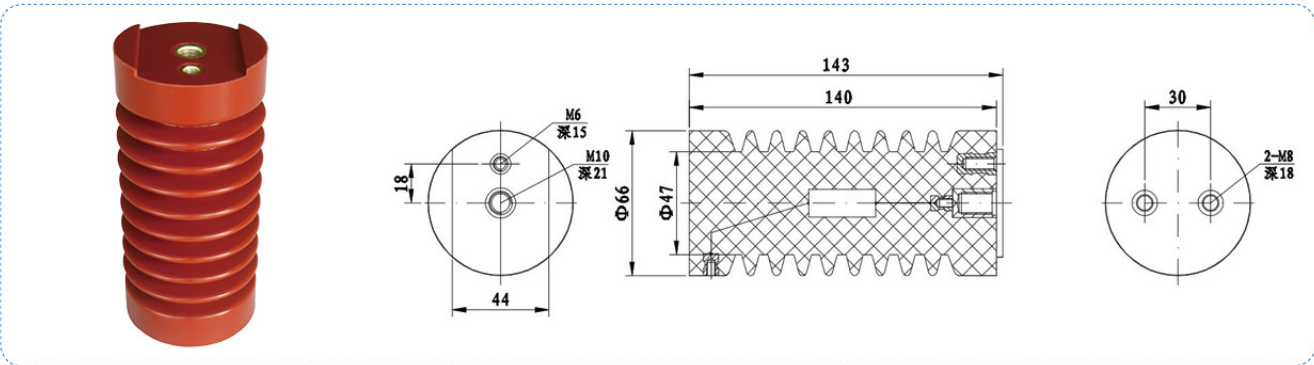




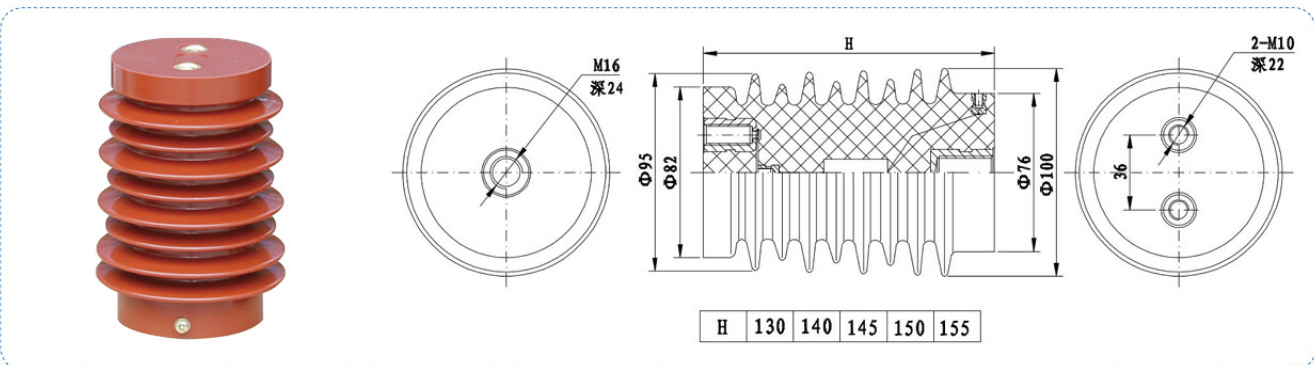
CG108-12/140×(140-165) Outline and installation dimension



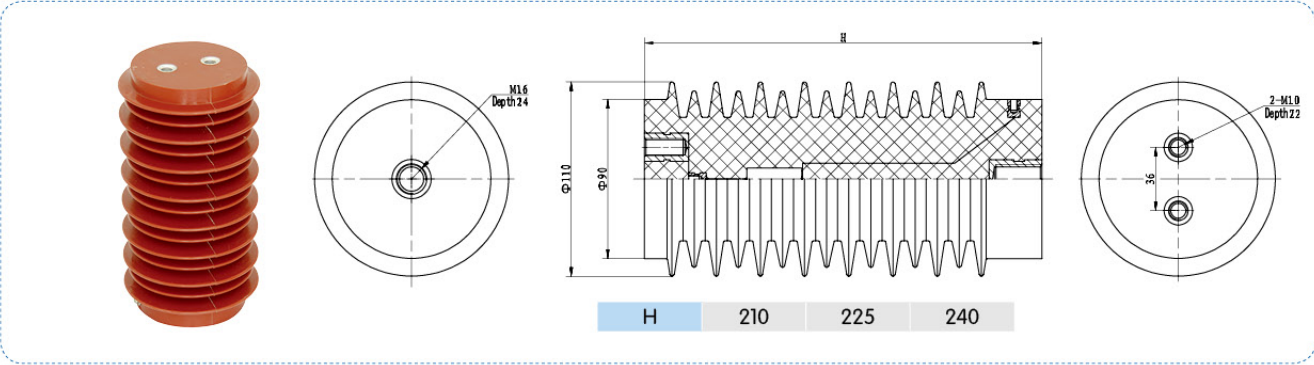
CG109-12/66×143 Outline and installation dimension



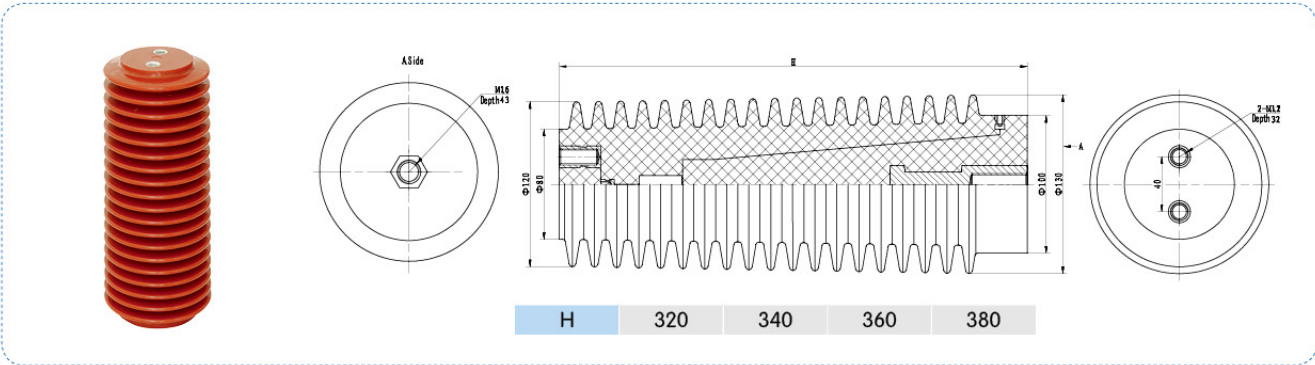
CG111-12/950×(130-155) Outline and installation dimension



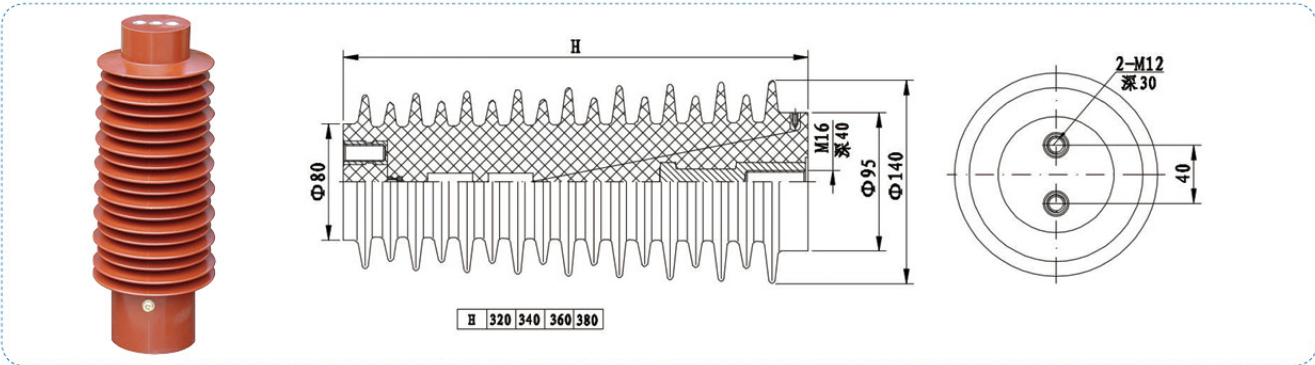
CG201-24/ $\Phi 110 \times (110, 225, 240)$ Sensor outline and installation dimension



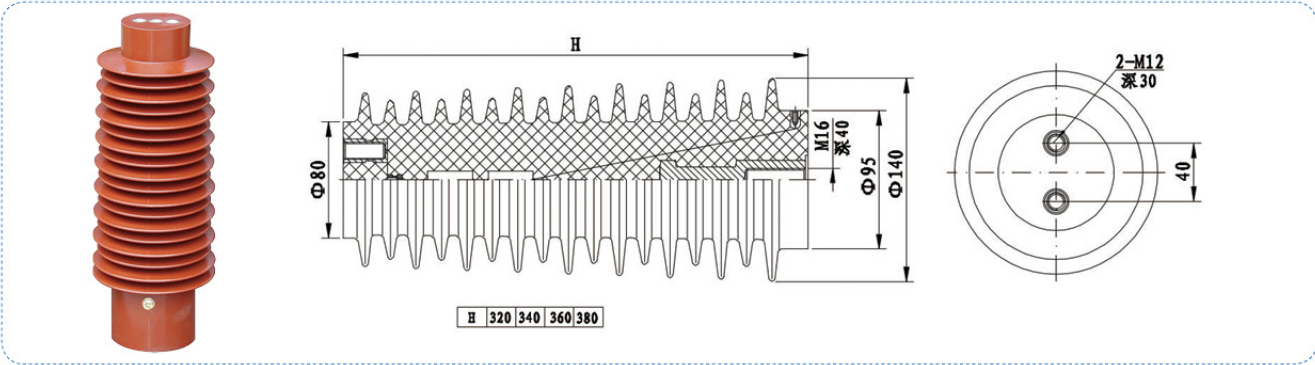
CG301-40.5/ $\Phi 130 \times (320-380)$ Sensor outline and installation dimension



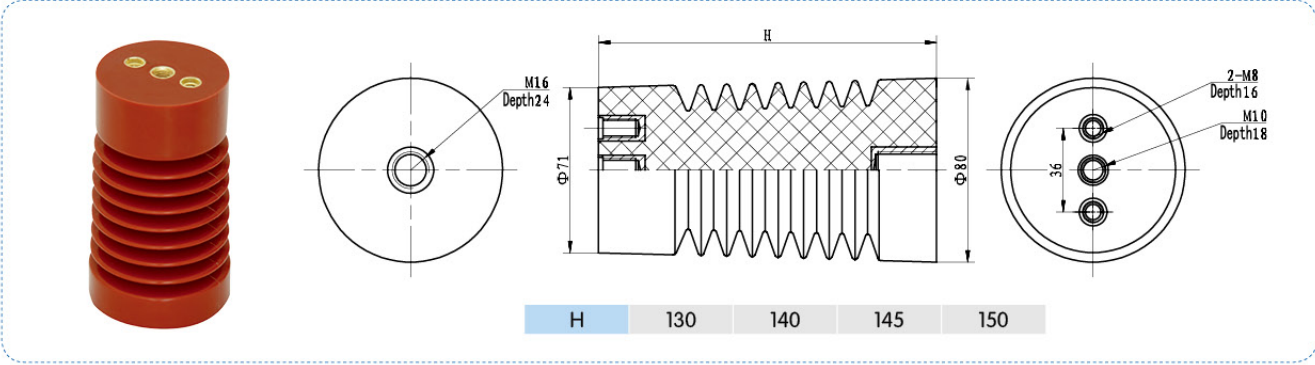
CG303-40.5/ $\Phi 146 \times (340-420)$ Sensor outline and installation dimension



CG304-40.5/ $\Phi 80 \times (320-380)$ Outline and installation dimension

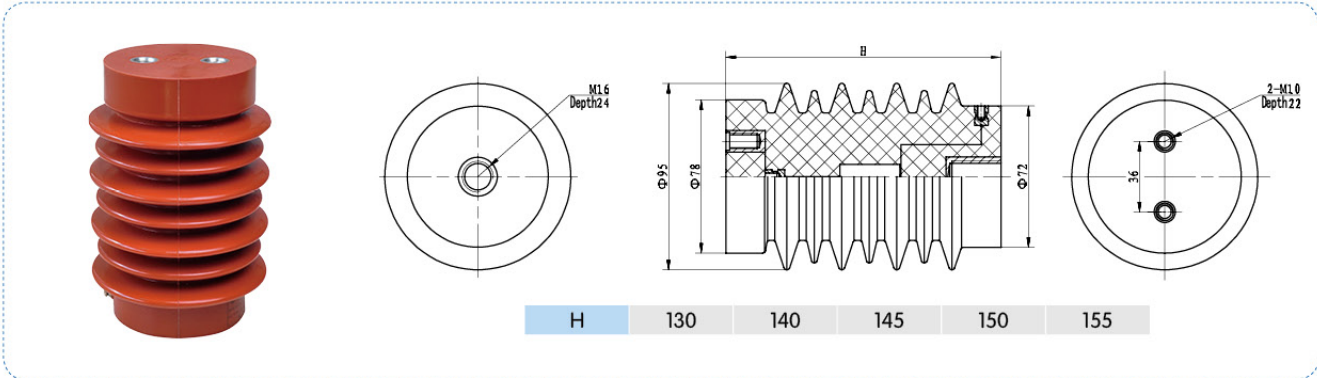


ZJ-101-12/ $\Phi 80 \times (130-150)$ Outline and installation dimension

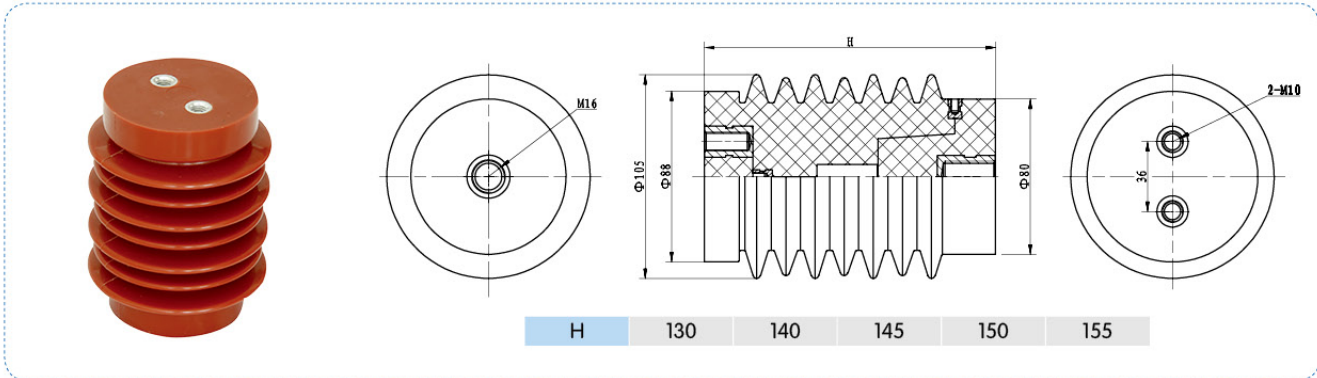




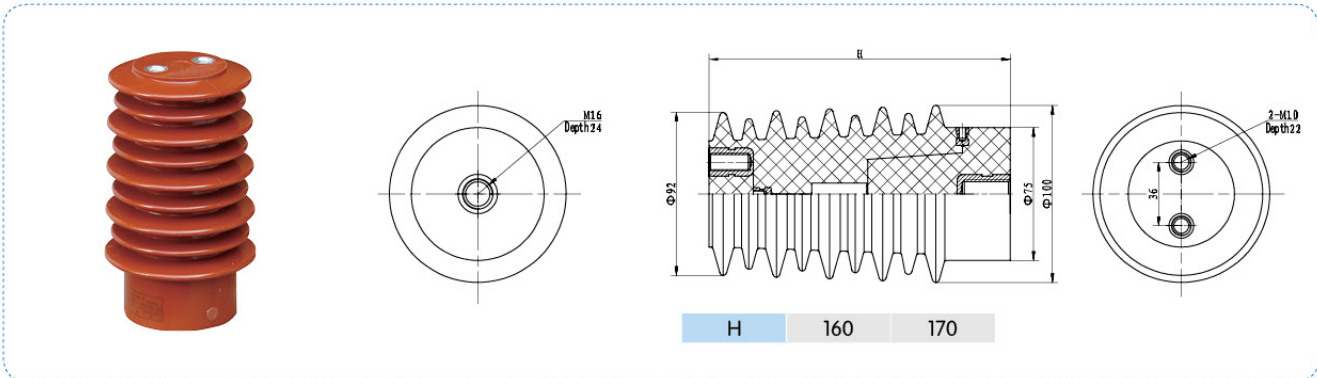
◎ ZJ102-12/φ 95×(130-155) Sensor outline and installation dimension



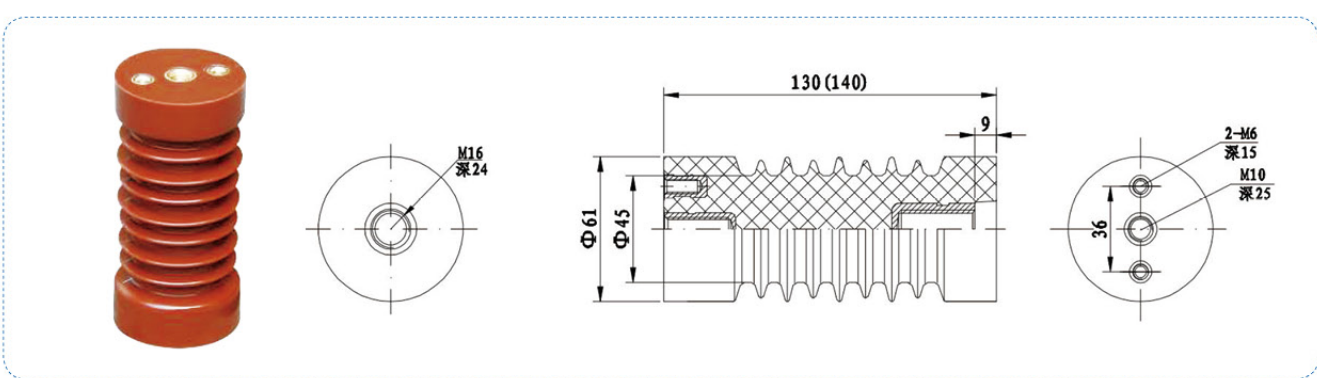
◎ ZJ103-12/φ 105×(130-155) Sensor outline and installation dimension



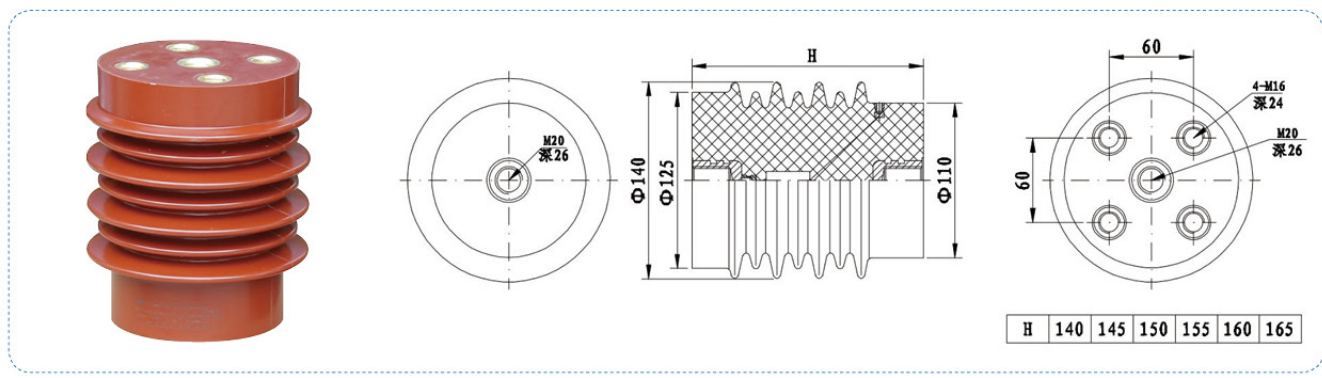
◎ ZJ104-12/φ 100×(160-170) Sensor outline and installation dimension



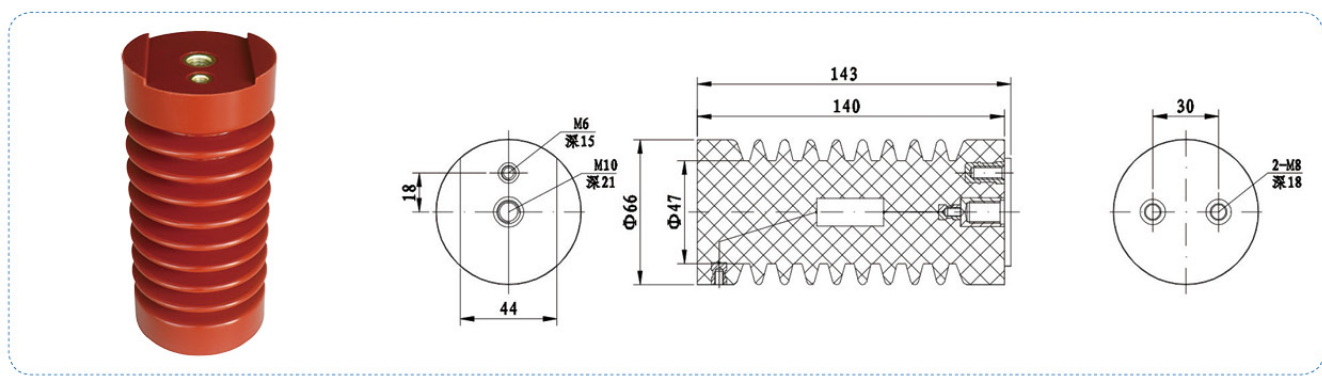
◎ ZJ107-12/φ 100×(130-140) Outline and installation dimension



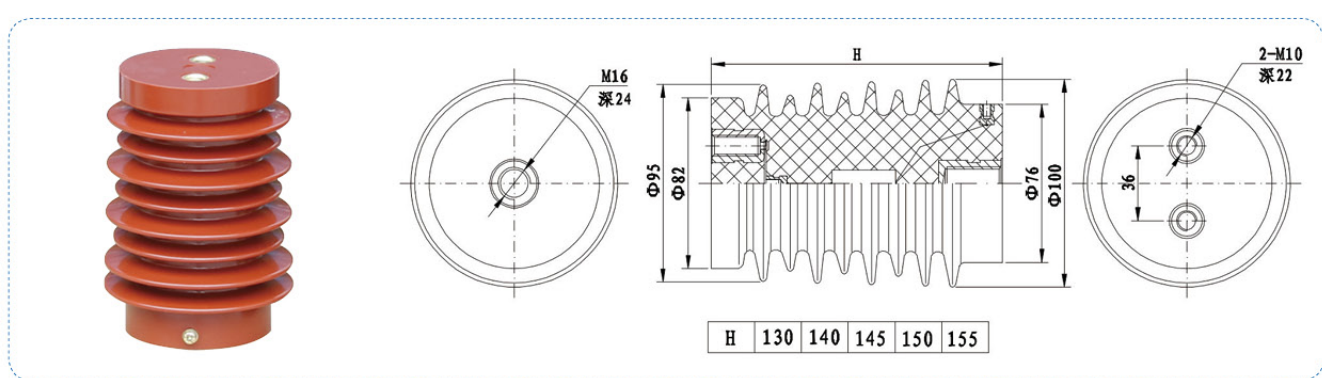
◎ ZJ108-12/140×(140-165) Outline and installation dimension



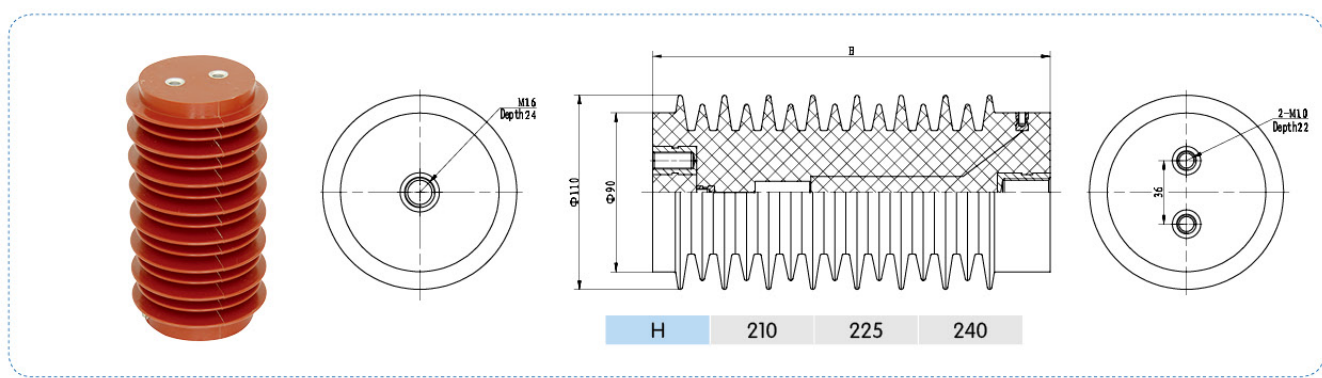
◎ ZJ109-12/φ 66×143 Outline and installation dimension



◎ ZJ111-12/φ 95×(130-155) Outline and installation dimension

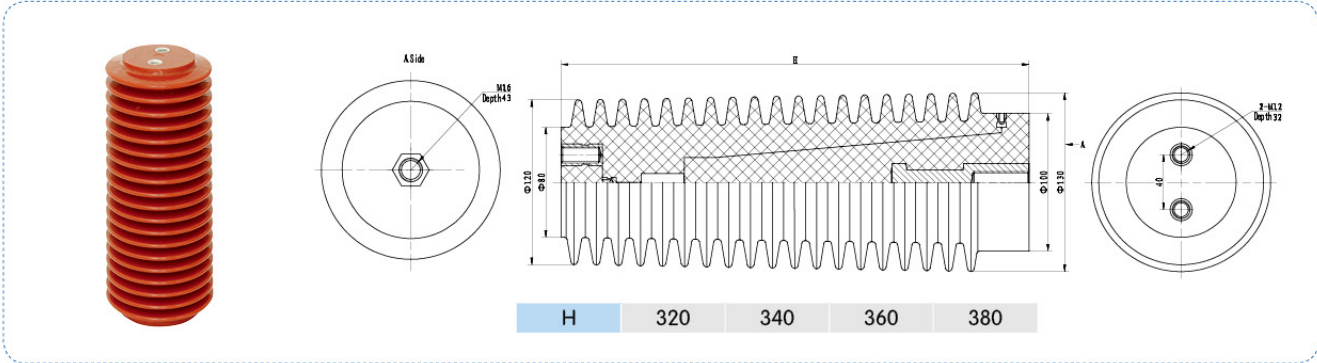


◎ ZJ201-24/φ 110×(110、225、240) Sensor outline and installation dimension

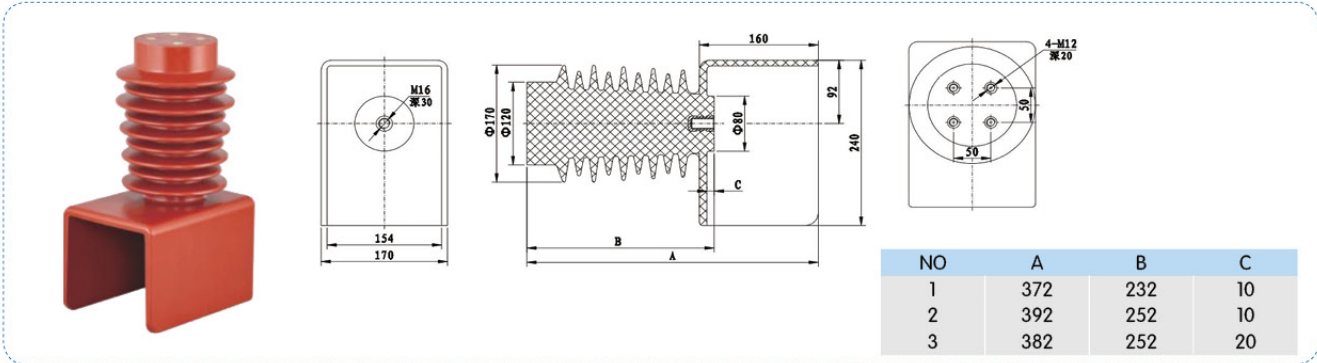




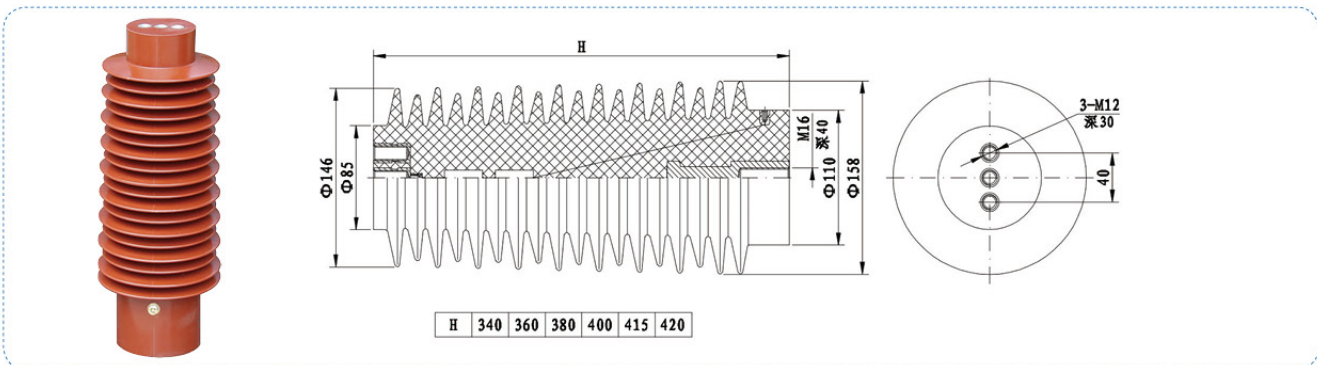
◎ ZJ301-40.5/φ 130×(320-380) Sensor outline and installation dimension



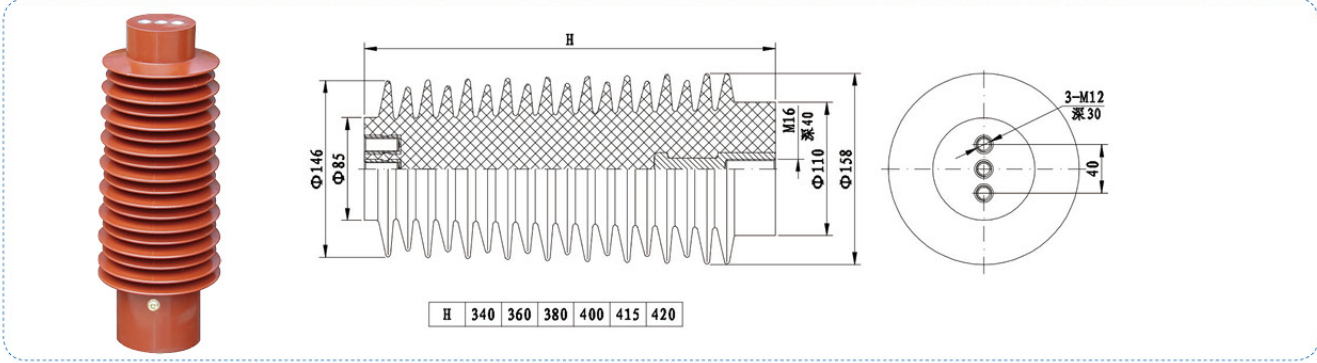
◎ ZJ302-40.5/φ Outline and installation dimension



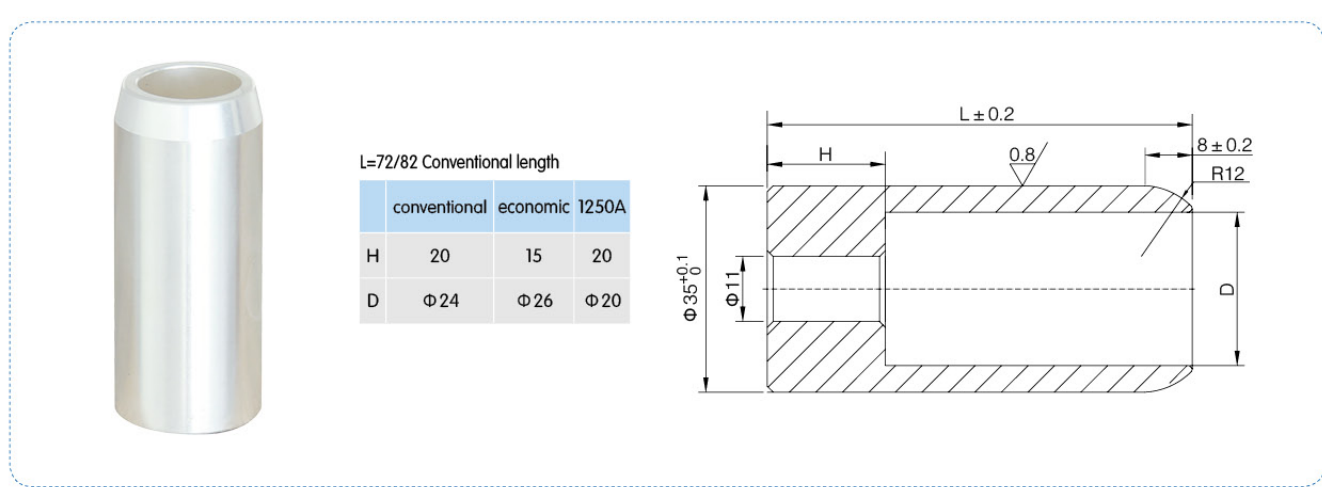
◎ ZJ303-40.5/φ 146×(340-420)Sensors Outline and installation dimension



