GGD Communication

Low Voltage Distribution

Cabinet

Product Overview

This AC low-voltage distribution cabinet is suitable for power plants, substations, industrial and mining enterprises and other power users with an AC frequency of 50HZ, rated working voltage of 380V, and rated working current up to 3150A in the power distribution system. It is used for energy conversion, distribution, and control of power, lighting, and power distribution equipment.

The Communication Low Voltage Distribution Cabinet has been designed according to the requirements of the competent authorities of the Ministry of Energy, a wide range of power users, and design departments. Following the principles of safety, economy, rationality, and reliability, this new type of low-voltage distribution cabinet features high breaking capacity, good dynamic and thermal stability, flexible electrical schemes, convenient combinations, strong series and practicality, novel structure, and high protection levels. It can be used as an update replacement product for low-voltage complete switchgear.

This AC low-voltage distribution cabinet complies with IEC439 "Low-voltage Complete Switchgear and Control Gear" and GB7251 "Low-voltage Complete Switchgear and Control Gear" standards.

Ordering Information

When ordering, please provide the following parameters:

1.Full model of the product (including main circuit scheme number and auxiliary electrical scheme number)

2.Combination sequence diagram of the main circuit system

3.Electrical schematic diagram of the auxiliary circuit

4.List of components inside the cabinet

5.Other special requirements that do not meet the normal operating conditions of the product

Product parameters

型 号	额定电压（V）	额定电流（A）		额定短路开断电流（KA）	额定短路耐受电流(IS)(KA)	额定峰值耐受电流（KA）	外壳防护等级
GGD1	380	A	1000	15	15	30	
		B	600(630)				
		C	400				
GGD2	380	A	1500(1600)	30	30	63	IP30
		B	1000				
		C					
GGD3	380	A	3150	50	50	105	
		B	2500				
		C	2000				

Usage Conditions

1.The surrounding air temperature shall not exceed +40°C and shall not be lower than -5°C. The average temperature within 24 hours must not exceed +35°C.

2.Indoor installation is required, and the usage location's altitude must not exceed 2000 meters.

3.The relative humidity of the surrounding air at a maximum temperature of +40°C must not exceed 50%. Higher relative humidity is allowed at lower temperatures (for example, 90% at +20°C). Consideration should be given to the possibility of condensation due to temperature changes.

4.When installing equipment, the tilt from the vertical plane must not exceed 5%.

Installation and Usage

After the communication low voltage distribution cabinet arrives at the receiving location, the packaging should first be inspected for completeness and any damage. Any issues discovered should be promptly reported to the relevant departments for investigation. For products that are not immediately installed, they should be stored in an appropriate location according to normal usage conditions.

Product Installation:

Installation of the product should follow the installation diagram. Base channel steel and bolts are to be prepared by the user. During main busbar installation, the contact surfaces

should be repaired to be flat and clean, coated with neutral petroleum jelly or other measures taken, then tightened with bolts.

Pre-Operation Checks and Tests after Installation:

A. Check if the cabinet surface paint has peeled off, and ensure the inside of the cabinet is dry and clean.

B. Ensure that the operating mechanisms of electrical components are flexible, without jamming or excessive operating force.

C. Confirm that the on/off functionality of primary electrical components is reliable and accurate. Also, check that auxiliary contacts open and close reliably and accurately.

D. Verify the accuracy of instrument indicators and the transformation ratio and polarity of current transformers.

E. Inspect whether the busbar connections are good, and ensure that insulating supports, mounting parts, and accessories are firmly and reliably installed.

F. Confirm that auxiliary contacts meet requirements, the fuse core specifications are correct, the relay settings conform to design requirements, and their actions are accurate.

G. Check that circuit connections comply with the circuit schematic diagram requirements.

H. Ensure that the protection circuit system meets requirements.

I. Measure insulation resistance using a 500-volt megohmmeter; it must not be less than 1 megohm.

Advanced Production Equipment

GNEE Steel Group owns a full set of shearing, packaging, vacuum casting, vacuum impregnation, and testing stations that represent the high level of the industry. These top-notch production and testing equipment guarantee the creation of first-class products. The company continuously improves its design methods, achieving the most advanced computer-aided design to meticulously craft perfect products.

