

# DM High- Voltage distribution cabinet



## DM High -voltage distribution cabinet

Focusing on various fields of emergency equipment power supply, in addition to meeting the control, protection, and monitoring functions of conventional high-voltage cabinets, we also customize control and protection for high-voltage parallel connection, grid connection, ATS, and multi voltage output for different application areas of generator sets. Special application scenarios such as high altitude, high cold, and high protection level container type high-voltage cabinets.

It can be equipped with current mainstream circuit breakers, and the cabinet has ample cable connection space and a complete and reliable five proof interlocking device.

The series of high-voltage cabinets supporting the generator set include: high-voltage parallel cabinets, grid connected cabinets, ATS cabinets, incoming cabinets, PT cabinets, outgoing cabinets, lifting cabinets, grounding anode cabinets, and DC cabinets.

Suitable for power plants, substations, industrial and mining enterprises, and other power users.



Emergency equipment power supply OEM supporting  
and application solutions professional service provider

## Technical characteristics

### Good security

» The switchgear has comprehensive anti error operation measures and is equipped with reliable mechanical locking devices, meeting the "five prevention requirements", including preventing loaded push-pull circuit breaker handcart or other unit handcart, preventing live accidental closing of the grounding switch, preventing the grounding switch from pushing the handcart in the closed position, preventing accidental entry into the live interval, and other mechanical locking to protect the safety of operators and equipment to the greatest extent possible.

» The working and testing positions of the circuit breaker inside the switchgear are accurately positioned, and the mechanical locking ensures that only when the circuit breaker handcart is in the accurate working or testing position, can the circuit breaker be opened for operation. The mechanical locking mechanism also ensures that the push-pull operation of the circuit breaker handcart is only allowed when the circuit breaker is in the open state.

» The grounding switch adopts a fast closing mechanism with short-circuit closing ability, mainly operated manually, with a closing and opening indicator. The operating mechanism linkage is equipped with a mechanism interlocking device, which achieves mechanical locking between the circuit breaker handcart and the door of the cable room to prevent pushing the circuit breaker handcart or accidentally entering the live interval when the grounding switch is in the closed state. The grounding switch can also be equipped with a locking electromagnet to achieve electrical interlocking between the grounding switch and equipment outside the cabinet.

» A metal valve is used in front of the static contact box for the entrance and exit of the handcart room. When the handcart exits work, the metal valve will automatically close, covering the static contact box and meeting the requirements of IP2X protection level. Therefore, it can ensure the personal safety of operation and maintenance personnel and not accidentally touch the live static contact. In addition, the valve drive mechanism can be equipped with a

padlock when the handcart is in the movable position to prevent accidents caused by non professional switchgear operators and maintenance personnel forcibly opening the valve.

» The switchgear adopts a metal armor design, with a high level of protection (IP4X) for the outer shell. The openings for power and control cables are sealed with rubber rings, which can prevent dirt and small animals from entering the cabinet and protect the insulation layer of the cables.

» There are inspection windows made of double-layer special glass on the door panels of the handcart room and cable room. There is a certain air gap between the double-layer glass, which makes it convenient to observe the position status of the handcart and the working status of the incoming and outgoing cables, while also maintaining the ability of the switchgear to resist internal arc faults.

