

YCQ9HB series


AUTOMATIC TRANSFER
SWITCH (ATS)

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.

YCQ9HB Series

Automatic Transfer Switch Instruction

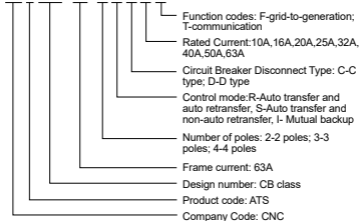
1. General

YCQ9HB 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 9HB - 63 / □ □ □ □ □



3. Operating conditions

1. The ambient air temperature is $-5\text{ }^{\circ}\text{C} \sim +40\text{ }^{\circ}\text{C}$, and the average temperature within 24h does not exceed $35\text{ }^{\circ}\text{C}$.
2. The altitude of the installation site does not exceed 2000m above sea level.
3. The relative humidity of the air at the installation site should not exceed 50% at an ambient temperature of $+40\text{ }^{\circ}\text{C}$. Higher relative humidity is possible at lower temperatures. For example, in the wettest month with an average minimum temperature of $+20\text{ }^{\circ}\text{C}$, the monthly average maximum relative humidity for that month can be up to 90%. Appropriate measures should be taken to prevent condensation due to temperature changes
4. The pollution level is 3. There is no danger of explosion in the surrounding air, and there are no gases or conductive dust that could corrode metals and destroy insulation.
5. The installation category is III.
6. The two power lines are connected to the upper end of the switching appliance and the load line is connected to the lower end, and must not be reversed.
7. The installation site should be free from significant vibration and shock.

4. Technical data

4.1 Product characteristic

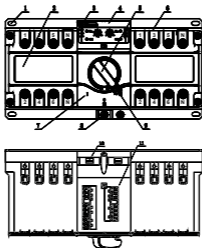
Model Specification	YCQ9HB-63
Technical data	
Rated working current I_e	10A, 16A, 20A, 25A, 32A, 40A, 63A
Rated working voltage U_e	AC 230V/50Hz (2P), AC 400V/50Hz (3P, 4P)
Rated insulation voltage U_i	500V
Rated impulse withstand voltage U_{imp}	4kV
Rated short-circuit making capacity	9.18kA
Rated making and breaking capacity	6kA
Mechanical life	10,000 times
Electrical life	3000 times
Usage category	AC-33iB
Electrical grade	CB grade
Pole	2P, 3P, 4P
Delay time	0 ~ 30s adjustable
Electromagnetic compatibility environment	Environment B
Pollution degree	3
protection class	IP30
Installation	Vertical Fixed Installation
operating method	Automatic / Manual
switch position	Common position (I), Standby position (II), Disconnect position (0)
Rated control power	AC 230V/50Hz
Power supply voltage	Undervoltage switching: 165V±10%
Control	Loss of voltage/phase out, undervoltage, overvoltage switching

4.2 Controller charaderi

Control function	
Auto/Manual Conversion Mode	■
dichotomous	■
Grid - Power Grid	■
Grid -- generators	□
self-referral	■
abandon oneself and not return	△
serve as a backup	△
Monitor common power supplies and failover	■Phase failure/loss of voltage, undervoltage, overvoltage faults
Monitor backup power and failover	■Phase failure/loss of voltage, undervoltage, overvoltage faults
Fire control input (passive)	■
Fire Feedback Output	■
Adjustable delay time	■
conversion delay	0s-30s adjustable
Return delay	0s-30s adjustable
Common and standby closing indication	■
Common and standby power indication	■
malfunction alarm	■
overvoltage conversion	■
Undervoltage conversion	■
Loss of Pressure Conversion	■
Out-of-phase conversion	■
communication function	□
Display Module	light-emitting diode

Note: " ■ " means this function is available; " □ " means this function is optional; " △ " means Customers require factory adjustments.