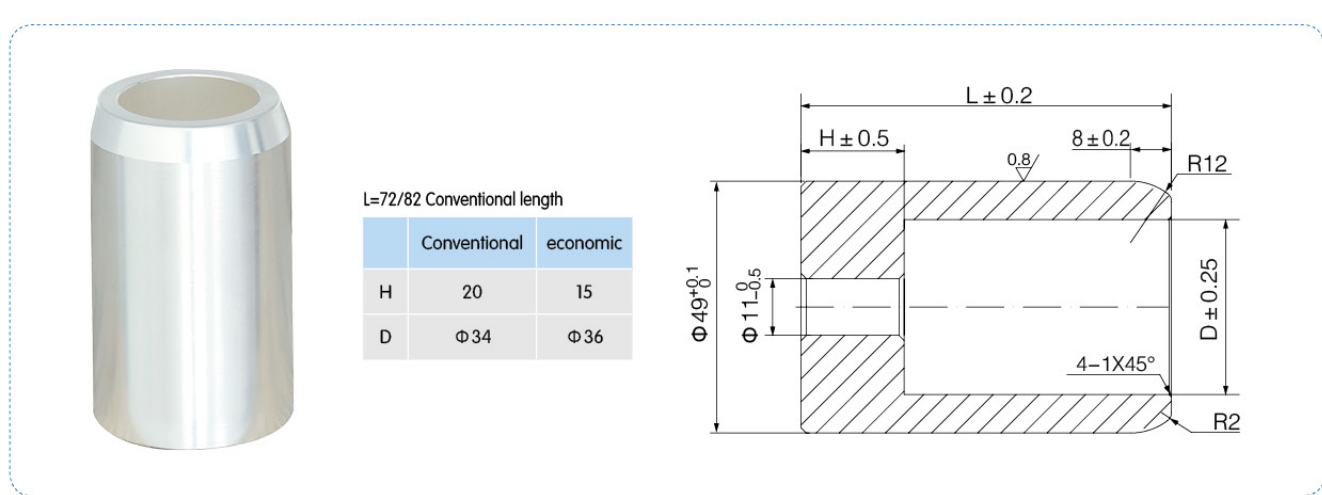
◎ ZJ304-40.5/φ 80×(320-380)Insulators Outline and installation dimension



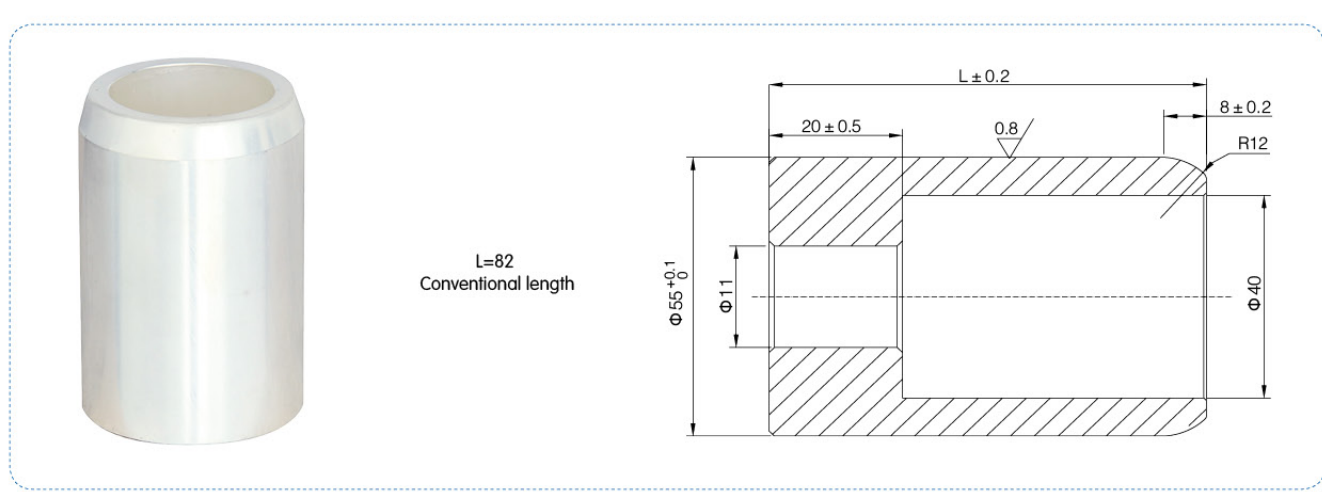
◎ 630A Static contact outline and installation dimension



◎ 1250A Static contact outline and installation dimension



◎ 1600A Static contact outline and installation dimension

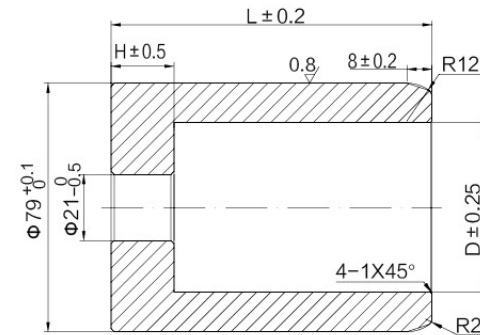




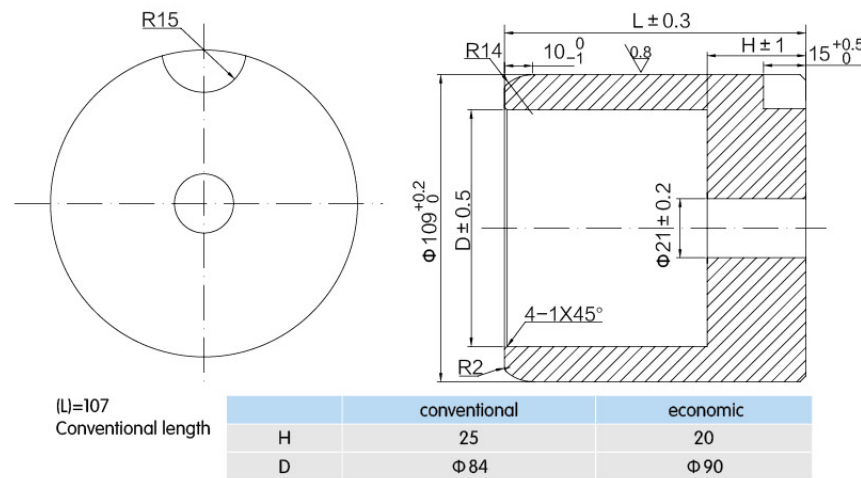
© 1600~2000A Static contact outline and installation dimension



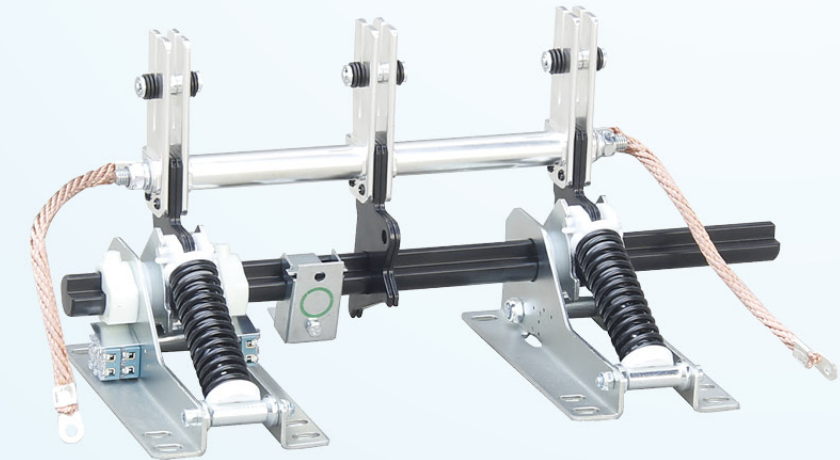
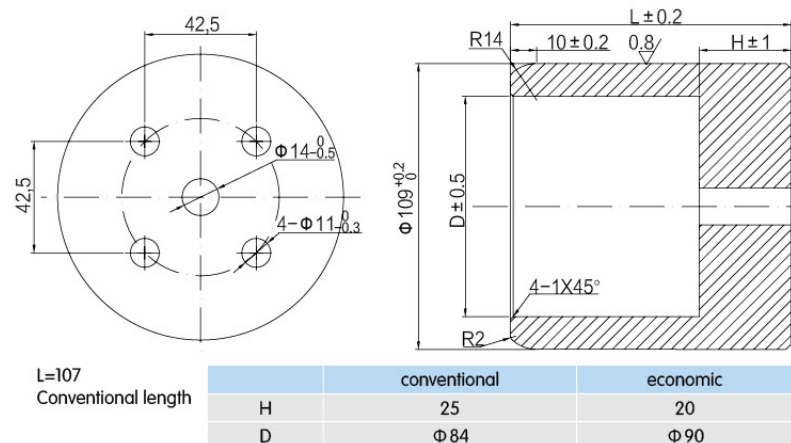
	conventional	economic
H	20	20
D	Φ 54	Φ 63



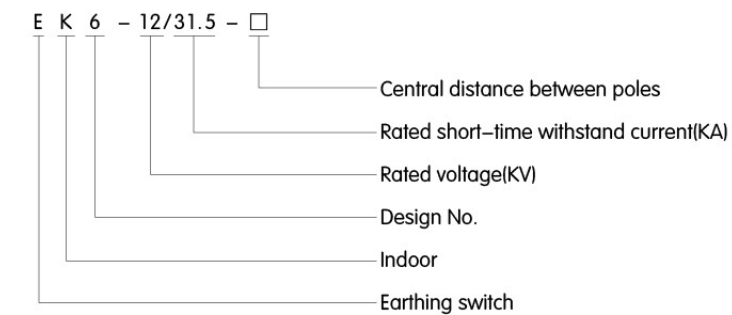
© 2500~3150A Static contact outline and installation dimension



© 3150~4000A Static contact outline and installation dimension



© Product definition



© Introduction

EK6-12/31.5 Series indoor earthing switch is a new design which is improved on the ES1 type. It is suitable for electric power system with 3-12KV, three-phase and AC50(60)Hz. As an earthing protection, it can be used in various kinds of HV switchgears. It meets GB1985-2004 and IEC129 standard.

© Working condition

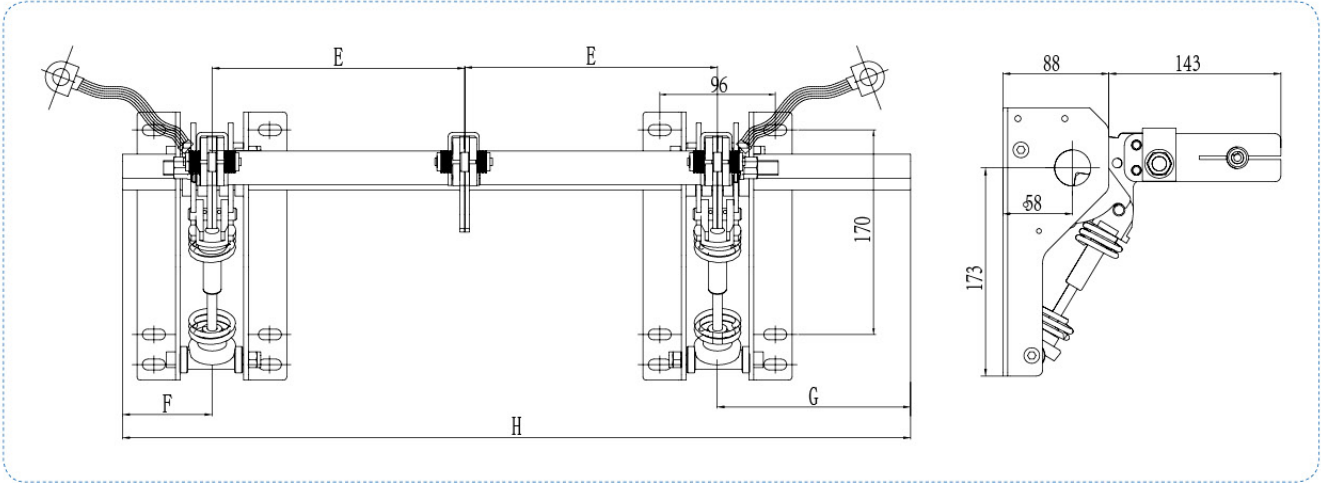
- Ambient temperature: $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$;
- Altitude: $\leq 1000\text{m}$;
- Relative humidity: Daily average $\leq 95\%$, Monthly average $\leq 90\%$
- Earthquake intensity: ≤ 8 degree;
- Dirtiness degree: II.

© Mainly technical specification

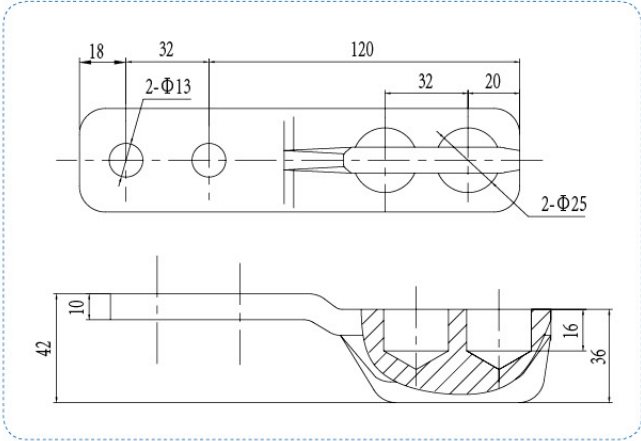
No.	Item		Unit	Data
1	Rated voltage		KV	12
2	Rated short time withstand current		KA	31.5
3	Rated short circuit withstand time		S	4
4	Rated short circuit making current		KA	80
5	Rated peak withstand current		KA	80
6	Rated insulation level	1min power frequency withstand voltage	KV	42
		Lightning Impulse withstand voltage		75
7	Mechanical life		TIMES	2000



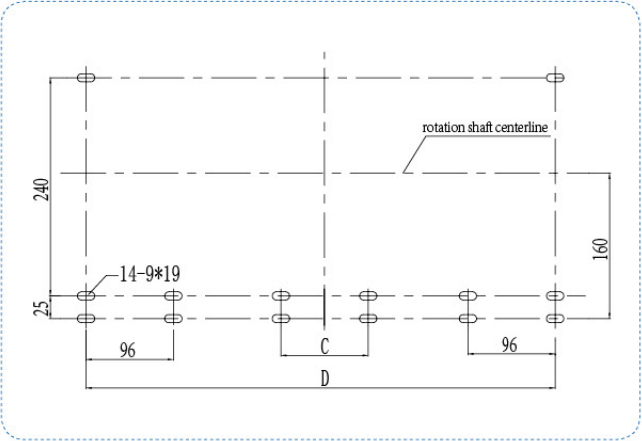
◎ EK6-12/31.5 earthing switch(ES-10/31.5) Outline and installation dimension



◎ Copper terminal block



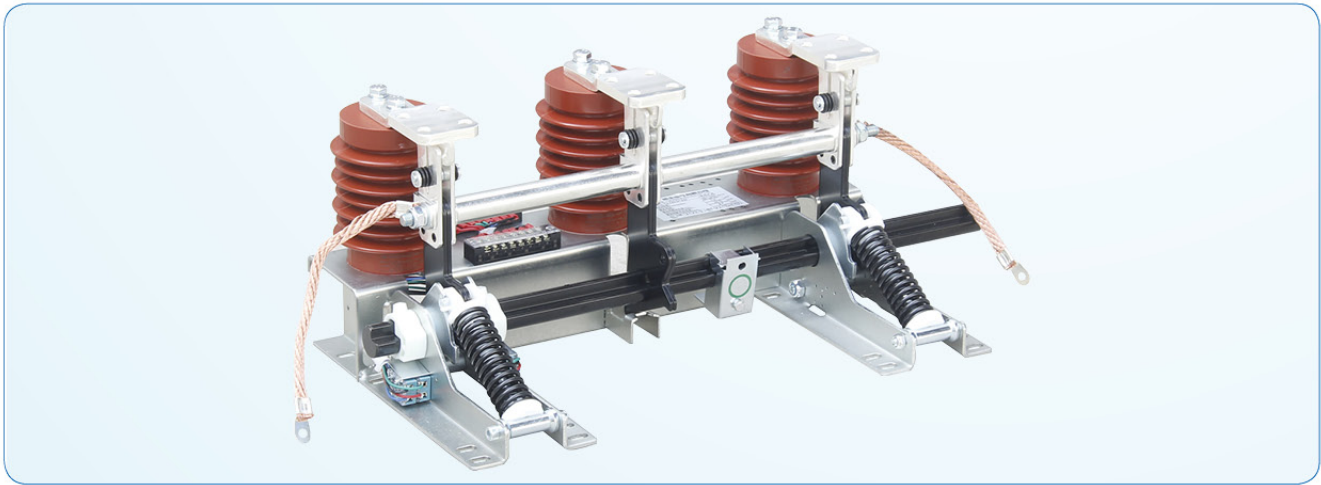
◎ Hole location diagram



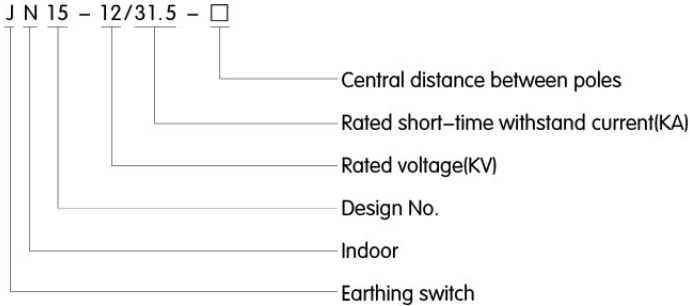
(Unit:mm)

Specification	E	F	G	H	D	C
EK6-12/31.5-165	165	75	160	565	426	
EK6-12/31.5-180	180	75	160	595	456	
EK6-12/31.5-200	200	75	160	635	496	
EK6-12/31.5-210	210	75	160	655	516	
EK6-12/31.5-220	220	75	160	675	536	
EK6-12/31.5 230	230	75	160	695	556	96
EK6-12/31.5-250	250	75	160	735	596	96
EK6-12/31.5-275	275	75	185	810	646	96

Order notes:Indicate product specification, central distance between poles, if the electric live display(model number of display) needed or not
Please note the soft link length when ordering (normal L=250mm).
Please consult us if you have any special request.



◎ Product definition



◎ Introduction

JN15-12/31.5 Series indoor earthing switch is a new design which is improved on the ES1 type. It is suitable for electric power system with 3-12KV, three-phase and AC50(60)Hz. As an earthing protection, it can be used in various kinds of HV switchgears. It meets GB1985-2004 and IEC129 standard.

◎ Working condition

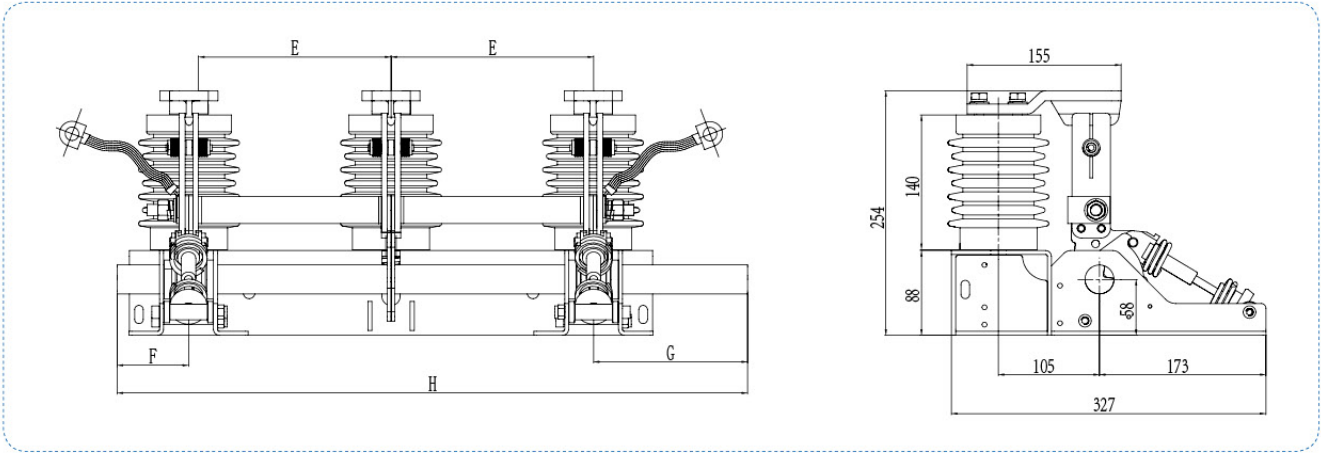
- Ambient temperature:-10℃ --+40℃ ;
- Altitude: ≤ 1000m;
- Relative humidity: Daily average ≤ 95% , Monthly average ≤ 90%
- Earthquake intensity: ≤ 8 degree;
- Dirtiness degree: II.

◎ Mainly technical specification

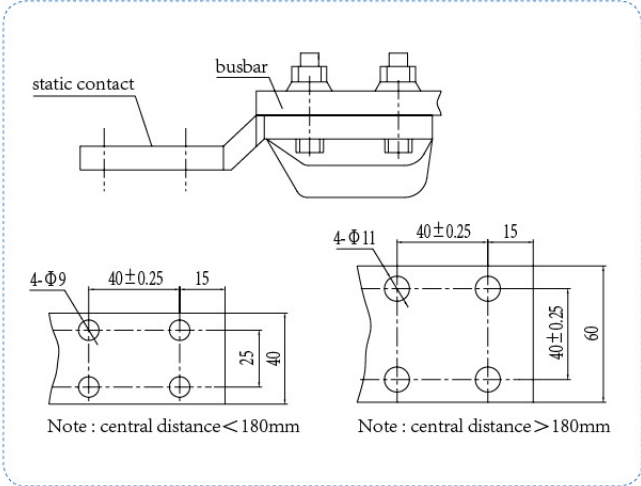
No.	Item	Unit	Data
1	Rated voltage	KV	12
2	Rated short time withstand current	KA	31.5
3	Rated short circuit withstand time	S	4
4	Rated short circuit making current	KA	80
5	Rated peak withstand current	KA	80
6	Rated insulation level	KV	1min power frequency withstand voltage
			Lightning Impulse withstand voltage
7	Mechanical life	TIMES	2000



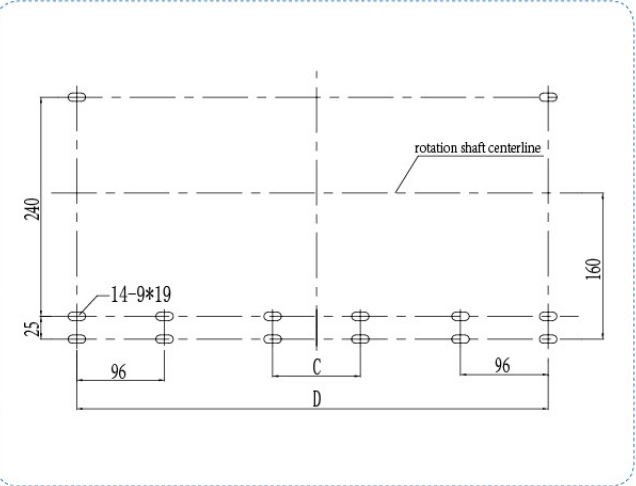
◎ JN15-12/31.5 earthing switch(ES-10/31.5) Outline and installation dimension



◎ Copper terminal block

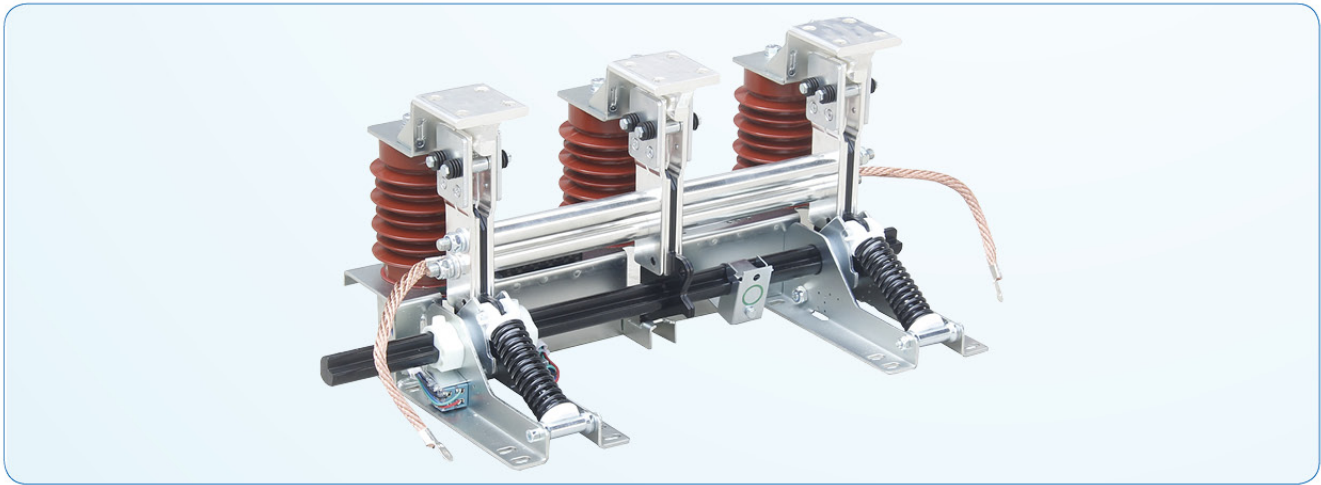


◎ Hole location diagram

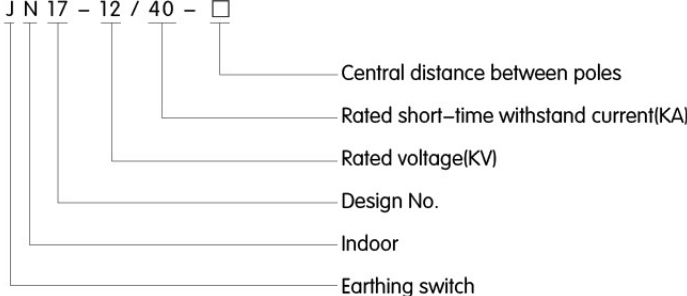


Specification	E	F	G	H	D	C
JN15-12/31.5-165	165	75	160	565	426	
JN15-12/31.5-180	180	75	160	595	456	
JN15-12/31.5-200	200	75	160	635	496	
JN15-12/31.5-210	210	75	160	655	516	
JN15-12/31.5-220	220	75	160	675	536	
JN15 12/31.5 230	230	75	160	695	556	96
JN15-12/31.5-250	250	75	160	735	596	96
JN15-12/31.5-275	275	75	185	810	646	96

Order notes:Indicate product specification, central distance between poles, if the electric live display(model number of display) needed or not.
Please note the soft link length when ordering (normal L=250mm).
Please consult us if you have any special request.



◎ Product definition



◎ Introduction

JN17-12/40 (Old type is JN15-12/40) Series indoor high voltage earthing switch is a new design and improved product based on the ES1 type. The structure is assembled and suitable for electric power system with 3~10KV, three-phase and AC 50(60)Hz. As an earthing protection, it can be used in various kinds of HV switchgears. It meets GB1985-2004 and IEC129 standard.

◎ Working condition

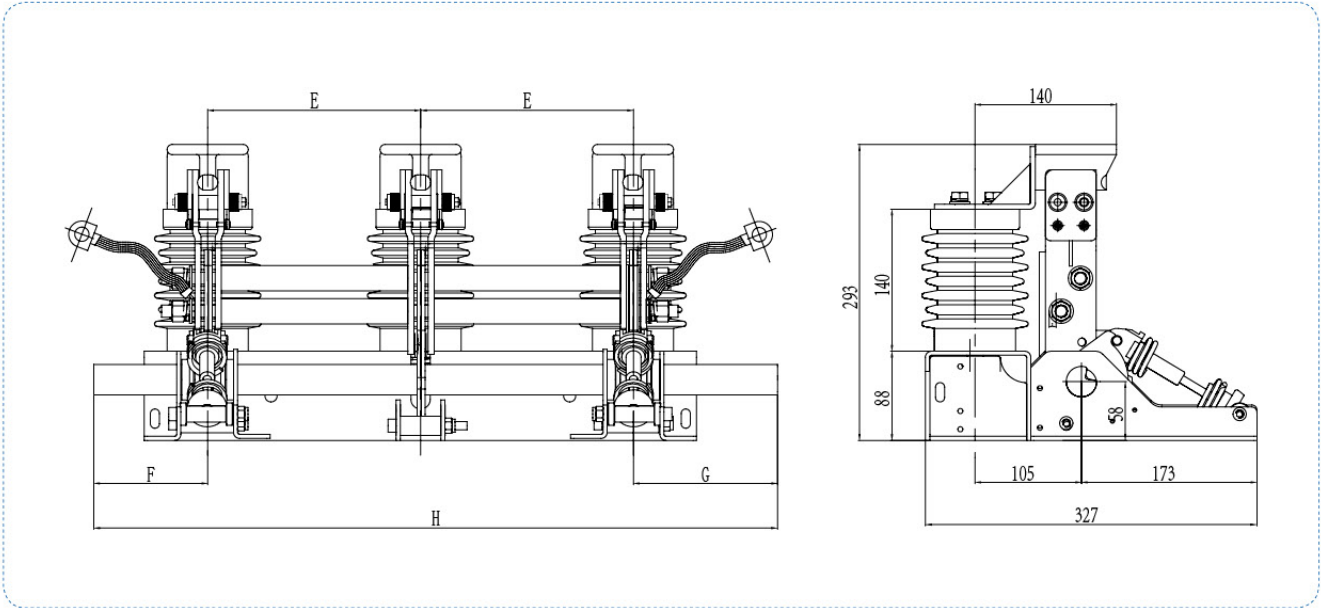
- Ambient temperature:-10℃ --+40℃ ;
- Altitude: ≤ 1000m;
- Relative humidity:Daily average ≤ 95%, Monthly average ≤ 90%
- Earthquake intensity: ≤ 8 degree;
- Dirtiness degree: II.

◎ Mainly technical specification

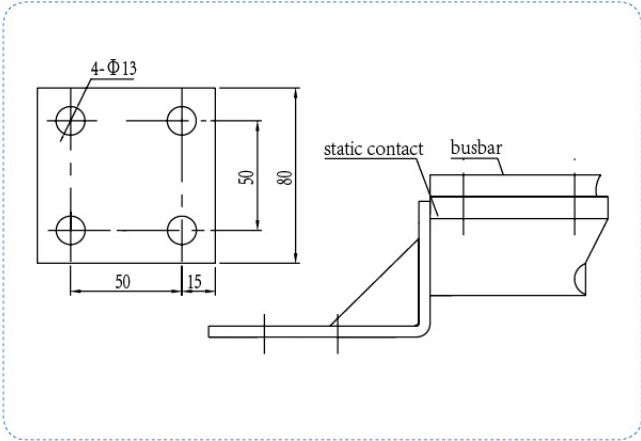
No.	Item	Unit	Data
1	Rated voltage	KV	12
2	Rated short time withstand current	KA	40
3	Rated short circuit withstand time	S	4
4	Rated short circuit making current	KA	80
5	Rated peak withstand current	KA	80
6	Rated insulation level	KV	1min power frequency withstand voltage
			Lightning Impulse withstand voltage
7	Mechanical life	TIMES	2000



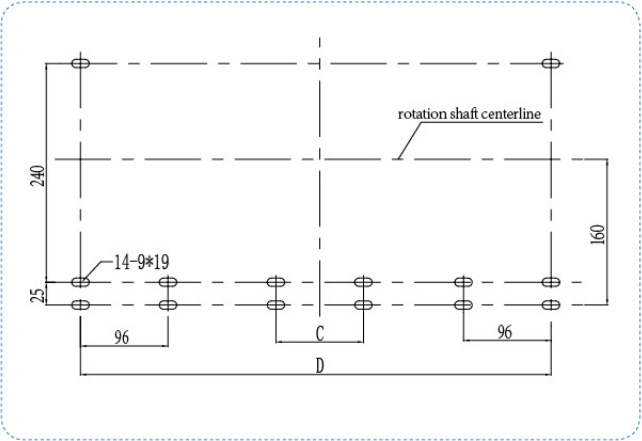
◎ JN17-12/40earthing switch(ES-10/31.5) Outline and installation dimension



◎ Copper terminal block

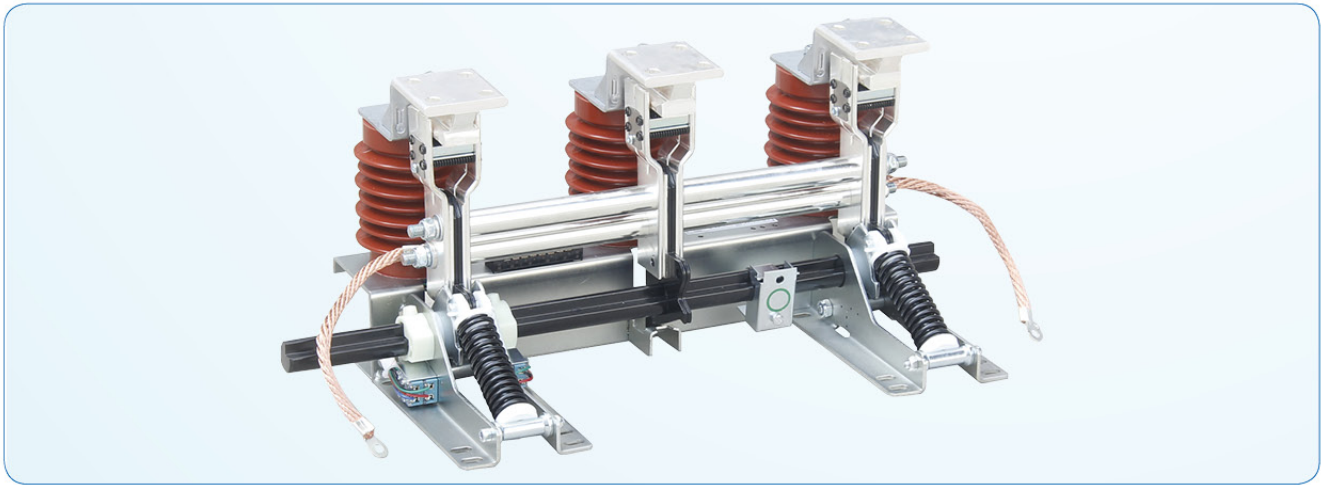


◎ Hole location diagram

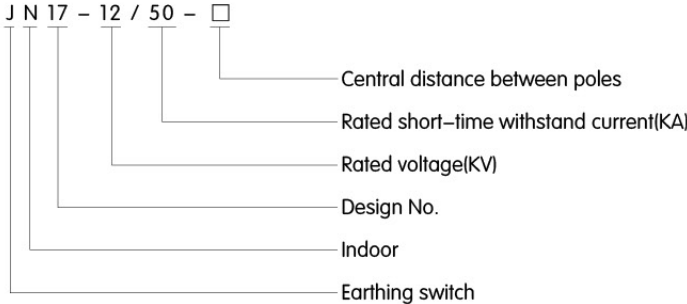


(Unit:mm)					
Specification	E	F	G	H	D
JN17-12/40-210	210	50	185	655	516
JN17-12/40-220	220	50	185	675	536
JN17-12/40-230	230	50	185	695	556
JN17-12/40-250	250	50	185	735	596
JN17-12/40-275	275	50	210	810	646

Order notes:Indicate product specification, central distance between poles, if the electric live display(model number of display) needed or not.
Please note the soft link length when ordering (normal L=250mm).
Please consult us if you have any special request.