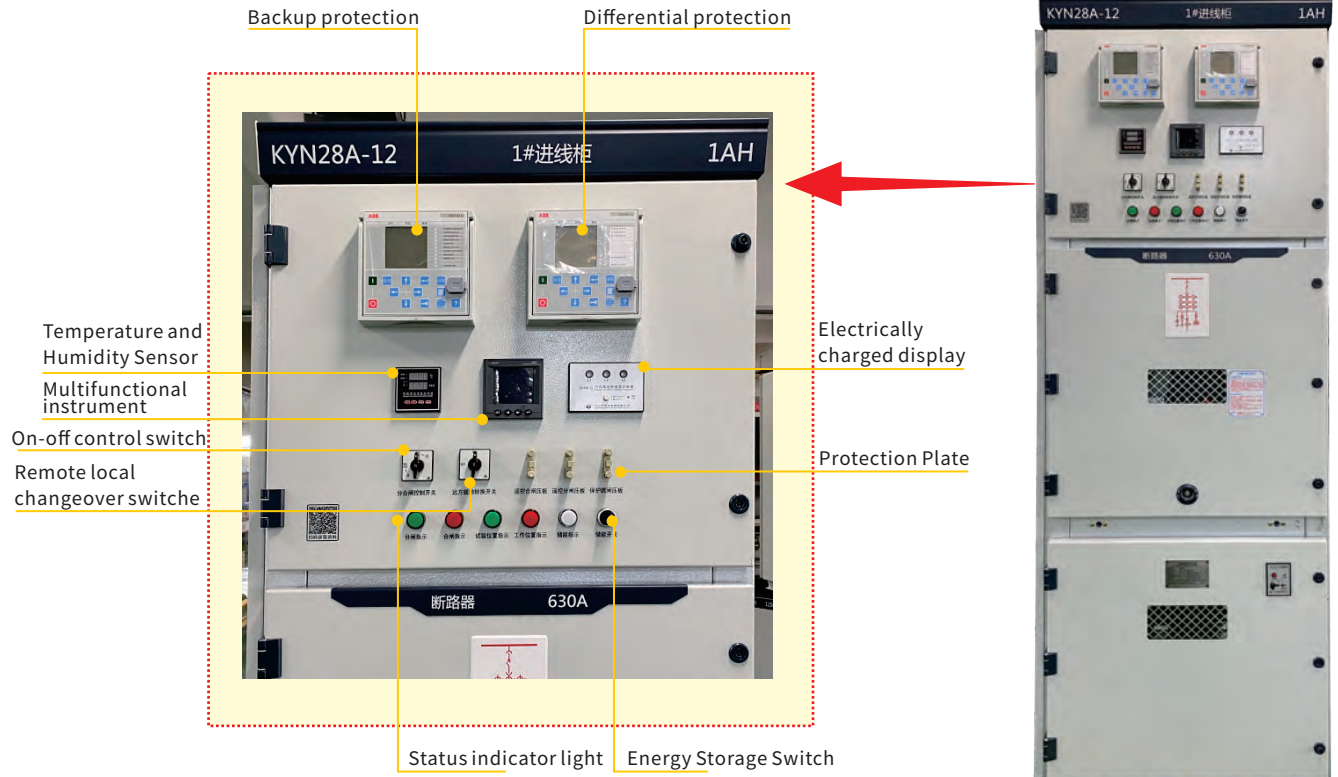
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» The three high-voltage compartments of the switchgear are equipped with pressure release channels to release the pressure generated by internal arc faults. The pressure release opens upwards and backwards under the pressure generated by internal arc faults, ensuring that operators in front of the cabinet are not injured by the released high-temperature gas.

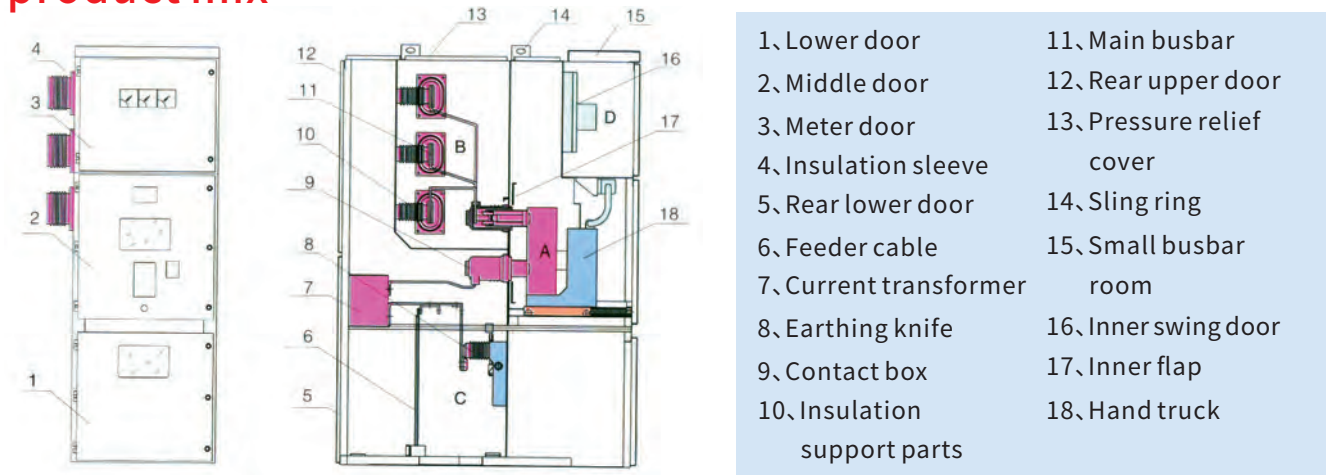
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## Product showcase



