

Q6-63 Series PC Class Din Rail Installation Dual Power Automatic Transfer Switch

Manual

1. Application

Q6 series new type PC class dual power automatic transfer switch (ATS) is mainly used in the AC circuit of rated frequency 50/60Hz, rated voltage up to 400V and rated current up to 63A to auto transfer between main power and backup power of distribution system to ensure the power supply which can effectively solve the troubles caused by power outages.

It has two working modes---auto and manual---which can be set by the dial switch according to the requirement. Under auto mode, the ATS will auto transfer to the backup power when the main power is abnormal to ensure the reliability and safety of power supply (switching speed: <50ms). It can be used in distribution box for its din rail installation design.

2. Working Condition

Ambient Temperature: -5°C~+40°C, 24h average not more than +35°C.

Storage Temperature: -25°C~+55°C, can be +70°C in short time within 24h.

Atmospheric Conditions: Humidity not more than 50% at +40°C max.; a higher humidity is allowed at a lower temperature. Special measurement shall be taken for the condensation occasionally due to temperature variation.

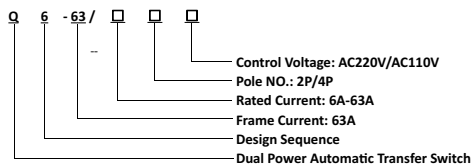
Altitude: not more than 2000m

Pollution Class: Class 3

Protection Grade: IP30

Installation Conditions: Installed vertically or horizontally in control and distribution cabinets.

3. Model Meaning



4. Main Technical Parameter

Model	Q6-63	
Frame Current	63A	
Pole NO.	2P	4P
Rated Current Ie (A)	6A/10A/16A/20A/25A/32A/40A/50A/63A	
Rated Working Voltage Ue (V)	AC220V	AC400V
Rated Frequency	50/60Hz	
Rated Insulation Voltage Ui (V)	AC690V	
Rated Impulse Withstand Voltage Uimp (kV)	8kV	
Rated Short Circuit Current Iq	50kA	
Short Circuit Protector (Fuse)	RT16-00-63A	
Control Circuit	Rated Control Voltage Us: AC220V, 50Hz, Normal Working Condition: 85%Us-110%Us	
Auxiliary Circuit	AC220V/AC110V 50Hz Ie=5A	
Contact Transfer Time	<50ms	
Operation Transfer Time	<50ms	
Return Transfer Time	<50ms	
Power Off Time	<50ms	
Mechanical Life	≥8000 times	
Electrical Life	≥1500 times	
Usage Category	AC-31B	

5. Installation

Before installation and wiring, please ensure that the professional has read this manual instruction carefully. Before installation, please check if the parameter of the product can meet your demand. Before installation, please check the integrity of the ATS if there is part missing. Before installation, turn on and off the ATS manually to check its flexibility. Before installation, please check the opening and closing status of each phase, normal power and backup power loads. Please equip a suitable circuit breaker to the ATS according to the installation requirement of the power distribution system to ensure the safety of human body and equipment.

6. Notes

Manual/automatic operation can ensure the opening and closing performance of electrical operation, but under manual operation, there is no guarantee due to the different opening/closing speeds of the operators. Under manual operation, there's possible for excessive silver alloy loss. Therefore, the dial switch shall only be dialed to the manual position after all power have been cut off for inspection and maintenance of the operating system and contact information.

Normally, dial the dial switch to the auto position. When manual operation is required, dial the dial switch to the manual position. After manual operation is completed, dial the dial switch from the manual to auto position.

The control circuit TSE is immediately energized. After the change over is completed, the internal switch will damage the coil in the control circuit, and the coil can work normally at 85%-110% of the rated operating voltage. Too low input voltage may cause the coil to the overheat and burn out.

 Ensure the dial switch is at "MANUAL" position when manual operation.

7. Maintenance

The maintenance and inspection must be operated by the professionals.

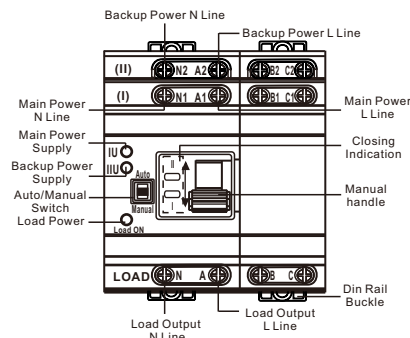
In order to ensure the good performance of the ATS, the first time maintenance and inspection must be made within 6 months after use. Then do the regular maintenance and inspection once a year at least. In harsh installation conditions, the frequency of maintenance and inspection shall be increased.

If the maintenance and inspection items fail, please do as following to remove the fault:

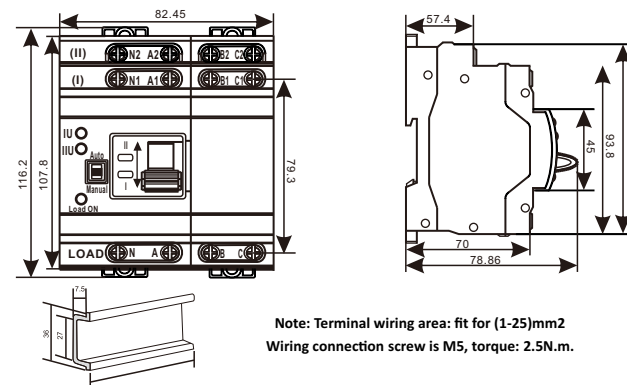
- Remove the dust
- Check whether the electrical contact parts are deformed and damaged, and clean the surface.
- Metal particles and burnt around it. Rust, acid, and dust on the contact surfaces can cause poor contact, so do some manual work and measure the necessary contact resistance.

If the ATS is wet or left unused for a long time, please dry it before turning the power on. After removing the dust, use a 500 meg-ohmmeter to measure the insulation resistance of the normal power supply and the AC power supply. The load side and two poles, including the insulation resistance, when using live parts and metal plates, the insulating resistance shall not be less than 10MΩ.

8. Wiring



9. Dimension



Note: Terminal wiring area: fit for (1-25)mm²
Wiring connection screw is M5, torque: 2.5N.m.