◎ Product definition



◎ Introduction

JN17-12/50 (Old type is JN15-12/50) Series indoor high voltage earthing switch is a new design and improved product based on the ES1 type. The structure is assembled and suitable for electric power system with 3~10KV, three-phase and AC 50(60)Hz. As an earthing protection, it can be used in various kinds of HV switchgears. It meets GB1985-2004 and IEC129 standard.

◎ Working condition

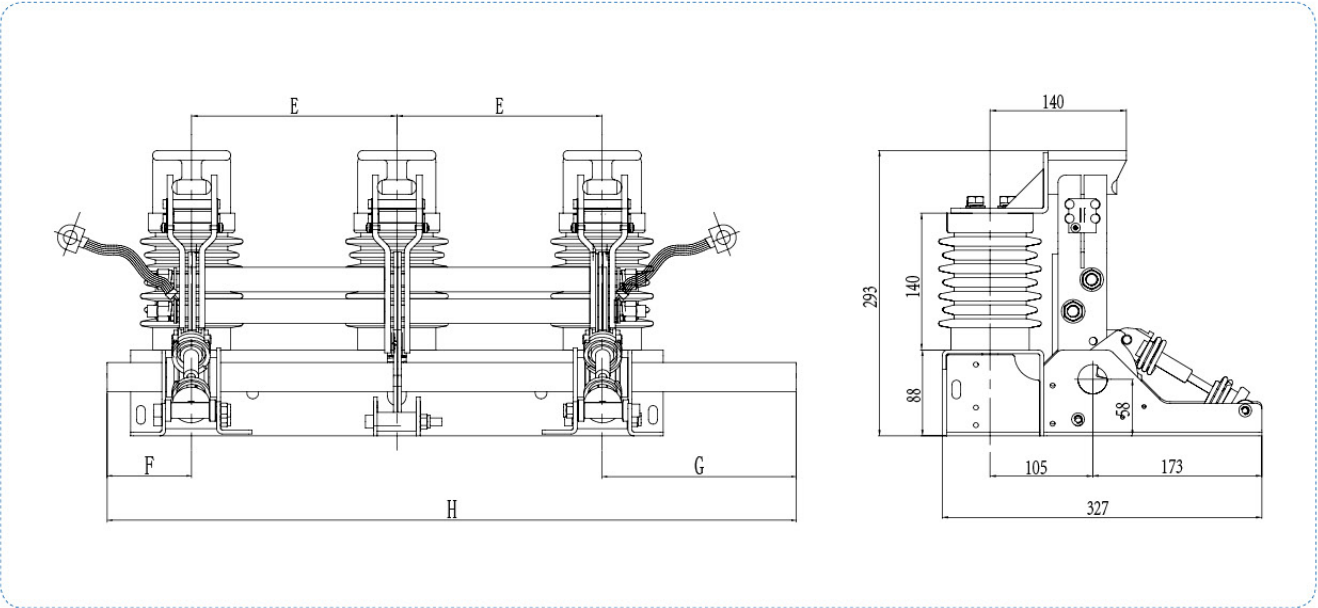
- Ambient temperature:-10℃ ~+40℃ ;
- Altitude: ≤ 1000m;
- Relative humidity: Daily average ≤ 95%, Monthly average ≤ 90%
- Earthquake intensity: ≤ 8 degree;
- Dirtiness degree: II.

◎ Mainly technical specification

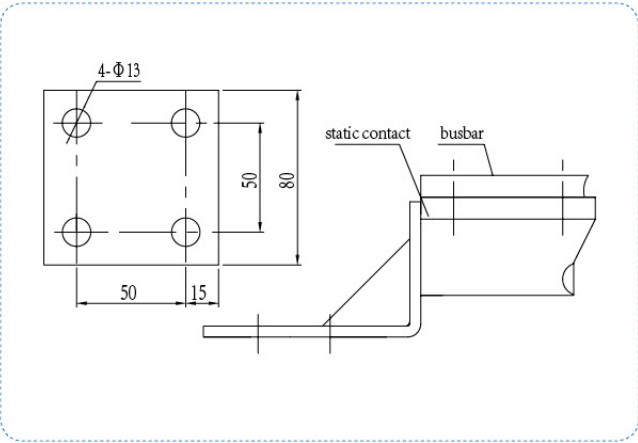
No.	Item		Unit	Data
1	Rated voltage		KV	12
2	Rated short time withstand current		KA	50
3	Rated short circuit withstand time		S	4
4	Rated short circuit making current		KA	100
5	Rated peak withstand current		KA	100
6	Rated insulation level	1 min power frequency withstand voltage	KV	42
		Lightning Impulse withstand voltage		75
7	Mechanical life		TIMES	2000



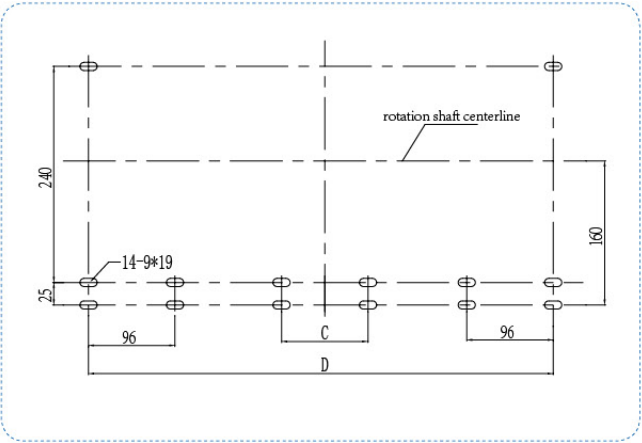
◎ JN17-12/50 earthing switch(ES-10/31.5) Outline and installation dimension



◎ Copper terminal block



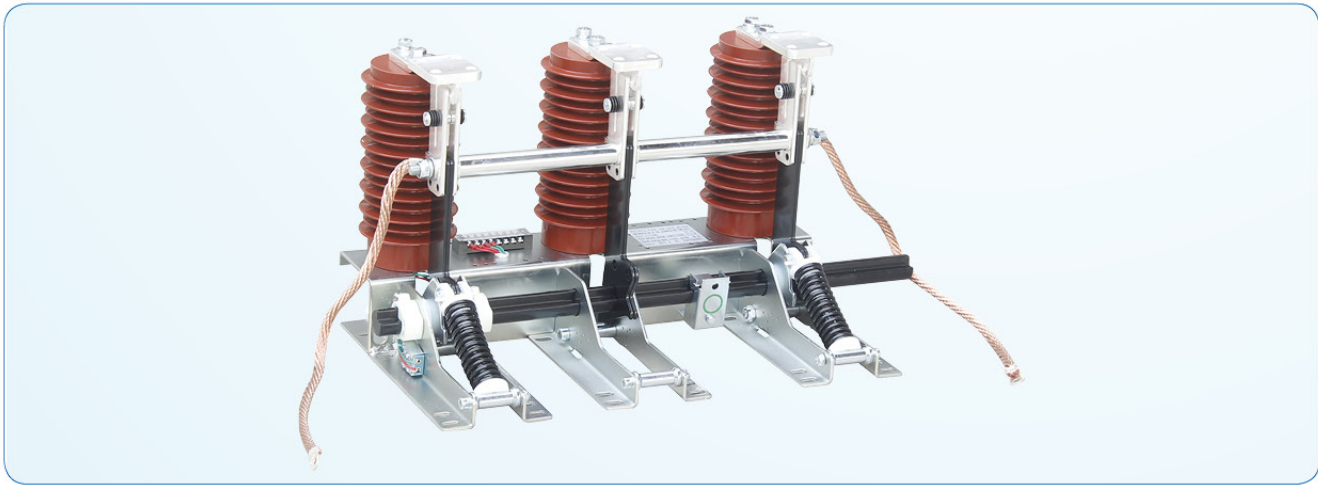
◎ Hole location diagram



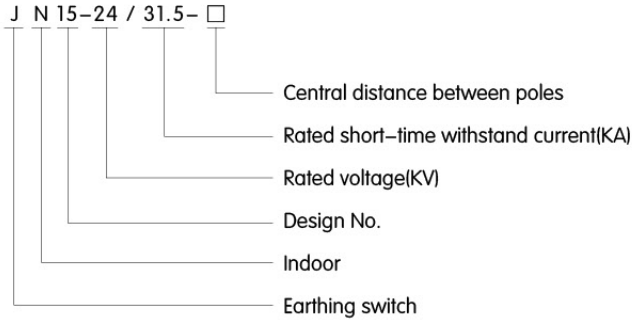
(Unit:mm)

Specification	E	F	G	H	D
JN17-12/50-210	210	50	185	655	516
JN17-12/50-220	220	50	185	675	536
JN17-12/50-230	230	50	185	695	556
JN17-12/50-250	250	50	185	735	596
JN17-12/50-275	275	50	210	810	646

Order notes:Indicate product specification, central distance between poles, if the electric live display(model number of display) needed or not.
Please note the soft link length when ordering (normal L=250mm).
Please consult us if you have any special request.



◎ Product definition



◎ Introduction

JN15-24/31.5 Series indoor earthing switch is a new design and improved on the JN15 type (the installation size does not change). It is suitable for electric power system with 20~24KV, three-phase and AC 50(60)Hz. As an earthing protection, it can be used in various kinds of HV switchgears. It meets GB1985-2004 and IEC129 standard.

◎ Working condition

- Ambient temperature: -10℃ ~ +40℃ ;
- Altitude: ≤ 1000m;
- Relative humidity: Daily average ≤ 95%, Monthly average ≤ 90%
- Earthquake intensity: ≤ 8 degree;
- Class of pollution: II .

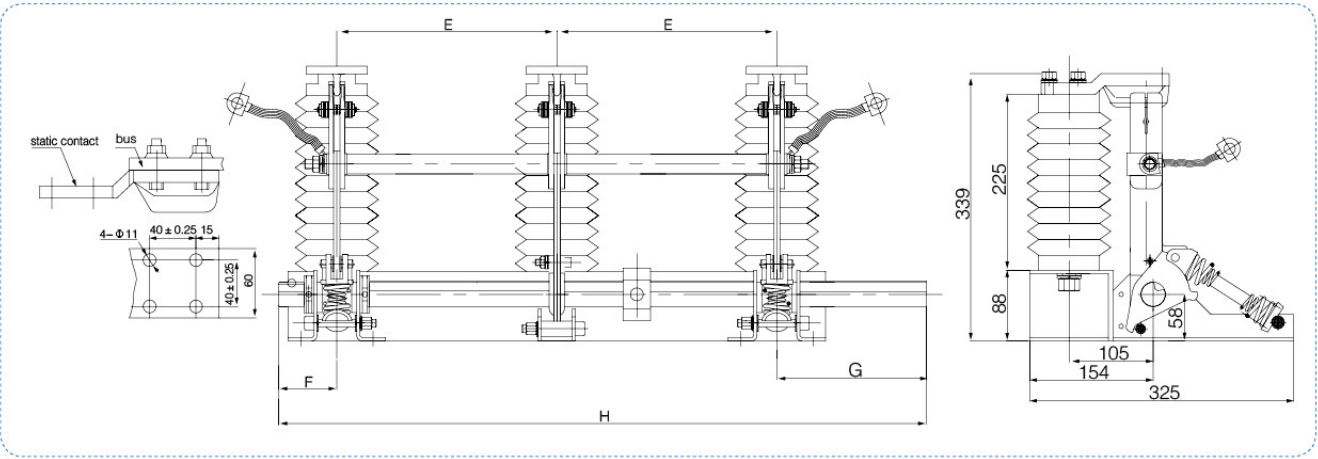
◎ Mainly technical specification

No.	Item	Unit	Data
1	Rated voltage	KV	24
2	Rated short time withstand current	KA	31.5
3	Rated short circuit withstand time	S	4
4	Rated short circuit making current	KA	80
5	Rated peak withstand current	KA	80

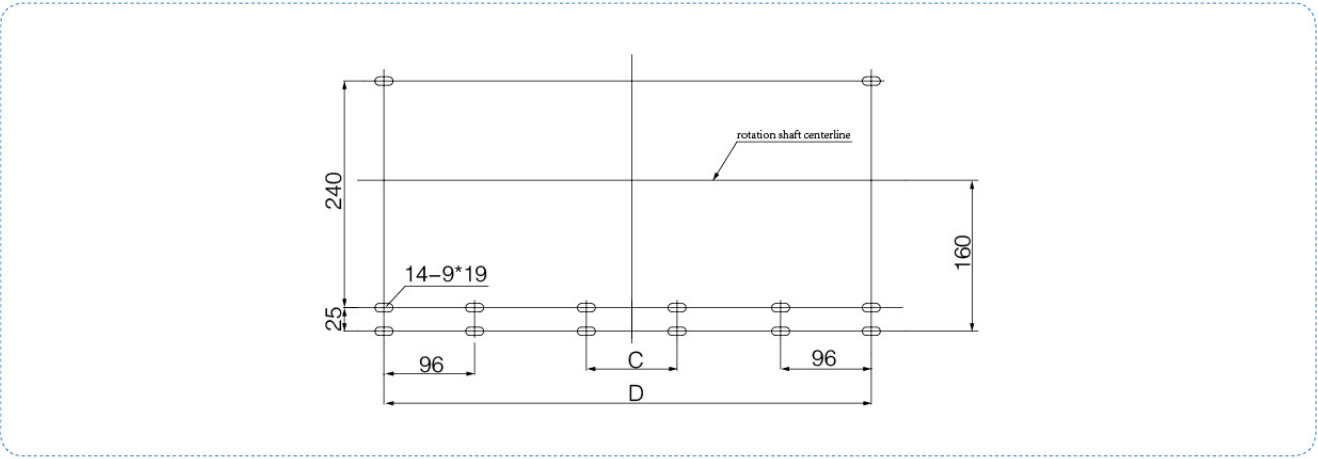


No.	Item		Unit	Data
6	Rated insulation level	1 min power frequency withstand voltage	KV	65
7		Lightning Impulse withstand voltage		95
8	Mechanical life		TIMES	2000

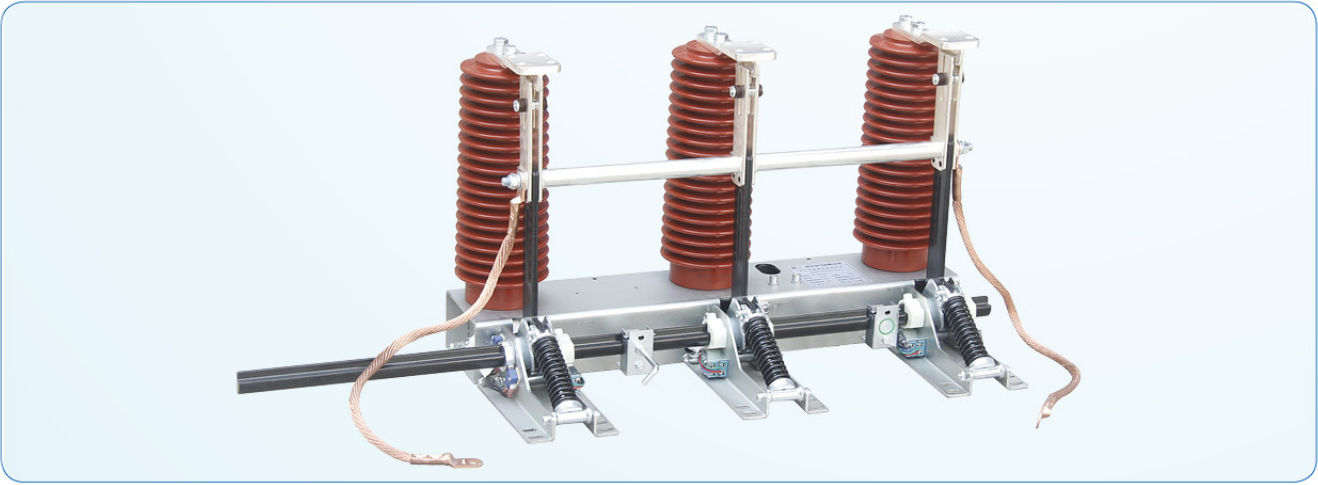
◎ Installation drawing and hole location diagram



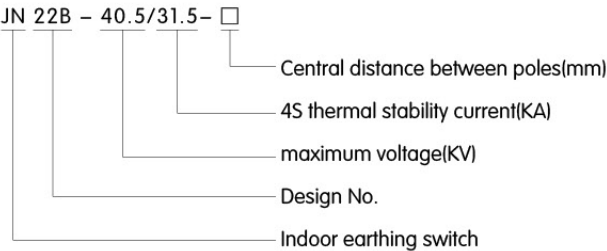
◎ Hole location diagram



Specification	E	F	G	H	D	C
JN15-24/31.5-210	210	75	160	655	516	
JN15-24/31.5-220	220	75	160	735	536	
JN15-24/31.5-230	230	75	160	810	556	96
JN15-24/31.5-250	250	75	160	810	596	96
JN15-24/31.5-275	275	75	185	810	646	96



◎ Product definition



◎ Introduction

JN22B-40.5/31.5 series indoor HV earthing switch is researched and developed by XI'AN HV Electric research organization, with advanced design and steady performance, simple structures, simple mounting end adjustment, suitable for electric power system with 40.5KV, Three-phase, AC 50Hz.As an earthing protection, it can be used in KYN □ - 40.5 or other kinds of switchgears. It is complied with GB 1985-2004 and IEC129 standard.

◎ Working condition

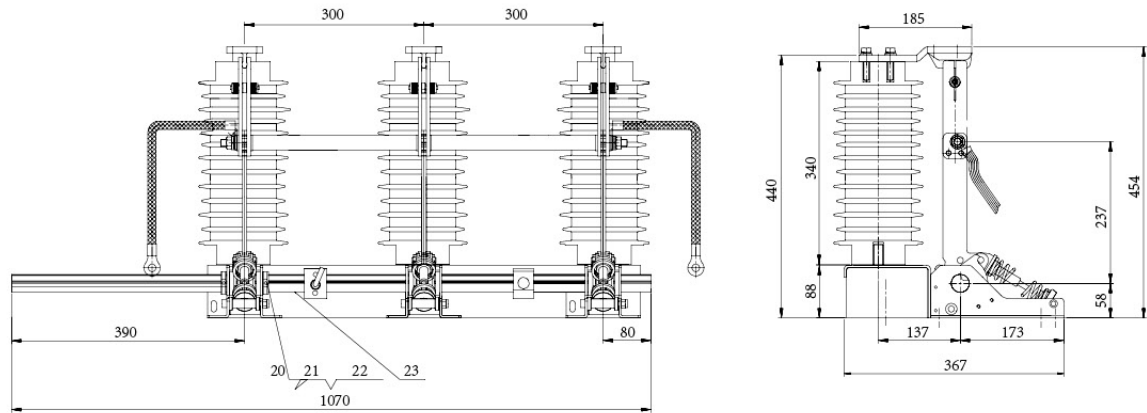
- Altitude: ≤ 1000m;
- Ambient temperature:-10℃ ~+40℃ ;
- Earthquake intensity: ≤ 8 degree;
- Applicable in the place without corrosive, flammable gas and water place.

◎ Mainly technical specification

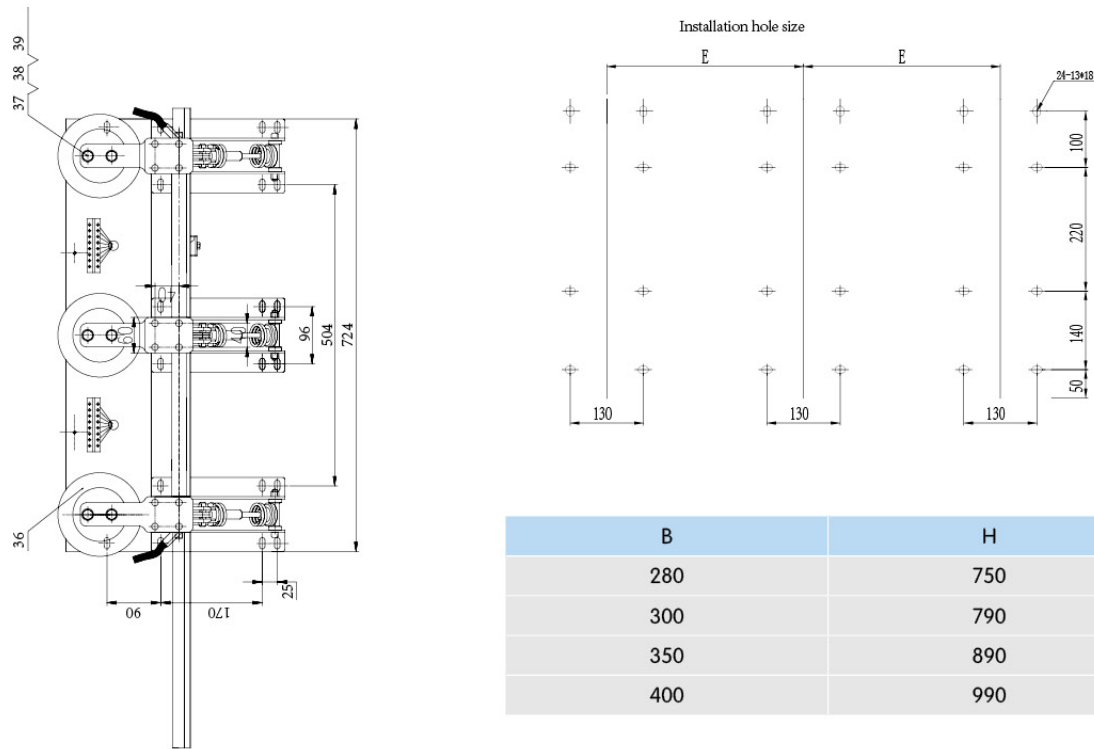
No.	Item		Unit	Data
1	Rated voltage		KV	35
2	Maximum voltage		KV	40.5
3	Rated short time withstand current		KA	31.5
4	Rated short circuit withstand time		S	4
5	Rated short circuit making current		KA	80
6	Rated peak withstand current		KA	80
7	Rated insulation level	1 main power frequency withstand voltage	KV	95
		Lightning Impulse withstand voltage		185
8	Central distance between poles		MM	300; 350; 400



Outline and installation dimension



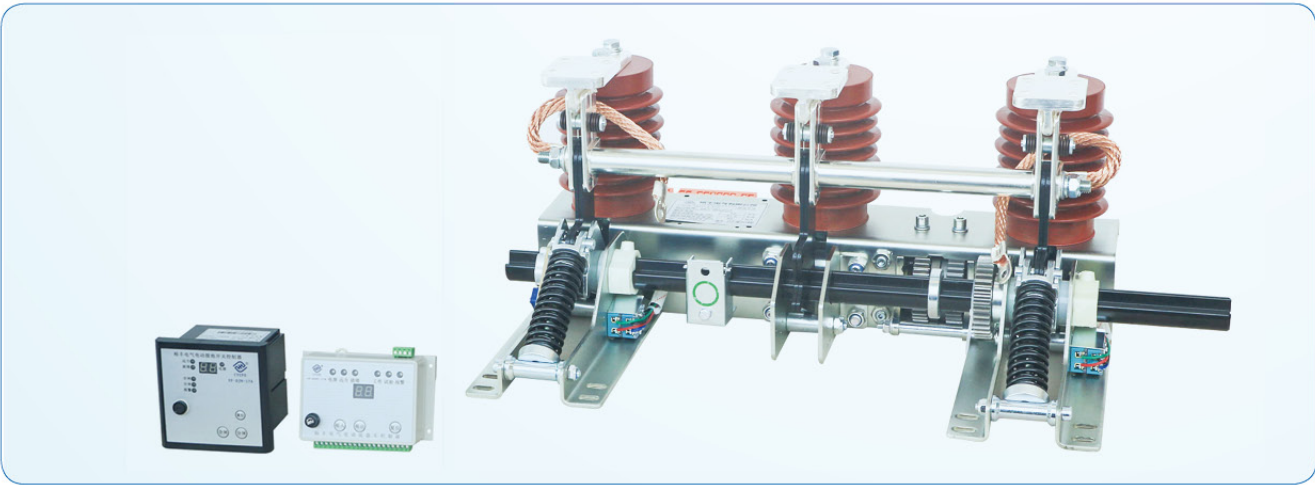
Cabinet backwards



B	H
280	750
300	790
350	890
400	990

Order notes:

- 1.Indicate product specification, rated voltage stability current, central distance between poles.
- 2.If bevel gear mechanism needed,please indicate right or left operation mechanism according to the operation position shows in the drawing above.
- 3.If sensors with electric display device needed, please indicate type NO.
- 4.Please consult us if any special request.

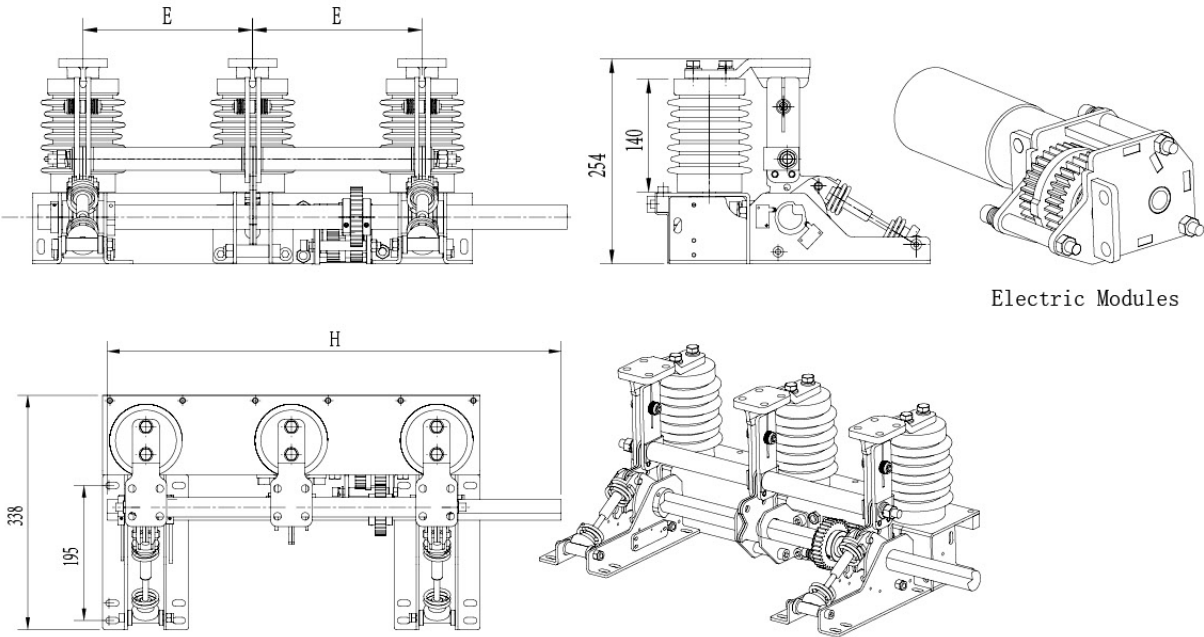


General

The controller of DJN15-31.5 earthing switch can realize the control and protection of motor operating mechanism. If the electric mechanism has difficulty in driving the motor, for example the installation is not in place or the mechanism is stuck, which reaches the protection condition, the controller can break the motor immediately and drive motor reversely to release the stuck state of the chassis.

Introduction

In order to adapt to the development of power switchgear, we developed the electric earthing switch which achieves national invention patent. To maintain the style and the relevant interlock of the original switchgear, the electric earthing switch adds motor operating mechanism on the basis of original earthing switch JN15, JN17, JN22B and JN22 series. It could maintain the characteristics of the original earthing switch and realize the electric operation of the earthing switch at the same time. And the electric and manual operation do not need to switch, which satisfies the requirement of programmed operation in the power system.

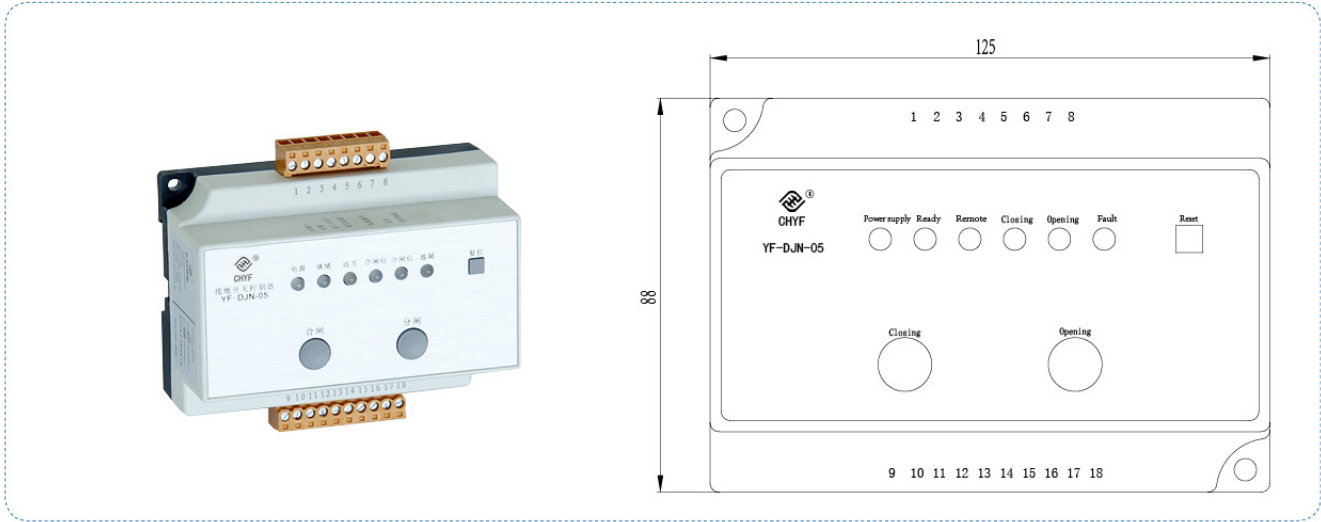


Electric Earthing Switch Assembly

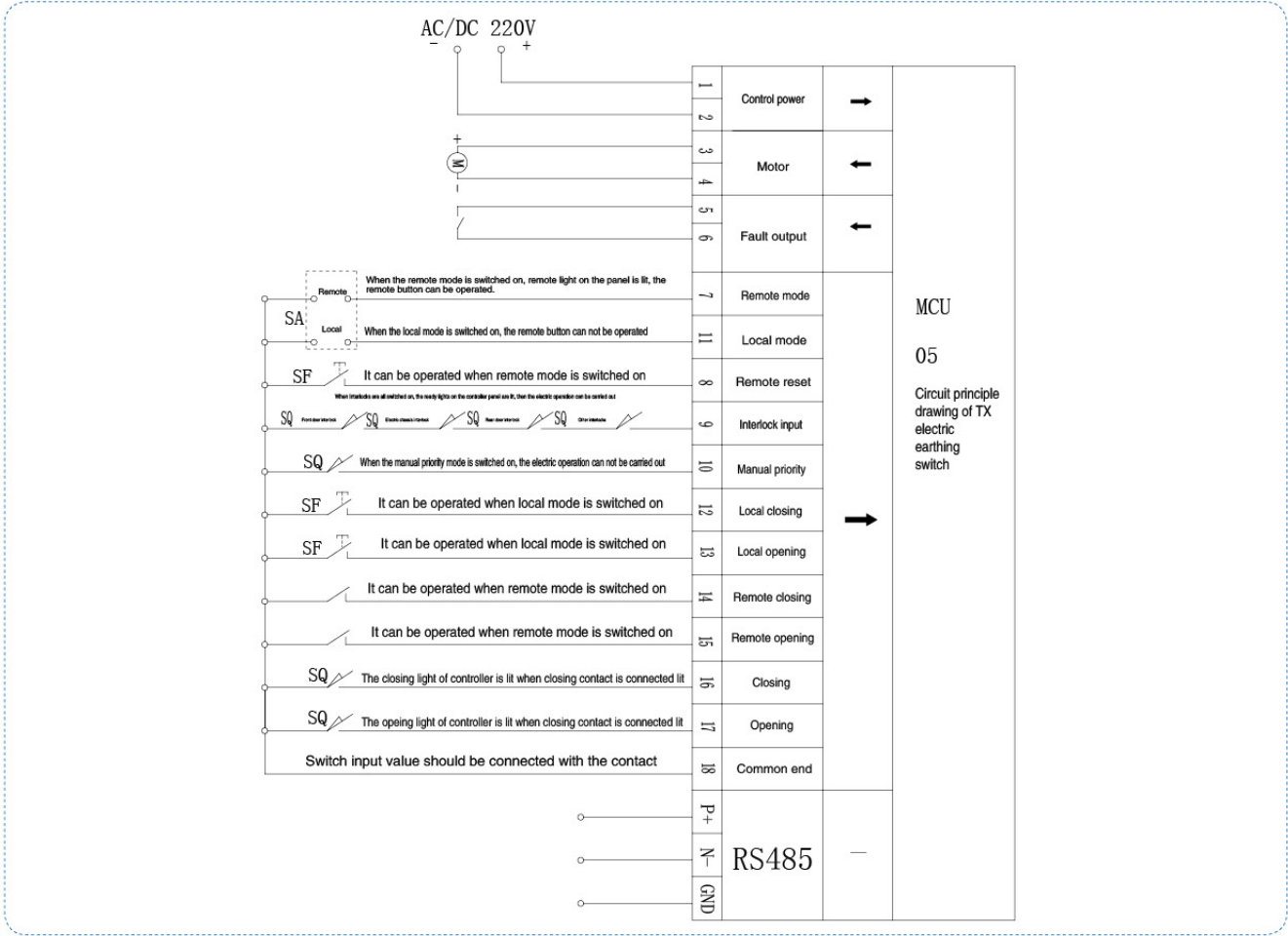


1	Power L/+	Positive or L controller power supply
2	Power N/-	Negative or N controller power supply
3	Motor +	Driving signal output of controller, connect to driving motor “+”
4	Motor -	Driving signal output of controller, connect to driving motor “-”
5.6	Fault alarm	NO contact.Open when there is no locked rotor fault, and close when there is locked rotor fault.
7	Remote	It is remote operation mode when it is short-circuit connected with the common port of digital input.
8	Remote reset	Effective when it is short-circuit connected with the common port of digital input.
9	Interlock input	Effective when it is short-circuit connected with the common port of digital input.
10	Manual prior	It is manual operation mode when it is short-circuit connected with the common port of digital input, and is electric operation mode when it is disconnected with the common port of digital input;
11	Local	It is local operation mode when it is connected with the common port of digital input;
12	Remote closing	Effective when it is short-circuit connected with the common port of digital input
13	Closing opening	Effective when it is short-circuit connected with the common port of digital input
14	Closing	Effective when it is short-circuit connected with the common port of digital input
15	Opening	Effective when it is short-circuit connected with the common port of digital input
16	Common port	Common port of digital input signal
P+		
N-		485 Communication port
GDN		

Electric controller dimensions



Circuit schematics of MCU 05 TX electric earthing switch controller



Instructions of indicators, buttons and contacts of the controller

Button	Closing	The controller allows operation. After pressing the button: 1. When the system is in the standby state, the motor will start to move to the working position; 2. When the system is in the working position, the command will not be responded.
	Opening	The controller allows operation. After pressing the button: 1. When the system is in the standby state, the motor will start to move to the test position; 2. When the system is in the test position, the command will not be responded.
	Emergency stop/reset	When the controller is in the lock state for protection, red protection indicator on the panel lights up, pressing the button will let the system return to standby state. If the button is pressed while the system is in the working position or the test position, the motor will immediately be braked and return to standby state.
Indicator lamp	Power supply	Power indicator that will go on and is green at power on, and go off at power off.
	Ready	Ready indicator that will go on and is green at ready, and go off if not.
	Remote	Remote operation indicator that will go on and is white in remote mode, and go off in local mode.
	Closing	Normally on and is red when the electric mechanism is in work position.
	Opening	Normally on and is red when the electric mechanism is in test position.
	Fault	Normally on and is red when the system protection lock starts, and go off when it is reset.