5. Product Structure Schematic



1-Mounting hole;

2-Product model;

3-Company logo;

4-Controller;

5-Operating handle;

6-Wiring terminal;

7-changeover position indication;

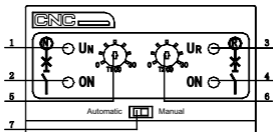
8-grounding screw;

9-handle padlock;

10-fuse tube;

11-secondary terminal block

6. Controller Panel and Description

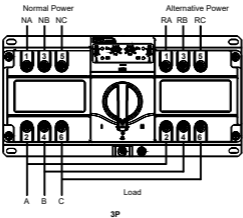
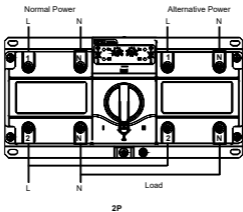


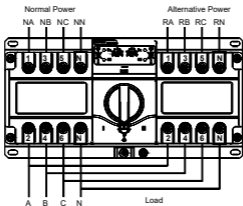
- 1- Common power indicator; 5-Normal to backup conversion delay setting (C-type controller);
 2- Common closing indicator; 6-Backup to normal return delay setting (C-type controller);
 3- Standby power indicator; 7-Auto/Manual switching gear
 4- Standby closing indicator;

7. Description of Controller Indicator Messages

Product status	1	2	3	4
Common power supply normal	Ever Bright			
Common power closing		Ever Bright		
Backup power supply normal			Ever Bright	
Standby power closed				Ever Bright
Commonly used circuit breaker release	adorable	adorable		
Spare circuit breaker release			adorable	adorable
Standby conversion delay				adorable
Standby constant return delay		adorable		
Product Conversion Failure	adorable		adorable	
fire switch		adorable		adorable

8. Wiring diagram





4P

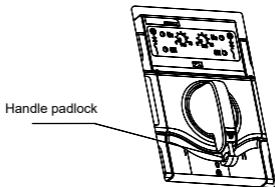
9. Controller secondary wiring terminal wiring instructions

1. 101#, 102# commonly used power supply external indication signal output (AC220V/0.5A active), 3P products commonly used zero line connected to the 101# terminal ;
2. 103#, 104# common closing external indication signal output (AC220V/0.5A active) ;
3. 201#, 202# standby power external indication signal output (AC220V/0.5A active), 3P products standby zero line connected to 201# terminal ;
4. 203#, 204# common closing external indication signal output (AC220V/0.5A active) ;
5. 301#, 302#, 303# for generator start control signal passive output terminal, 301# for the public terminal, 302# for the normally closed terminal ; 303# for the normally open terminal, common power supply is normal when

303# and 301# closed, 302# and 301# disconnected ;
common power supply is abnormal when 302# and 301#
closed, 303# and 301# disconnected ;

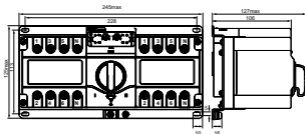
6. 401 #, 402 # for the fire linkage signal passive input, the port can only be connected to a set of external passive normally open contacts (if the fire signal is an active signal, must be transferred through a small relay normally open contacts into the port) when the external contact closure controller immediately after control
7. 403# and 404# are passive output terminals for fire fighting feedback signals. Under normal condition, the ports are normally open, and 403# and 404# are closed when there is a fire fighting signal input to the controller to make the switch switch to the breaking position ;
8. 501#, 502#, 503# are communication function consoles.

10. Description of the handle padlock function



Line maintenance and fault repair, first switch the switching appliances automatic / manual switching gear to manual, and then switch the switching appliances to the double points position ; pull the handle padlock and lock, can prevent accidents, the diameter of the lock hole is $\text{Ø}5.5$.

11. Overall and mounting dimensions(mm)





CERTIFICATE

Product Model: YCQ9HB series

Standard: IEC 60947-6-1

Inspector: CNC 001

Production date: Printed on the product
or package

This product is qualified according
to the delivery inspection

CNC ELECTRIC

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