

Giantele®

GGJ

Low voltage reactive power
compensation cabinet



Our goal is the sea of stars!

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Product overview

Because the device can effectively improve the power factor of the power load, reduce the line loss, improve the actual load capacity of the transformer, with significant energy-saving effect, while the use of specific reactors in the system, but also effectively prevent harmonic amplification, effectively absorb most of the harmonic current, so that the harmonic voltage total anomaly rate limit and each harmonic current content limit in line with the national standard, harmonic control The purpose of... If the ordinary contactor is used to switch the capacitor bank, it will bring large inrush current, slow compensation time, high maintenance costs and short service life, therefore, we recommend that users give priority to the use of dynamic reactive power compensation devices in the following occasions. Such as: industrial and mining enterprises substation, production workshop and civil buildings in the low-voltage power grid, especially suitable for load often changes, reactive power unstable transmission and distribution system.

This product complies with: GB/T1 5576-2008 "Low voltage complete reactive power compensation equipment", IEC60439 "Low voltage complete switchgear and control equipment" and other standards.

Model meaning



Conditions of use

- 1. Ambient temperature: -5°C~+40°C.
- 2. Ambient relative humidity: not more than 90%(20°C).
- 3. Altitude: not more than 2000m.
- 4. The surrounding medium has no explosion risk, no gas that can damage and corrode metal, no conductive dust, installation is not easy to violent vibration, no rain and snow erosion.

Product characteristics

Inductive loads in the power grid (generators, chokes, transformers, induction heaters and welding machines, etc.) will produce varying degrees of electrical hysteresis, the so-called inductance. The inductive load has the characteristic that the direction of the current (such as positive) can be maintained for a period of time while the direction of the voltage is changed. Once this phase difference between current and voltage exists, reactive power is generated and fed back into the grid. In an AC network (50/60Hz), the above process is repeated 50 or 60 times per second, so an obvious solution is to directly store and release these inductive power (reactive power) through capacitors temporarily, thereby reducing the reactive power exchange of the grid.

- 1. Strong general performance. The compensation cabinet can be combined with any cabinet at home and abroad, such as MNS, GCK, GGD, etc.
- 2. The combination of capacitor compensation is diverse and flexible. It has a Y-type compensation mode, a ▲ type compensation mode, and a Y+▲ combination compensation mode.
- 3. Diversity of communication methods. With RS-232/485 communication interface, wireless data transmission module or GPRS module to implement long-distance communication;
- 4. Accurate and safe control. Implement voltage crossing trigger, no inrush current crossing zero cutting when input, no high voltage when breaking;
- 5. Long service life, with maintenance-free service life of more than 100,000 hours.

