

GGD

AC low voltage
distribution cabinet

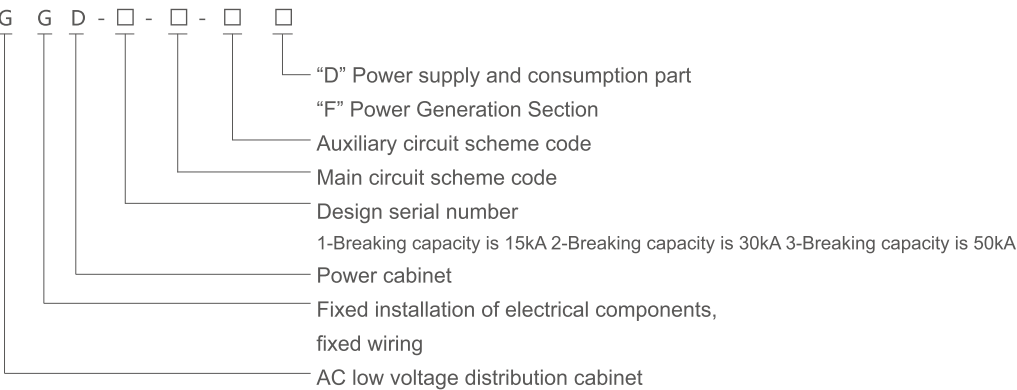


Description

GGD AC low-voltage distribution cabinet is suitable for power users such as power plants, substations, industrial enterprises, etc. It is used as power conversion, distribution and control of power, lighting and distribution equipment in power distribution systems with AC 50Hz, rated working voltage 380V, and rated current to 3150A. This product has the characteristics of breaking capacity and rated short-term withstand current of 50kA. The circuit scheme is flexible, convenient combination, strong practicability and novel structure. This product is one of the representative products of assembled and fixed panel switchgear in China.

This product meets the standards of IEC439 "Low Voltage Complete Switchgear and Control Equipment", GB7251 "Low Voltage Complete Switchgear" and other standards.

Product model No. and its implication



Main parameter

1. Main technical parameter to see below table

Model No.	Rated voltage (V)	Rated current (A)		Rated short-circuit switching current (kA)	Rated short-time withstand current (kA)	Rated peak value withstand current (kA)
RGGD1	380	A	1000	15	15	30
		B	600(630)			
		C	400			
RGGD2	380	A	1500(1600)	30	30	63
		B	1000			
		C	600			
RGGD3	380	A	3150	50	50	105
		B	2500			
		C	2000			

SWITCHGEAR

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2. Auxiliary circuit solution

The design of auxiliary circuit is divided into two parts: power supply and consumption scheme and power plant scheme.

3. Main bus

When the rated current is 1500A and below, a single copper busbar is used. When the rated current is greater than 1500A, a double copper busbar is used, and the overlapping surfaces of the busbars are treated with tin enameling process.

4. Electrical component selection

A. GGD cabinets mainly use more advanced electrical components that can be mass-produced in China. Such as RDW17, DZ20, DW15, etc.

b. HD13BX and HS13BX rotary-operated knife switch is a special component designed by NLS to meet the needs of the unique structure of GGD cabinet. It changes the operation mode of the mechanism and retains the advantages of old products. It is a utility model electrical component.

c. If the design department selects new electrical components with better performance and more advanced technology according to user needs, GGD cabinets have good installation flexibility and generally will not cause manufacturing and installation difficulties due to updating electrical components.

d. In order to further improve the dynamic stability of the circuit, the bus support of the GGD cabinet adopts special ZMJ combined bus clamps and insulation supports.

The busbar clamps are hot-molded from high-strength, high-flame-retardant PPO composite materials. They have high insulation strength, good self-extinguishing performance, and a unique structure. They can be easily combined into single busbar or double busbar clamps only by adjusting the building blocks. The insulation support is a sleeve-type molded structure, which has low cost and high strength, and solves the defect of insufficient creepage distance of old products.

