

TGG1 Fixed Type Low Voltage Switchgear



1 Overview

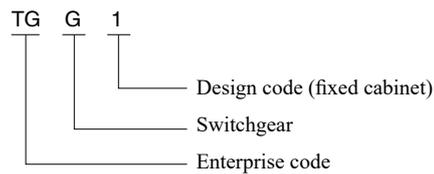
TGG1 fixed low voltage switchgear (hereinafter referred to as "fixed cabinet") is used in AC 50Hz power distribution system with rated operating voltage 380V/400V and with rated operating current up to 4000A in the power consumers such as power plants, substations, factories and mining enterprises for electric energy conversion, distribution, and control of the power, lighting and power distribution equipment.

The fixed cabinet has advantages of high breaking capacity, good dynamic and thermal stability, flexible power scheme, convenient combination, complete seriality, strong practicality, novel structure, and high protection grade. The fixed cabinet produced by our company is optimized and improved on the basis of traditional GGD, and passes the relevant type test, and 3C certification.

Standards:

IEC61439-1:2011 Low-voltage switchgear and controlgear assemblies

2 Type Designation



3 Product Parameters

Name	Unit	Parameter
Rated operating voltage	V	AC380V
Rated insulation voltage	V	AC660V
Rated frequency	Hz	50Hz
Aux. circuit rated operating voltage	V	AC380、220、DC220、110
Main busbar rated current	A	630~4000
Main busbar rated shor time withstand current	kA	15/1S、30/1S、50/1S
Main busbar rated peak withstand current	kA	30、63、105
Branch busbar rated current	A	400~1600
Branch busbar rated short time withstand current	kA	30/1S
Branch busbar rated peak withstand current	kA	63
Polltion degree	/	3
Shell protection grade	/	IP30

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4 Working Environmental Conditions

- 4.1 Ambient temperature: The ambient air temperature is not higher than +40°C, and the mean temperature within one 24-hour period does not exceed +35°C. The lower limit of air temperature is -5°C.
- 4.2 For clean air, the relative humidity must not exceed 50% at a maximum temperature of +40°C. Higher relative humidity is allowed at lower temperatures. For example, the relative humidity is 90% at +20°C. However, it is considered that the moderate condensation may occur occasionally due to temperature changes.
- 4.3 Pollution degree: 3.
- 4.4 Altitude: Not exceed 2000m.
- 4.5 Installation: The inclination between the installation position and the vertical plane does not exceed 5°.
- 4.6 The transportation and storage temperature is -25°C ~+55°C, and it can be up to +70°C in a short time (no more than 24h).
- 4.7 The equipment should be installed in a place where there is no severe vibration and impact, and the electrical components are not corroded.

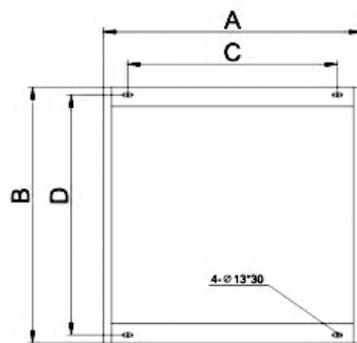
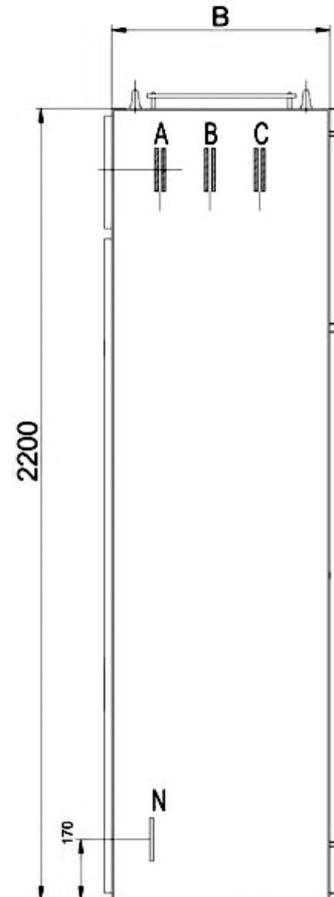
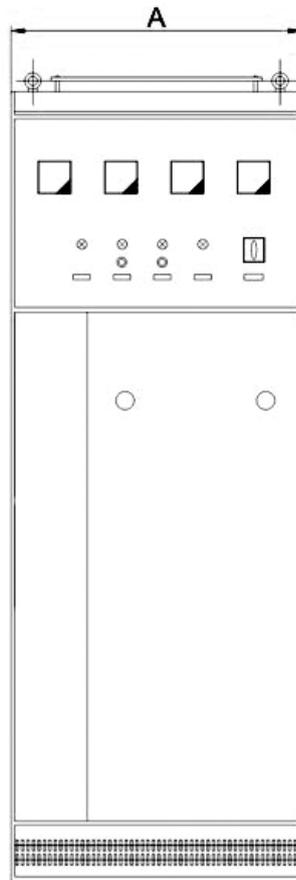
Note: When the working environment conditions are different from the above application environment, please contact the manufacturer.