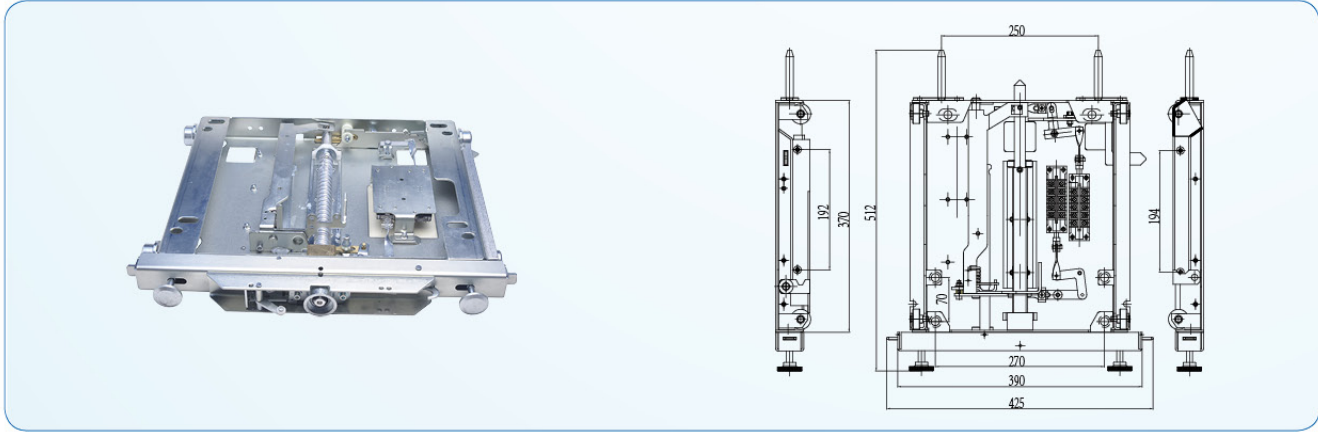
1	Power L/+	Positive or L controller power supply
2	Power N/-	Negative or N controller power supply
3	Motor +	Driving signal output of controller, connect to driving motor “+”
4	Motor -	Driving signal output of controller, connect to driving motor “-”
5.6	Fault alarm	NO contact.Open when there is no locked rotor fault, and close when there is locked rotor fault.
7	Remote	It is remote operation mode when it is short-circuit connected with the common port of digital input
8	Remote reset	Effective when it is short-circuit connected with the common port of digital input
9	Interlock input	Effective when it is short-circuit connected with the common port of digital input
10	Manual prior	It is manual operation mode when it is short-circuit connected with the common port of digital input, and is electric operation mode when it is disconnected with the common port of digital input;
11	Local	It is local operation mode when it is connected with the common port of digital input;
12	Local closing	Effective when it is short-circuit connected with the common port of digital input
13	Local opening	Effective when it is short-circuit connected with the common port of digital input
14	Remote closing	Effective when it is short-circuit connected with the common port of digital input
15	Closing opening	Effective when it is short-circuit connected with the common port of digital input
16	Closing	Effective when it is short-circuit connected with the common port of digital input
17	Opening	Effective when it is short-circuit connected with the common port of digital input
18	Common port	Common port of digital input signal
P+		485 Communication port
N-		
GDN		

⦿ Precaution

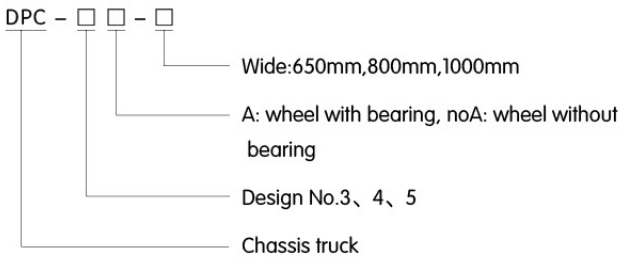
- The limit switches at contact 14, 15 (MCU04 TX electric earthing switch controller) or 16, 17 (MCU05 TX electric earthing switch controller) are earthing switches. It only needs to connect the contact of the controller to the corresponding contacts of the switch.
- During the closing and opening operation of the controller, press the reset button if the alarm light is always on. Pay attention to the positive and negative positions of the motor when wiring the motor.
- It can also be used with the microcomputer protection device together when it is pushing in and out.
- There are two modes, local and remote. Only one mode can work at one time.

⦿ Outline and installation dimension

1、DPC-4A-450 Chassis truck outline and installation dimension (match VD4)



⦿ DPC Chassis truck definition



⦿ DPC- □ - □ Chassis truck order notes

- Indicate the specification of chassis truck, code of lock plate,specification of auxiliary switch (for example: 5 NO, 3 NO & 2 NCetc);
 - Indicate the earthing method;
 - Please consult us if you have any special request.
- Note: The specification of auxiliary switch is not the auxiliary state when chassis truck in testing position.

⦿ Introduction

Chassis truck is mainly used to hold circuit breaker,transformer and other components in the withdrawable switchgear,chassis push and exit them. And chassis as an auxiliary operation for connecting components and busbars.When operation with internal mechanism of circuit breaker and other interlock mechanism of mid-placed cabinet it can satisfy the interlock requirement of “5 preventions” stipulated in GB3906.Specific functions are as follows:

- Only when the handcart is under testing/isolating or working position, the circuit breaker can be closed. After that, the handcart is underlocked state,which prevents misconnection and mismatched isolation contacts with load.
- When the handcart is under working position or away from testing/isolating position for 10mm, the earthing switch fails to close, avoid powered falsemaking of the switch.
- When the earthing switch close, the handcart shall not shift from testing/isolating to working position, avoid the switch closing the circuit breaker inmaking.
- When the chassis enters into cabinet, once away from testing/isolating position, the handcart fails to draw out from the cabinet.

⦿ Lock plate of the chassis truck

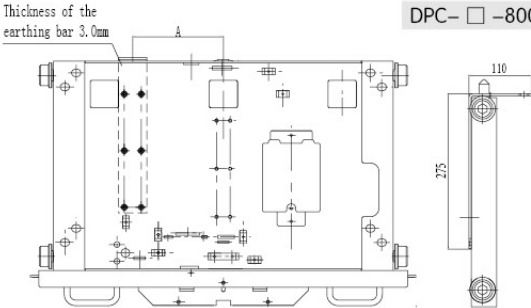
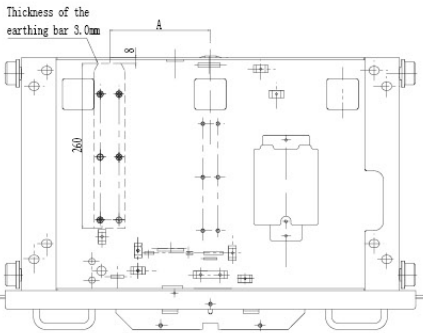


Note: There are five kinds of lock plates for choice, the regular specification is 8YF. 141 .012, if you need other four lock plates please indicate when you place the order.



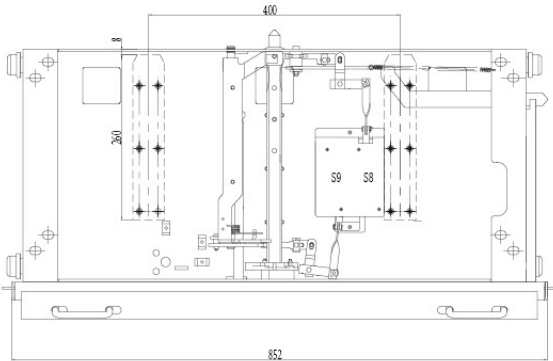
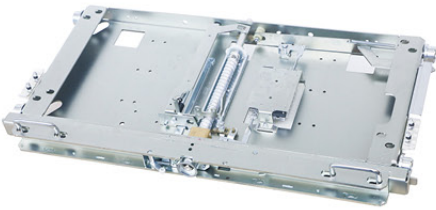
8、Earthing method of chassis truck

(1) Installation of earthing bar(650/800)

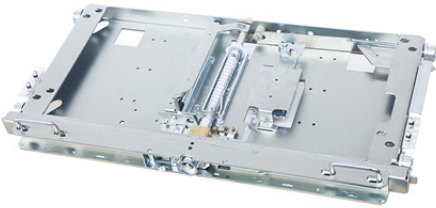


Type	A
DPC- □ -650	100
DPC- □ -800	160

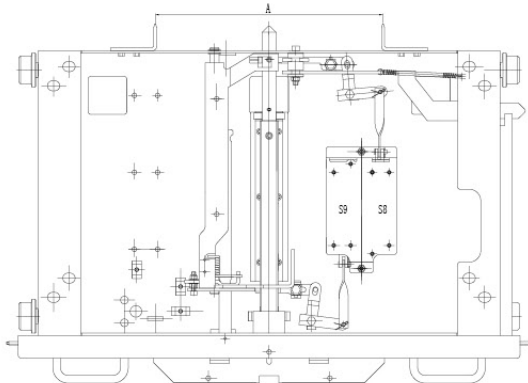
(2) Earthing bar installation (type 1000)



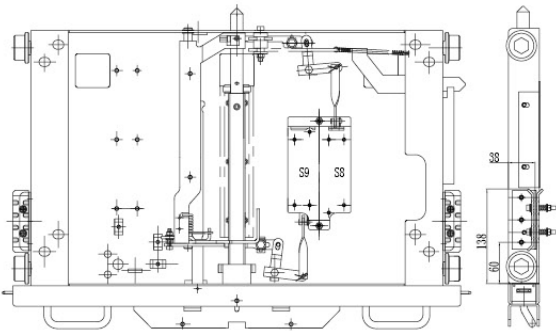
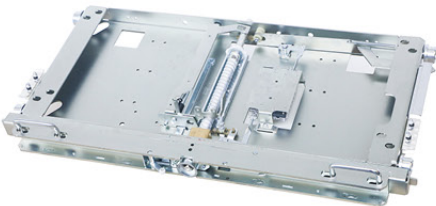
(3) Installation size of earthing contact



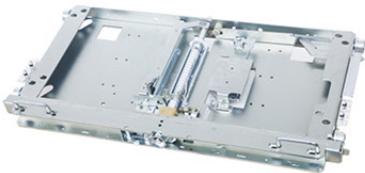
Type	A
DPC- □ -650	180
DPC- □ -800	296
DPC- □ -1000	496



(4) Guide rail earthing(both side)



9、DPC- □ - □ /G/S Chassis truck



DPC chassis truck mid-door interlock function:

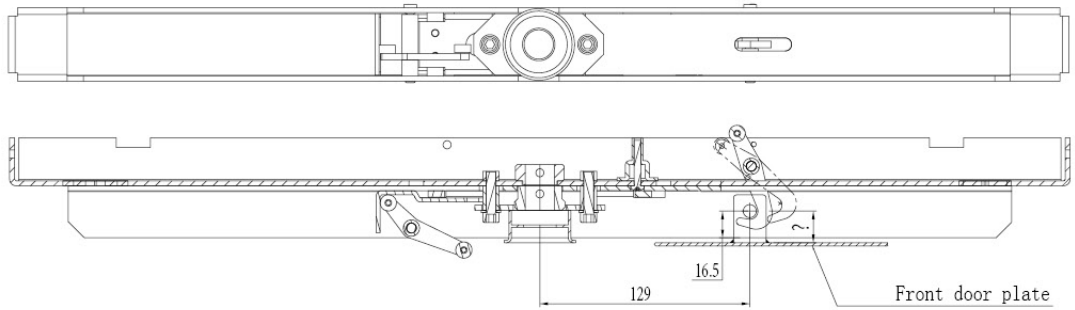
A. DPC-D-EI/G chassis truck

This type only add door closing operation, the handle of chassis could be shook only when the cabinet door closed. Don't need to modify the cabinet door

B. DPC-EJ-EI/S chassis truck

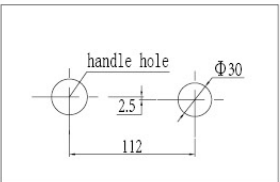
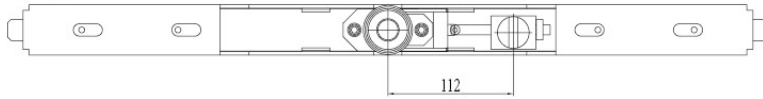
This type add locking on item A, when the handcart moves away from testing position, the door will be locked, which can be opened again only when the handcart back to the testing position. The cabinet door need to be changed.

© Mid-door interlock assembly drawing

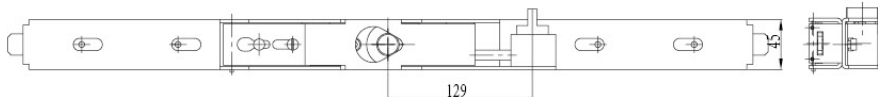


© Program interlocked chassis (Two-input-one interlocking device)

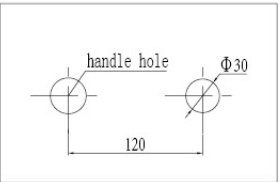
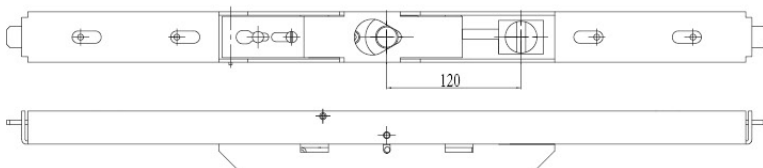
1 Type (The door of cabinet needs to have openings)



2 Type (The door of cabinet does not need to have openings)



3 Type (The door of cabinet needs to have openings)





Overview of DDP-4-800 electric chassis

To meet the development of the power switching devices and the new demand of power divisions, we have developed the electric chassis which fills the domestic blank and achieves national patent for invention. To maintain the style of the original chassis used in the center console. The electric chassis is improved with an electric mechanism from the original chassis 650#, 800#, 1000# and 24KV# series, which maintains the character of the original chassis and achieves the electric operation of the chassis's working position and test position. Therefore, the electric operation and manual operation do not need to be switched, which satisfies the requirements of programmed operation in the power system.

Introduction

The controller of chassis can achieve the control and protection for the electric mechanism, the controller can brake the motor immediately when the motor-driven drive motor is blocked (for example, installation is not in place or mechanism is stuck) and reach the protection condition and reversely drive motor to release the stuck state of the chassis.

Operating Instructions of the electric chassis

- Only when the grounding switch and circuit breaker are at opening states, the chassis is allowed to be swung in and out.
- When the chassis is equipped with manual priority function, under manual operation status, the electric button for swing in and out is pressed without any action.
- When the chassis is not at working position and test position under natural state, if it is needed to be swung in the working position by electric operation, the chassis must be swung in the test position by manual or electric operation first, then it is moved to the working position by electric operation.
- When it needs manual operation after electric operation, the handle must be inserted into it and rotate it about 80° , then reversely rotate it about 30° .
- In case that the handle of chassis can not be pulled, to observe whether the angle of the screw rod is in the correct position.
- If the operation needs an emergency stop during electric operation process, or there is fault which is solved, just press the reset button.

Technical parameters

- Power voltage: AC/DC 220V, AC/DC 110V
- Rated motor voltage: DC220V, DC110V
- Allow motor rated power: Max. 300W
- Power: $< 2W$
- Power frequency withstand voltage: AC2.5KV 1min
- Output contact: 1NO.3A, AC 250V
- Protection class: IP20
- Operating ambient temperature: -20°C to $+50^\circ\text{C}$
- Dimensions: L * W * H=125*78*69
- Installation: door panel installation

Motor parameters

- Power voltage: AC/DC220V, AC/DC110V
- Rated motor voltage: DC220V, DC110V
- Rated motor power: 200W
- Rated motor torque: 260N/m
- Motor rotation speed: 50r/min

Control Instructions of the chassis

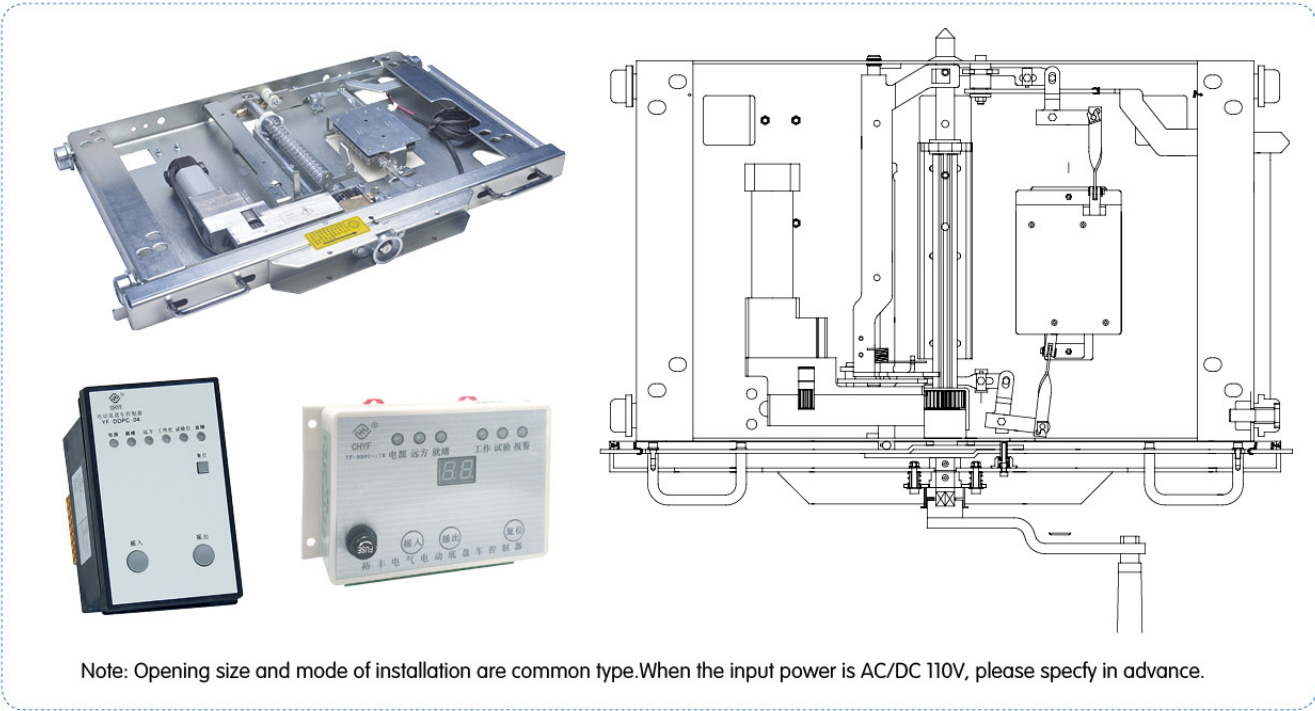
The control logic

- The electric pushing operation is allowed when the interlock signal is satisfied.
- During the electric operation, when input the pushing in/out command and the controller still performs the original operation.
- During the electric operation, if press pushing in/out button on the panel at the same time or the interlock signal is invalid, the controller will stop operation.
- When the locked-rotor protection condition is satisfied, the controller let the mechanism rotate reversely for 200ms after stopping the mechanism; 15s before swinging in, the locked-rotor protection current setting value is set to 1.2A and 4A after 15s; 7s before swinging out, it is set to 4A, and 1.2A after 7s.
- The electric pushing in/out operation is limited within 80s. When the time is up and the chassis is not in the position, it will stop and alarm.

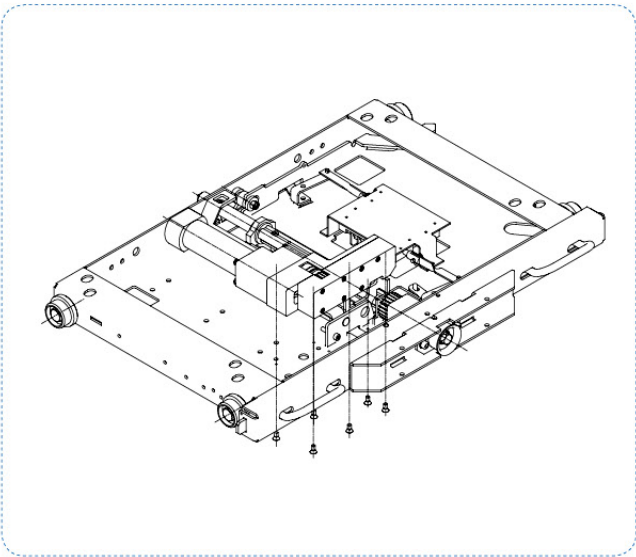
Precautions

- The limit switch at contacts 16 and 17 is the S9 and S8 auxiliary switches of the handcart. It only needs to connect the controller contacts to the corresponding contacts of S9 and S8.
- During the electric operation of the controller, press the reset button if the alarm light is always on.
- Pay attention to the positive and negative positions of the motor when wiring the motor.
- It can also be used with the microcomputer protection device together when it is pushing in and out.
- There are two modes, local and remote. Only one mode can work at one time.
- When the handcart is not in the test position during electric operation, it must be pushed out to the test position so that the electric operation can be pushed into the working position.

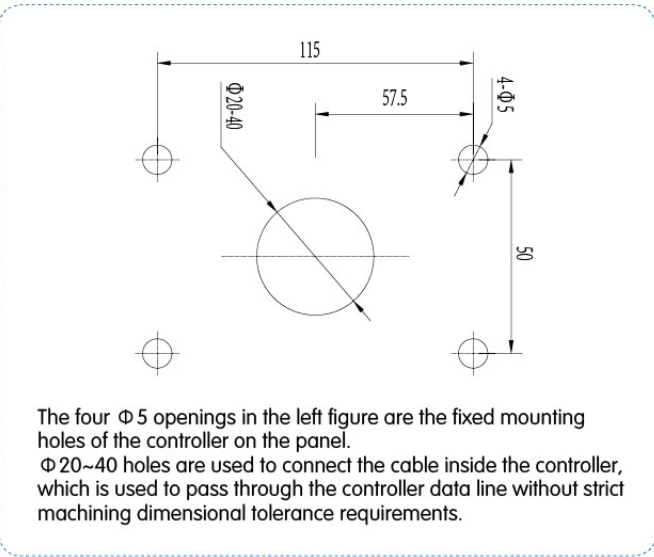
DDPC-4-800 Outline and installation dimension of electric chassis



