

YCQ9B-63 series


Automatic Transfer Switch

OPERATION INSTRUCTION

Standard: IEC 947-6-1

CNC

Deliver
Power For Better Life

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

1. Sphere of application

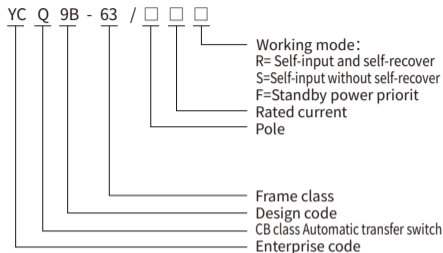
This series of automatic transfer switch is suitable for AC 50Hz/60Hz, rated working voltage 230V/400V and below power distribution and control circuit. The current up to 63A. It is Normally used as the Normal switch of terminal electrical appliances, and can also be used to control various types of motors, low-power electrical appliances, lighting and other places.

Comply with IEC947-6-1 standards.

2. Working conditions

- The ambient air temperature to be $-5\text{ }^{\circ}\text{C} \sim +40\text{ }^{\circ}\text{C}$, and the average temperature within 24 hours does not exceed $+35\text{ }^{\circ}\text{C}$.
- When the maximum temperature is $+40\text{ }^{\circ}\text{C}$, the relative humidity of air shall not exceed 50%. Higher relative humidity can be allowed at lower temperatures. Special measures shall be taken for occasional condensation due to temperature changes.
- The altitude of the installation site shall not exceed 2000m.
- If the above conditions cannot be met, it should be resolved through negotiation between the user and the manufacturer.

3. Type and meaning



4. Structural features

This product adopts modular design, the execution components, transmission mechanism, control circuit is completely independent. So it's easy to replace.

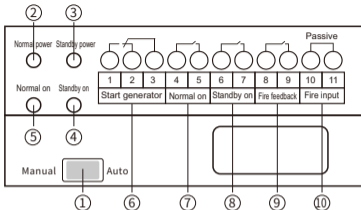
- The intelligent automatic transfer switch is composed of two parts, the controller and the Normal device, and has a simplified structure in which two sets of circuit breakers are assembled in a switch shell.
- The mechanical interlocking device adopts gear drive, which completely eliminates the possibility of closing at the same time.
- The appearance of product is small. Appearance patent product.

- The control circuit layout of the controller adopts the separation of working voltage and sampling power supply from MCU control, which overcomes the electromagnetic interference from the hardware structure.
- The product with complete functions, including starting generator, fire control, fire feedback signal, Normal power and emergency power closing passive signal output, three phase detection of Normal power and standby power.
- Modular design. Good interchangeability of components. Convenient installation.

5. Normal technical parameters

Rated current(A)	6,10,16,20,25,32,40,50,63
Pole	2P,3P,4P
Rated working voltage(V)	Single phase 230
	Three phase 400
Rated insulation voltage U_i	500V
Rated impulse withstand voltage U_{imp}	4kV
Rated short-circuit making capacity I_{cm}	7.5kA, Power-on time 0.1s
Rated making and breaking capacity I_{cn}	5kA, $1.05U_e$, $\cos\phi=0.65$
Mechanical life	10000 times
Transfer action time	$\leq 5s$
Undervoltage/Overvoltage action value	$165/270 \pm 5V$

6. Control panel description



- ① Auto/Manual mode control switch: When the control switch at the right position, it's in automatic mode, and when the control switch at the left position, it's in manual mode.
- ② Normal power indicator: When the normal power voltage is normal, this indicator on. It turns off when normal power phase is missing, flashes rapidly at 10Hz when normal power overvoltage, and flashes slowly at 2Hz when normal power undervoltage.
- ③ Standby power indicator: When the standby power voltage is normal, this indicator on. It turns off when standby power phase is missing, flashes rapidly at 10Hz when standby power overvoltage, and flashes slowly at 2Hz when standby power undervoltage.
- ④ Standby on indicator: When the standby circuit breaker is closed, this indicator on. Flashes slowly at 2Hz when the standby circuit breaker trips.
- ⑤ Normal on indicator: When the normal circuit breaker is closed, this indicator on. Flashes slowly at 2Hz when the normal circuit breaker trips.
- ⑥ Terminal 1,2 and 3 is start generator output terminal: When the normal power supply is normal, port 3 and 2 will turn off. And port 3 and 1 will turn on. When the normal power supply abnormal, port 3

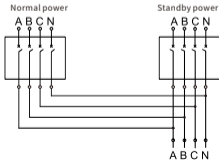
and 2 will turn on. And port 3 and 1 will turn off. It is recommended to connect normally closed contacts port 3 and port 2.

- ⑦ Terminal 4-5: Normal power on state passive output port.
- ⑧ Terminal 6-7: Standby power on state passive output port.
- ⑨ Terminal 8-9: Fire feedback: It is a passive output port. When the fire signal is connected and the product is powered off successfully, this port is closed.
- ⑩ Terminal 10-11 Fire input: Passive input signal, short-circuit this port, switch transfer to power off position. And the normal power on indicator light and the standby power on indicator light flashes alternately. If you need to remove the fire status, you can manually flip the "manual/automatic" switch, and turn the switch to the "automatic" state after completion.

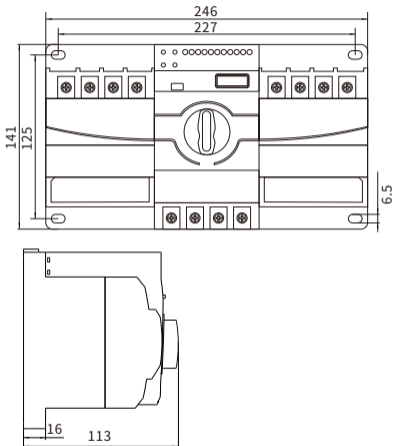
Notice:

If the normal on or standby on indicator flashes. At this time, it is necessary to manually check and confirm that the load side is normal, and then toggle the Manual/Auto switch to release the fault signal, and in manual mode state rotate the operation handle to perform an opening and then closing operation.

7. Wiring diagram principle



8. Outline and installation dimensions



9. Installation and use

- The power input wires are connected from the top of the switch. And the lower end are connected output. The copper wire should be tightened, and the copper wire should not be loose or come out, or the copper wire should not be exposed outside the terminal.
- Before turning on the power, manually operate the switch several times, which should be flexible and reliable, without blocking phenomenon.

10. Disclaimer

If the user uses the ATS in the following situations cause the ATS damaged, and the manufacturer is not responsible for warranty and replacement.

1. Exceed the use environment, such as due to water leakage, mud and stone during installation etc.
2. Man-made situations, such as wiring errors, installation errors, external damage etc.
3. Beyond the promised warranty date.

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CERTIFICATE

Product Model: YCQ9B-63 series

Standard: IEC 947-6-1

Inspector: **CNC006**

Production date: Printed on the product
or package.

This product is qualified according
to the delivery inspection

CNC ELECTRIC

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YCQ9B-63 series AC Automatic Transfer Switch