

## Distribution Apparatus

# YCQ9HB Automatic Transfer Switch



### General

YCQ9HB ATS appliances are suitable for AC 50Hz, rated working voltage 400V and below, rated current 10A to 63A dual power supply system, the power supply system of the two power sources: common power supply (N) and standby power supply (R) at the same time detection, when the power supply occurs undervoltage, phase failure power supply failure that is, automatic switching from the abnormal power supply to the normal power supply (can also be manually switched), to enhance the continuity and reliability of the power supply system in the use of the premises. This improves the continuity, safety and reliability of the power supply system at the place of use.

Switching appliances are widely used in power systems, hospitals, postal and telecommunication, fire fighting, hotels, banks, airports, wharves, residential neighborhoods, TV stations, military facilities, shopping malls and other important places where the continuity of power supply is required.

Standards: IEC 60947-6-1.

**B**

### Type designation

Company Code	Product cod	Design number	Frame current	Number of poles	Control mode	Circuit Breaker Disconnect Type	Rated Current	Function codes
YC	Q	9HB	63					
CNC	ATS	CB class	63A	2-2 poles; 3-3 poles; 4-4 poles	R-Auto transfer and auto retransfer, S-Auto transfer and non-auto retransfer, I- Mutual backup	C-C type; D-D type	10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A	F-grid-to-generation; T-communication

### 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.

## Distribution Apparatus

# YCQ9HB Automatic Transfer Switch

### Technical data

Technical data	Model Specification	YCQ9HB-63
Rated working current Ie		10A, 16A, 20A, 25A, 32A, 40A, 63A
Rated working voltage Ue		AC 230V/50Hz (2P), AC 400V/50Hz (3P, 4P)
Rated insulation voltage Ui		500V
Rated impulse withstand voltage Uimp		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 environmen		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

B

## Distribution Apparatus

# YCQ9HB Automatic Transfer Switch

### Controller Functions

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

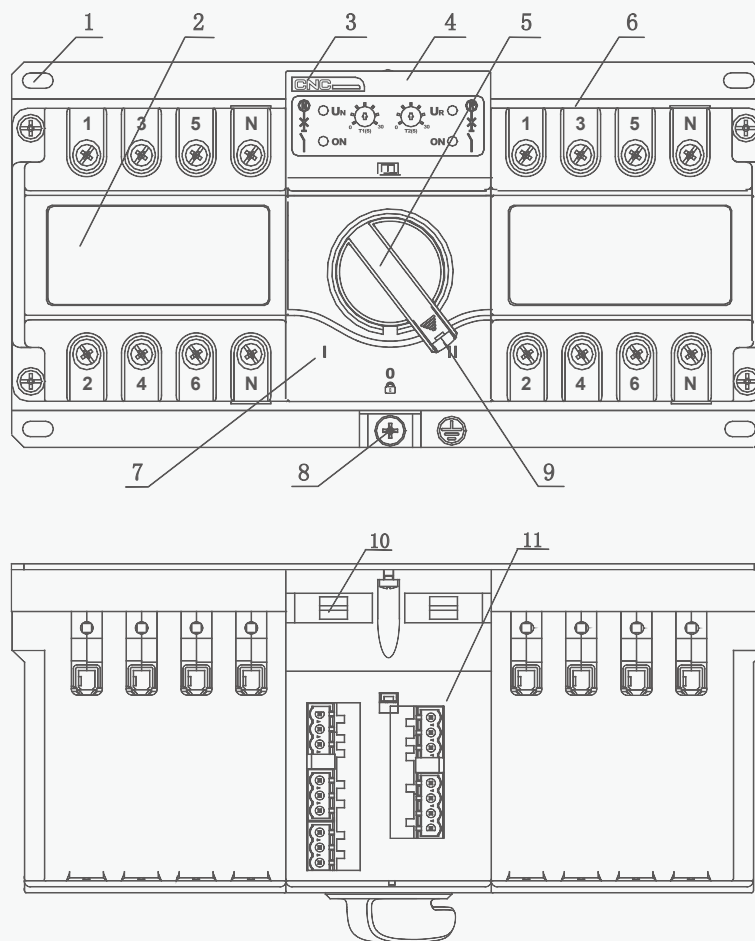
Note: " ■ " means this function is available; " □ " means this function is optional; " △ " means Customers require factory adjustments.