Production Environment

The workshop of GNEE Steel Group has strict process management and a closed management system. Regular purification and dust removal tests are conducted to meet the necessary requirements for producing high and low voltage transmission products. It has also passed ISO9001 quality certification and third-party inspection certification for international bidding.

Autonomous Raw Material Supply

The iron cores and electromagnetic wires used in our company's products are all produced independently, which allows better control over the quality and delivery time of raw materials while reducing product costs.

Raw Material Production Environment

INTIMATE COMMUNICATION

Pre-sale, during-sale, and after-sale, we are with you every step of the way.

As long as you get in touch with us, we will communicate with you sincerely. Pre-sale, we will provide you with relevant product information; if you have special requirements, we can develop according to your needs and propose solutions under mutual recognition; during-sale, we will keep in touch with you throughout the process and inform you of the production progress, strictly following all the requirements in the contract; after-sale, our comprehensive "three guarantees" service system will ensure that you use our products with comfort, confidence, and satisfaction.

Inspection, Training, Guidance - All Free Of Charge.

As long as you are interested in our products and get in touch with us, we will take the initiative to contact you and arrange free inspections and factory experiences. We can also dispatch technical personnel to provide you with a free customized overall solution. Before the implementation of the solution, we will offer free training for your technical staff to inform them of the relevant knowledge about installation, commissioning, and maintenance of the product. During the equipment installation process, we will also provide you with free installation guidance. As long as it is your requirement, it is our mission; we will provide you with perfect services throughout the entire process.

Power Supply System Solutions Equipment Provider

Real Estate Development

In real estate development, container substations are widely used. In addition to short construction periods, low investment, small land occupation, and a new and beautiful appearance, the greatest advantage of this transformer is that it is installed in a moisture-proof, anti-corrosion, dust-proof, fire-proof, theft-proof, heat-insulating, fully enclosed, and mobile steel structure box. It integrates electromechanical equipment and runs fully enclosed, ensuring safety and long-term usability.

Industrial Enterprises

The fully sealed oil-immersed power transformer has the advantages of low loss, low noise, and high efficiency, which can achieve good energy-saving effects and reduce pollution. Compared with ordinary oil-immersed transformers, fully sealed transformers eliminate the need for an oil reservoir, and the changes in oil volume are automatically compensated by the elasticity of the corrugated oil tank's corrugated plates. The transformer is isolated from the air, preventing and slowing down the aging of oil and insulation, enhancing operational reliability, and requiring no maintenance during normal operation. Epoxy resin cast dry-type transformers can be used as updated replacement products for oil-immersed distribution transformers and are the best-performing products among various two-type transformers. They are particularly suitable for urban grids, high-rise buildings, business centers, theaters, hospitals, hotels, tunnels, subways, underground stations, laboratories, stations, docks, airports, combined substations, and other important places.

Oil Fields and Mines

High-efficiency energy-saving adjustable capacity transformers are designed based on the working characteristics of oil field pumping units. When the pumping unit starts, the transformer's output voltage is the rated input voltage of the motor, ensuring that the pumping unit has sufficient starting torque. After the pumping unit starts and enters the normal state, the control system will detect the size of the effective power consumed by the motor through sensors and feed it back to the microcomputer intelligent control system. Through calculations, it automatically adjusts the output voltage and capacity of the transformer, then detects, records, and compares the effective power consumed by the motor on the pumping unit, eventually finding the operating point where the consumption of effective power is minimal, achieving the purpose of energy saving. In terms of structural design, strong anti-theft measures have been taken, effectively preventing the theft of high-efficiency energy-saving transformers. At the same time, during the energy-saving operation of the pumping unit, according to the set anti-electricity theft time method, the output voltage fluctuates, making it impossible for home appliances to function even if the electricity is stolen back. Therefore, the transformer has high-performance anti-theft functions.

Photovoltaic Power Generation Group

GNEE Steel Group launched wind power generation-specific step-up equipment - wind power dedicated combined transformers, which have the advantages of low no-load loss, high insulation strength, no leakage, strong adaptability to outdoor environments, and less maintenance.