Electric chassis assembling

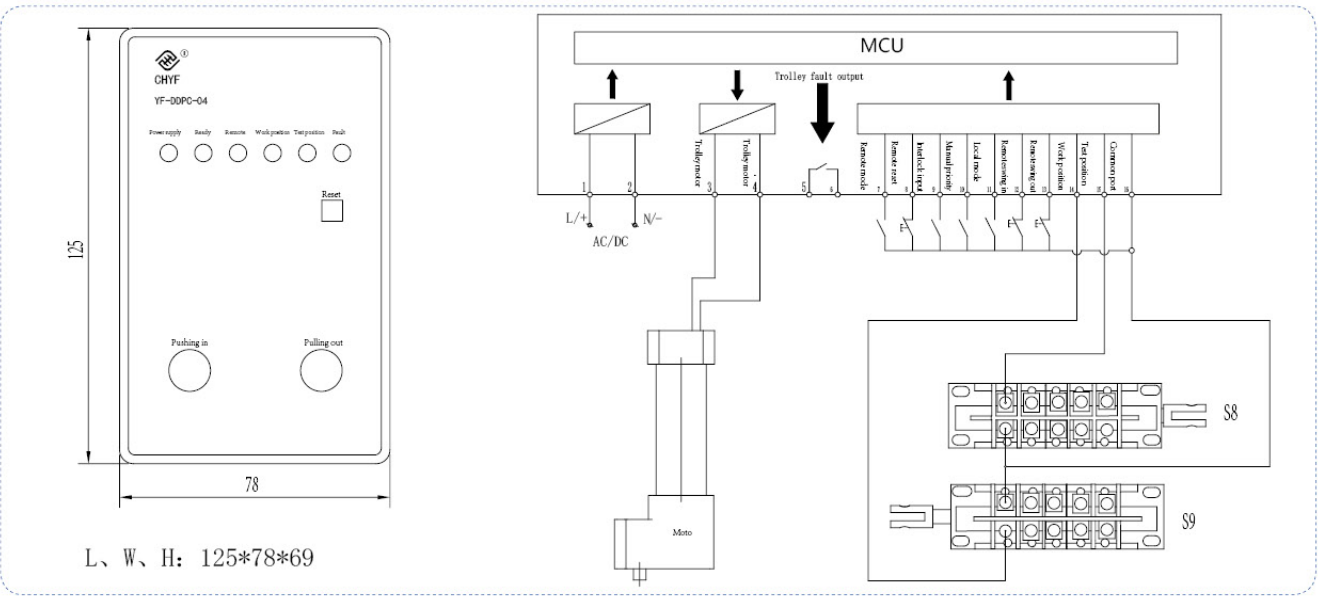


Installation opening size of panel controller

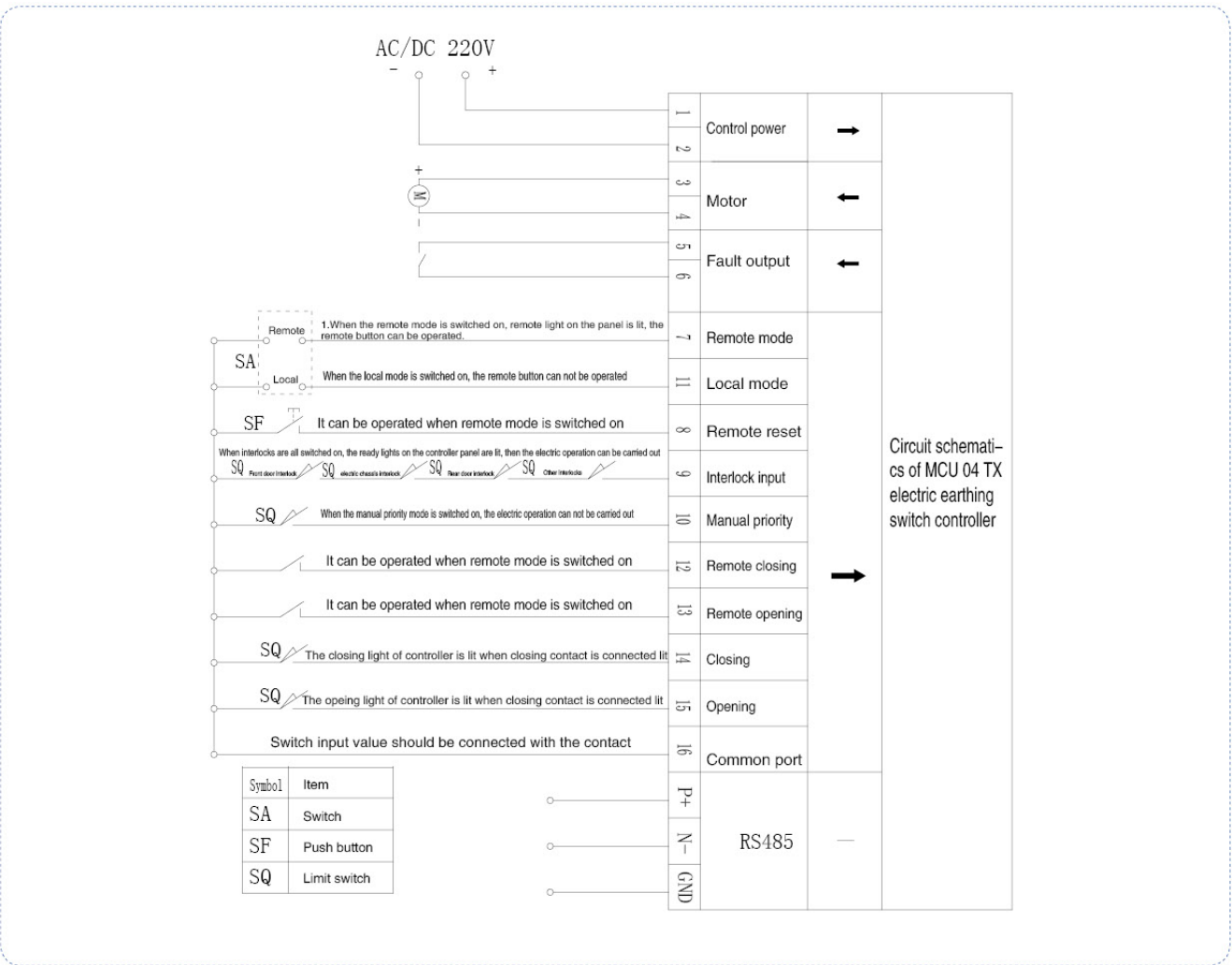




④ Dimensions and wiring diagram of panel controller of the electric chassis



④ Circuit schematics of MCU 04 TX electric chassis controller

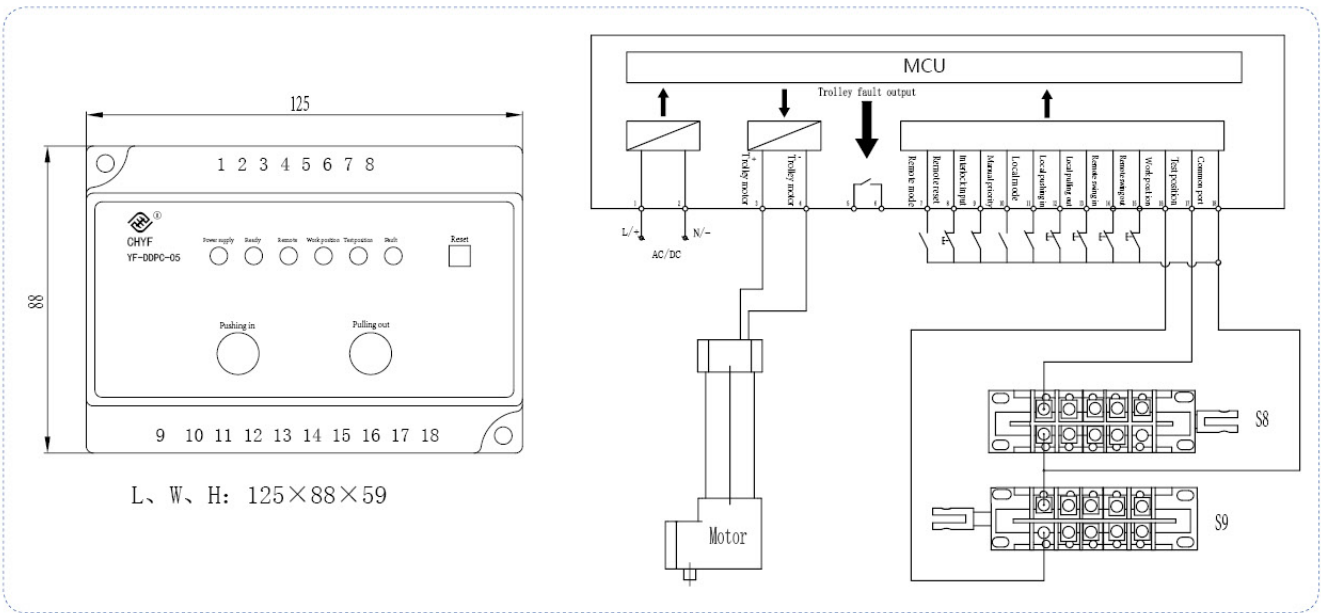


④ Instructions of indicators, buttons and contacts of the controller

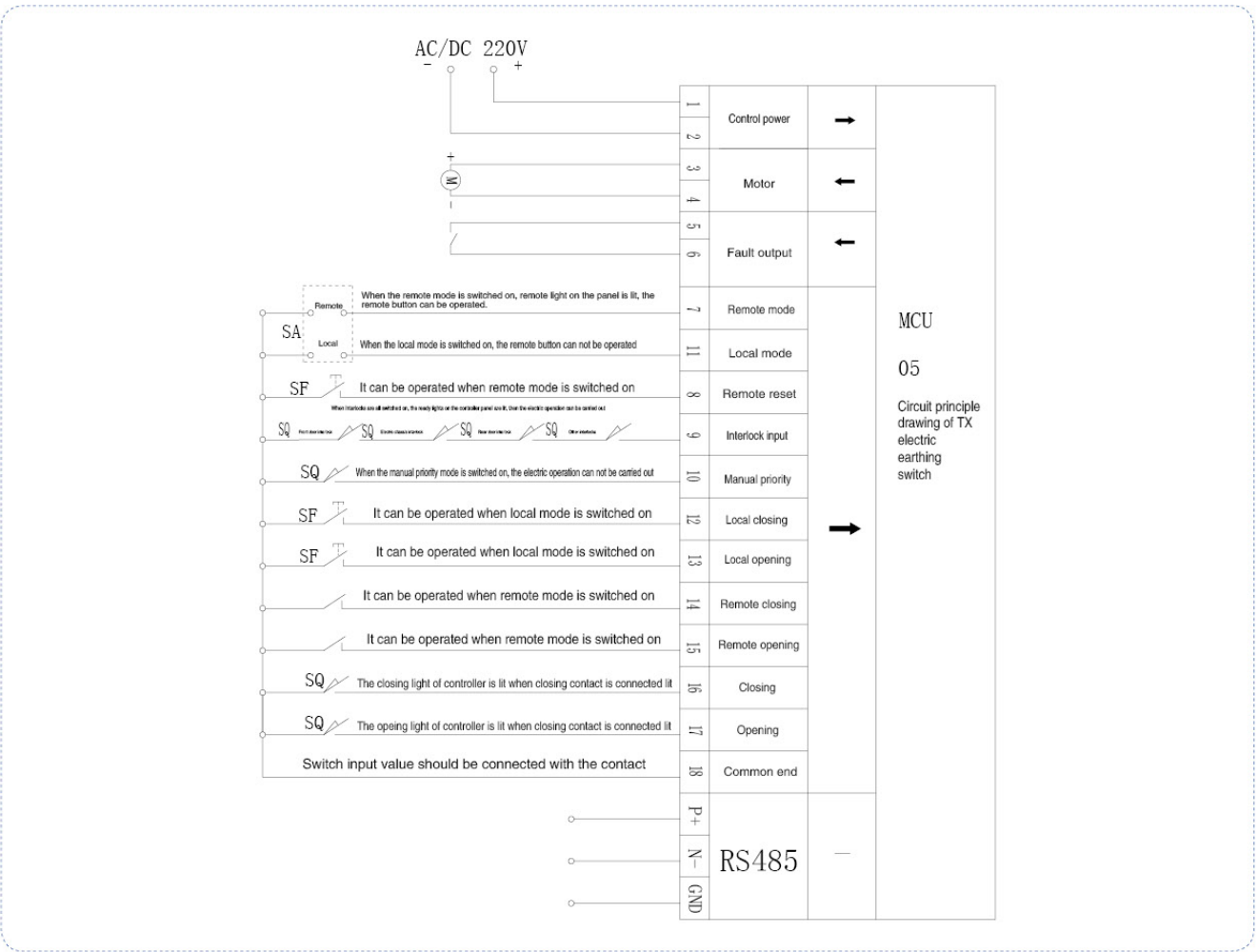
Button	Pushing in	The controller allows operation. After pressing the button: 1. When the system is in the standby state, the motor will start to move to the working position; 2. When the system is in the working position, the command will not be responded.
	Pushing out	The controller allows operation. After pressing the button: 1. When the system is in the standby state, the motor will start to move to the test position; 2. When the system is in the test position, the command will not be responded.
	Emergency stop/reset	When the controller is in the lock state for protection, red protection indicator on the panel lights up, pressing the button will let the system return to standby state. If the button is pressed while the system is in the working position or the test position, the motor will immediately be braked and return to standby state.
Indicator lamp	Power supply	Power indicator that will go on and is green at power on, and go off at power off.
	Ready	Ready indicator that will go on and is green at ready, and go off if not.
	Remote	Remote operation indicator that will go on and is white in remote mode, and go off in local mode.
	Work position	Normally on and is red when the electric mechanism is in work position.
	Test position	Normally on and is red when the electric mechanism is in test position.
	Fault	Normally on and is red when the system protection lock starts, and go off when it is reset.
1	Power L/+	Positive or L controller power supply
2	Power N/-	Negative or N controller power supply
3	Motor +	Driving signal output of controller, connect to driving motor “+”
4	Motor -	Driving signal output of controller, connect to driving motor “-”
5.6	Fault alarm	NO contact.Open when there is no locked rotor fault, and close when there is locked rotor fault.
7	Remote	It is remote operation mode when it is short-circuit connected with the common port of digital input
8	Remote reset	Effective when it is short-circuit connected with the common port of digital input
9	Interlock input	Effective when it is short-circuit connected with the common port of digital input
10	Manual prior	It is manual operation mode when it is short-circuit connected with the common port of digital input, and is electric operation mode when it is disconnected with the common port of digital input;
11	Local	It is local operation mode when it is connected with the common port of digital input;
12	Remote pushing in	Effective when it is short-circuit connected with the common port of digital input
13	Remote pulling out	Effective when it is short-circuit connected with the common port of digital input
14	Work position	Effective when it is short-circuit connected with the common port of digital input
15	Test position	Effective when it is short-circuit connected with the common port of digital input
16	Common port	Common port of digital input signal
P+		485 communication port
N-		
GDN		



④ Dimensions of electric chassis controller



④ Circuit schematics of MCU 05 TX electric chassis controller

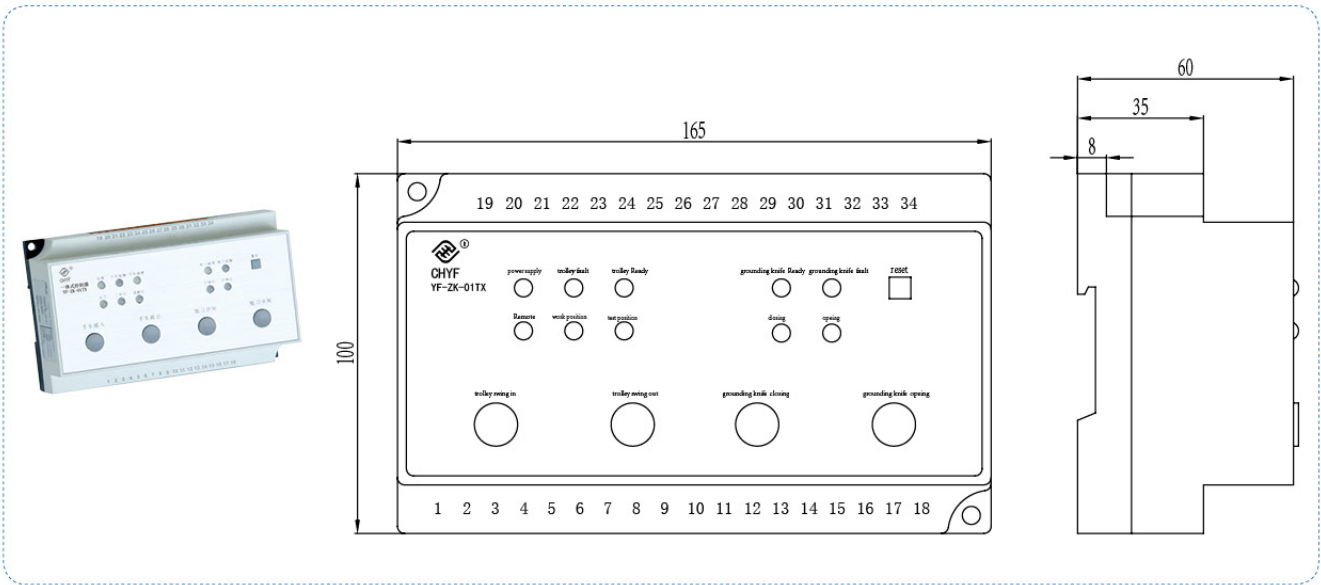


④ Instructions of indicators, buttons and contacts of the controller

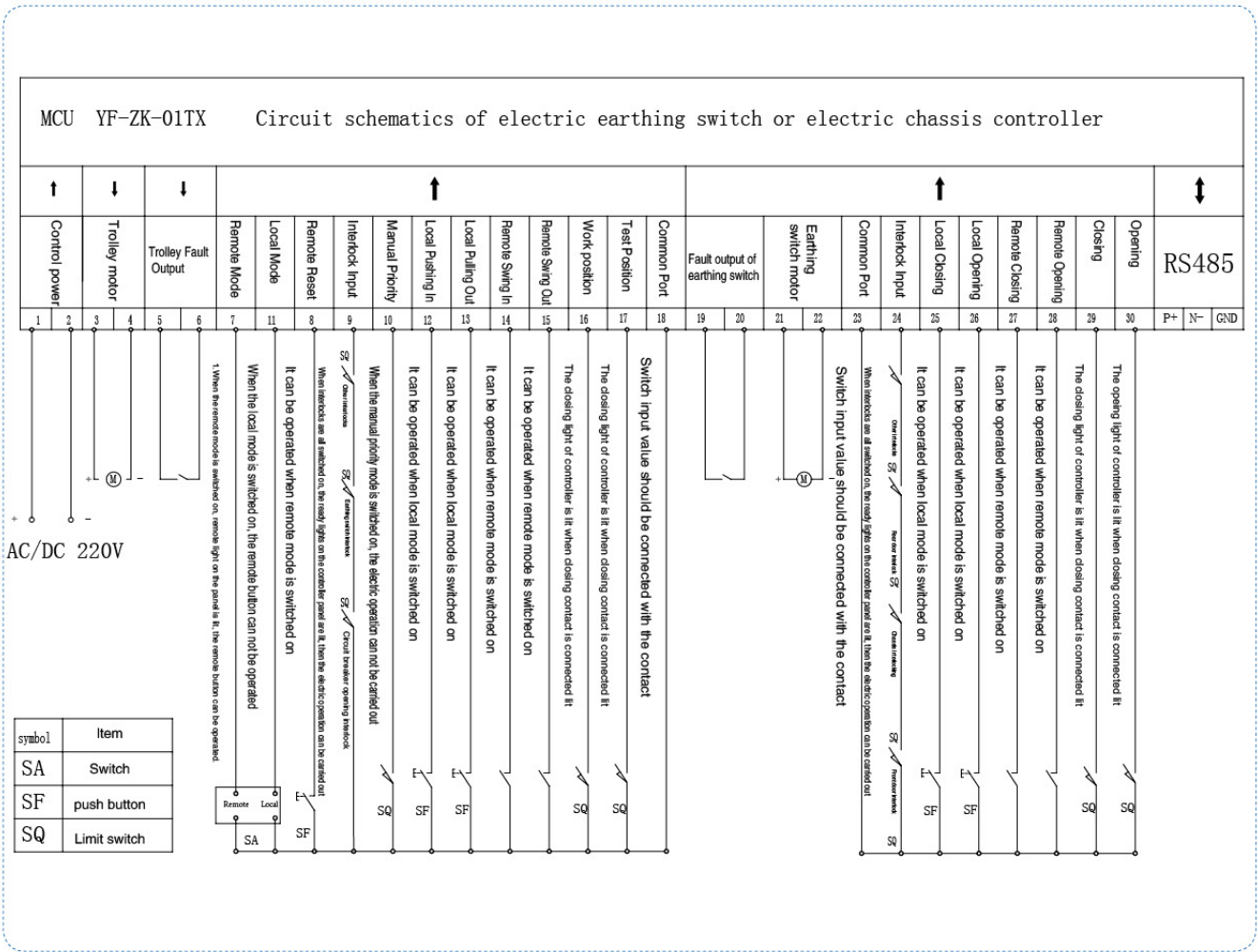
Button	Pushing in	The controller allows operation. After pressing the button: 1. When the system is in the standby state, the motor will start to move to the working position; 2. When the system is in the working position, the command will not be responded.
	Pushing out	The controller allows operation. After pressing the button: 1. When the system is in the standby state, the motor will start to move to the test position; 2. When the system is in the test position, the command will not be responded.
	Emergency stop/reset	When the controller is in the lock state for protection, red protection indicator on the panel lights up, pressing the button will let the system return to standby state. If the button is pressed while the system is in the working position or the test position, the motor will immediately be braked and return to standby state.
Indicator lamp	Power supply	Power indicator that will go on and is green at power on, and go off at power off.
	Ready	Ready indicator that will go on and is green at ready, and go off if not.
	Remote	Remote operation indicator that will go on and is white in remote mode, and go off in local mode.
	Work position	Normally on and is red when the electric mechanism is in work position.
	Test position	Normally on and is red when the electric mechanism is in test position.
	Fault	Normally on and is red when the system protection lock starts, and go off when it is reset.
1	Power L/+	Positive or L controller power supply
2	Power N/-	Negative or N controller power supply
3	Motor +	Driving signal output of controller, connect to driving motor “+”
4	Motor -	Driving signal output of controller, connect to driving motor “-”
5.6	Fault alarm	NO contact. Open when there is no locked rotor fault, and close when there is locked rotor fault.
7	Remote	It is remote operation mode when it is short-circuit connected with the common port of digital input
8	Remote reset	Effective when it is short-circuit connected with the common port of digital input
9	Interlock input	Effective when it is short-circuit connected with the common port of digital input
10	Manual prior	It is manual operation mode when it is short-circuit connected with the common port of digital input, and is electric operation mode when it is disconnected with the common port of digital input;
11	Local	It is local operation mode when it is connected with the common port of digital input;
12	Local pushing in	Effective when it is short-circuit connected with the common port of digital input
13	Local pushing out	Effective when it is short-circuit connected with the common port of digital input
14	Remote pushing in	Effective when it is short-circuit connected with the common port of digital input
15	Remote pulling out	Effective when it is short-circuit connected with the common port of digital input
16	Work position	Effective when it is short-circuit connected with the common port of digital input
17	Test position	Effective when it is short-circuit connected with the common port of digital input
18	Common port	Common port of digital input signal
P+		485 communication port
N-		
GND		



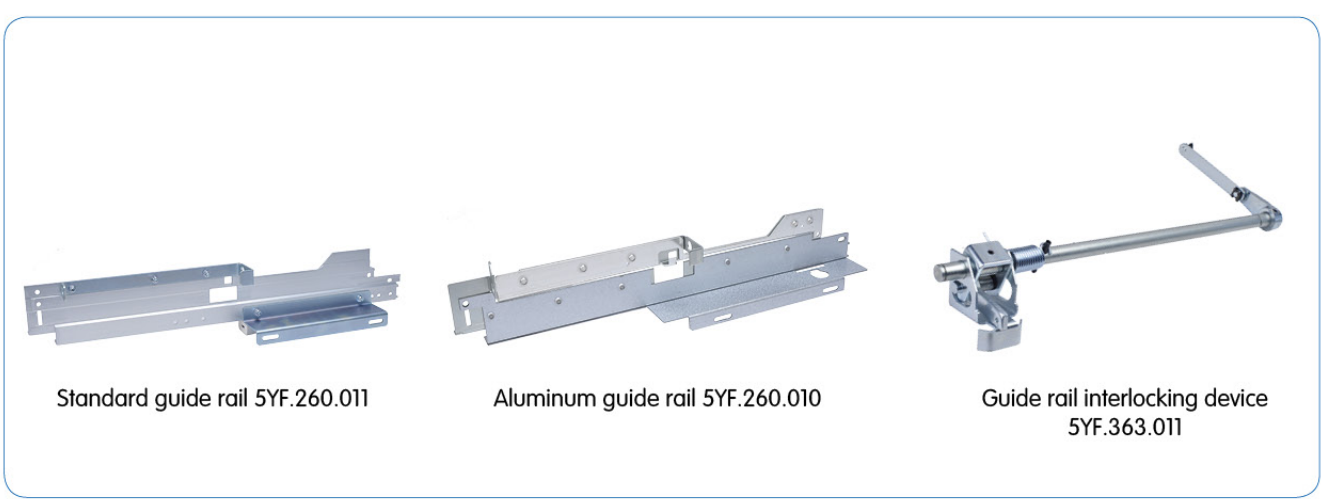
Integrated controller wiring diagram



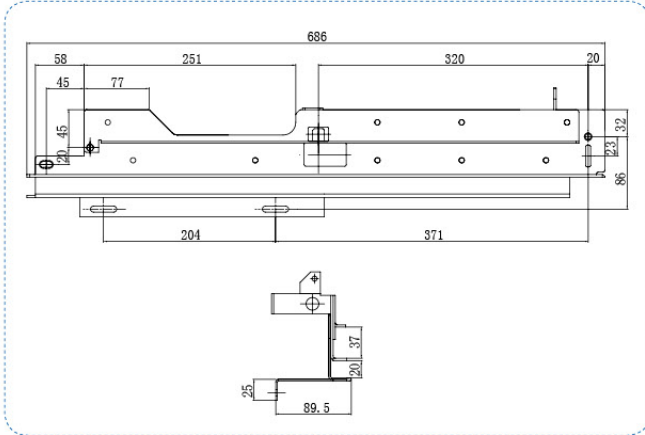
Controller circuit schematics of MCU YF-ZK-01TX electric chassis



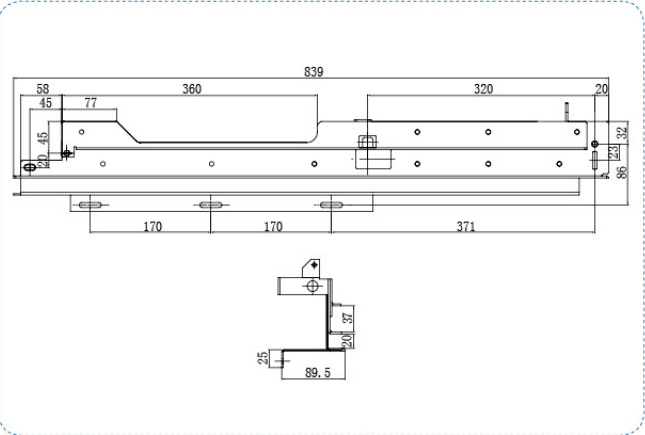
Left and right guide rail series:standard type, lengthen type,suitable for various kinds of circuit breaker handcart



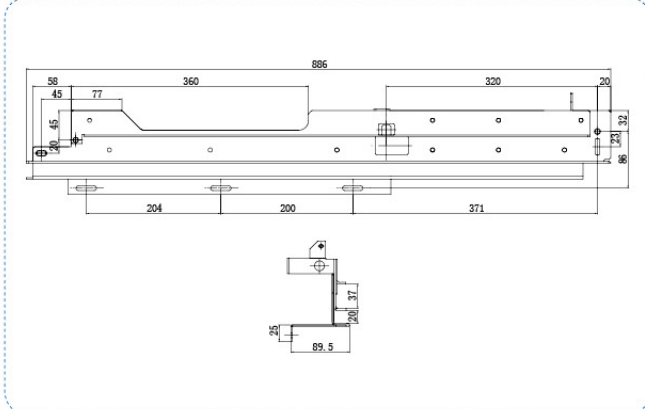
Guide rail 5YF.260.010.1(Standard type)outline and
installation dimension



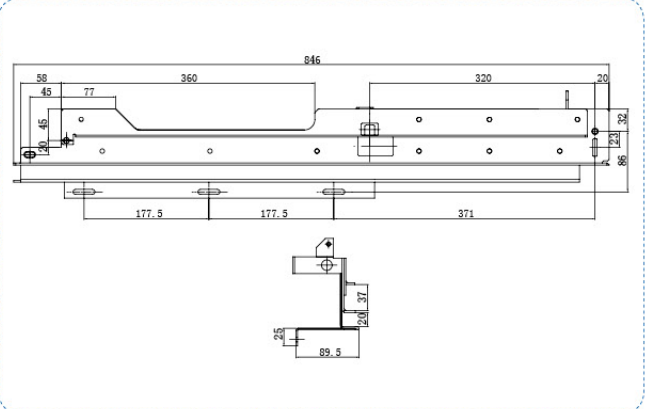
Guide rail 5YF.260.010.1(Lengthentype,lengthen
153mm,suitable for vb2 etc.)



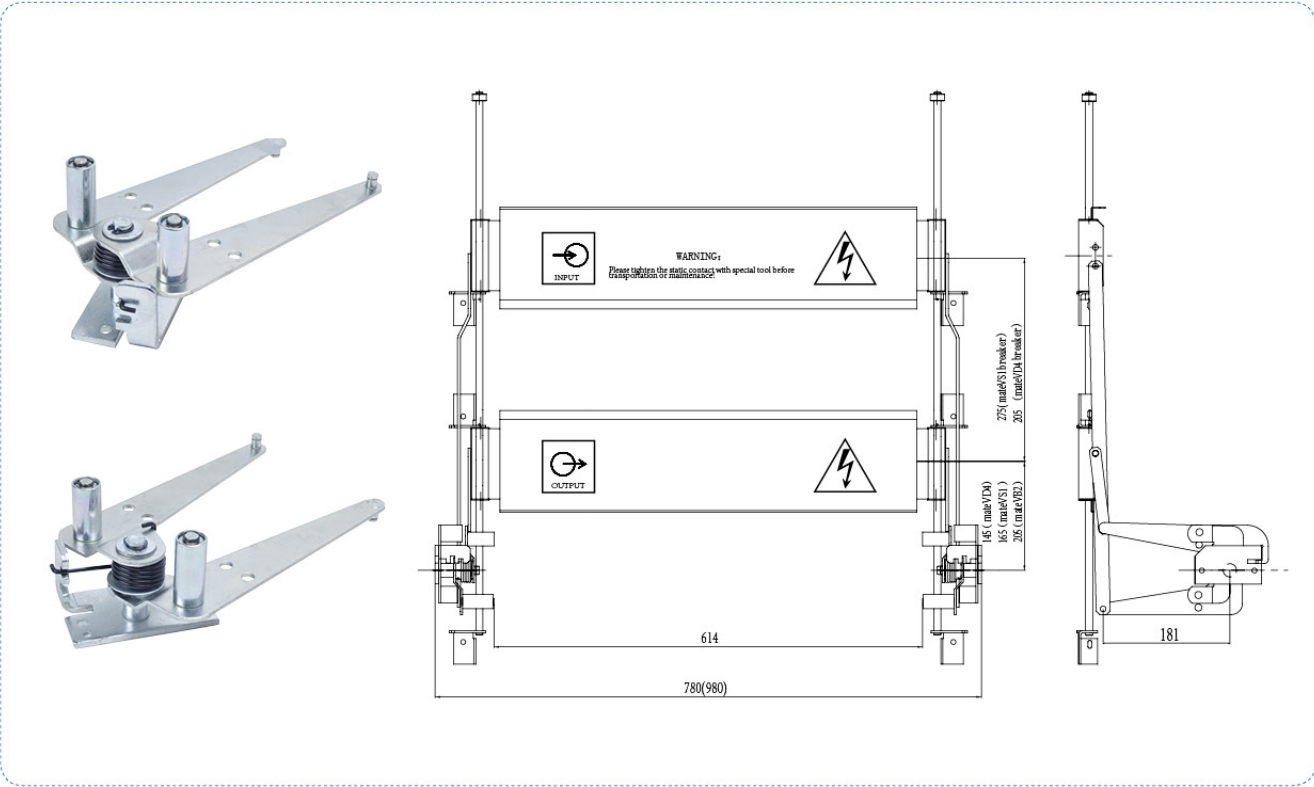
Guide rail 5YF 260.010.3(Lengthen type, lengthen 200mm,
suitable for3ah, zn12, zn65 etc, modified handcart type circuit
breakers)



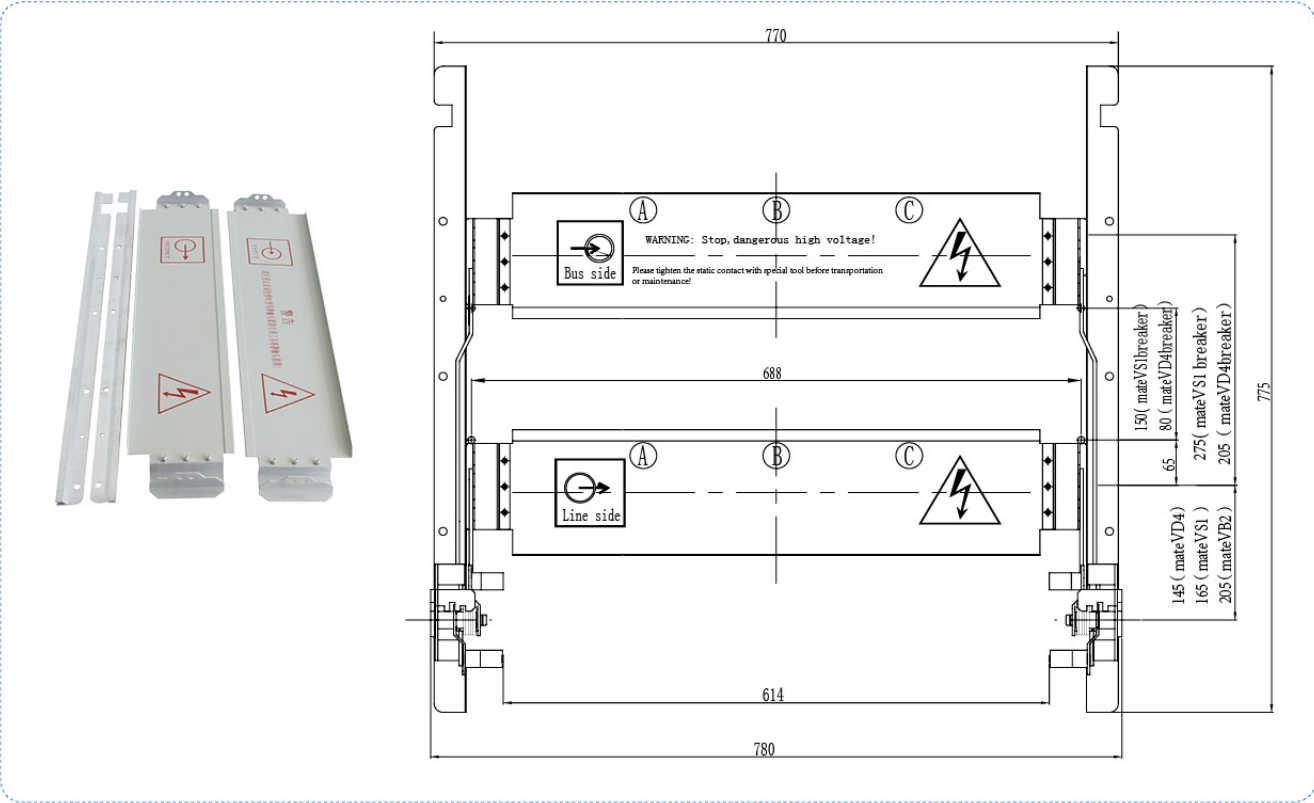
Guide rail 5YF 260.010.4(Lengthen type, lengthen 160mm,
suitable for small current vb2,24KV circuit breaker handcart)



◎ (800mm Mid-placed switchgear cabinet) Shutter mechanism 5YF.320.010 installation drawing



◎ (800mm Mid-placed switchgear cabinet) Shutter mechanism 5YF.320.010.2 installation drawing

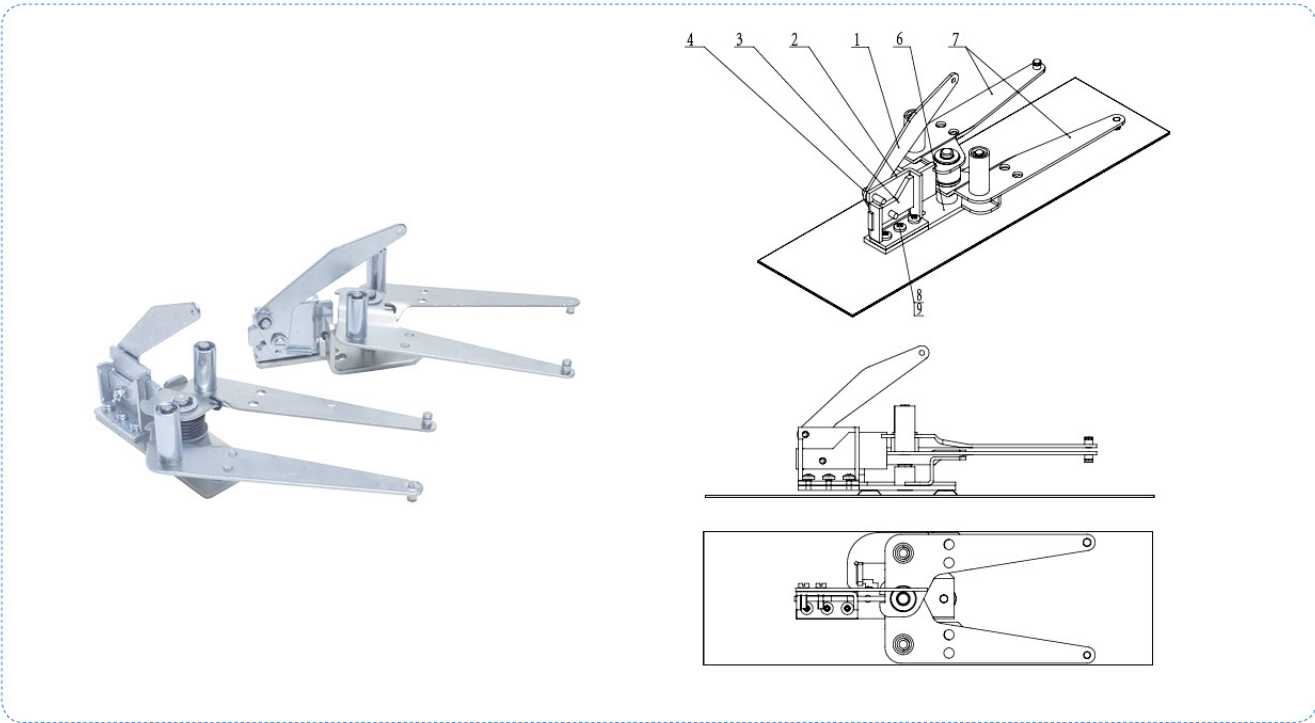


◎ Drawing of shutter mechanism device 5YF.320.010/1ZS installation drawing

◎ Introduction

To better protect maintenance personnel, the company's original center cabinet KYN28 shutter mechanism has been optimized to increase the self-locking function. When the handcart is pulled out of the cabinet, maintenance personnel in the maintenance, you can leave the door locked, blocking the contact box and the stationary contact, avoid electrical shock caused by misuse.

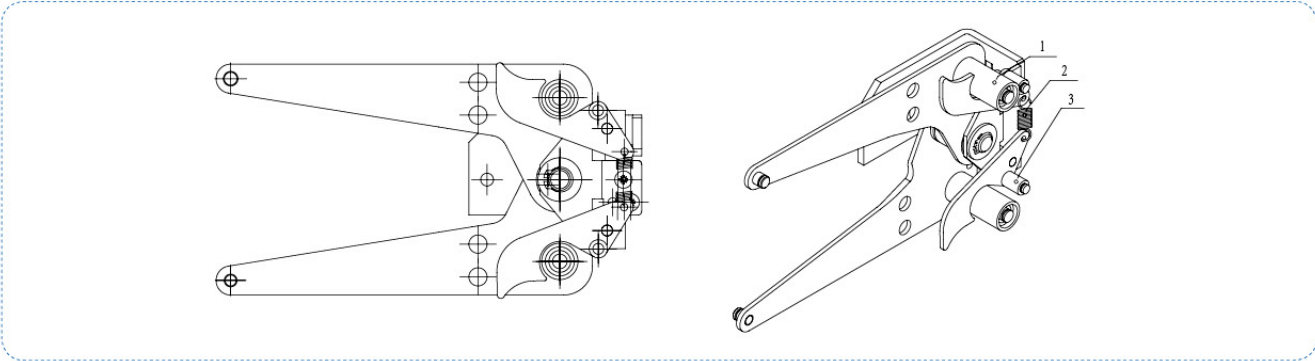
Based on KYN28 switchgear, this mechanism increases self-locking function. Here is the work process. When the handcart is out of the cabinet, No.1 rotates counterclockwise around No.4 under the action of a tension spring, which makes No.3 slide to the right. And No.7 is blocked because of No.3. When the handcart is pushed into the cabinet, No.1 rotates clockwise around No.4 under the action of the handcart, which makes No.3 slide to the left. And No.7 will be unlocked and work properly.