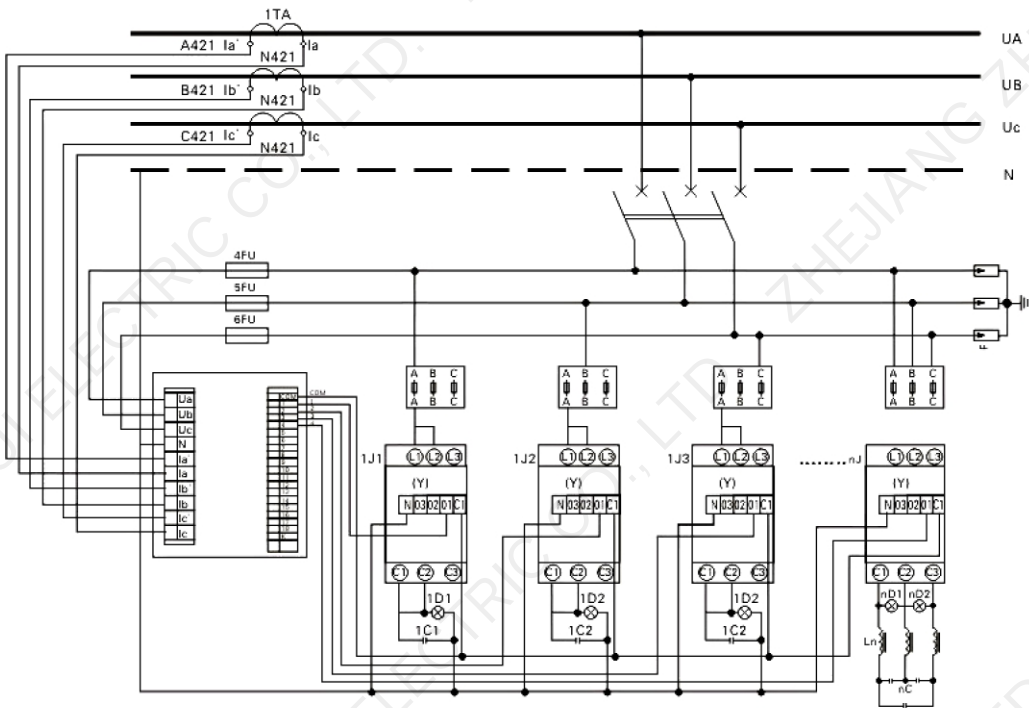
Technical characteristics

- 1. Automatic compensation of reactive power, improve power factor.
- 2. Improve equipment efficiency and save investment.
- 3. Reduce distribution line losses and transformer losses.
- 4. Change the voltage quality to improve the reliability of power supply.

Technical summary of plant

- **Rated voltage Ue**
Main circuit, 380(400)V
 - **Compensation capacity per step**
10, 15, 20, 30, 45, 60 kvar
 - **Steps**
6, 8, 10, 12 or 7, 11, 15
 - **Total capacity**
up to 600 kvar (two cabinets)
- **Switching mode**
loop or code plus loop
 - **Compensation method**
centralized compensation
 - **Protection class**
IP40 or IP43 (glass door)

Examples of device system principles



Order instructions

- 1. Main circuit scheme diagram;
- 2. Compensation capacity and compensation method;
- 3. If it is inconsistent with the normal conditions of use of the product, it must be explained in advance.

Main circuit scheme

Scheme number		GGJ1-01			GGJ1-02			GGJ2-01			GGJ2-02								
Main circuit scheme diagram																			
use		Reactive power compensation			Reactive power compensation			Reactive power compensation			Reactive power compensation								
Major electrical component	Type specification	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
	HD13BX-1000/31							1	1	1	1	1	1						
	HD13BX-400/31	1	1	1	1	1	1												
	BH-0.66□/5	3	3	3	3	3	3	3	3	3	3	3	3						
	AM3-32	30	24	18	30	24	18	30	24	18	30	24	18						
	FYS-0.22	3	3	3	3	3	3	3	3	3	3	3	3						
	CJ19-32/□	10	8	6	10	8	6	10	8	6	10	8	6						
	JR36-63/32□	10	8	6	10	8	6	10	8	6	10	8	6						
	JKL5C-□	1	1	1				1	1	1									
	BSMJ0.4-16-3	10	8	6	10	8	6	10	8	6	10	8	6						
Wide		1000	800	800	1000	800	800	1000	800	800	1000	800	800						
Deep		600	600	600	600	600	600	600	600	600	600	600	600						
Remark																			

Installation instructions

After receiving the device, the user should first carry out unpacking inspection. Check whether the components are damaged, whether the wire is broken, turned around, loose, whether the screws are tightened, and whether the documents, accessories, and accessories are complete. After inspection, the device is moved to the mounting base.

After the device is adjusted on the mounting base to make the cabinet perpendicular to the base plane, it is bolted tightly. Then firmly connect the system busbar to the horizontal busbar of the device (or through the cable), and connect the neutral line of the arrester to the neutral line of the system. Connect the grounding device of the cabinet to the grounding part of the system with a copper wire of no less than 50mm².

The current sampling signal of the controller in the device should be taken from the L1 phase of the current transformer of the total incoming cabinet (or the feed wire that needs to be compensated), and the current transformer should be selected with an accuracy of 0.5 and a rated secondary capacity of not less than 10VA. Use a multi-strand insulated copper wire with a cross-sectional area of not less than 2.5mm² to lead from the current transformer to the corresponding terminal of the device.