**B**

## Distribution Apparatus

# YCQ9HB Automatic Transfer Switch

### Product Structure Schematic

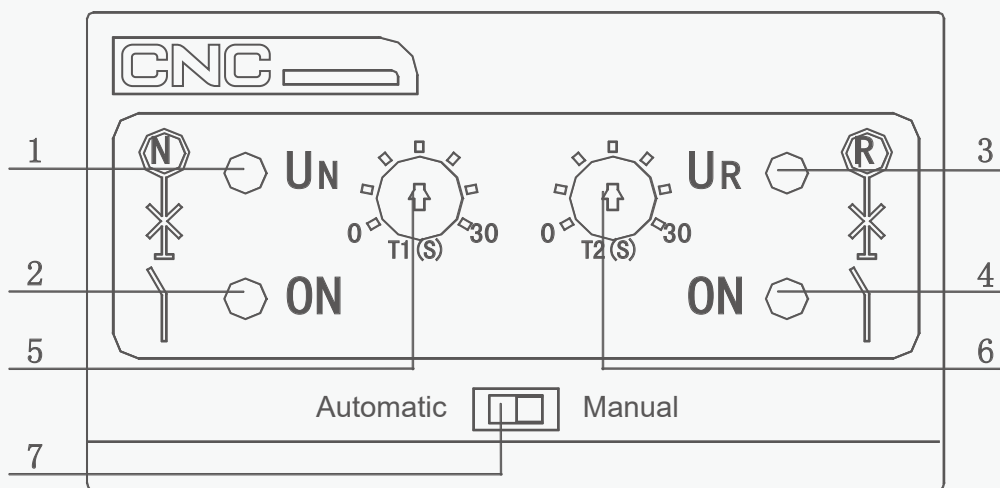


- |                  |                                   |                             |
|------------------|-----------------------------------|-----------------------------|
| 1-Mounting hole; | 5-Operating handle;               | 9-Handle padlock;           |
| 2-Product model; | 6-Wiring terminal;                | 10-Fuse tube;               |
| 3-Company logo;  | 7-Changeover position indication; | 11-Secondary terminal block |
| 4-Controller;    | 8-Grounding screw;                |                             |

## Distribution Apparatus

# YCQ9HB Automatic Transfer Switch

### Controller Panel and Description



- 1- Common power indicator;
- 2- Common closing indicator;
- 3- Standby power indicator;
- 4- Standby closing indicator;

- 5- Normal to backup conversion delay setting;
- 6- Backup to normal return delay setting;
- 7- Auto/Manual switching gear.

