The product models and specifications published in this manual are for reference only, and everything is subject to the actual product and product description.

Due to product upgrades and version updates, the content described in this manual is subject to the actual product. If there are any errors, omissions, or other inappropriate aspects, we kindly ask for your understanding.

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OPERATION INSTRUCTIONS

ACL / OCL / DCL / CKSG / CKDG Series

Reactor

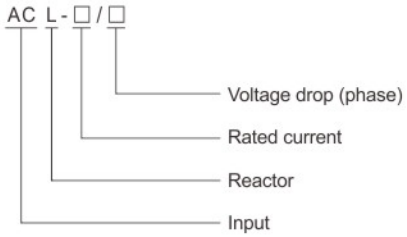
1. Product Overview

The input reactor is used to limit the current surge caused by voltage fluctuations and operating overvoltages in the power grid, smooth the peak pulses contained in the power supply voltage, or smooth the voltage defects generated during the commutation of the bridge rectifier circuit, effectively protecting the frequency converter and improving the power factor. It can prevent interference from the power grid and reduce the pollution of harmonic currents generated by the rectifier unit to the power grid.

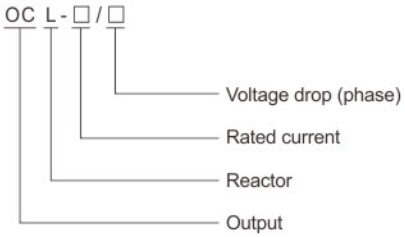
The main function of the output reactor is to compensate for the influence of distributed capacitance on long lines (50-200m), suppress output harmonic currents, improve output high-frequency impedance, effectively suppress dv/dt, reduce high-frequency leakage current, protect the frequency converter, reduce equipment noise and premature aging.

2. Model Description

Input reactor



Output reactor



3. Structural Characteristics

The input-output series reactors produced by our factory are used to filter out harmonic voltages and currents, improve the quality of the power grid, and are made of high-quality imported silicon steel sheets and copper wires refined through advanced processes. They have the characteristics of small size, low temperature rise, and no noise.

4. Technical Parameters and Execution Standards

1. Rated working voltage: 380V/50Hz or 660V/50Hz
2. Rated working current: 1A~1500A
3. Electrical strength: Core and winding AC3000V/50Hz/5mA/10s factory test without arcing breakdown
4. Reactor noise: <50dB (tested at a horizontal distance of 1 meter from the reactor)
5. Insulation level: above F level
6. Protection level: IP00
7. Product execution standards: GB19212.1-2008, GB19212.21-2007, GB1094.6-2011

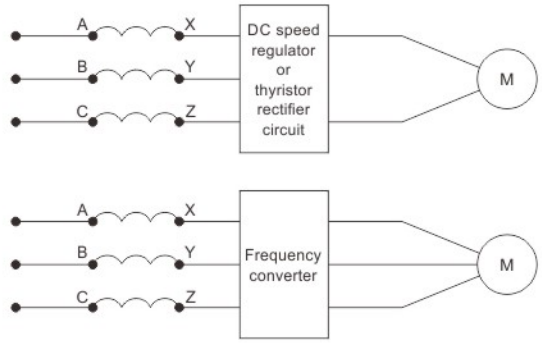
ACL series input reactor / OCL series output reactor

5. Environmental Conditions for Use

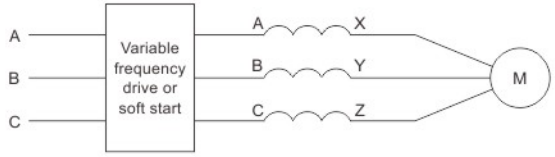
1. Altitude not exceeding 2000 meters.
2. Operating environment temperature: -25℃ to+45℃, relative humidity not exceeding 90%.
3. There are no harmful gases or flammable or explosive materials around.
4. The surrounding environment should have good ventilation conditions. If installed in a cabinet, ventilation equipment should be installed.

6. Wiring Method

Input reactor



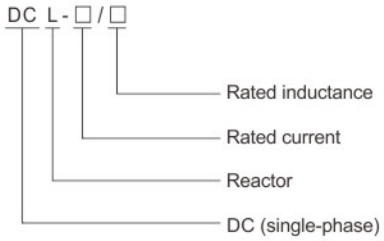
Output reactor



1. Product Overview

Filter reactor, also known as DC smoothing reactor, is used on the DC side of the inverter. The DC current flowing through the reactor has an AC component. Its function is to limit the AC component superimposed on the DC current to a certain specified value. It is also used for coupling the DC side of parallel frequency converters, reducing the interruption limit, limiting the circulating current in the circulating circuit, and limiting the current rise rate when cutting off fault currents in DC fast switches. It is also used for DC smoothing in the intermediate circuit of current and voltage type frequency converters, and can be used for smoothing the entire current power supply to eliminate ripple.