## product mix



## Cabinet description

» The outer shell of the cabinet and the partitions of each functional unit are assembled using aluminum zinc coated panels processed by CNC equipment such as cutting, punching, and bending. They not only have good corrosion resistance, but also have good consistency in size. The front door of the switchgear is coated with electrostatic spray paint, and the color can be customized according to customer needs, with a beautiful appearance.

» The cabinet is divided by metal partitions into: A. handcart room, B. busbar room, C. cable room, D. instrument room. Each unit is independently grounded and has good grounding connectivity. The protection level of the shell is IP4X, and the protection level between compartments and when the circuit breaker room door is opened is IP2X, meeting the "five protection" requirements. The top of the handcart room is equipped with a pressure relief cover, and the bottom is connected to a grounding copper busbar. When the handcart is pushed into the cabinet, it can be reliably grounded through the grounding copper busbar; There is also a control cable square hole at the bottom of the left front side of the cabinet, and the control cable can be connected to the relay instrument room and small busbar room along the channel.

## Applications and conditions of high-voltage cabinets

### Scope of Application

» Power grid or generator set supporting, parallel machine and grid, transmission and distribution. The basic use environment reads basic type use environment.

### Basic usage environment

- A. Test environment temperature:  $-20^{\circ}\text{C} \sim +40^{\circ}\text{C}$ , daily average temperature  $>35^{\circ}\text{C}$
- B. Test relative humidity: daily average  $<95\%$ , monthly average  $<90\%$
- C. Test altitude  $\leq 2000$  meters.
- D. No fire, explosion hazard, severe pollution, chemical hazards  
Places with corrosion or severe vibration.
- E. Special usage environment shall comply with the agreed requirements of the other party.

### Special use environment

» When the switchgear is installed in an area with an altitude greater than 2000 meters, necessary insulation measures must be taken through consultation with the manufacturer when placing an order.

When the ambient temperature exceeds  $+40^{\circ}\text{C}$ , the rated current carrying capacity of the switchgear will be reduced by a certain coefficient, and confirmation from the manufacturer must be obtained when placing an order.

### Special Consideration

» In many regions of China, the temperature is relatively high and fluctuates rapidly with a large amplitude. When operating in such a climate environment, there is a risk of condensation in the switchgear. Therefore, when the switchgear is in standby and operating conditions, users should ensure that the heater is put into operation all day long.



## High-voltage cabinet optional configuration

NO.	Name	Function
1	Vacuum breaker	Circuit protection
2	Microcomputer integrated protection	Parameter detection & protection
3	Voltage transformer	Voltage measurement
4	Current transformer	Current Measurement
5	High-voltage lightning arrester	Transient overvoltage protection
6	Multifunction meter	Electrical Parameter Detection
7	Temperature and humidity controller	Temperature and humidity control



## High voltage cabinet technical parameters

Sports event		Unit	Data
Rated voltage		KV	3.6~12
Rated frequency		HZ	50
Rated insulation level	1minFrequency withstand voltage	KV	42/48 (Notch)
	Lightning Impulse Withstand Voltage	KV	75/85 (Notch)
Main busbar rated current		A	630/1250
Rated short-time withstand current of main busbar		KA	20、25、31.5
Rated short-circuit duration of main busbar		S	4
Rated short-time withstand current of grounding circuit		KA	Determined by 86.6% of the rated short-time withstand current of the main busbar
Rated short-circuit duration of the grounding circuit		S	2
Rated short-circuit breaking current		KA	20/25/31.5
Protection level			IP4X for enclosure, IP2X for breaker compartment door opening

### Notes:

1. The rated current/rated short-term withstand current of the functional unit depends on the corresponding rated value of the component with the smallest rated current/rated short-term withstand current connected in series in the main circuit of the unit;
2. The rated peak withstand current is 2.5 times the rated short-circuit breaking current;
3. The peak rated short-circuit making current is 2.5 times the rated short-circuit breaking current.