◎ (II) Drawing of valve mechanism device 5YF.320.010/1ZS installation drawing

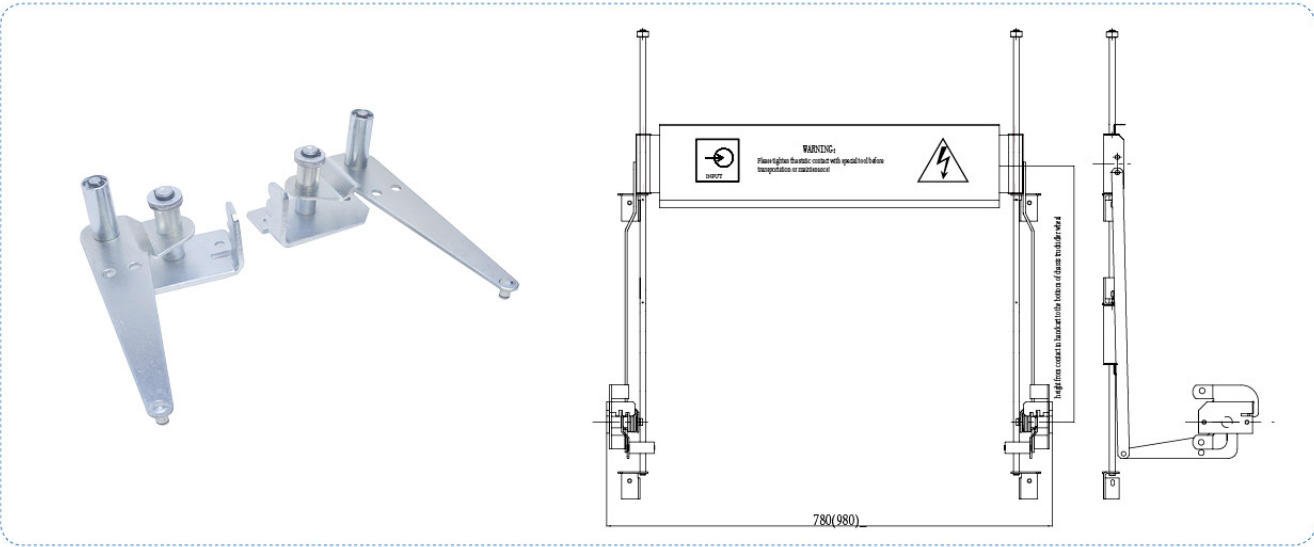
(II) Working Principal

- No.3 arc plate locks the No.1 rollers on the left and right plate to realize self-interlock.
- When VCB is moving from testing position to working position, the two side pusher of the VCB will press the upper down No.3 arc plate to rotate to the middle. So the self-locking mechanism will be unlocked and the shutter mechanism will open normally.
- When VCB is out, No.3 arc plate will be pressed by No.2 tension spring to lock No.1 roller and the shutter mechanism will be locked.

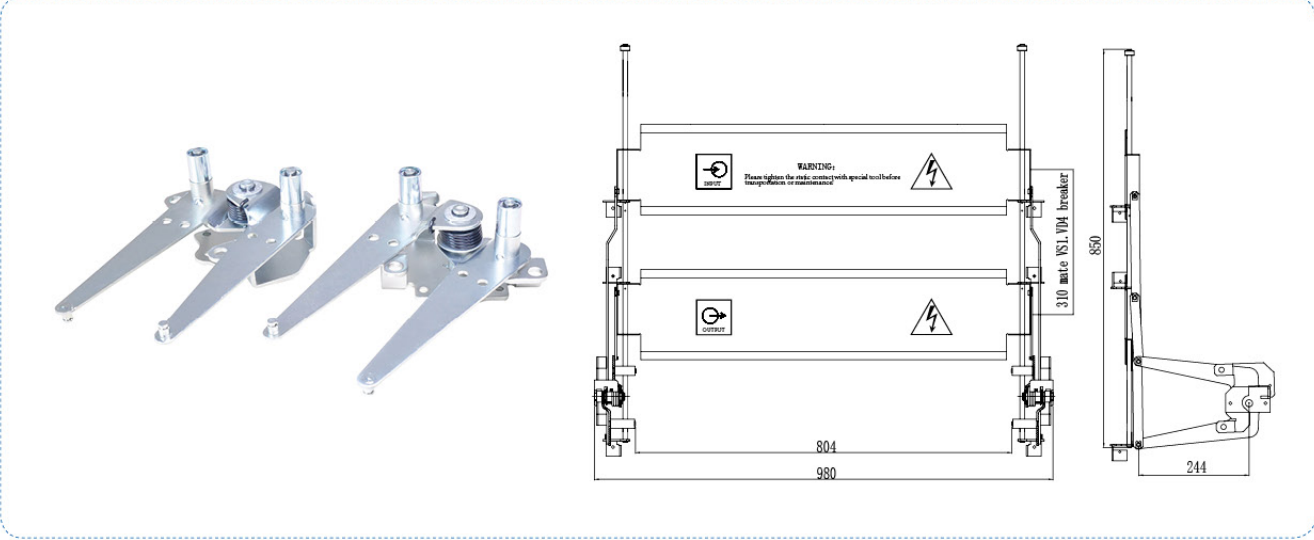




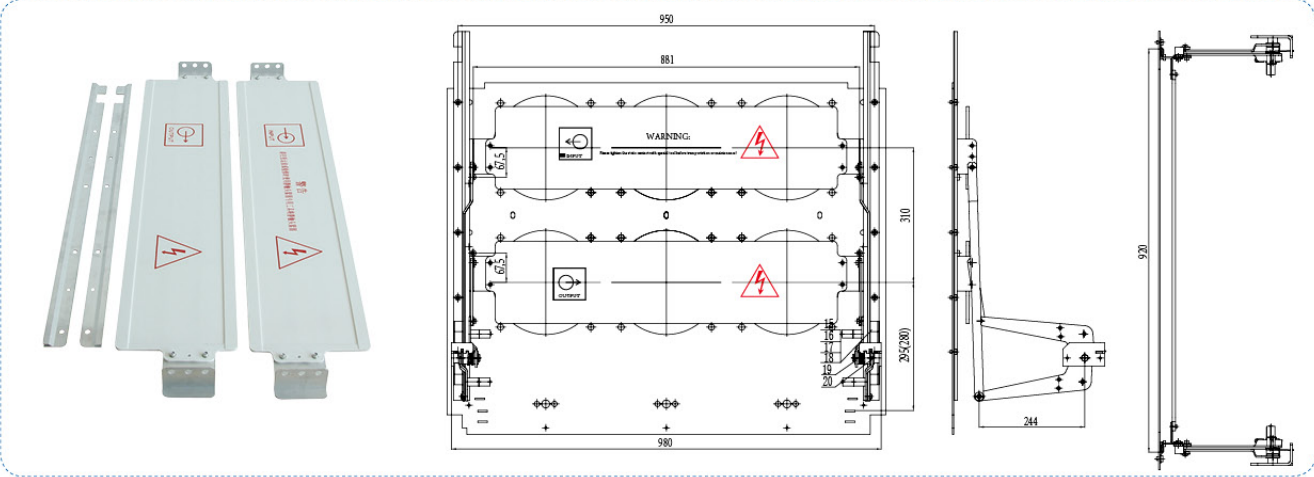
◎ (800mm/1000mm Wide mid-placed switchgear cabinet) Upside shutter mechanism 5YF.320.012/5YF.320.012.1 installation drawing



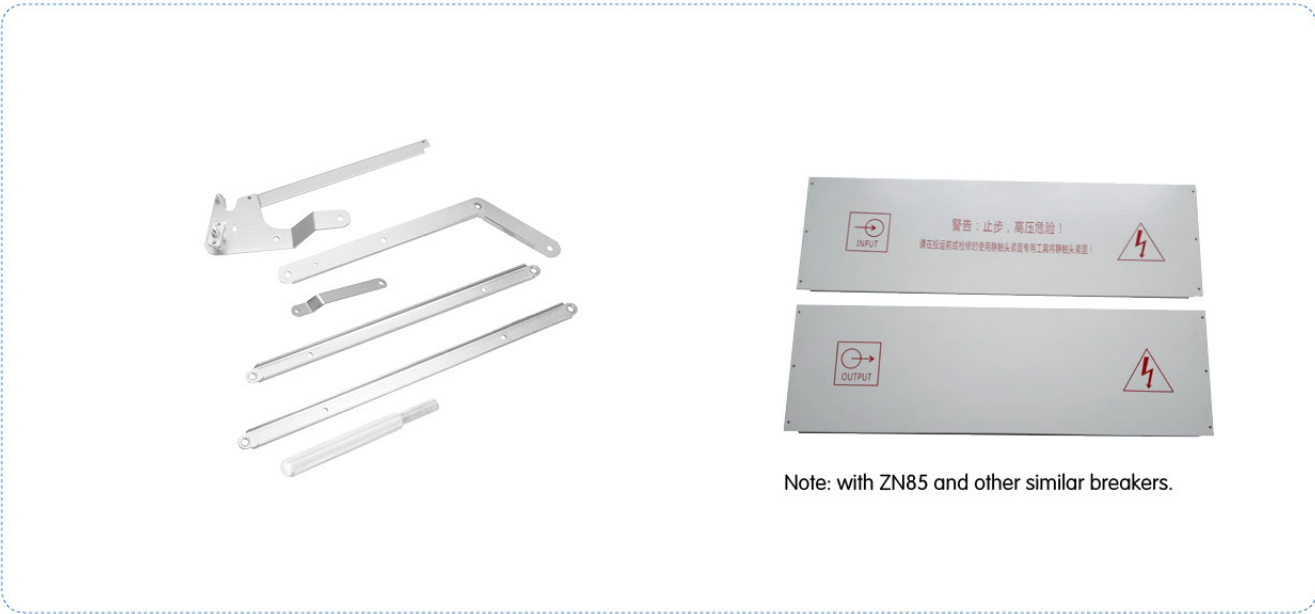
◎ (1000mm Wide mid-placed switchgear cabinet) Shutter mechanism 5YF.320.011 installation drawing



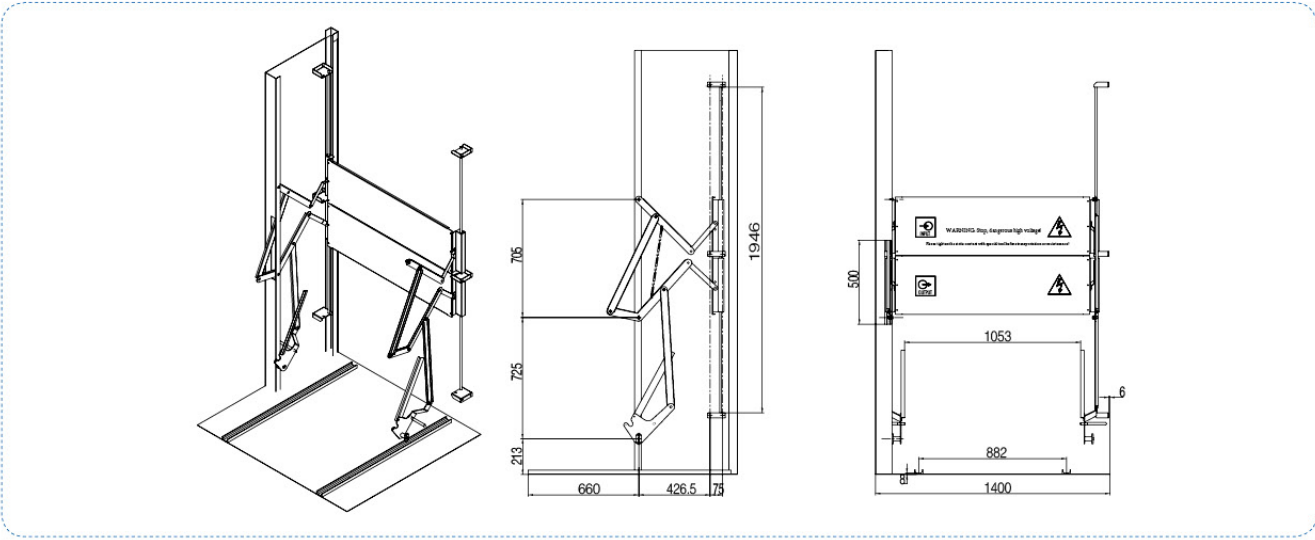
◎ (1000mm Mid-placed switchgear) shutter mechanism 5YF.320.011.2(Secondary switchgear) installation drawing



◎ Installation diagram of 35KV shutter mechanism device (Connecting-rod type) 11 YF.03.240

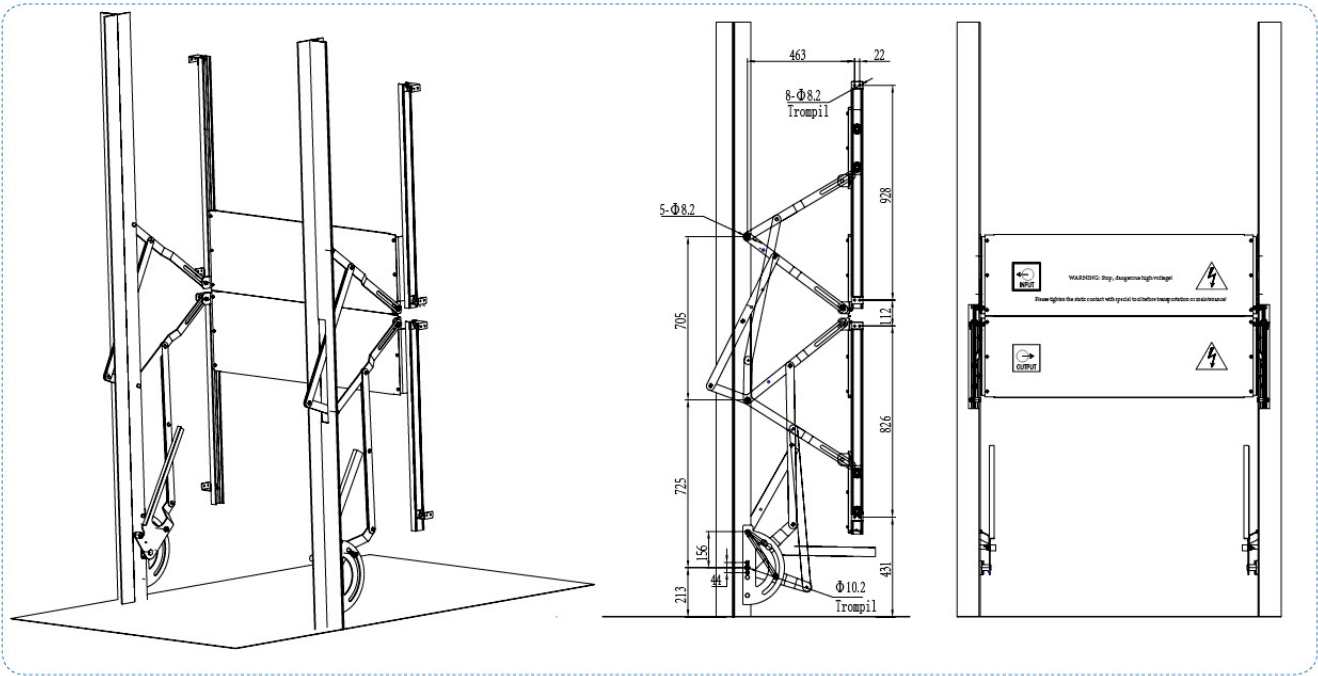


Note: with ZN85 and other similar breakers.

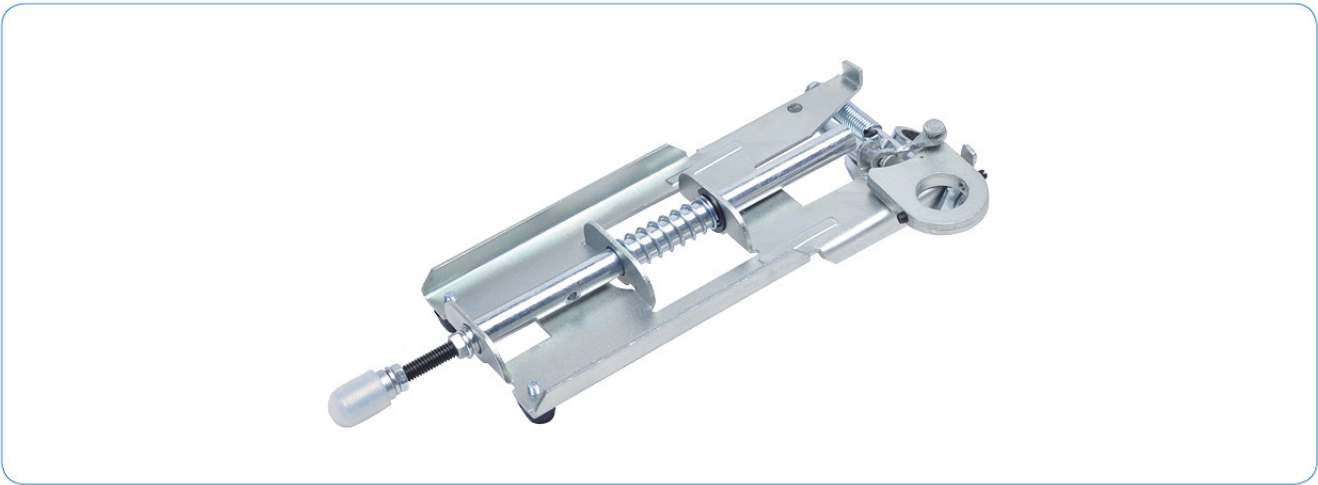
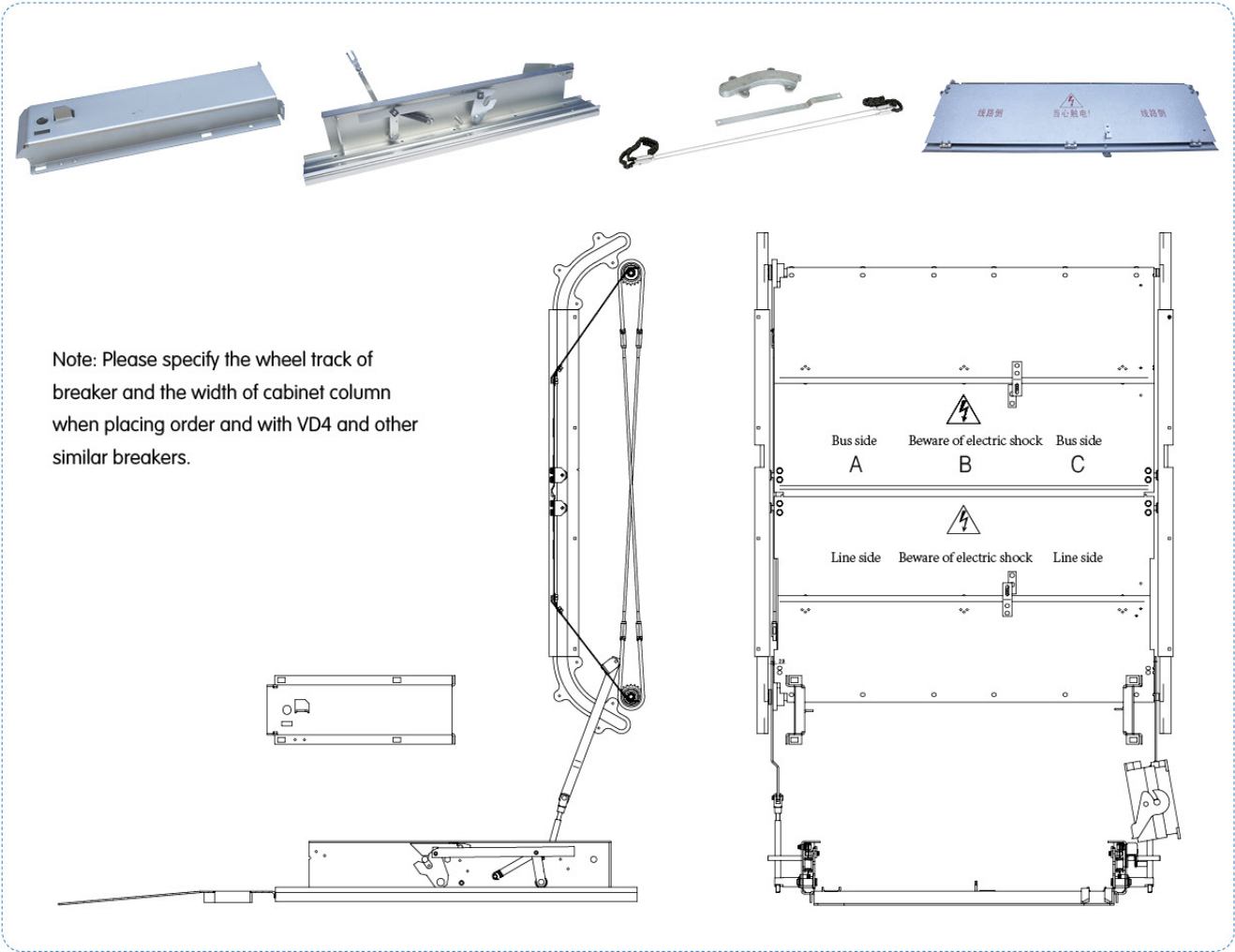


◎ Installation diagram of 35KV shutter mechanism device(Guide groove type) 11 YF.03.250



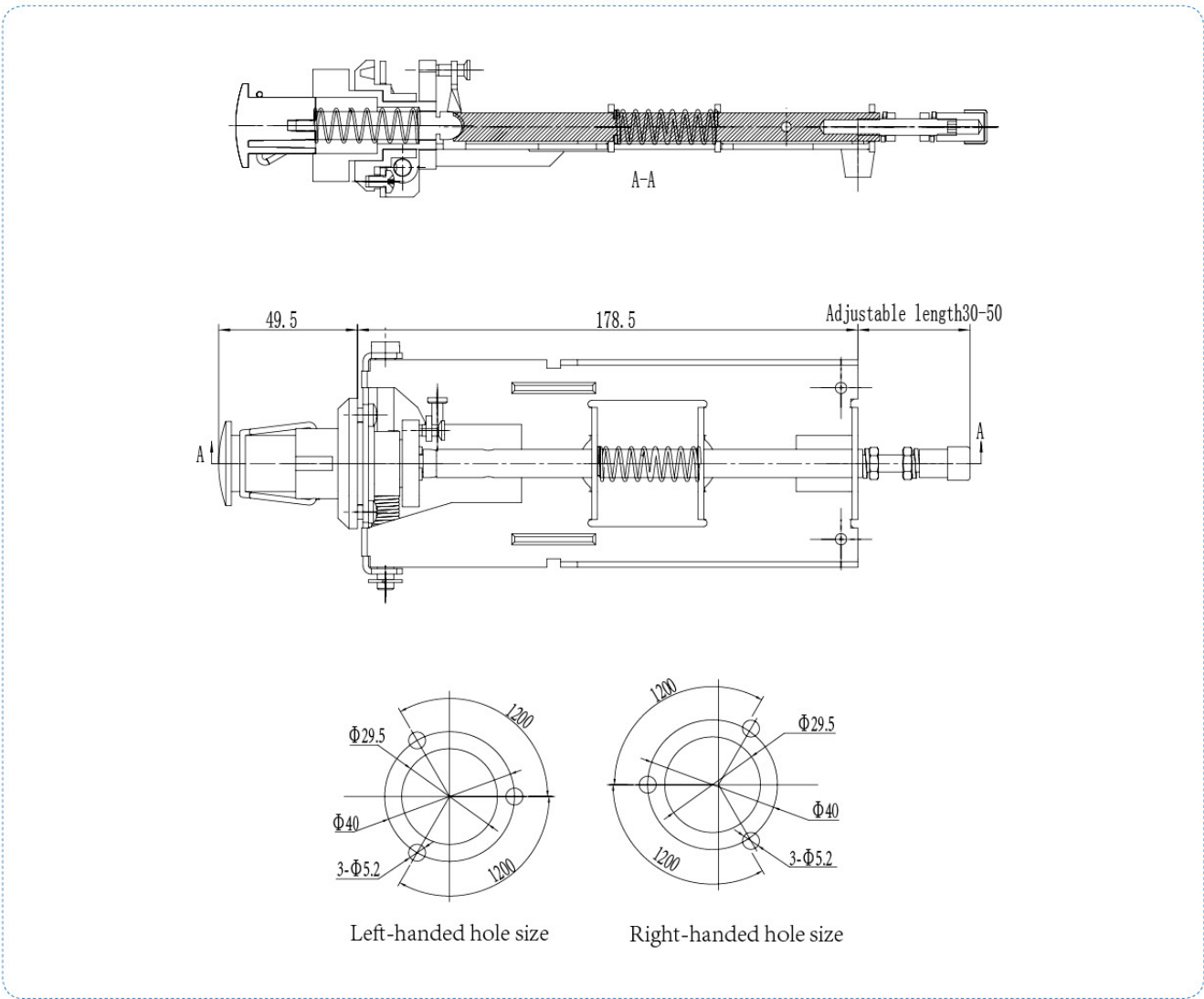


© KYN61C Shutter mechanism earthing interlocking device



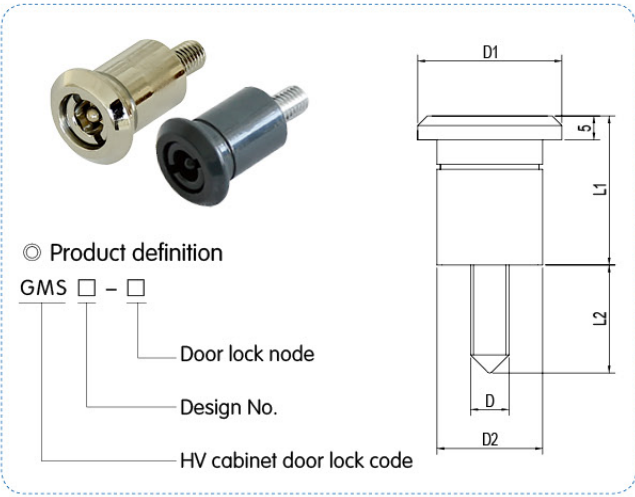
© 5YF.1505.2000 New emergency opening device

The products are mainly used in switchgears to simplify the operation of the circuit breaker tripped procedures and improve processing speed of circuit sudden failure in emergency. The product uses rotary folded structure to realize a manual trip in test position and work position without opening the door. The device can be operated by one hand. Let it go and then it will reset automatically. So it can be operated easily and quickly.





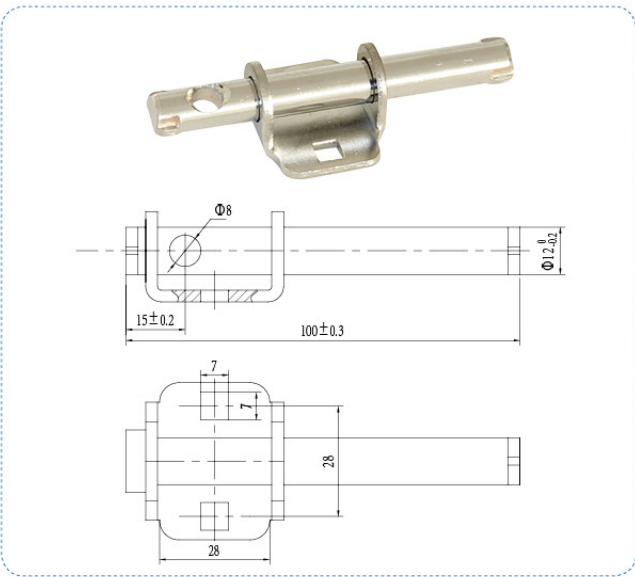
◎ GMS1 HV Switchgear cabinet door lock



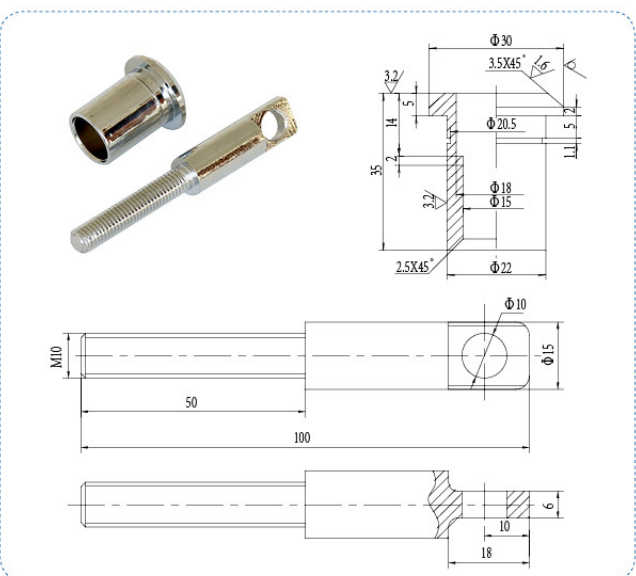
◎ GMS1 HV Cabinet door lock dimension (mm)

Item	D1	D2	D	L1	L2
GMS1-1	Φ24	Φ20	M8	31	22.5
GMS1-2	Φ30	Φ22	M10	35	20.5
GMS1-3	Φ24	Φ20	M8	31	34.5
GMS1-4	Φ30	Φ22	M8	35	20.5
GMS1-5	Φ30	Φ22	M10	35	29
GMS1-6	Φ30	Φ22	M10	40	20.5
GMS1-7	Φ30	Φ22	M8	27	23
GMS1-8	Φ30	Φ22	M10	45	20.5
GMS1-9	Φ30	Φ22	M8	35	25
GMS1-10	Φ30	Φ22	M10	31	24.5

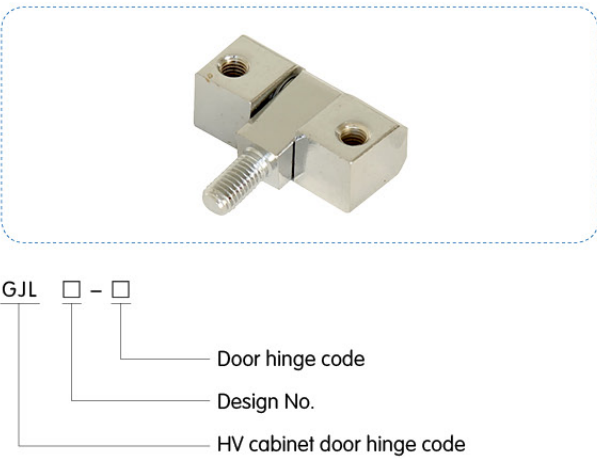
◎ Padlock and hole location diagram



◎ Padlock bolt schematic and installation dimensions



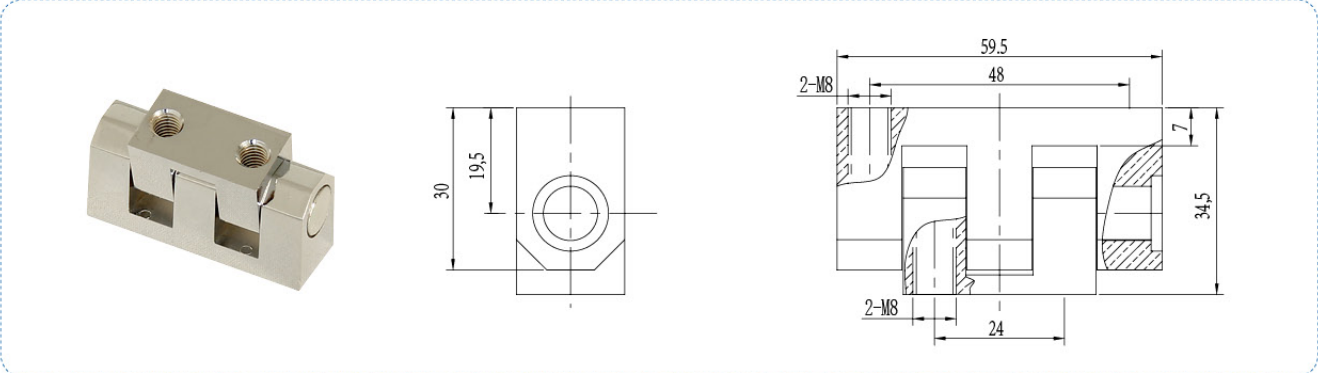
◎ HV cabinet door hinge definition



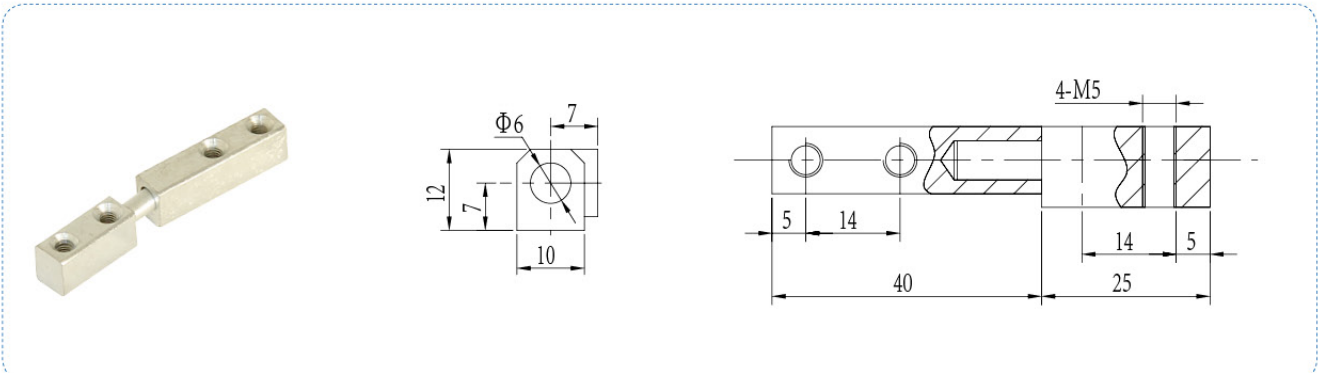
◎ GJL1- □ Cabinet door hinge specification and installation dimension

