


YCQ6B-63 series

Automatic transfer switch

OPERATION INSTRUCTION

Standard: IEC 60947-6-1

CNC Deliver
Power For Better Life

-  Before installing and using this product, please read this manual carefully and pay more attention to safety.

YCQ6B Series

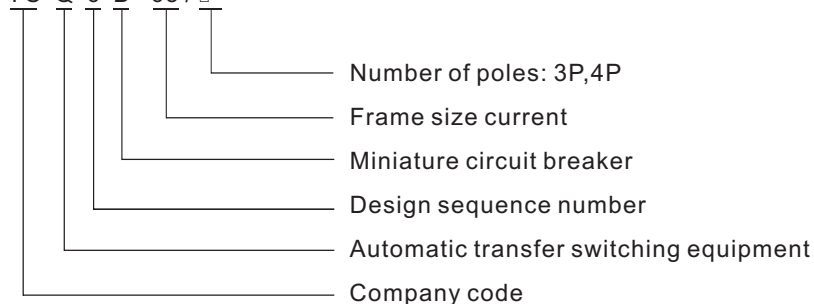
Automatic Transfer Switch Instruction

1.General

YCQ6B Series Automatic Transfer Switch is applicable to the three-phase four-line two circuit power supply network with an AC power frequency of 50Hz, rated operational voltage of AC400V, and rated operational current up to 63A, it can automatically connect one or several loads from one power source to another to ensure the normal power supply of the load circuit.
Standard: IEC/EN 60947-6-1.

2.Type designation

YC Q 6 B - 63 / □



3.Operating conditions

3.1 Ambient air temperature

The upper limit for the ambient air temperature is +40°C, lower limit is -5°C, and the mean value of the temperature is no more than +35°C with in 24 hours;

3.2 Altitude ≤2000m;

3.3 Atmospheric conditions: when the ambient air temperature is +40°C, the relative humidity of the air shall not be higher than 50%, a higher relative humidity is allowed at a lower temperature, e.g.90% at +20°C, and special measures shall be taken for the condensation occasionally produced due to temperature changes.

3.4 Class of pollution: 3

4.Technical data

4.1 Product characteristic

Table 1

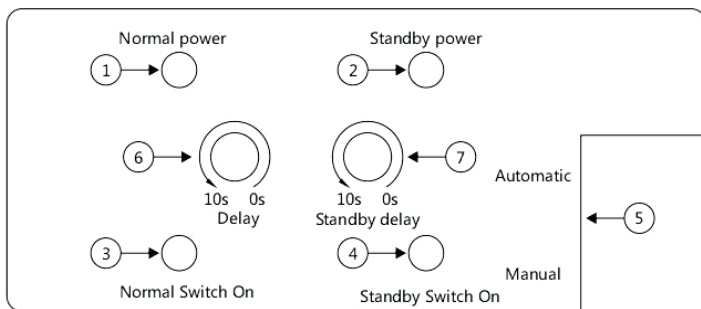
Item	Data
Rated operational current(A)	6,10,16,20,25,32,40,50,63
Working position of main contact	AC400V 50Hz
Rated short circuit making capacity(I cm)	9.18kA
Rated short circuit breaking capacity(Icn)	4. 5kA
Rated impulse withstand voltage(Uimp)	4kV
Electric equipment grade	CB Class
Usage category	AC-33iB

4.2 Controller characteristic

Table 2

Item	Controller
Rated operational voltage(Us)	AC150V~AC265V
Working position of main contact	Normal power on, Standby power on, OFF
Under voltage transfer	Transfer: 165V410%,Return:175V10%
Over voltage transfer	Transfer: 260V410%, Return:250V10%
Installation mode	Integrated
Operating-mode	Automatic and Manual
Generator control	a group of 5ANO passives contact of relay
Fire control linkage(Inactive contact)	a group of NO passive feedback
Transfer mode	contact Self-throwing and self-reset, self-throwing and not self-rese, mutual alternative (select one mode when placing order)
Transfer delay time	Continuously adjustable in the range of 0s~10s
Return delay time	Continuously adjustable in the range of 0s~10s

5.Controller panel function description



① Indication of normal power

When normal power is regularly supplied, this lamp will be on.

② Indication of standby power

When standby power is regularly supplied, this lamp will be on.

③ Indication of making on the normal power side

When the switch is in normal power position, this lamp will be on; when the controller is in the return delay status, this lamp will be flashing.

④ Indication of making on the standby power side

When the switch is in standby power position, this lamp will be on; when the controller is in the transfer delay status, this lamp will be flashing.

⑤ Selection butt on of automatic/manual mode

When the control switch is in the upper position, it is automatic working mode; When the control switch is in the bottom position, it is manual working mode.