5 Product Features

- 5.1 The cabinet body of the fixed cabinet adopts the general cabinet form, and the frame is assembled by local welding of 8MF cold-formed steel; the frame parts and special supporting parts are supplied by the designated section steel production plant to ensure the accuracy and quality of the cabinet; the parts of the general cabinet are designed according to the module principle, and there are mounting holes for 20 molds. With high universality coefficient, the pre-production can be realized in factory, shortening the production and manufacturing period and improving the work efficiency.
- 5.2 In the design of the fixed cabinet, the heat dissipation of the cabinet during operation is fully considered. There are different numbers of heat dissipation holes at the upper and lower ends of the cabinet. When the electrical components in the cabinet are heated, the heat rises and is discharged through the upper end slot, and the cold air is continuously fed into the cabinet through the lower slotted hole, making the natural ventilation channel from bottom to top is formed in the sealed cabinet to realize heat dissipation.
- 5.3 For fixed cabinet, the cabinet shape and the cutting dimensions of each part are designed using the golden cut ratio method according to the modeling design of the modern industrial products, making the artistic and elegant shape and new appearance of entire cabinet.
- 5.4 The cabinet door is connected to the frame with a movable hinge of pivot for convenient installation and dismantlement. There is a mountain-shaped rubber strip embedded in the folded edge of the door, and there is certain compression stroke of the strip between the frames when closing the door to prevent direct impact between the door and the cabinet, improving the protection grade of the door.
- 5.5 The instrument door equipped with electrical components is connected to the frame through multi-stranded flexible copper wires, and the mounting parts in the cabinet are connected with knurled screws between the frame to form a complete earthing protection circuit in the cabinet.
- 5.6 The surface of the cabinet is sprayed using the plastic spraying process with strong adhesion and good texture, and the entire cabinet color is matte color, avoiding the dazzling effect and creating a more comfortable visual environment to the staff on duty.
- 5.7 The top cover of the cabinet can be removed when needed for convenient assembly and adjustment of main busbar on site, and there are lighting lugs at four corners of the cabinet roof for lifting and transport.
- 5.8 The protection grade of the cabinet is IP30, and the user can also select IP20 - IP40 according to the environment requirements.

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6 Outline Dimensions and Installation Foundation



Anchor installation dimensions drawings

Installation dimensions and mounting hole see Table below Unit (mm)

A	B	C	D
400	600	250	556
600	600	450	556
800	600	650	556
1000	600	850	556
400	800	250	756
600	800	450	756
800	800	650	756
1000	800	850	756

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7 Ordering Notice

- 7.1 Main circuit plan diagram or single-line system diagram;
- 7.2 Auxiliary circuit principle or wiring diagram;
- 7.3 Model, specification and quantity of electrical components of switchgear;
- 7.4 Layout and distribution room floor plans;
- 7.5 The use of switchgear under special environmental conditions is specified when ordering;
- 7.6 For special requirements, please contact our company and the relevant technical agreements are signed.