## High -voltage cabinet description

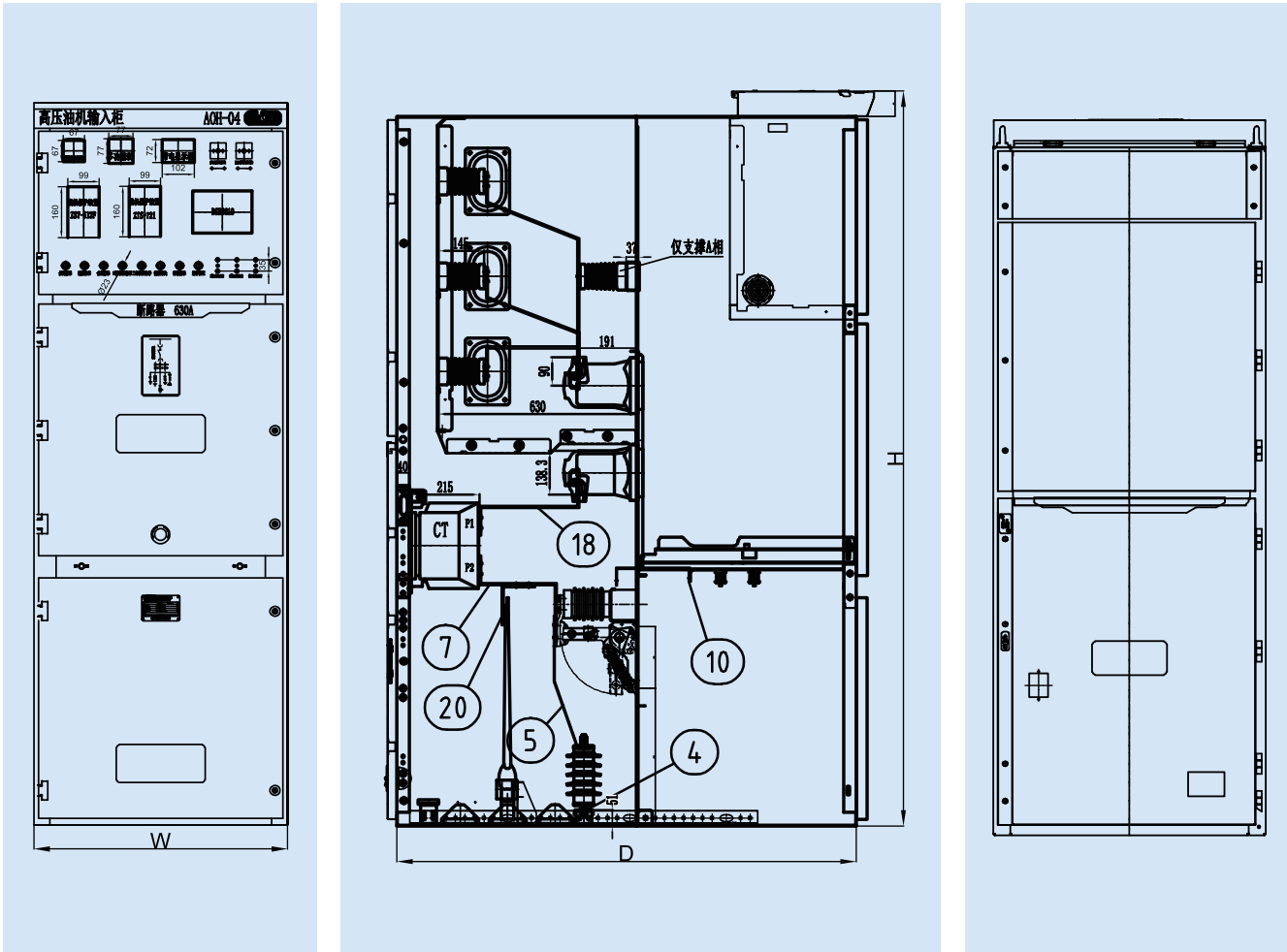
- » The GEG series high-voltage switchgear is an intelligent single machine or parallel high-voltage switchgear, which can achieve single machine operation, parallel operation of multiple machines, and can also be used for parallel operation with the power grid. Automatic frequency/voltage adjustment, synchronous closing, and allocation of active and reactive loads according to set values during parallel operation. Provide comprehensive monitoring, protection, and fault diagnosis functions for the generator set. The control system is designed with automatic parallel system and emergency manual parallel system.
- » The GEG series high-voltage parallel cabinet adopts KYN cabinet type, imported Czech ComAp intelligent control system, remote monitoring system and parallel module, electric operated circuit breaker and other configurations.
- » The GEG series high-voltage parallel cabinet can set the main and backup units inside the parallel controller. When the mains power is cut off, the main unit will automatically start. When the main unit is loaded to 80% (adjustable), the second unit will automatically start, and the two units will automatically synchronize and parallel with the load. After the mains power is restored, the two units will automatically open and stop.
- » The GEG series high-voltage parallel cabinets can be pre designed according to customer specific requirements, with no load parallel before load; Starting a single unit, call the second unit to start and load according to the amount of load.

