# **HYDJ1 Capacitor Compensate Cabinet**

# Summary

HYDJ1 low-voltage reactive power compensation device is HuaYi Electric Co., Ltd. designed and developed according to market needs new products. Our products are widely used in machinery, metallurgy, chemical, electric power, petrochemical, automobile, shipbuilding, construction, communications, hospitals, airports and other power places, with a parallel capacitor run asynchronous motor for continuous inductive load of reactive power compensation.

This device has the following characteristics:

- Cabinet by the 8MF steel or C-type steel plate we ided locally assembled, structural parts versatility, high mechanical strength, structural components cabinet has galvanized the surface protective layer or two kinds of electrostatic powder coating, beautiful color and reliable quality;
- 2. Increase supply power system and load power factor, reduce equipment capacity, reduction of reactive power loss;
- 3. Stability by the electric side and the grid voltage, improve the quality of power supply;
- 4. In the long-distance transmit electricity lines can improve the transmit electricity system stability, improve the transmit electricity capacity.



GB 7251.1-2005 《Low-voltage switchgear and control equipment, the first part of the type tested and partially type tested equipments》

GB/T 15576-2008 《Low-voltage reactive power compensation device》

JB/T 10695-2007 《Low-voltage dynamic reactive power compensation device》

# Ambient condition

The indoor device is installed, applies to the following working conditions:

- 1. Altitude: ≤2000m;
- 2. Ambient temperature: -5°C~+40°C,daily average ≤+35°C;
- 3. Relative humidity: ≤90% (20°C);
- 4. There was no outstanding vibration or shock, the vertical gradient of more than 5 degrees to install;
- 5. No explosive medium, corrosive dust or gases;
- 6. If special requirements, can be resolved through consultation with the manufacturer.

#### Model



# Technical specification

- 1. Rated voltage (Ue): AC380V, 50Hz
- 2. Rated insulation voltage (Ui): AC660V
- 3. Over-voltage category: III
- 4. Material composition: insulation material level III b
- 5. Pollution grade: 3 grade



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- 6. Electrical clearance: Not less than 8mm7. Creepage distance: Not less than 14mm
- 8. Rated compensation capacity: ≤300kVar
- 9. Rated reactive current: ≤412A
- 10. The main switch rated current and breaking capacity: 630A/15Ka
- 11. Main busbar rated current, Rated short time withstand current and Rated peak withstand current: 412A/15kA/30kA
- 12. Compensation method: three-phase compensation and combination of single-phase compensation
- 13. Controller: The power factor and reactive power integrated control of capacitor bank switching, with over-voltage protection, switching time interval self-locking and anti-interference ability, reliable, and no switching of the advantages of shock, and a manual or automatic control method.
- 14. Auto-switching delay time: 2s~120s Continuously adjustable
- 15. Junction temperature rise limits and bus: ≤60k
- 16. Compartment space (cabinet) in the temperature rise limit: 30k
- 17. Enclosure protection class: IP40
- 18. Circuit No: According to customer needs of device
- 19. Installation occasions: indoor
- 20. Short time withstand current: 15kA
- 21. Electric shock protection class: | class
- 22. Incoming terminals and protective conductor resistance between the exposed conductive parts: NO more than  $100 m\Omega$
- 23. Capacitor switching control component types: mechanical and electrical switch (such as: contactor) switching semiconductor switch (such as: thyristor) switching.
- 24. Each output circuit capacitor capacity: According to customer needs of device
- 25. Each output circuit rated current: According to customer needs of device.

#### Installation and use of products

Products arrived in the place of receipt by the transportation, the consignee should first check whether the product is intact. If problems are identified and should be taken not only to inform the relevant departments, find out the reasons. Don't need the installation of the product immediately, the product should the provisions under the terms of use, stored in a suitable location. The installation shall be in accordance with Figure 1 of the mounting hole size, based on the stay in a good mounting screws (with the channel base and screws, self-occupied)

The installation should be provided in accordance with manufacturer's installation drawings and related specifications.

The products should be credibility the earth.

The products after installation or repair, before the electrify test should first check for the following:

- a. Connection structure and electrical parts for any damage or loose
- b. Cabinet is clean and left foreign body
- c. Whether the flexibility in operation
- d. Devices should not be less than  $5M\,\Omega$  the insulation resistance should analyze the reasons
- e. Protective grounding system are reasonable

The products by this examination, for the following electrify test can be put into operation.

- a. Equipment operation and function of all electrical accuracy
- b. The light meter and check the electrical load should be the normal action

Complete sets of products:

The product should be attachment packing list, product certificate, instruction manual, Ex-work test report, the electrical drawings and in accordance with an agreement to provide the spare, spare parts, etc.