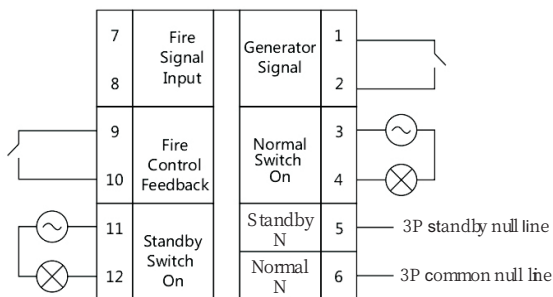
⑥ Transfer delay time setting potentiometer

When the switch is in normal power ON position, if normal power fails and standby power is regular, the controller start counting(the time is set by the transfer delay potentiometer), and it won 't switch to the standby power side until the timing is over; In order to avoid the wrong transfer caused by the instantaneous drop of grid voltage(for example, the voltage is reduced instantaneously when a large motor starts in the same network), the delay time can be set a litter longer.

⑦ Return delay time setting potentiometer

When normal power resumes to regular, the controller start counting(the time is set by the return delay potentiometer), and it won't switch to the normal power side until the timing is over.

6.Wiring diagram of external terminals of the controller



Remark: ⊗ stand for external auxiliary power supply.

Type B controller wiring diagram

- ①1, 2:start control of generator signal(passive contact point)
- ②3, 4:normal power ON signal(external power supply is required)
- ③5: 3P null line of sand by power
- ④6: 3P null line of normal power
- ⑤7, 8:fire signal input(passive contact point)
- ⑥9, 10:fire feed back signal(passive contact point)
- ⑦11, 12 : standby power ON signal(external power supply is required)

When the standby power supply is from generator, the user can start generator automatically by connecting generator controller and terminals 1&2, terminals 1&2 is a group of 5ANOpassives contact; When the common power supply is normal, terminals 1&2 is disconnected, when the common power supply is failure and there is no power on standby power side, terminals 1&2 will be closed to send out the generator start signal. After the generator starts successfully, the ATS will transfer to standby power side for load power supply, if common power returns to normal during the standby power supply, the controller will transfer to the common power side after the return delay time, After normal circuit breaker is closed, terminals 1&2 will be disconnected and send out stop signal to generator.

⑧7-10: Fire control linkage terminals, is used for remote control of the ATS to cut other power supply after fire equipment alarm.

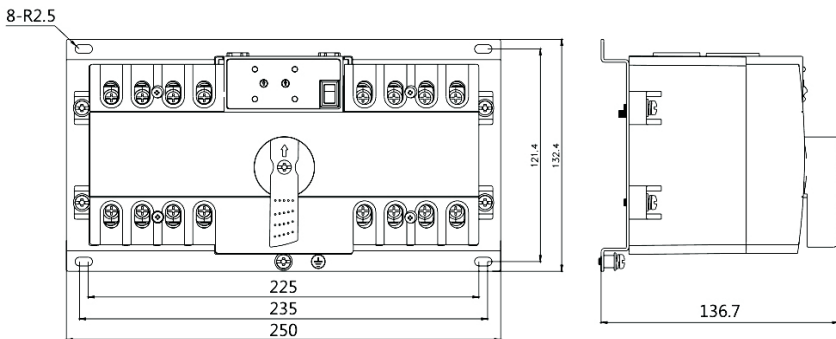
7,8 - Fire control linkage signal input, the external interface can only be a group

of NO passive contact (if the signal of fire fighting equipment is active, must first change the signal to be passive through a small relay, connect NO passive contact of the relay to the controller, other wise controller will be burning out), after terminals 7&8 is closed, ATS immediately transfer to OFF position to cut off the load power supply, at the same time send signal to the fire control center through terminals 9&10 .

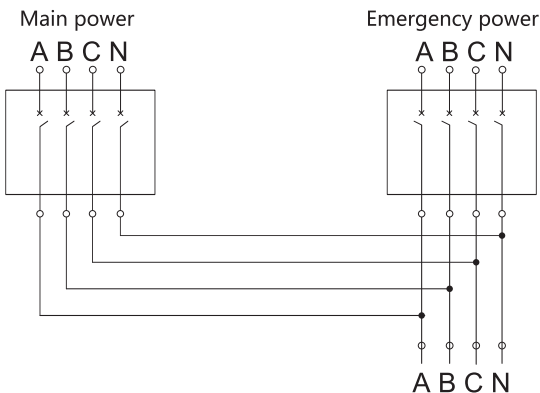
9,10-- a group of NO passive contact of relay, used for fire feedback signal it is disconnected when normal status, it is connected when the fire signal is sent to the controller and the switch is transferred to the OFF position.

(Note: ATS will stop working when the fire linkage function starts. If ATS need resume normal work, must firstly remove the fire control linkage signal.)

7.Outline dimension and installation dimension



8.Wiring diagram principle





CERTIFICATE

Product Model: YCQ6B-63

Standard : IEC60947-6-1

Inspector : CNC009

Production date: Printed on the product or package

This product is qualified after delivery inspection

CNC

YCQ6B-63 Series

CNC ELECTRIC

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