Specification and dimensions of high-voltage cabinet

Model	Overall dimensions /mm (W*D*H)	Opening external dimensions /mm (L*C*H)	Packaging & Shipping Dimensions/mm (E*F*I)	Mounting Dimensions /mm (A*B)	Weights (kg)
KYN28A-12	650*1675*2320	650*2910*2320	750*1775*2380	480*1350	1240
KYN28A-12	800*1675*2320	800*2910*2320	900*1775*2380	630*1350	1322

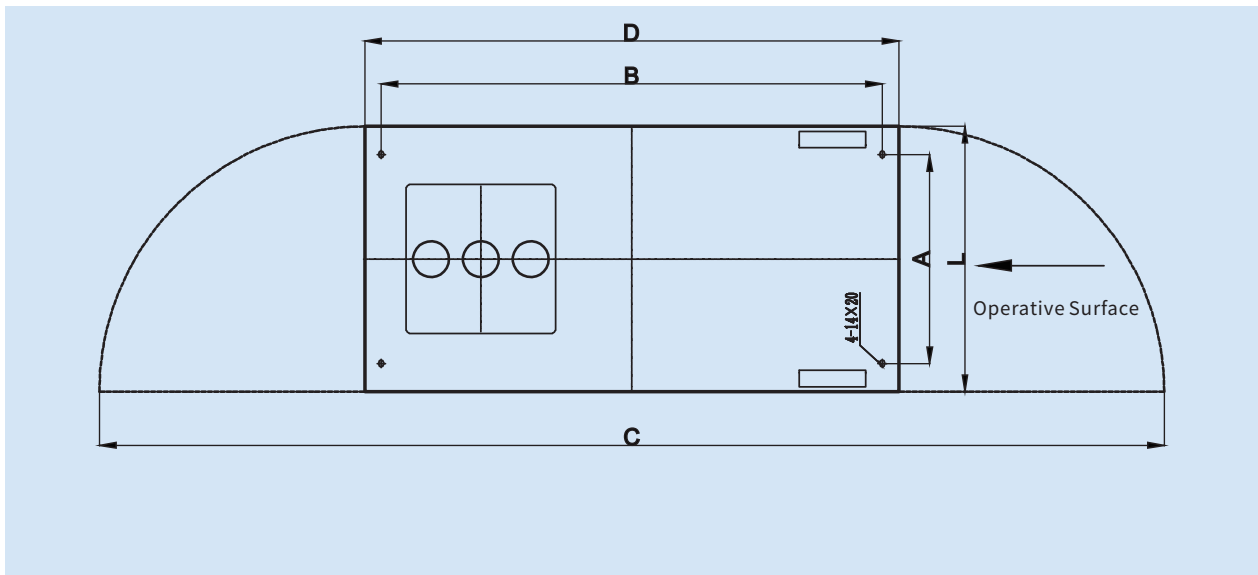
Dimensional drawing of high-voltage cabinet type