Structure characteristics

1. The cabinet of GGD AC low-voltage distribution cabinet adopts the form of a general cabinet. The frame is partially welded or assembled with 8MF cold-formed steel. The frame parts and special supporting parts are produced and supplied by our company to ensure the accuracy and quality of the cabinet. The parts of the general cabinet are designed according to the modular principle, and have 20 modular mounting holes. The general coefficient is high, which can enable the factory to achieve pre-production, which not only shortens the manufacturing cycle, but also improves the work efficiency.

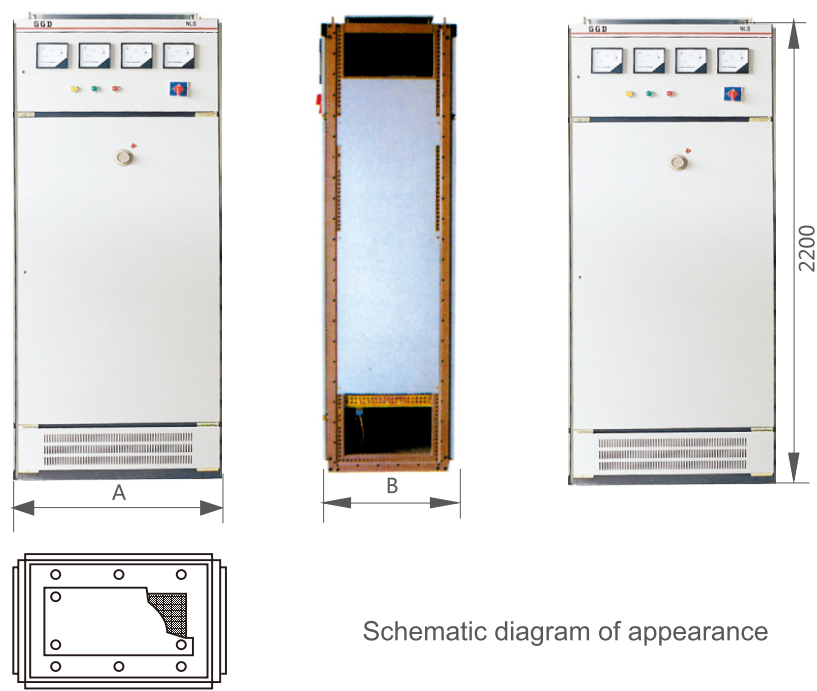
2. The design of the GGD cabinet fully takes into account the heat dissipation problem during the operation of the cabinet. There are different numbers of heat dissipation slots at the upper and lower ends of the cabinet. When the electrical components in the cabinet generate heat, the heat rises and is discharged through the upper slots. The cold air is continuously supplemented into the cabinet through the lower slots, so that the sealed cabinet forms a natural ventilation channel from bottom to top to achieve the purpose of heat dissipation.

3. In accordance with the requirements of modern industrial product modeling design, the GGD cabinet adopts the golden ratio method to design the cabinet shape and the division dimensions of each part to make the entire cabinet beautiful and generous.

4. The cabinet door is connected to the frame with a rotating shaft movable hinge, which is easy to install and disassemble. A mountain-shaped rubber and plastic strip is embedded at the hem of the door. When closing the door, the strip between the door and the frame has a certain compression stroke, which can prevent Direct collision between the door and the cabinet, it also improves the protection grade of the door.

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- 5. The instrument door equipped with electrical components is connected to the frame with multiple strands of soft copper wires. The mounting parts in the cabinet are connected to the frame with knurled gaskets, and the entire cabinet forms a complete grounding protection system.
- 6. The cabinet surface paint can be treated with polyester orange-shaped baking paint or plastic powder spray process. Both have the characteristics of strong adhesion and good texture. The entire cabinet has a matt tone, which avoids the glare effect and creates a more comfortable visual environment for the personnel on duty.
- 7. The top cover of the cabinet can be removed when needed to facilitate the assembly and adjustment of the main busbar on site. The four corners of the top of the cabinet are equipped with lifting rings for lifting and shipping.
- 8. The protection level of the cabinet is IP30, and users can also choose between IP20 and IP40 according to the requirements of the use environment.



Schematic diagram of appearance