Item	Code	A	B	C	D	2-M8
GJL1-1	5YF.872.011	50	23	8	18	Throughly hole
GJL1-2	5YF.872.011.1	56	26	12	22	
GJL1-3	5YF.872.012	50	23	8	18	Blind hole
GJL1-4	5YF.872.012.1	56	26	12	22	

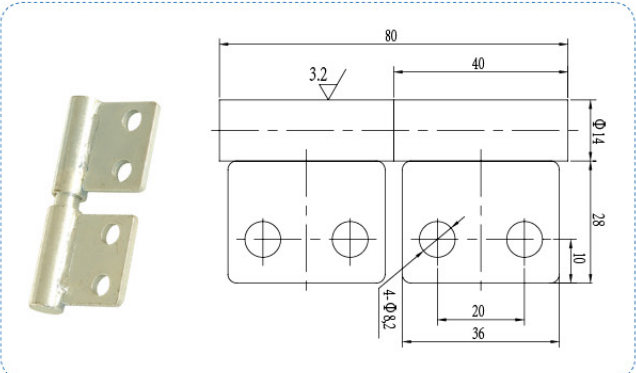
◎ GJL2- □ HV cabinet door hinge specification and installation dimension



◎ GJL4- □ HV cabinet door hinge specification and installation dimension



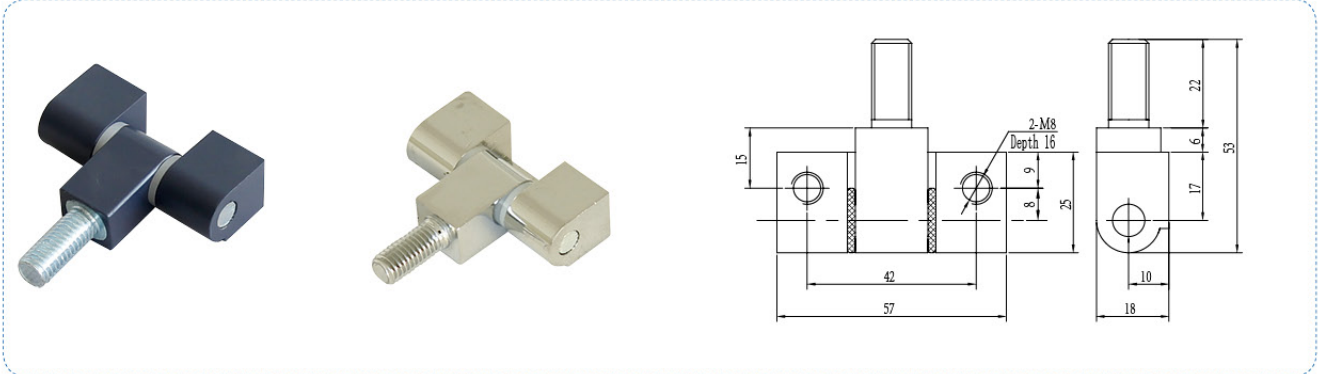
◎ GJL5- □ HV cabinet door hinge specification and installation dimension



◎ GJL7 HV cabinet door hinge specification and installation dimension

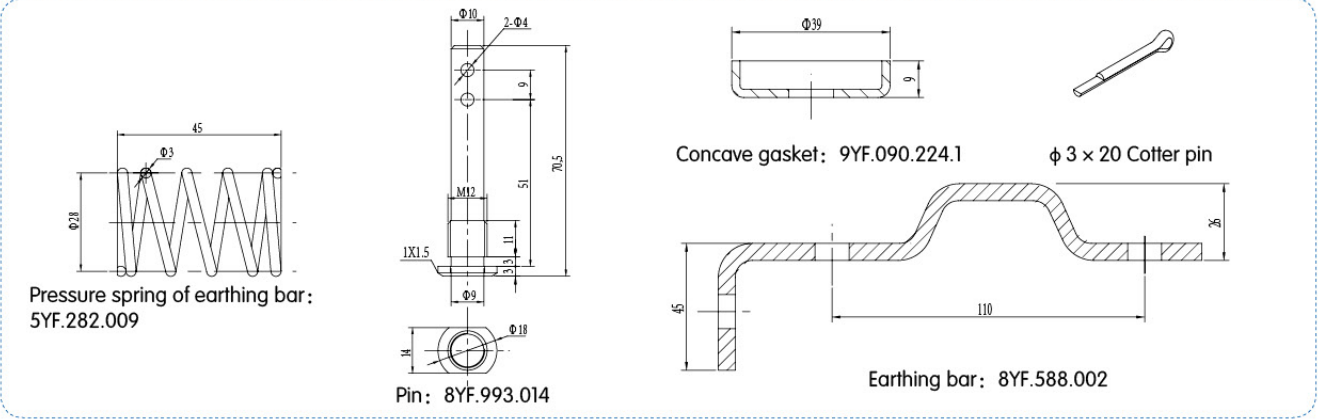
Item	H	L	L1	L2	D
GJL7-1	28	41	13	18	M8
GJL7-2	20	28	9	11	M6

◎ GJL9-1 HV cabinet door hinge specification and installation dimension

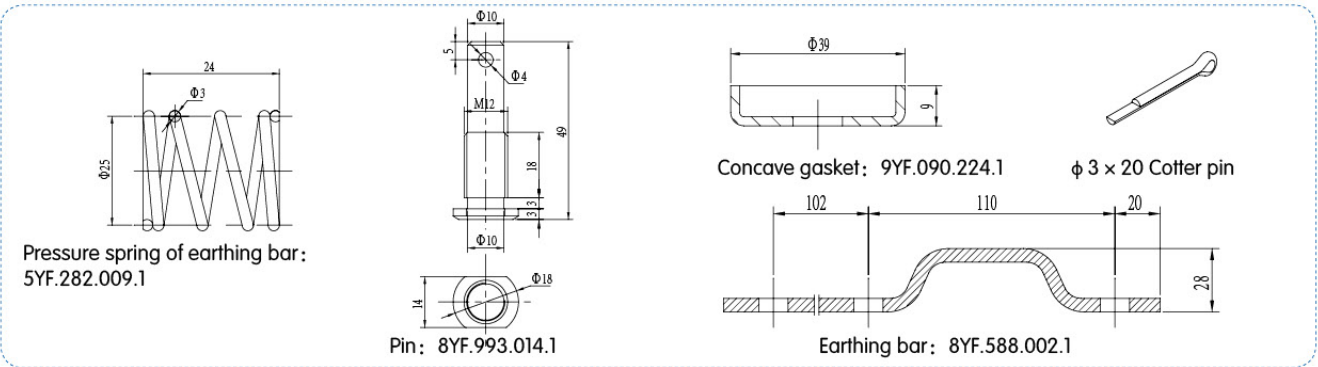




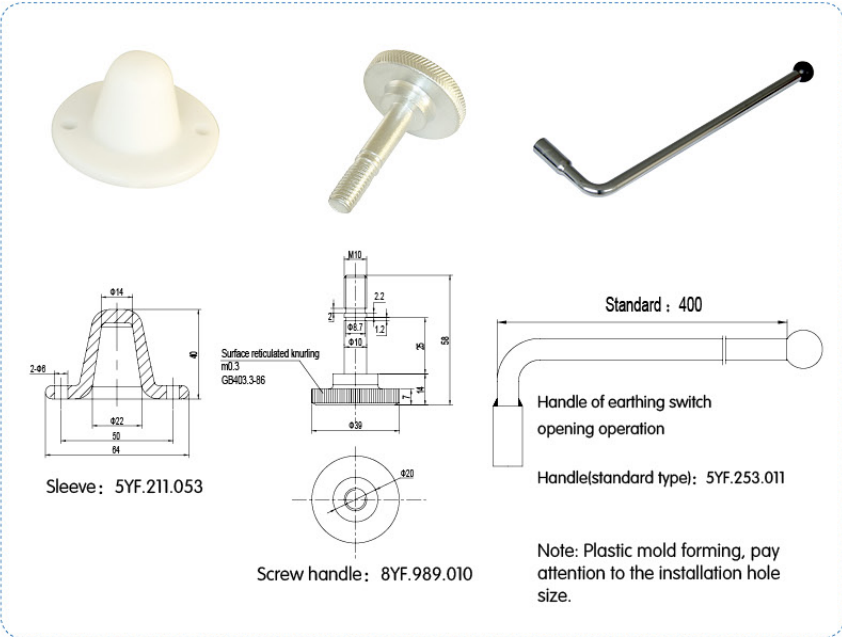
Mid partition assembly



Earthing bars and components(under-placed use)

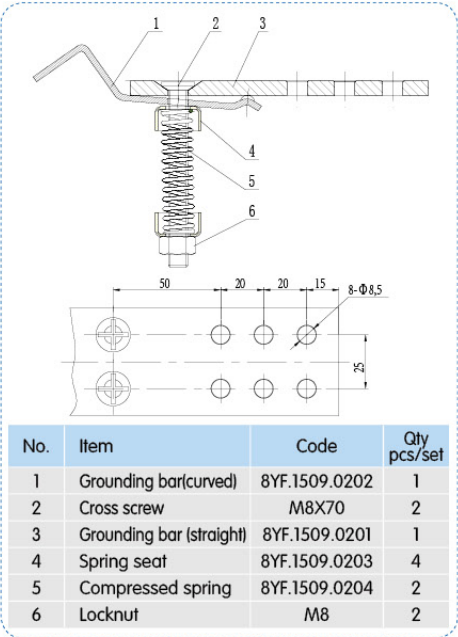


Others

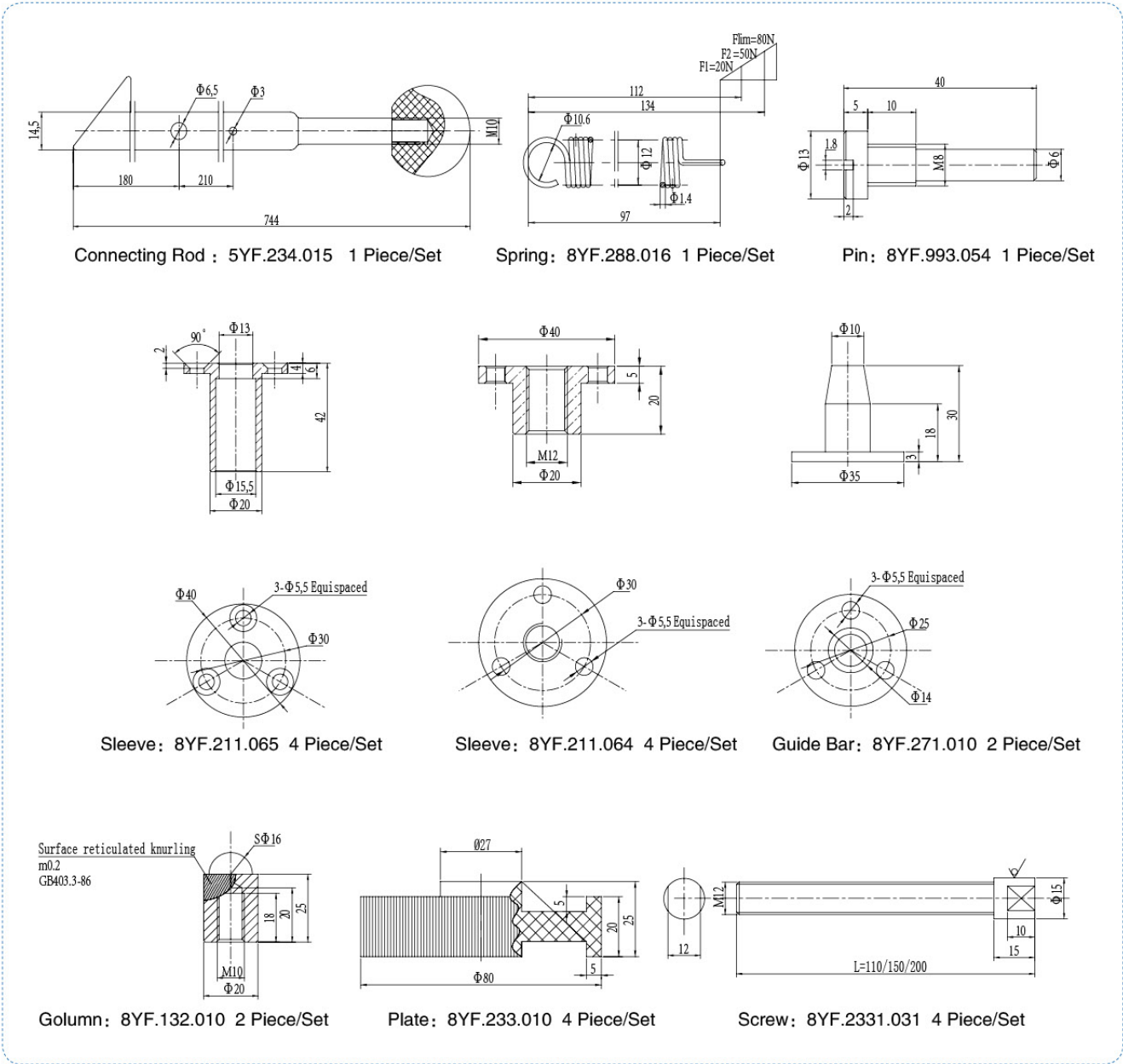


Note: Plastic mold forming, pay attention to the installation hole size.

Grounding bracket assembling 5YF.1509.0201



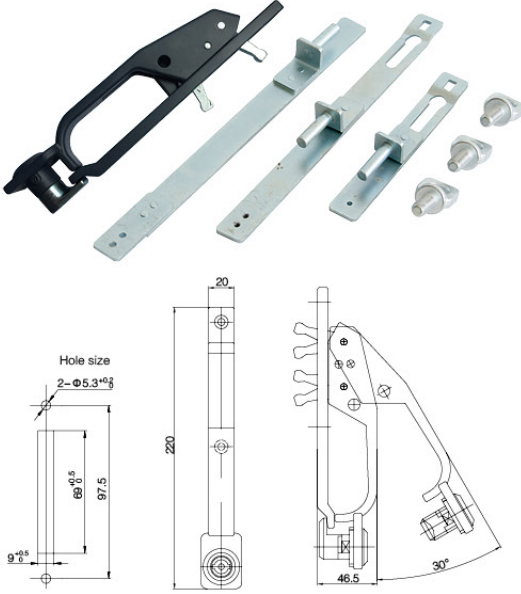
Handcart assembly



Fast unlocking device (5YF.1606.8010)installation drawing

Introduction

It is mainly used for sliding door of the new version mid-placed switchgear, power distribution cabinets, accordingly improve the closed level and strength of the switchgear doors

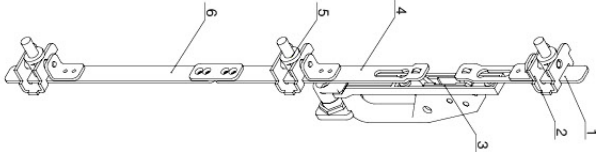


Hole size
2- $\Phi 5.3^{+0.2}_{-0}$

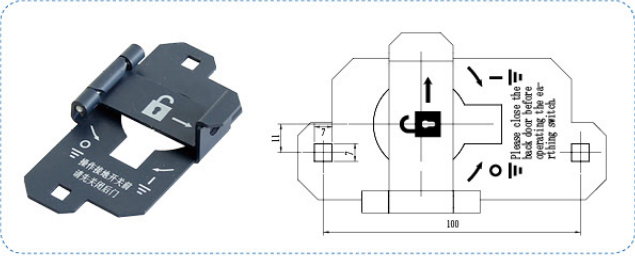
220
68 ± 0.5
97.5
46.5
30°

Fast unlocking device (5YF.1606.8010)complete table

NO.	Item	Code	Qty pcs/ set
1	Upper locking riveting	5YF.1606.8001	1
2	Support	customized welding door plate	3
3	Lock handle	8YF.1606.8009	1
4	Medium locking riveting	5YF.1606.8004	1
5	Latch	8YF.1606.8008	3
6	Under locking riveting	5YF.1606.8006	2

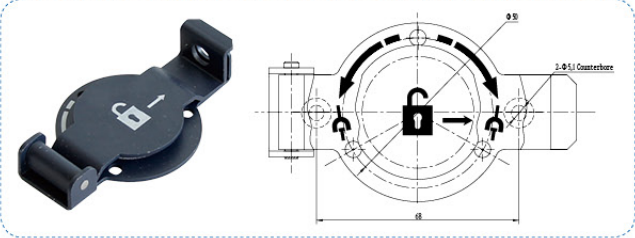


Earthing interlocking Padlock



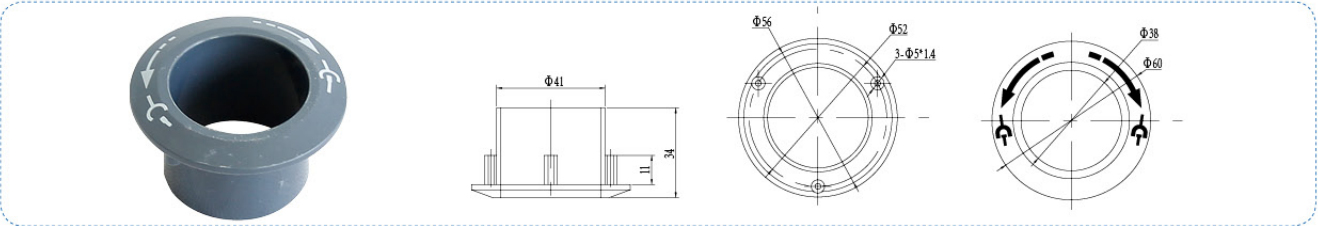
Please close the back door before closing the earthing switch.

Mid-door padlock



1- $\Phi 11$ Counterbore

IN-OUT indicator



$\Phi 41$
34
11
 $\Phi 56$
 $\Phi 52$
3- $\Phi 5^{+1.4}_{-0}$
 $\Phi 38$
 $\Phi 60$



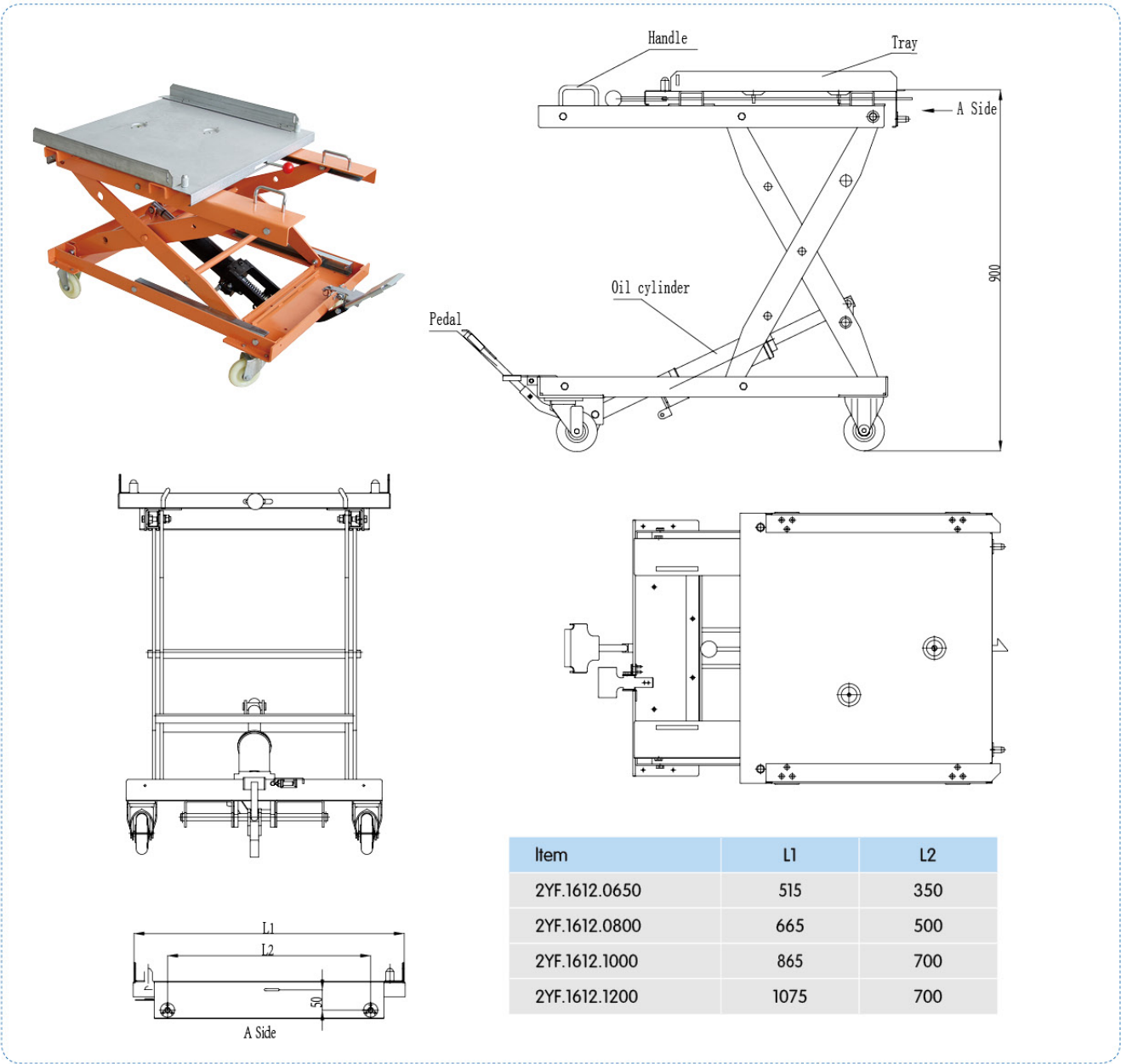
The hydraulic transport vehicle

In order to meet customers' demand, we developed the trolley based on the mechanical principle. It is easy to operate and saves time and effort with simple structure. So it is widely used.

Operating instructions

Minium height of the trolley 320mm, maximum height 900mm, weight capacity ≤ 300 KG.

- Put the VCB on the trolley pallet, step the pedal to rise the suitable height;
- Push the trolley by directional and undirectional wheels to the switchgear, and adjust the height of trolley by step and oil-return step to make the trolley lever and switchgear mid-partition in the same horizontal position (Note: When the oil-return step more harder, the handcart will go down more quickly);
- Push the trolley from the switchgear direction to make the trolley lever insert in mid-partition guide hole, and the lever of the trolley will lock the trolley and switchgear automatically to make it fixed, and push the VCB through guide rail into switchgear;
- Fluctuate trolley lever to withdraw out the trolley.

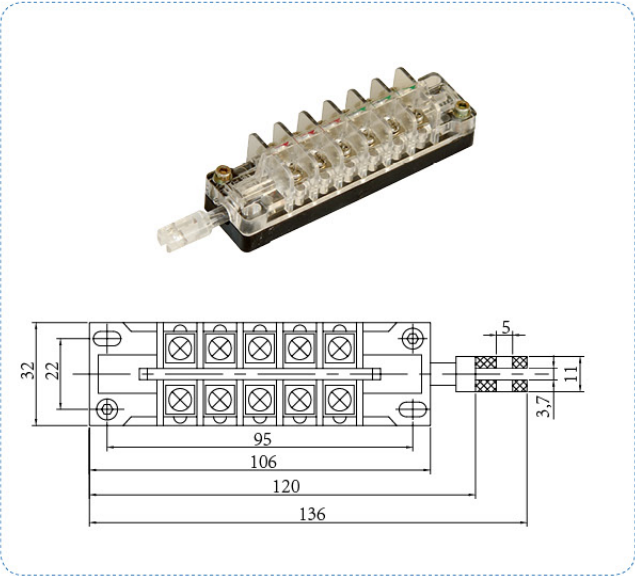


Handle
Tray
A Side
900
Oil cylinder
Pedal

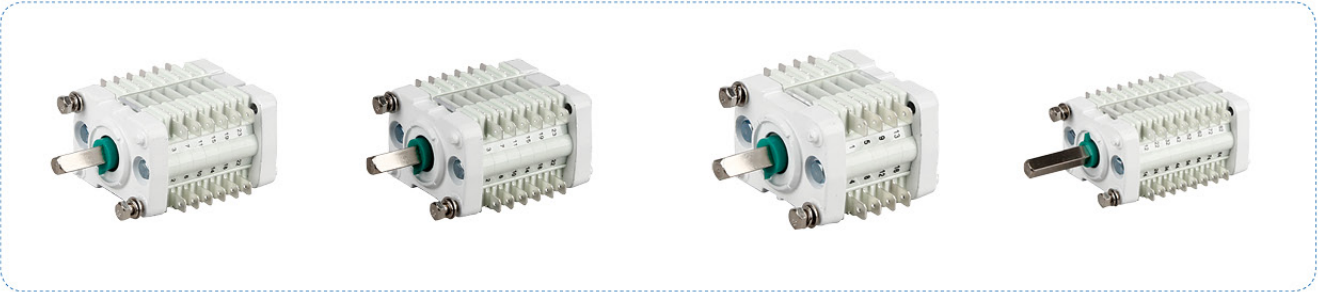
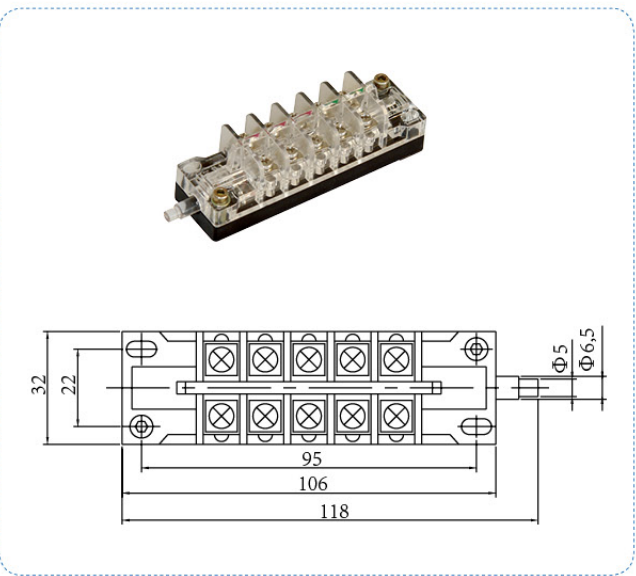
Item	L1	L2
2YF.1612.0650	515	350
2YF.1612.0800	665	500
2YF.1612.1000	865	700
2YF.1612.1200	1075	700

L1
L2
50
A Side

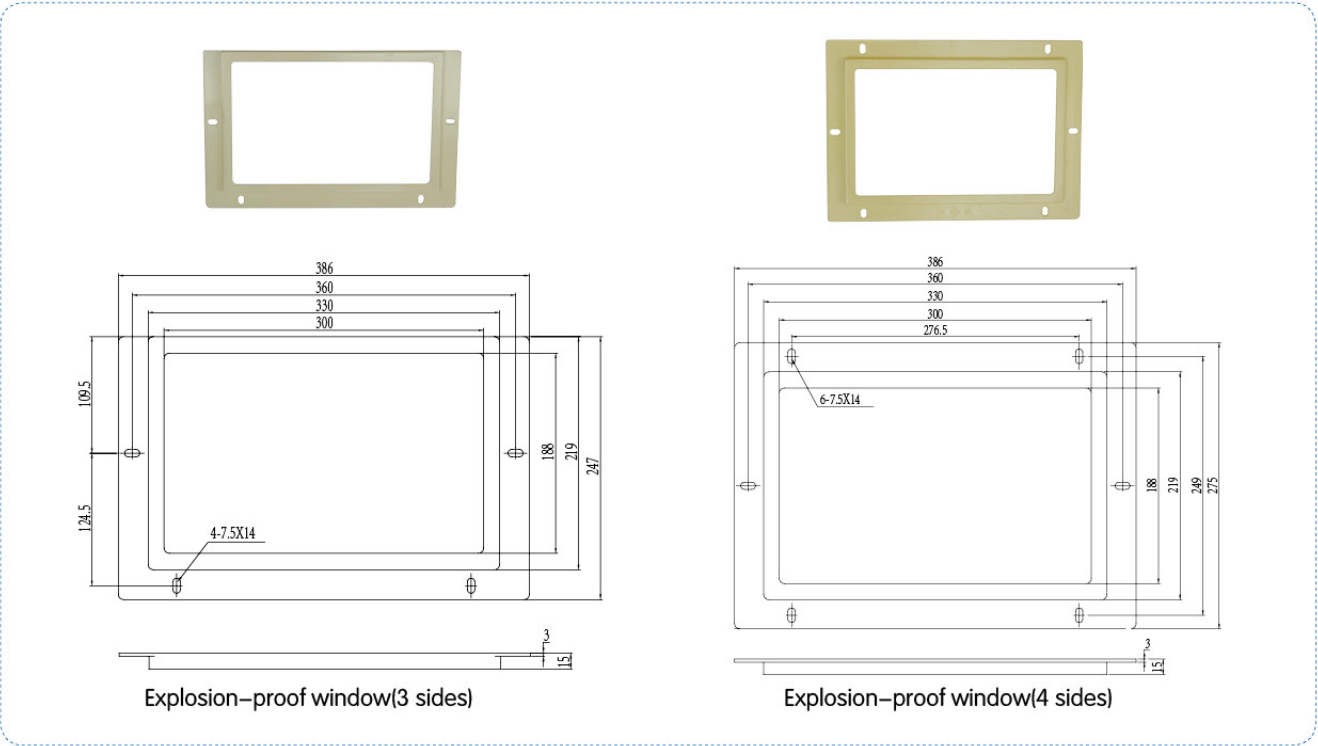
◎ FK10-I-□□ auxiliary switch and installation dimension



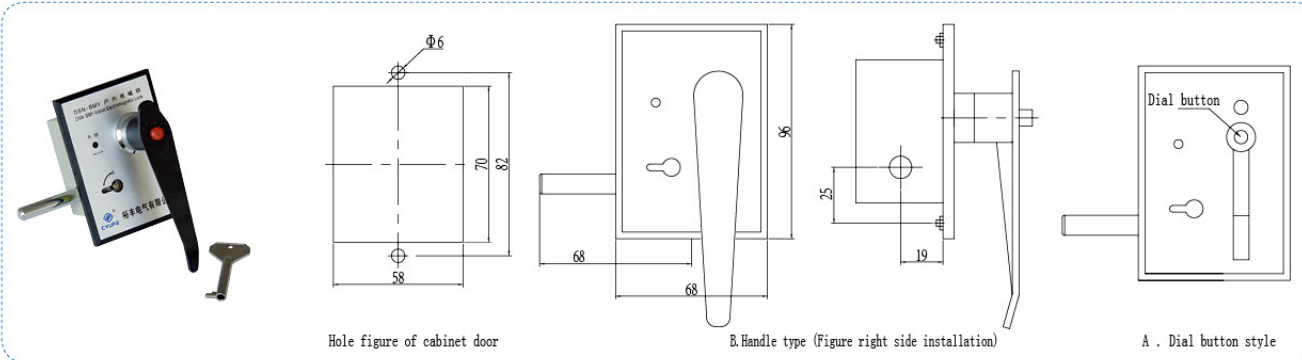
◎ FK10-II-□□ auxiliary switch and installation dimension



◎ Explosion-proof frame



◎ DSN-BM(Z/Y) type indoor electromagnetic lock



Model & Spec.	Rated voltage	Rated current	Rated power	Hole size of cabinet door	Installation size of cabinet door	Lock travel	Remark
DSN-AMZ	AC 220V DC 220V DC 110V	100mA 196mA 98mA	< 3VA < 50w < 12w	56mm × 70mm	Φ 6 × 82mm	14mm	Adopt new type electromagnetic structure that let three voltage classes in common use.
DSN-AMY							
DSN-BMZ							
DSN-BMY							
DSN-AMZ6	DC 6V	400mA	< 2.5W	56mm × 70mm	Φ 6 × 82mm	14mm	Especially match our uninterruptible DC power supply to improve the capability to prevent the misoperation.
DSN-AMY6							
DSN-BMZ6							
DSN-BMY6							

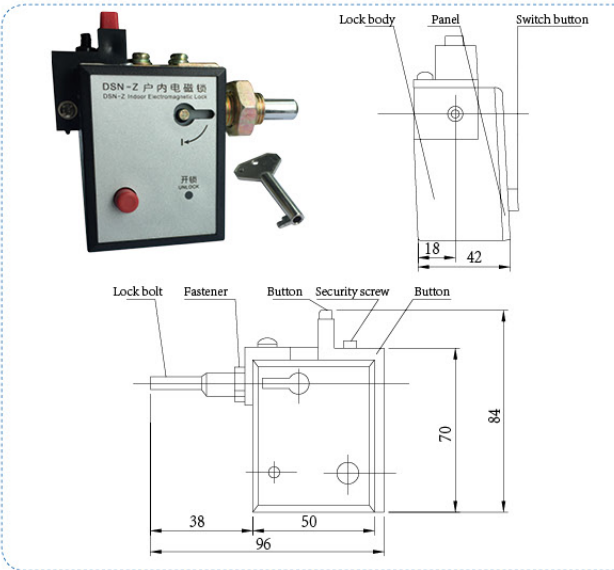
◎ DSN type indoor electromagnetic lock

◎ Introduction

DSN Indoor electromagnetic lock is a kind of electric control interlocking device which can prevent misoperation, mainly used for switchger doors and some other parts need to be safty interlocked to realize positive interlocking.It is very nessesary locking devices for electricity generation and supply to prevent erranting chared gap or misoperating.