»» Outline dimension

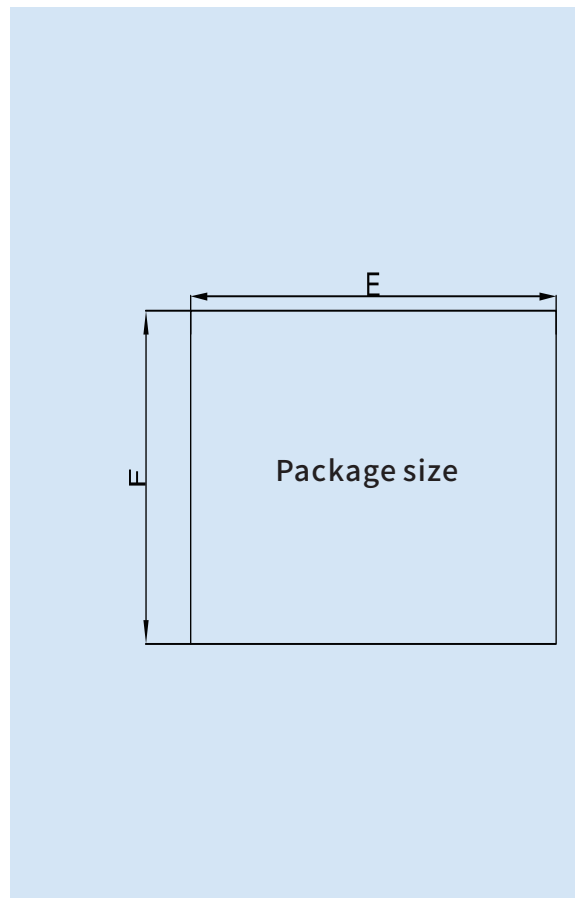
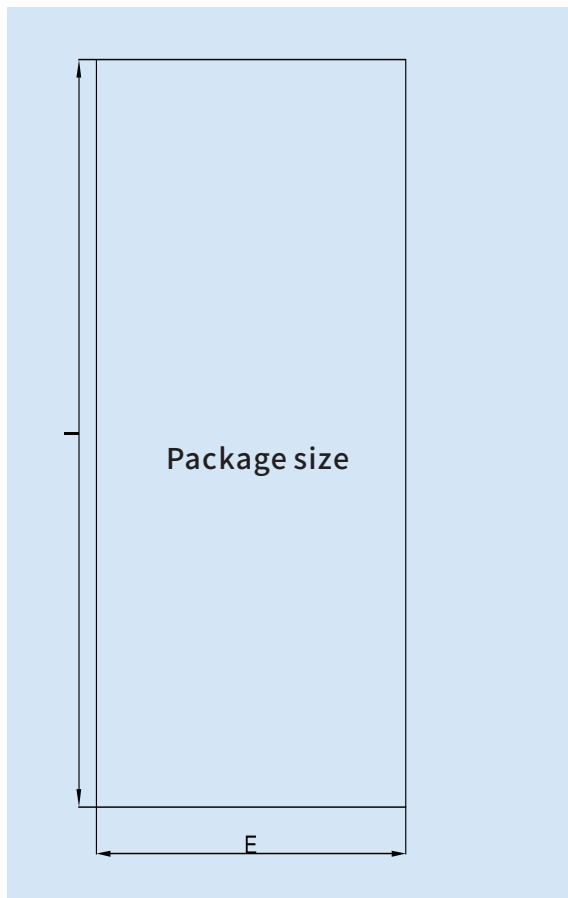