2. Model Description



3. Structural Characteristics

DC smoothing reactors are mainly used in circuits to improve the quality of power grids and enhance power factors. The DC smoothing reactors produced by our factory are made of high-quality imported cold-rolled silicon steel sheets and are mainly composed of two parts: the iron core and the coil. The iron core is generally a two core column structure, and the two core columns are stacked with multiple silicon steel sheets and iron cakes, separated by insulation plates to prevent magnetic saturation of the iron core. The iron yoke is a square yoke, and after assembly, it is tightened up and down by tightening screws to reduce noise. This product is dry self cooling, with two insulation levels of F and H. It has the characteristics of small size, low temperature rise, and no noise.

4. Technical Parameters and Execution Standards

1. Rated working voltage: DC500V~DC1000V
2. Electrical strength: Iron core winding 3000VAC/50Hz/10mA/10S without arcing breakdown
3. Insulation resistance: Core winding 1000VDC, insulation resistance ≥ 100M Ω
4. Reactor noise: <65dB (tested at a horizontal distance of 1 meter from the reactor)
5. Product execution standards: GB19212.1-2008, GB19212.21-2007, GB1094.6-2011

5. Environmental Conditions for Use

1. Altitude not exceeding 2000 meters.
2. Operating environment temperature: -25℃ to+45℃, relative humidity not exceeding 90%.
3. There are no harmful gases or flammable or explosive materials around.
4. The surrounding environment should have good ventilation conditions. If installed in a cabinet, ventilation equipment should be installed.

1. Product Overview

When compensating for capacitive low-power, capacitors are often affected by harmonic currents, closing inrush currents, and operating process voltages, resulting in capacitor damage and a decrease in power factor. Therefore, it is necessary to install a series reactor at the front end of the capacitor to suppress and absorb harmonics, protect the capacitor, avoid the influence of harmonic voltage current and impulse voltage current, improve power quality, increase system power factor, and extend the service life of the capacitor.

2. Model Description

CK S G - □ / □ - □

- Reactance rate XC/XL
- Rated voltage of capacitor (kV)
- Rated capacity
- Dry series reactor
- S-Three phase; D-single-phase
- Series reactor

3. Structural Characteristics

1. The reactor is divided into two types: three-phase and single-phase, both of which are dry-type iron cores.
2. The iron core is made of high-quality cold-rolled silicon steel sheets, which are punched and cut by high-speed punching machines. It has small burrs, uniform rules, and neat and beautiful stacking, ensuring the performance of low-temperature and low-noise operation of the reactor.
3. The coil adopts high-quality insulated wires, which are wound by specialized machines and have the advantages of good flatness and beautiful appearance.
4. During the assembly process of the reactor, all incoming components undergo anti-corrosion treatment. The key clamping parts are made of non-magnetic materials and undergo a process of pre drying, vacuum coating, and thermal curing to firmly integrate the reactor coil and core, greatly reducing temperature rise and noise during operation, effectively improving the quality factor of the reactor and reducing various waves.
5. The reactor also adopts temperature protection, using a set of normally closed contacts connected in series in the control circuit. When the temperature exceeds the rated temperature, the contacts open, and when the temperature drops, the contacts close, which can effectively protect the equipment from fire.
6. The external dimensions of the reactor are designed according to the standard cabinet size, with a small volume and convenient wiring, greatly saving users' cabinet investment costs.

CKSG, CKDG series low-voltage series reactors

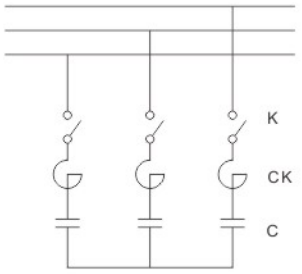
4. Technical Parameters

1. Can be used for 0.4KV, 0.45KV, 0.48KV, 0.525KV, 0.66KV, 0.69KV, 1.14KV.
2. Types of reactance rates: 1%, 4.5%, 5.6%, 6%, 7%, 12%, 13.8%, 14%.
3. The withstand voltage level is 5KV/min, the insulation levels are B, F, and H, the noise level is ≤ 30dB, and the overload capacity is ≤ 1.35 times for continuous operation.

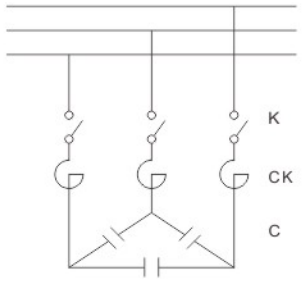
5. Environmental Conditions for Use

1. Altitude not exceeding 2000 meters.
2. Operating environment temperature: -25℃ to+45℃, relative humidity not exceeding 90%.
3. There are no harmful gases or flammable or explosive materials around.
4. The surrounding environment should have good ventilation conditions. If installed in a cabinet, ventilation equipment should be installed.

6. Wiring Method



Y-connection



△-shaped connection