Model No.:DSN-Z DSN-Y; Voltage:AC220V DC220V DC110; Installing support bolts size:M14、M16; Bolts travel:14mm;

Assembled ways: DSN-Z left assembled, DSN-Y right assembled.



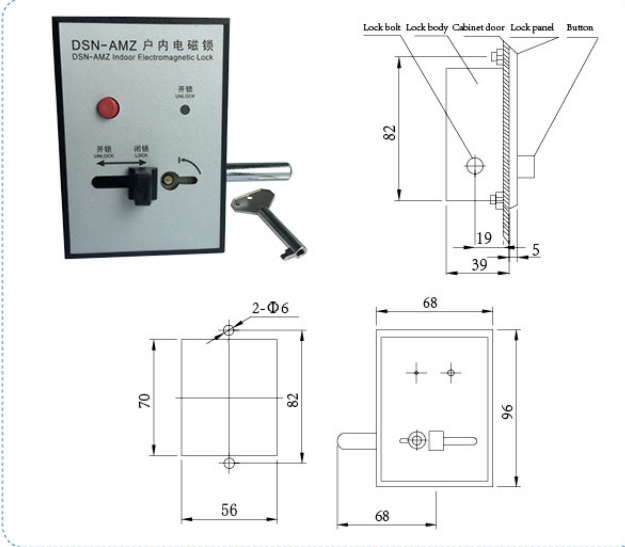
◎ DSN-AM indoor electromagnetic lock

◎ Introduction

DSN-AM Indoor electromagnetic lock is a kind of electric control interlocking device which can prevent misoperation, mainly used for switchger doors and some other parts need to be safty interlocked to realize positive interlocking.It is very nessesary locking devices for electricity generation and supply to prevent erranting chared gap or misoperating.

Model No.:DSN-AMY DSN-AMZ; Hole size:56MMx70MM; voltage: AC220V DC220V DC110

Assembled size: Φ 6X82mm, Bolts travel:15mm; DSN-AMZ left assembled, DSN-AMY right assembled.



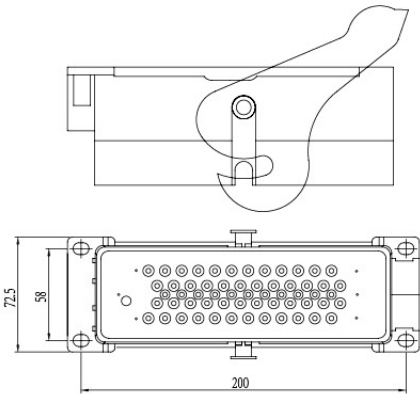


◎ Secondary socket with 58 cores



Purpose: GZD-58 secondary socket is used for secondary circuit connection of GZS1 (with VSI.VD4) high voltage intermediate switchgear.
Basic parameters: Rated voltage: AC 380V, DC 220V; Rated current: AC 16A, DC 10A; Mechanical life: 2000 times.
Note: The socket is equipped with pin.Only wires below 1.5mm² can be used through the wiring hole.Please specify if you need 2.5 or 4 mm² wires.

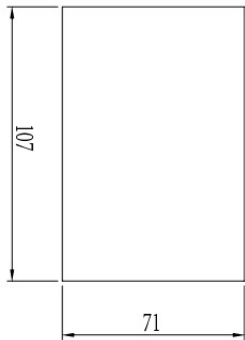
◎ GZD-58 Secondary socket



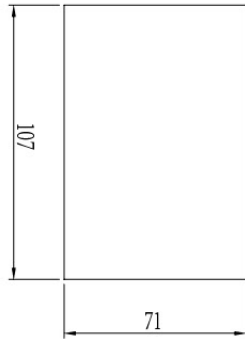
◎ Cabinet light



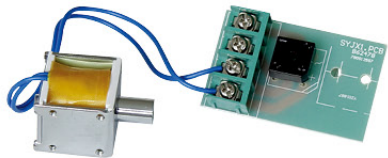
Hole opening in the cabinet



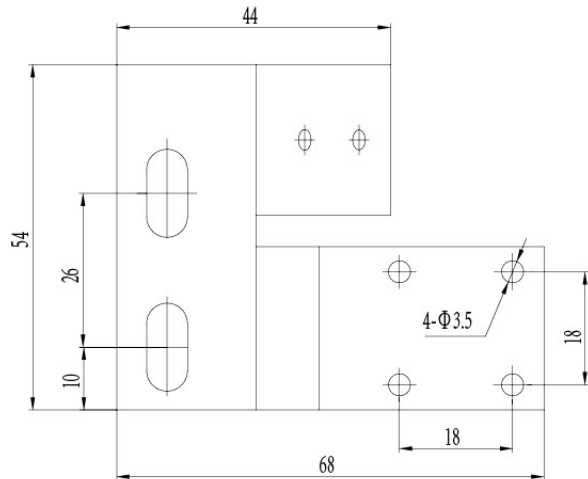
◎ LED Light in cabinet



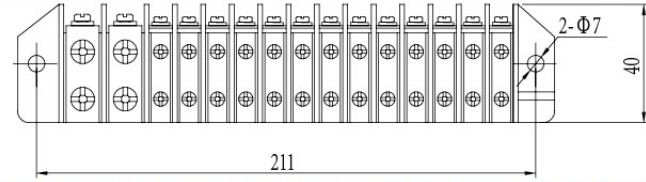
◎ (DC220V/110V) Latching electromagnet



Please specify the following information in the order:
AC110V,220V; AC110V,220V



◎ CM1 Busbar-15(4-6mm Wire type)

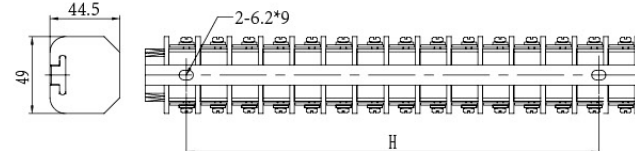
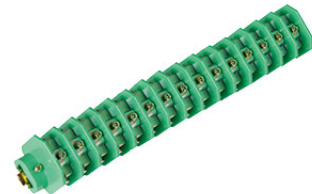


◎ MJ1 Busbar(Φ8 Copper bar type)



MJ1	Section number	8	9	10	11	12	13	14	15	16	17
	H	182	203	240	263	288	317	344	364	393	425

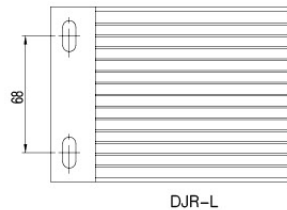
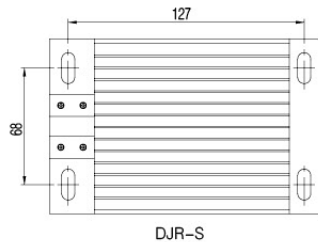
◎ MJ2 Busbar(Φ6 Copper bar type)



MJ2	Section number	10	11	12	13	14	15	16	17	18	19	20
	H	163	182	203	222	240	263	288	302	317	344	365

Note: Please specify the number of sections and mounting hole size when ordering.

◎ Heater

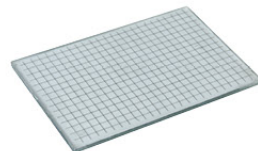


◎ General

DJR-type aluminum-alloy comb-shaped heater is a new type of electric heater designed specially for moisture resistance and dehumidification for power equipments, and it adopts dedicated aluminum alloy heat dissipation section bars and high-class alloy heating wires. With the features of small size, fine looking, uniform heat dissipation, quick heat conduction and large heat dissipation area, the service life of the heating wires is guaranteed to be longer than that of normal heaters, and long and reliable operation are guaranteed as well.

Operating voltage:AC220V Rated power:50~500W ± 5%

◎ Explosion-proof (tempered) glass



Note:Please specify if users need a shielded network and other specifications.



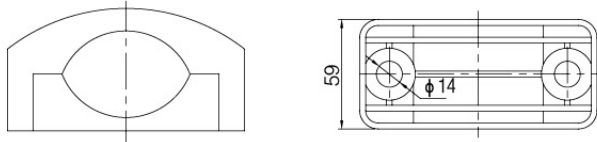
◎ Rubber retainer



8LS 766 003P3	Flat rubber retainer(53 × 13)
8LS 766 022	Rubber retainer(φ 62)
8LS 766 055.1	Rubber retainer(φ 80,tower type)
8LS 766 004	Rubber retainer(φ 90)
8LS 766 005	Rubber retainer(φ 110,tower type)

It is used in the top or bottom of cabinet for the cables to pass in and out and can also protect cables well.

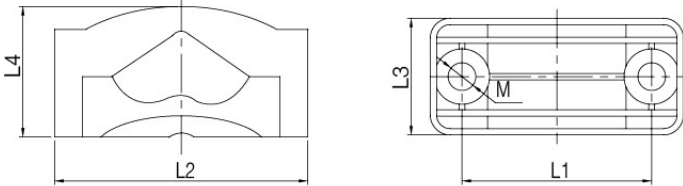
◎ Cable clamp



Type	Applicable cable	Hole distance	Screw size
XL(90–150)	65 × 100	120	M14
Large (75–95)	47 × 75	97	M14
Medium (55–75)	36 × 60	82	M13
Small (36–52)	35 × 52	74	M13
XS (20–36)	23 × 41	60	M12
XXS(13–25)	13 × 25	60	M12

Note: Material ABS or PAS please specify when ordering.

◎ Three-core cable clamp

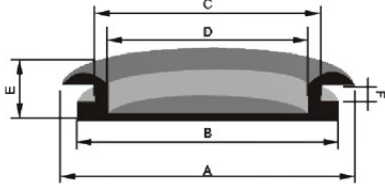


Type	Applicable cable outer diameter	L1	L2	L3	L4	M
SY27–38	3*27–38	125	180	75	75	15.5
SY38–51	3*38–51	145	195	80	100	15.5
SY51–69	3*51–69	170	220	85	130	15.5
SY69–90	3*69–90	215	252	90	163	15.5

Note: Material ABS or PAS please specify when ordering.

COIL PROTECTION SERIES

◎ single-sided protective coil



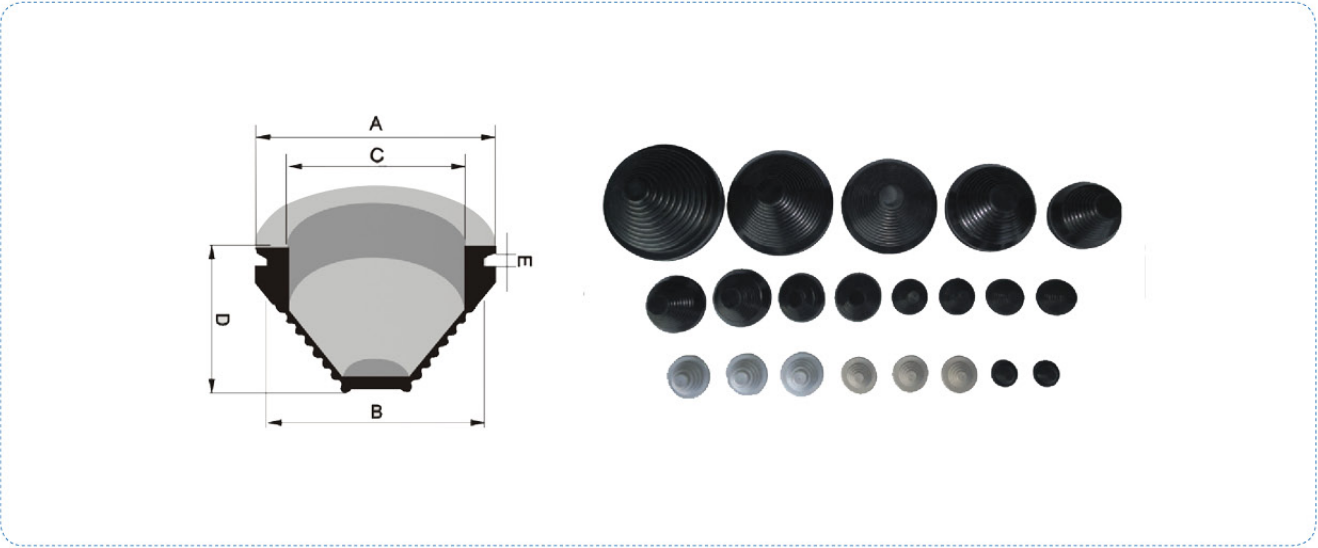


Product name: single-sided protective coil
Product material: natural rubber, polyvinyl chloride, environmental protection rubber, etc.
Product use: Mainly used for the protection and fixing of power supply, control box or general cable and power line outlets, making rough iron holes into smooth outlet holes, with the function of insulating and protecting cables and power lines, beautiful and not easy to fall off .
Product color: black, milky white

Installation dimension							
Model	A	B	C	D	E	F	Packing
DM-01	23	20	15	13	4.6	2	2000
DM-02	29	25	20	17	5.2	2	1000
DM-03	29	27	22	18	6.5	2	1000
DM-04	34	29	25	19	6.2	2	1000
DM-05	40	35	30	25	6.4	2	1000
DM-06	40	37	32	26	6.3	2	1000
DM-07	41	39	35	28	6.5	2	1000
DM-08	46	43	40	29	7.6	2.5	500
DM-09	52	50	45	38	7	2.5	500
DM-10	57	54	50	39	8.8	2.5	500
DM-11	70	65	60	48	9	2.5	300
DM-12	75	72	65	54	10.2	2.5	300
DM-13	77	73	70	56	10	2.5	300
DM-14	80	78	75	58	10.8	2.5	200
DM-15	90	85	80	65	11	2.5	200
DM-16	100	95	90	75	12.5	3	100
DM-17	110	106	100	87	10.5	3	100
DM-18	118	114	110	92	10.8	3	100
DM-19	130	125	120	105	11	3	100
DM-20	150	140	130	120	15.6	4	100
DM-21	170	163	150	130	14.5	4	100



◎ pagoda type guard coil

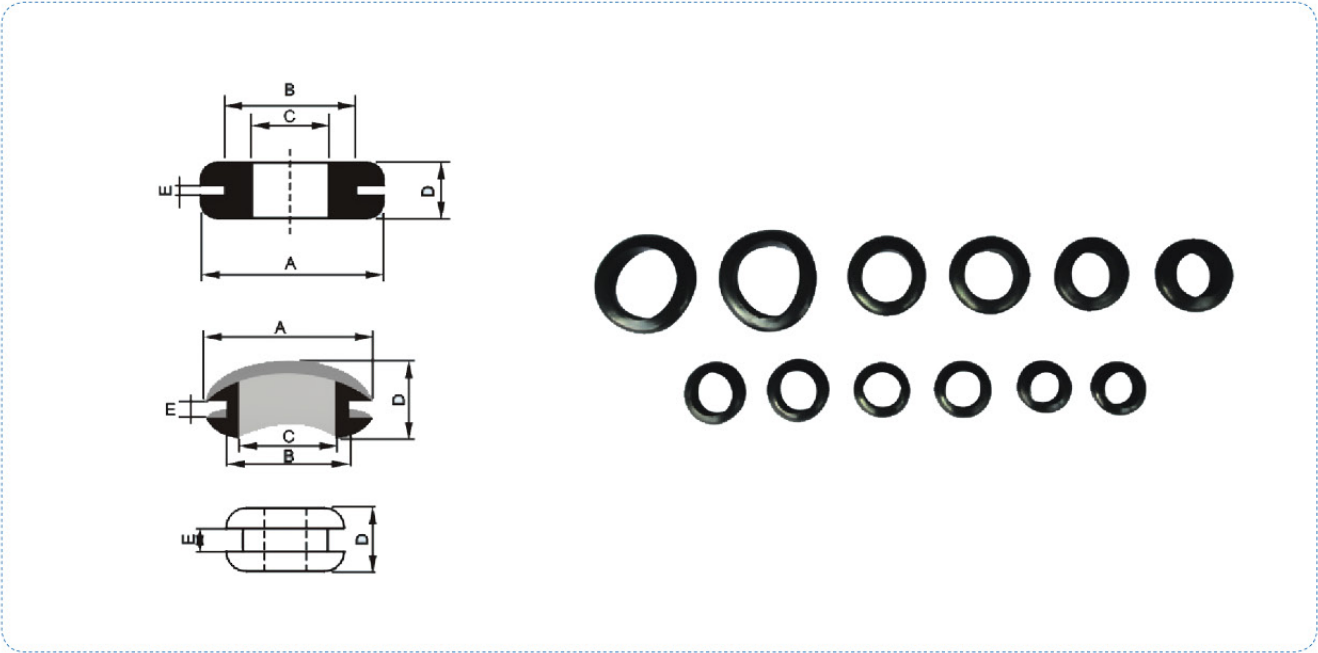


Product name: pagoda type guard coil
Product material: EPDM, natural rubber, silicone rubber, etc.
Product use: mainly used for the protection of incoming and outgoing wires of high and low voltage complete sets of electrical cabinets, box transformers, cable distribution boxes, etc., according to the thickness of the wires, free cutting caliber, play, dustproof, rainproof insulation and protection of wires and cables Function.
Product color: black

Installation dimension						
Model	A	B	C	D	E	Packing
BT-01	30	25	20	22	2.5	2000
BT-02	40	30	27	40	2.5	2000
BT-03	50	40	35	45	3	1000
BT-04	50	45	35	45	3	1000
BT-05	60	50	42	52	3	1000
BT-06	68	60	54	60	3	500
BT-07	75	65	55	52	4.5	500
BT-08	78	70	59	60	5	500
BT-09	93	80	70	50	5	500
BT-10	98	90	78	55	4	500
BT-11	108	100	85	58	4	500
BT-12	125	105	98	60	4	300
BT-13	120	110	98	62	5	300
BT-14	125	115	100	55	4	300
BT-15	130	120	100	65	4	300
BT-16	170	130	110	65	4	100
BT-17	170	150	135	75	5	100
BT-18	200	180	170	115	5	100
BT-19	280	250	110	125	7	100



◎ double-sided protective coil



Product name: double-sided protective coil (PVC/rubber)
Product use: Mainly used for the protection and fixing of power supply, control box or general cables and power cord outlets, making rough iron holes into smooth outlet holes, with the function of insulating and protecting electric paper and power cords, beautiful and not easy fall off.
Product color: black, white, red, green, blue and other options

Installation dimension						
Model	A	B	C	D	E	Packing
SM-01	10	6	4.5	5.5	1.7	1000
SM-02	14.8	8	7.7	6.6	1.7	1000
SM-03	14	10	7.3	6.4	1.7	1000
SM-04	17	12	10	6.3	1.7	1000
SM-05	23.3	14	13.3	9.4	2.4	1000
SM-06	22.4	16	13.5	7.4	1.7	1000
SM-07	23.7	18	15.5	6.1	1.7	1000
SM-08	26.3	20	17.5	10.5	2.2	1000
SM-09	35.5	25	24.2	9.5	2.4	1000
SM-10	39.2	30	25	11	2.4	1000
SM-11	40	35	31	13	2	500
SM-12	49.5	40	33.8	12.5	2.2	500
SM-13	61	50	45	10.2	3	500
SM-14	90	80	66	8.8	1.7	500



© Elliptical Protective Coil



Product Name: Elliptical Protective Coil
Product material: EPDM, natural rubber, silicone rubber, etc.
Product use: mainly used for the protection of incoming and outgoing wires of high and low voltage complete sets of electrical cabinets, box transformers, cable distribution boxes, etc., according to the thickness of the wires, free cutting caliber, play, dustproof, rainproof insulation and protection of wires and cables Function.
Product color: black

Installation dimension		
16x55	30x100	60x140
18x55	30x120	60x160
18x70	30x140	80x120
18x120	30x160	80x160
18x100	32x62	
18x140	35x116	
18x160	35x100	
19x102	37x110	
20x46	40x85	
20x65	40x90	
20x135	40x132	
22x45	40x150	
25x56	45x155	
25x120	45x175	
26x84	50x100	
27x135	50x120	
30x70	50x145	
30x85	50x150	
	50x200	



© rubber mat

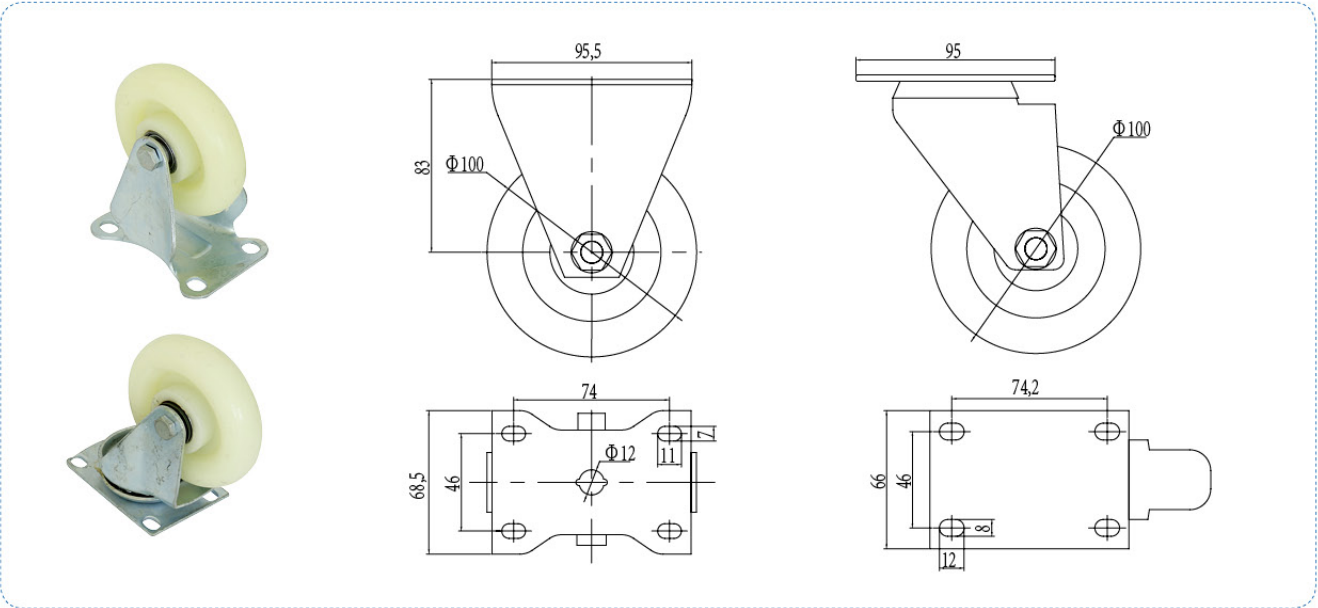


Product name: rubber mat
Product material: Nitrile rubber, EPDM rubber, natural rubber, silicone rubber, PCC, etc.
Product use: The seat cushion of the chassis shell is fixed with screws, which is safe and does not fall off, is resistant to repeated pressure, and is non-slip.
Product color: black, milky white.

Installation dimension		
Model	Packing	
012mm	1000	
015 mm	2000	
018mm	2000	
d>20mm	1000	
022mm	1000	
026mm	1000	
032mm	500	
<D47mm	500	
050mm	500	

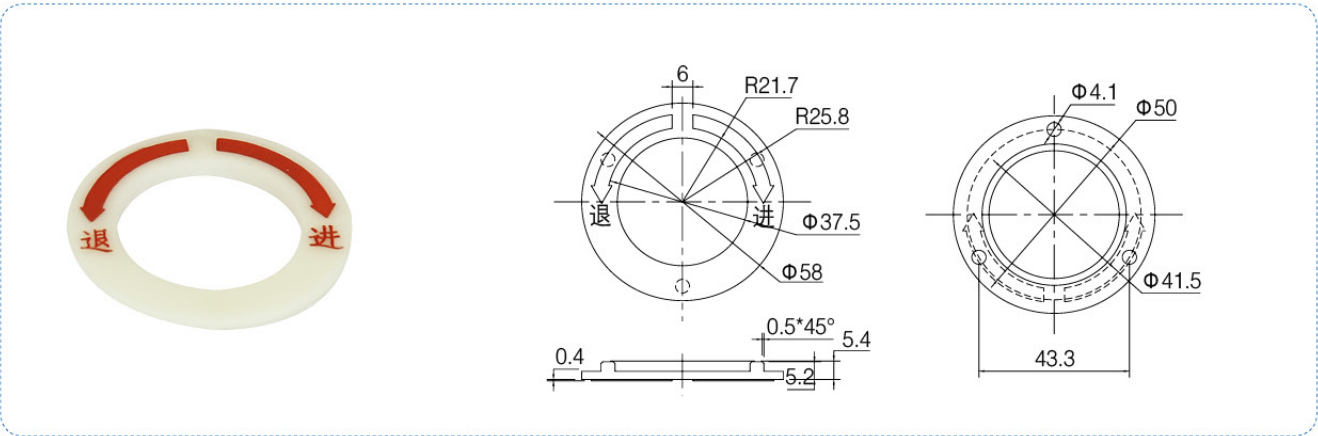


◎ Fixed castor, Directional castor



Note: If you need brake function, please specify when ordering.

◎ Advance and retreat signs



◎ DXN display with side outgoing line (Opening hole: 54×32mm)

◎ Technical Parameters

No.	Model number	High Voltage Indication Luminous Parts			Voltage between phases when the phases match between test point (V)	Voltage between phases when the phases do not match between test point(V)
		Type	Working voltage (V)	Service life (H)		
1	DXN8-7.2~40.5/T8	Ultra-high brightness luminous tube	< DC2.5	> 50000	< AC30	> AC60
2	DXN8-12/T8S					

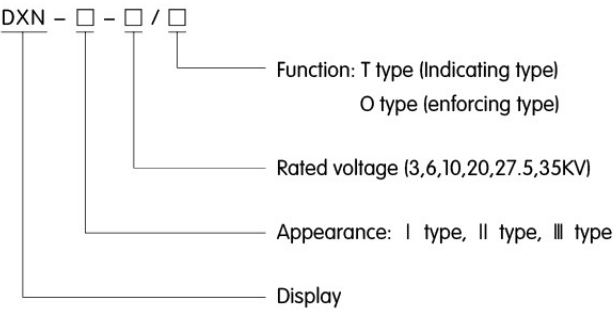


◎ DXN display with interlock (Opening hole 54×32mm)

◎ Technical Parameters

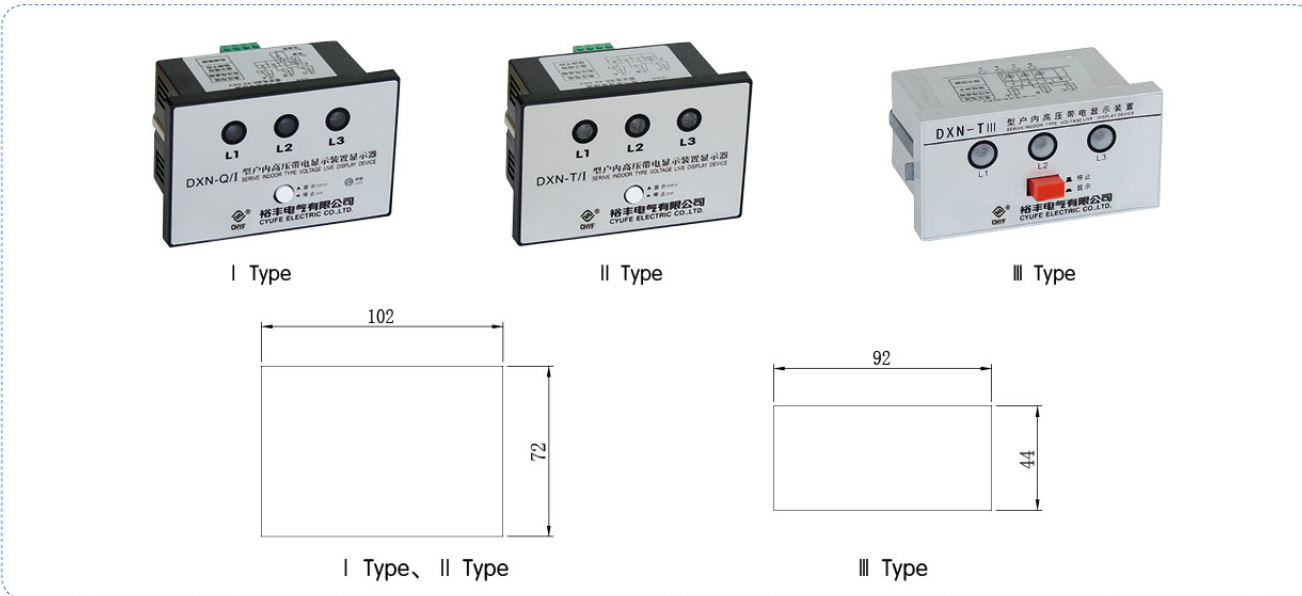
No.	Model number	High Voltage Indication Luminous Parts			Working voltage of interlock (V)	Voltage between phases when the phases match between test point (V)	Voltage between phases when the phases do not match between test point(V)
		Type	Working voltage (V)	Service life (H)			
1	DXN8-7.2~40.5/QT4	Ultra-high brightness luminous tube	< DC2.5	> 50000	AC 220 DC 220 DC 110	< AC30	> AC60
2	DXN8-7.2~40.5/QT4C						
3	DXN8-12/QT4S						
4	DXN8-12/QT4SC						

◎ DXN display's specification



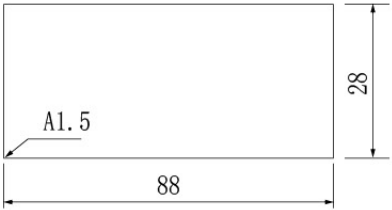
Type I and Type II has two styles for choice, indicating type T and forced close type Q, while Type III has only indicating type.

◎ DXN front panel size

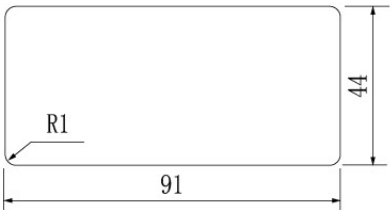




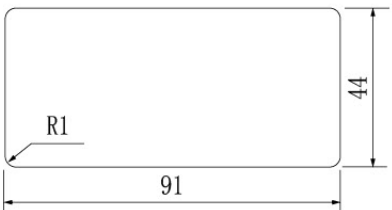
◎ DXN-T-II Live display Outline and installation dimension



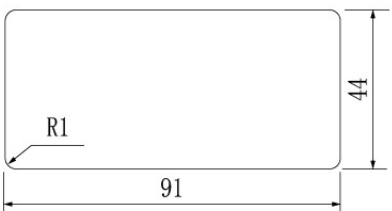
◎ DXN-Q-II Live display Outline and installation dimension



◎ DXN8D-Q Live display Outline and installation dimension

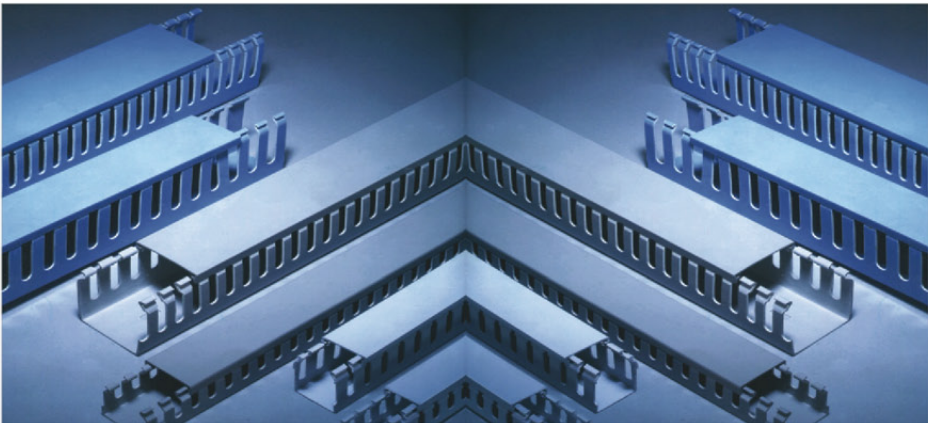


◎ DXN8D-Q Live display (pluggable) Outline and installation dimension



COIL PROTECTION SERIES

◎ Wiring duct



Product name: Wiring duct
Product material: Nanya rigid PVC, good insulation, non-spontaneous combustion, temperature resistance to 8° C.
Product structure: It is composed of the bottom of the tank and the cover of the tank, and there are outlet holes on both sides of the bottom tank.
Working temperature: The bottom of -25 can be continuously high temperature to 75 degrees, and it can withstand heat up to 85 degrees in an instant. How to use: First fix the bottom groove, put the wires to be distributed into the groove, and cover the groove cover.
Product features:
1. The square buckle slot cover and the slot body design will never fall off after being combined, and the joint surface is smooth, which will not cut hands or scratch nearby wiring.
2. It is not easy to break, deform and change color within 70 degrees of the wiring groove, save time and facilitate assembly, and has good fire resistance and insulation performance.
3. Low outlet holes, easy assembly, simple disassembly, and easy wiring.
Scope of application: stage, electrical, air-conditioning engineering, high and low voltage control peanut cabinet cabinets, large mechanical equipment and other indoor overhead cable layout, general industrial plants have acid and alkali corrosion and power line layout and protection in the waterproof area.

Product structure diagram				
Specification (height x width)	Package (piece/meter)		Specification (height x width)	Package (piece/meter)
20x15	100		50x15	100
20x20	100		50x25	100
20x25	100		50x30	100
25x25	100		50x35	100
30x15	100		50x40	100
30x20	100		50x45	100
30x25	100		50x50	100
30x30	100		50x55	100
30x35	100		50x60	100
30x50	100		50x80	60
35x25	100		50x100	60
35x35	100		60x35	100
40x25	100		60x40	100
40x30	100		60x60	8
40x35	100		80x35	60
40x40	100		80x45	60
40x50	100		80x50	60
40x60	100		80x55	60
45x45	100		80x80	36
45x50	100		80x100	36
			100x100	36