## DM High-voltage distribution cabinet

»» Open the external dimension diagram



»» Packaging dimension diagram

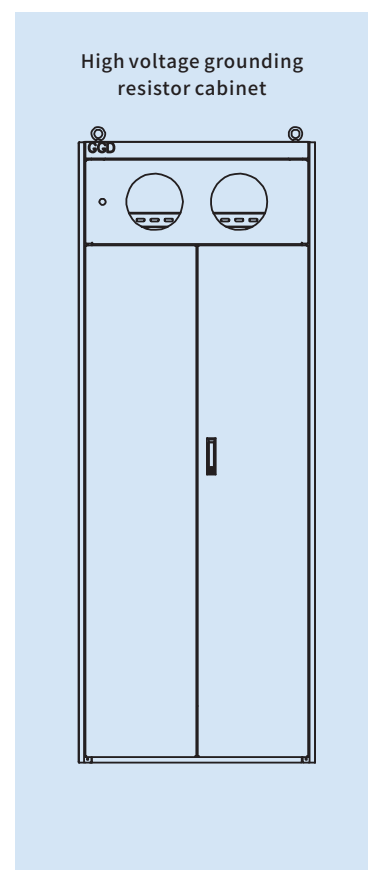
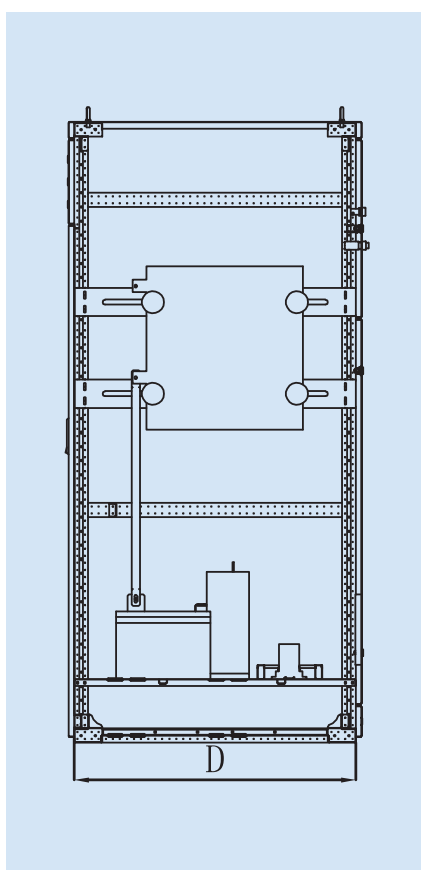
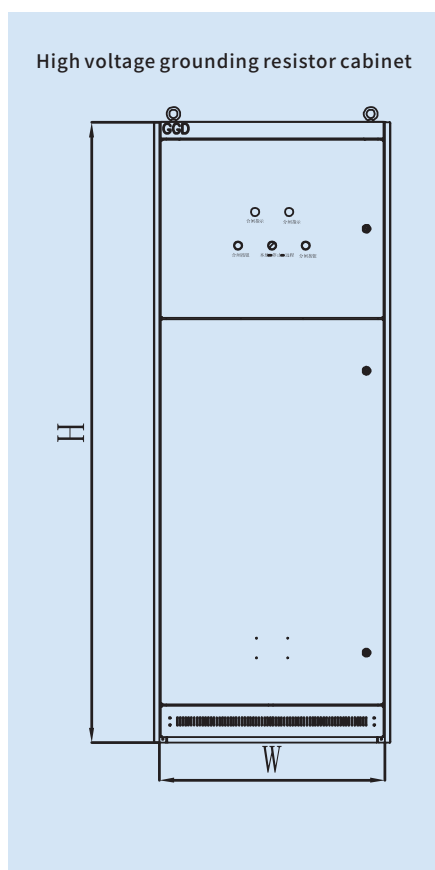


## Dimensions of grounding resistor cabinet (1 generator connected)

parameter	Model	Overall dimensions /mm (W*D*H)	Opening external dimensions /mm (L*C*H)	Packaging & Shipping Dimensions/mm (E*F*I)	Mounting Dimensions /mm (A*B)	Weights (kg)
JDG-3.3KV	19Ω/100A/10S	800*1000*2200	790*2185*2200	900*1100*2300	650*950	250
JDG-4.16KV	24Ω/100A/10S	800*1000*2200	790*2185*2200	900*1100*2300	650*950	250
JDG-6.3KV	36.4Ω/100A/10S	800*1000*2200	790*2185*2200	900*1100*2300	650*950	250
JDG-6.6KV	38.1Ω/100A/10S	800*1000*2200	790*2185*2200	900*1100*2300	650*950	250
JDG-10KV	58.5Ω/100A/10S	800*1000*2200	790*2185*2200	900*1100*2300	650*950	250
JDG-10.5KV	60.6Ω/100A/10S	800*1000*2200	790*2185*2200	900*1100*2300	650*950	250
JDG-11KV	63.5Ω/100A/10S	800*1000*2200	790*2185*2200	900*1100*2300	650*950	250
JDG-11.5KV	66.4Ω/100A/10S	800*1000*2200	790*2185*2200	900*1100*2300	650*950	250
JDG-13.8KV	79.7Ω/100A/10S	800*1000*2200	790*2185*2200	900*1100*2300	650*950	250

