Q2-63

Automatic Transfer Switch

User Manual

In order to better use this product,
please read this manual before use

1. Main uses and scope of application

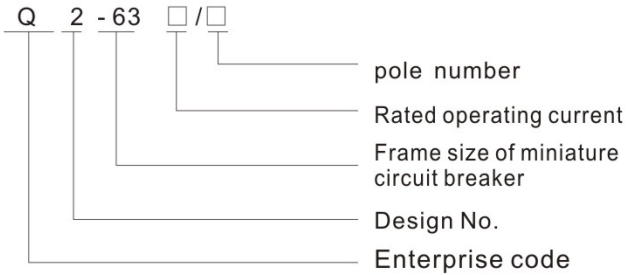
Q2-63 automatic transfer switch is a terminal type automatic transfer switching equipment newly developed by our conpany˚ applicable for three-phase four-wire （or one-phase one-wire） dual-supply power grid systems of AC 50/60Hz˚ rated voltage 400V/230V and rated current up to 63A˚ It transfers one or more load circuits to the other power supply when one of the power supplies goes wrong（it detects the A-phase vo;tage of normal power and A-phase voltage of reserve power only if there is no-voltageor open-phase）, to ensure normal powersupply for load circuits.

The product are in conformity with the standards IEC60947-6-1 and GB/T14048.11.

2. Normal operating and installation conditions

1) Ambient air temperature：-5℃~+℃；
2) Altitude of the installation site shall not exceed 2000m；
3) Class of pollution: class 3；
4) Installation category: Ⅲ；
5) Installation condition:vertical or horizontal install.

3.Model description



4.Main technical parameters

See table for main technical parameters

Table 1

Rated operating current Ie(A)	6′ 10′ 16′ 20′ 25′ 32′ 40 50′ 63	
Grade of electrical equipment	Grade CB	
Utilization categorg	AC~33B	
Tripping current	5~10In (type C), 10~15In (type D)	
Rated operating voltage Ue	220V(2-pole), 380V(3–pole, 4–pole)	
Rated frequency	50/60Hz	
Rated short-circuit making capacity Icm(peak)	9.18kA	6.615kA
Rated short-circuit breaking capacity Icn(effective value)	10kA	4.5kA

voltage test among the connection terminals (unless these secondary conductors are removed) I power frequency withstand voltage tests can be carried out between the auxiliary terminal and the shell.

4) When ATSE is in "Automatic" operating mode, don' t operate the handle of electric operating mechanism by manual.

10. Remedy of simple faults

If there is any fault in operation, please ask for special ized persons to examine and repair, make sure safety during operation, or contact our after–sale service department to deal with the faults.

①ATSE is failed to transfer automatically when both the two circuits of power supplies is switched on.

a. Check the automatic/manual switch that shall be in automatic position.

b. Check the power incoming wire to see whether it is right, make sure the phase sequence is consistent, and the wiring is firm and reliable;

c. Check the fuse tube to see whether it is burnt out.

② Reserve power of ATSE closes when both the two circuits of power supplies is switched on.

a. Check the incoming wire of normal power to see whether it is electrified;

b. Check the fuse;

c. Check the external indicator lamps to see whether they are connected properly.

3) When there is load short-circuit or over load on the ATSE, its miniature circuit breaker will carry out protective tripping. If the power supply shows normal, while the handle of miniature circuit breaker is in closing position, and the miniature circuit breaker has carried out protective tripping , then user should place the controller in "Manual" and set the switch in the position of dual-supply opening by manual. Find out the tripping cause in tome and remove the trouble, then place the controller in "Automatic" let it run again.

4) When ATSE transfers from "Manual" to "Automatic" , the normal power has the priority to be connected with loads if both the normal power and reserve power are in regular condition (even if the loads were connected with the reserve power before) .

9. Notices

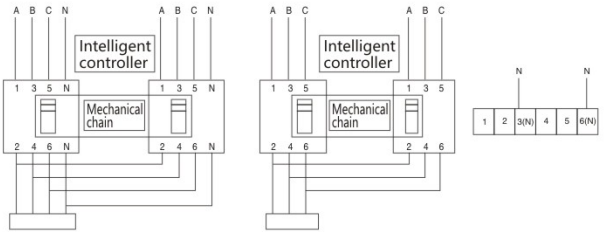
When carrying out tests or operations, users shall follow relevant rules and pay attention to the follows items, to ensure correct and safe use of ATSE。

1) Neutral line N should be wired correctly and reliably, otherwise, ATSE will be failed to work normally, even may burn out the controller and motor.

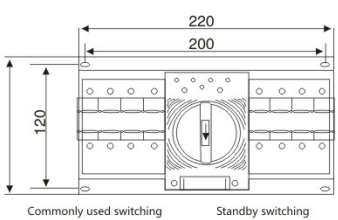
2) Protective grounding of ATSE must be reliable, guaranteeing safe operation.

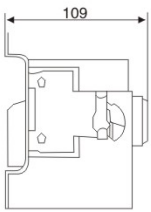
3) Sampling signals of the working power supply of controller as well as the main circuit power supply for detection are got from the main circuit power side directly; and the indicator lamps used auxiliary terminal block working power supply is got from the main circuit, therefore, dont' t carry out withstand

5´ The main circuit switching device wiring diagram point



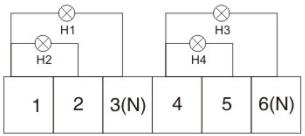
Outline and mounting dimensions Company: mm





6.Diagram for Transfer Device outside connected with control terminal

H1 is common power indication, H2 is common power closing indication, H3 is standby power indication, H4 is standby power closing indication



7.Installation and wiring

ATSE can be installed in the power control cabinet (box) directly. Users can carry out wiring (refer to the design andapplication) after installation. Select suitable conductors according to the rated current magnitude of ATSE, well connect the power side (upper terminal) and load side(lower terminal) of miniature circuit breakers of normal power and reserve power. Cophase parallel connection in load side, pay attention to the phase sequence consistency of normal power and reserve power (connect according to the sequence of A, B, C and N). Three-pole ATSE shall be added with an additional conductor whose section is not less than 0.3m2, used to connect the neutral line of the power supply correctly and reliably, to ensure normal operation of ATSE; for four-pole or two-pole ATSE, the N-pole of normal power and reserve power must be correctly connected with the N-pole of circuit breaker respectively; besides, remember to ground reliably at the position with grounding mark.

The auxiliary terminal block is of active contact signal, only for external indicators for indicating the closing status,it shall be connected with the indicator lamps directly, and don't apply power supply here (except for the three-pole ATSE that shall be added with additional conductor whose section is notless than 0.3m2, to connect the neutral line N of the power supply with the "neutral line N" terminal on auxiliary terminal block of ATSE, otherwise, ATSE will be failed to work normally).

8. Use

1) In normal use, controller' s switch shall be in "Automatic" position. Under "Automatic" operating mode, ATSE controller monitors the normal power and reserve power simultaneously and displays running status of ATSE. ATSE transfers the loads from normal power to reserve power automatically once there is power failure, no-voltage, open-phase or other faults on the normal power, and transfers the loads back to normal power when it returns to regular. There is LED on the switch panel for indicating closing status of switch.

2) If you need not the automatic transfer, or need to carry out other manual operation, just place the controller switch in position "Manual".Under "Manual" operating mode, controller stops working, the circuit breaker can be closed by manual, and the switch will not transfer automatically.