### 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

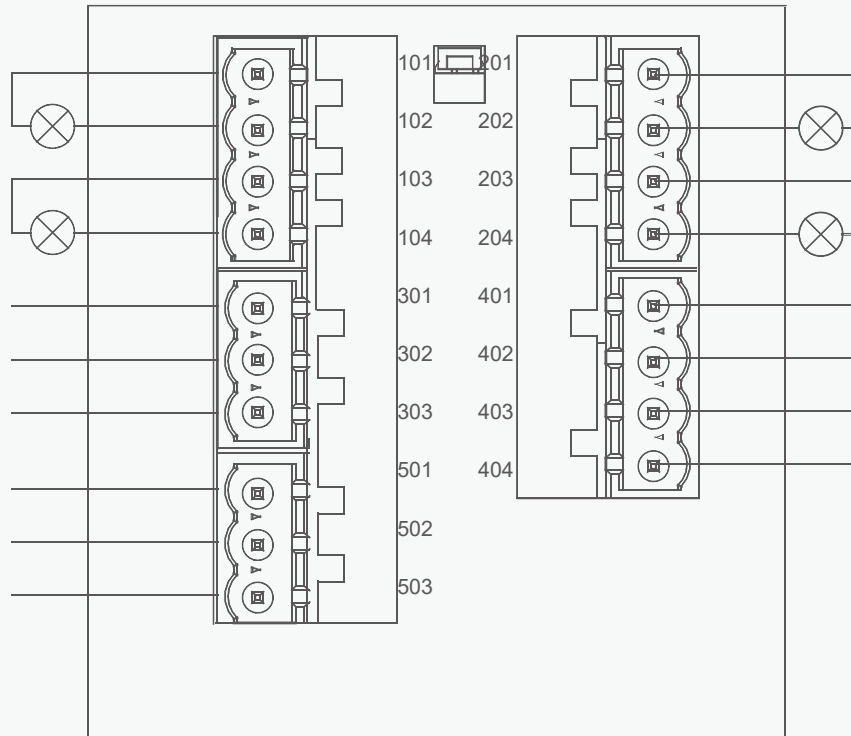
**B**

## Distribution Apparatus

# YCQ9HB Automatic Transfer Switch

### Controller secondary wiring terminal wiring instructions

B

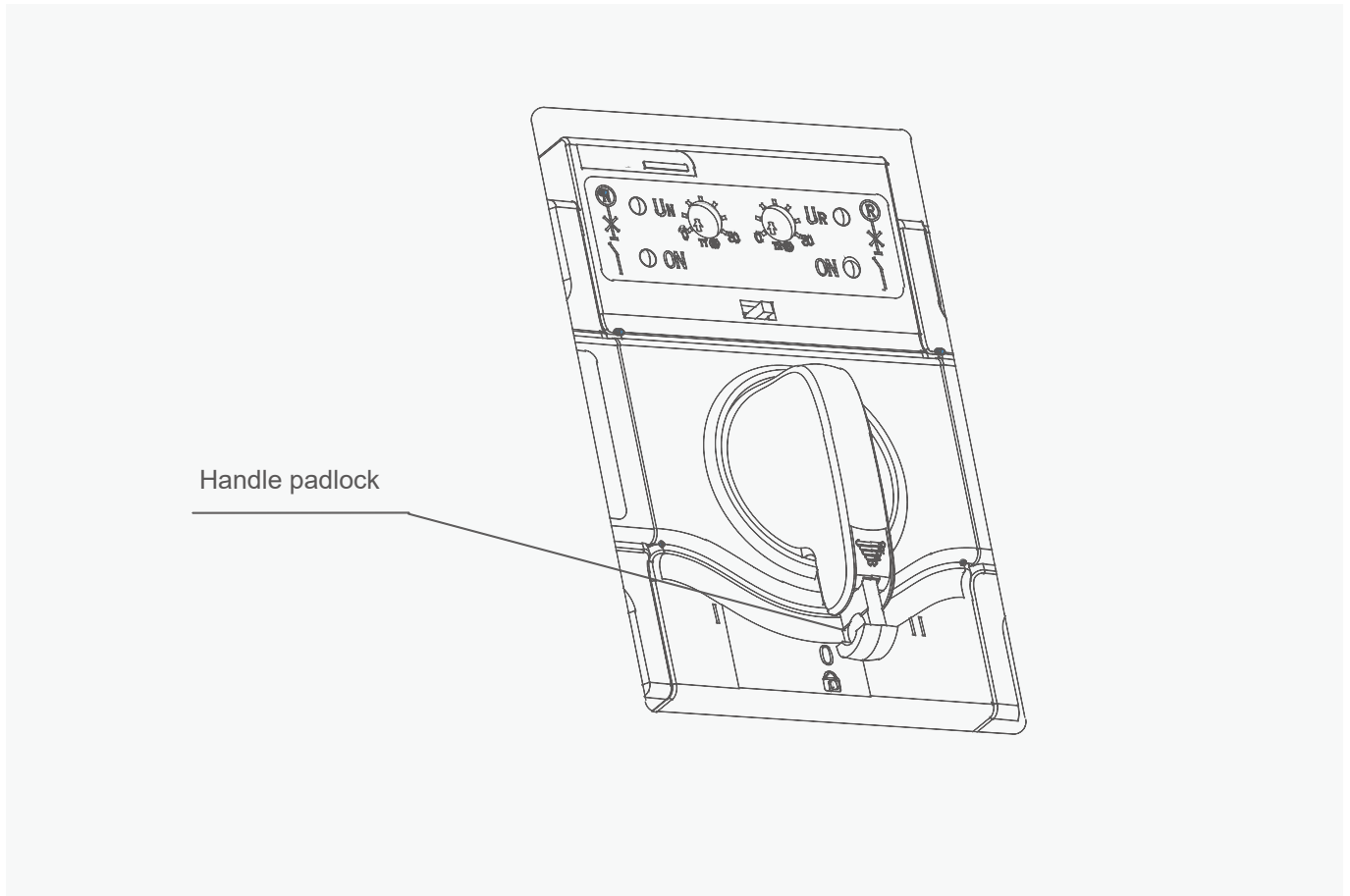


- 101#, 102# commonly used power supply external indication signal output (AC220V/0.5A active), 3P products commonly used zero line connected to the 101# terminal ;
- 103#, 104# common closing external indication signal output (AC220V/0.5A active) ;
- 201#, 202# standby power external indication signal output (AC220V/0.5A active), 3P products standby zero line connected to 201# terminal ;
- 203#, 204# common closing external indication signal output (AC220V/0.5A active) ;
- 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 ;
- 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 relay normally open contacts into the port) when the external contact closure controller immediately after control
- 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 switch to the breaking position ;
- 501#, 502#, 503# are communication function consoles.

## Distribution Apparatus

# YCQ9HB Automatic Transfer Switch

### 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  $\text{Ø}5.5$ .

## Distribution Apparatus

# YCQ9HB Automatic Transfer Switch

### Overall and mounting dimensions(mm)