## Dimensional drawing of grounding resistor cabinet type

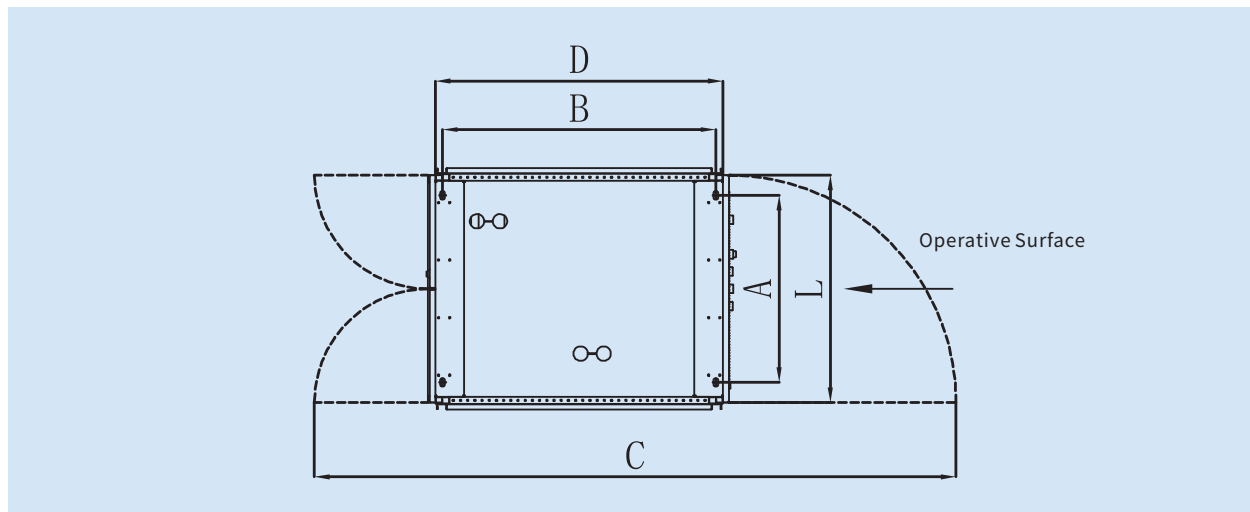
»» Outline dimension



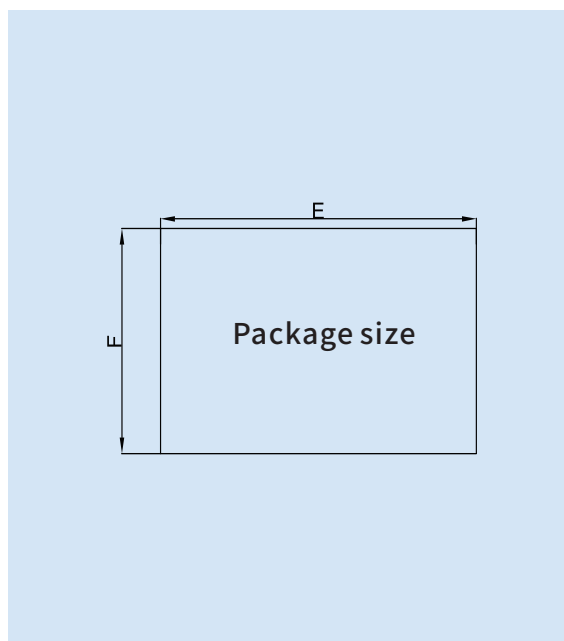
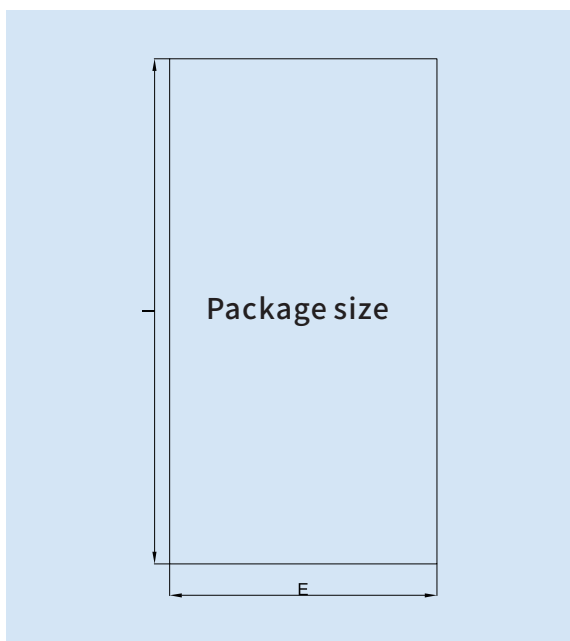


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## »» Open the external dimension diagram



## »» Packaging dimension diagram



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7X24H service hotline:  
**400-700-9669**  
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Songshan Town, Luoyuan County, Fuzhou, Fujian



Scan code  
attention!



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