

## TGG3 low voltage capacitor compensation cabinet



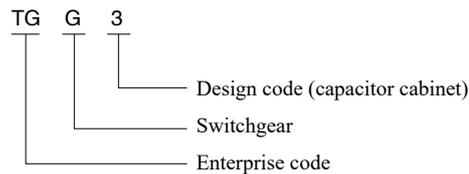
### 1 Overview

TGG3 low voltage capacitor compensation cabinet (hereinafter referred to as "compensation cabinet") is a device specially developed by our company to improve the power factor of the power system for selection by user according to their needs. As most of the load in the power system are inductive loads, and the power electronic equipment is widely used by the electricity enterprise, the power factor of power grid is reduced, thus reducing the utilization rate of the equipment, increasing the investment in power supply, affecting the quality of the power grid, reducing the service life of the equipment, and greatly increasing the line loss. In order to improve the energy waste caused by the low power factor of the power grid and the factors that are not conducive to power supply production, the power factor of power grid must be effectively improved. Obviously, it is unreasonable and usually impossible if these reactive powers are to be provided by generators and transmitted over long distances. Therefore, it is necessary to add reactive power compensation equipment and devices where reactive power is generated.

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
Rated current	A	63.8~530.3
Rated short time withstand current	kA	15
Total rated capacity	kvar	60~500
Number of compensation phases	/	Hybrid compensation (single phase, three phases hybrid compensation)
Component type of switched capacitor	/	Combination switch, conatctor
Harmonic wave inhibition function	/	Optional funciton
Polltion degree	/	3
Shell protection grade	/	IP30, IP40 optional

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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.

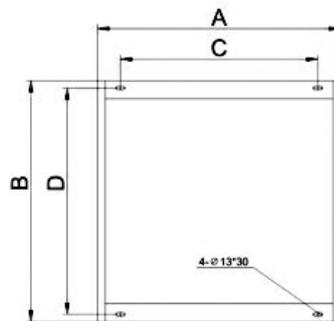
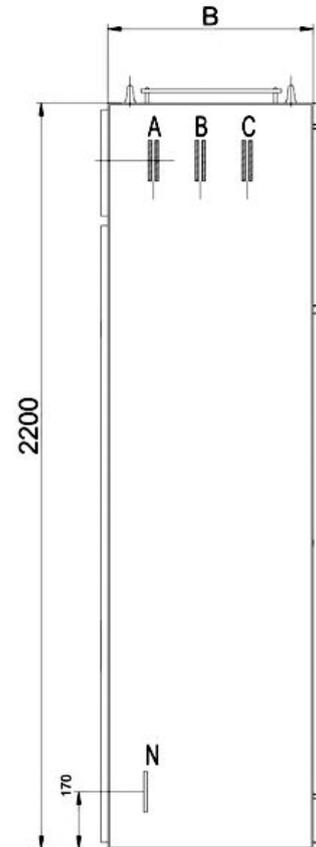
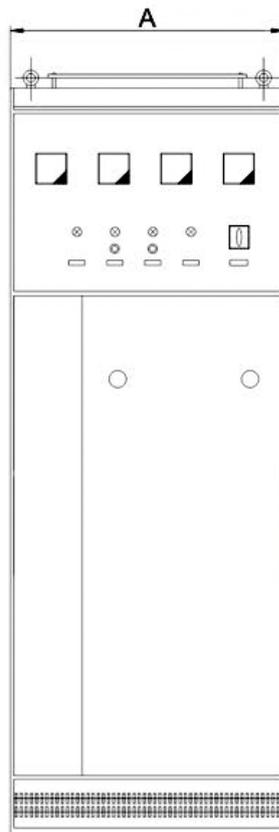
Note: When the working environment conditions are different from the above application environment, please contact the manufacturer.

### 5 Product Features

- 5.1 The main internal components of the compensation cabinet include capacitors, reactors (ESL type), knife fuse switches, fuses, contactors, and controllers; ESL type reactive power compensation cabinet can adopt modular design according to user requirements; that is, the module integrates capacitor and reactor together with compact structure and novel layout.
- 5.2 There are power factor meters, ammeters, voltmeters, and transfer switches on the cabinet panel for convenient real-time observation and manual conversion by users; there is a cooling fan (optional) on the top of the cabinet, and is controlled by a temperature control switch; there is a manual switch used to control the fan on the panel.
- 5.3 The cabinet body is made of high-quality cold-rolled steel plate with good flatness, and the outer surface is subject to the plastic spraying treatment with strong anti-corrosion capacity; the internal frame is made of galvanized steel sheet aluminum zinc steel plate to ensure good conductivity and corrosion resistance.
- 5.4 With complete protection functions, the product has short circuit, overload, overvoltage, undervoltage, and phase loss protection functions; the product can exit the operation in the event of the relative external fault, and then automatically resume operation after power-on.
- 5.5 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.
- 5.6 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.
- 5.7 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.