

TGG5 fixed separation low-voltage switchgear



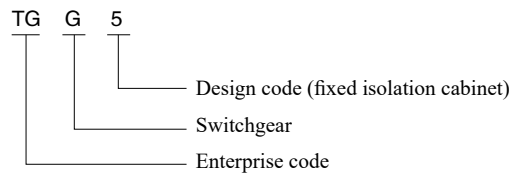
1 Overview

TGG5 fixed separation low-voltage switchgear (hereinafter referred to as "fixed separation cabinet") is a new low-voltage complete set of switchgear developed by our company by combining with the latest technology and process characteristics of current similar products in order to meet the market requirements. It can be widely used in low-voltage distribution systems in power plants, petrochemical industry, metallurgical steel rolling, post and telecommunications, light industry, textile, subway stations and other civil, industrial and mining enterprises as a low-voltage complete set of units for power receiving unit, feeding unit, motor unit, and metering unit. The device can be equipped with a perfect intelligent unit and computer monitoring system to realize the "four remotes" intelligent management such as remote metering, remote regulation, remote signaling and remote control of the entire power distribution system.

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	80/1S
Main busbar rated peak withstand current	kA	176
Branch busbar rated current	A	400~1600
Branch busbar rated short time withstand current	kA	50/1S
Branch busbar rated peak withstand current	kA	105
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.

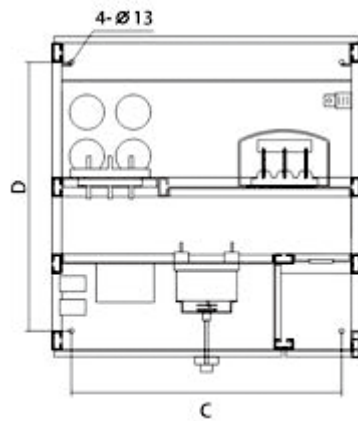
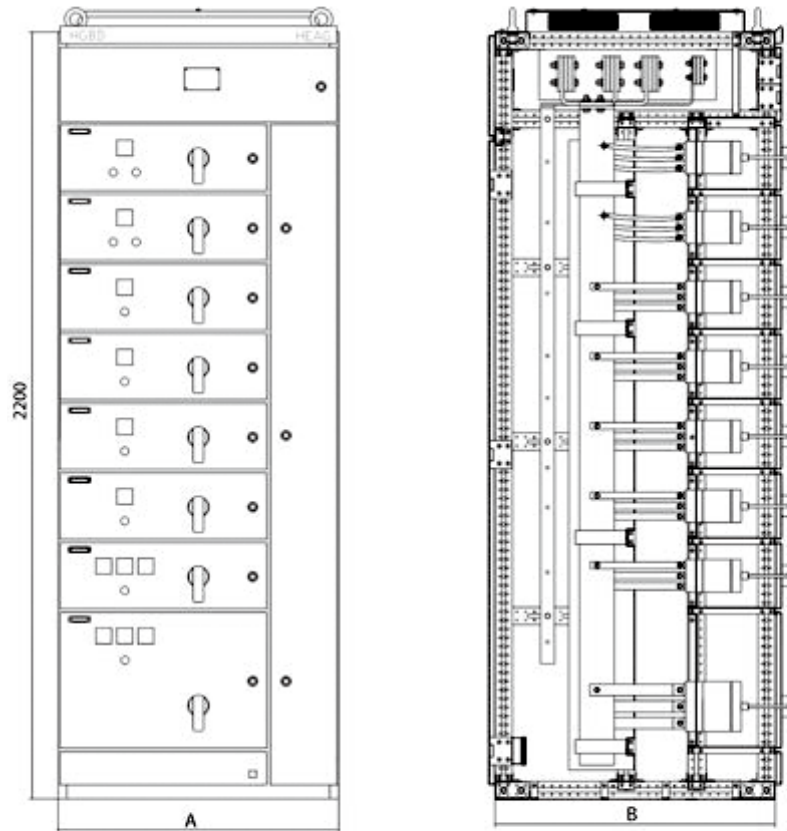
5 Product Features

The basic frame of the device is of the combined assembly structure, and all structural parts of the frame are processed by aluminum-zinc sheet or galvanized sheet and they are connected each other through self-tap lock screws and grade 8.8 hex screws to form a complete device together with the corresponding door, sealing plate, mounting bracket and busbar, function unit. The dimensions of the internal parts of the device and the dimensions of the compartment adopt modular design.

- 5.1 The small chamber of the fixed partition is isolated into an independent functional unit, and there are basic combination types according to the width of the cabinet: a. 600mm and 800mm wide isolation cabinet; the width of the small chamber is 600mm, and there are 200mm, 400mm, and 600mm heights; the installable height of each cabinet is 1800mm; they are combined according to the capacity of the partition unit, suitable for motor control center and feed circuit with a large current, and up to 9 circuits can be installed; b. For isolation cabinet with a width of 1000mm, the width of the small chamber is 500mm, and there are 200mm, 400mm, and 600mm heights, and the installable height is 1800mm; they can be combined according to the requirements, and up to 18 circuits are installed in each cabinet. If required by the special plan, the actual size of the function unit can be designed and combined as needed;
- 5.2 There is an operating handle on each partition unit panel to turn off and turn on the switch. This operating handle has a latch, and the panel cannot work when the circuit breaker is in the ON state to prevent misoperation.
- 5.3 The inlet and outlet wires of the partition unit adopt the cable with the same core diameter according to the size of the circuit current, and copper busbar is used for connection for 400A and above.
- 5.4 Adapters can be used between the small chamber of MCC isolation cabinet unit and the cable chamber to greatly facilitate the installation and maintenance of the cable by the user.
- 5.5 The horizontal busbar is installed in the independent compartment at the top of the cabinet, and it is composed of several busbars with the same specifications, and the maximum flow capacity can be up to 4000A. The vertical busbar is used for distribution of the current for outlet wire of the isolation cabinet, and is located at the center rear in the cabinet and is between two columns of separation units for convenient wire entry into each partition unit. The vertical busbar is separated from the outlet end by a formed insulating plexiglass plate to ensure the safety of service personnel. Except for the doors and sealing plates, the metal structural parts in the device are made of aluminum-zinc sheet or galvanized plate, and the connection of the structural parts are well designed to carry the rated short circuit current.
- 5.6 By considering the universality and safety of the dry type transformers, and the economy of the oil-immersed transformer, the device can be easily combined with dry type transformers or easily connected with the low voltage busbar of oil-immersed transformers
- 5.7 The busbar system of the device is designed according to the three-phase five-wire system and the three-phase four-wire system, and the design department and users can design and select the product according to the needs of the power distribution system.

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6 Outline Dimensions and Installation Foundation



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

Size A	Size B	Size C	Size D
600	800	500	700
	1000	500	900
800	800	700	700
	1000	700	900
1000	800	900	700
	1000	900	900

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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.