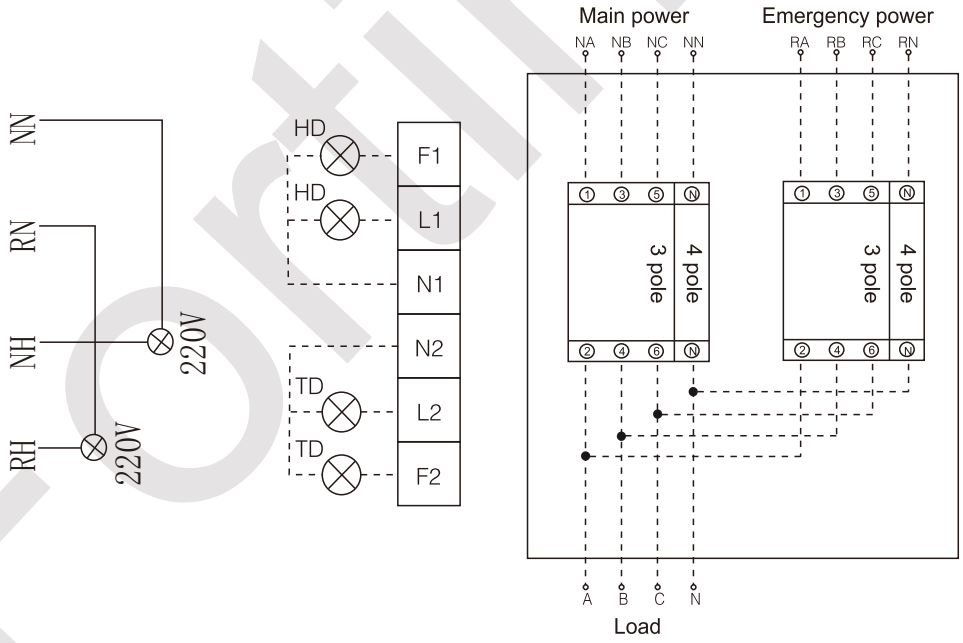
Type 100-400

Installation And Wiring Diagram

> Switching device installation: After fixed the switching device,according to the rated current to choose the appropriate wire to wiring. Note: The phase sequence of main power and emergency power must be consistent.
> Split type controller installation: Use 2 strutting pieces to fixed the split type controller on the panel.
> Please check if the controller plug into switching device and fastening screw.
> Please check each electrical contact part if is reliable. Check the fuse if is good.
> If user want to withstand voltage test,please remove the controller first. Otherwise will breakdown controller.
> For the 3 pole switch,user need to connect main power neutral line to terminal N1 port. Connect emergency power neutral line to terminal N2 port. Neutral line must be reliable and don't connect wrong. So that ATSE could proper work. For the 4 pole switch,main and emergency power neutral line must be connected to the corresponding circuit breaker N pole. In addition,switching device should ground connection at the grounding mark. User could connect indicator light to the terminal for observation. Refer to below.



Note:
> This diagram applies to three-phase four-wire. When using three-phase three-wire system,the neutral line of Main power connect to terminal N1 port,neutral line of emergency power connect to terminal N2 port.
> HD main power indication AC220V(User provided).
> TD main power indication AC220V(User provided).

Matters Needing Attention

Dangerous

Before installing or operating the product,please reading this user manual. Only professionals could install,adjust,repair or maintenance the product.

- Many parts of this product include control circuit board could not touch when the switch at work situation. Must use insulated tools.
- Could not touch those unprotected components or electric terminal screw.
- Before maintenance the product,the following measures should be taken: 1.Disconnect all power. 2.Put a "Forbid closing" sign on the switch. 3.Lock switch in the off position.

Warning

The voltage is not consistent

Before input power supply,please ensure the power voltage suitable for the switch rated voltage.If the voltage is not consistent,the product maybe damaged. If using not in accordance with the user manual,the product maybe damaged too.

Product Model And Meanings

□□□ – □ / □ □ □

- R: Auto transfer and auto recovery
- S: Auto transfer and non-auto recovery
- F: Utility - Generator type
- Rated current
- Pole: 3P/4P
- Frame class current
- Y: Intelligent integral type LED controller
- YW2: Intelligent split type LED controller
- YW3: Intelligent split type LCD controller
- Design No.: MCCB type
- CB class dual power automatic transfer switch
- Company Code

Features And Functionality Of Controller

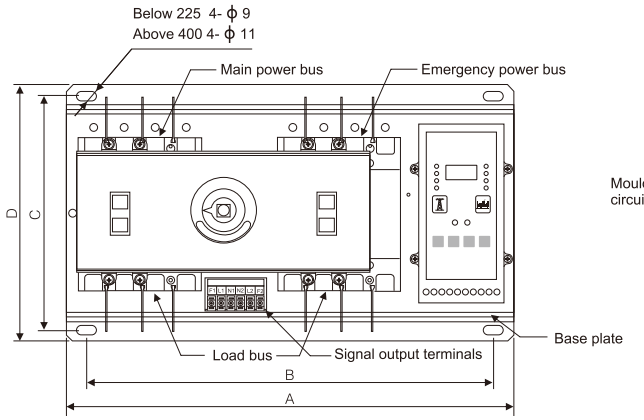
Automatic transfer switch according power supply condition and the parameter that user set to choose if tranfer from one power to the other power. It's function depends on the controller. There are 3 types(Y,YW2 and YW3) of controller. The features and functionality of controller as following.

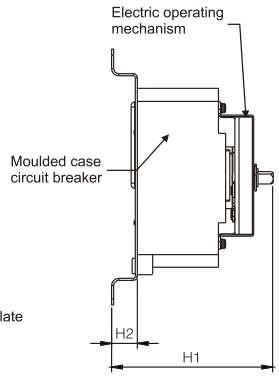
Controller	Y type Controller	YW2 type Controller	YW3 type Controller
Working power supply	AC160-250V 50/60Hz	DC12V(Provided by the inside of Y type controller)	
Installation	Integral type	Split type	
Position	3 positions		
Mode of operation	Auto,manual and electro-manual operation		
Voltage monitoring function	3 phase over-voltage,under-voltage and phase loss monitoring		
Frequency monitoring function	Frequency monitoring		
Generator control	A set of 3A relay dry contact		
Fire linkage control	Passive contact input,with a set of normally open passive signal feedback contact		
Mode of conversion	According to user's requirement could set at Auto transfer and auto recovery,Auto transfer and non-auto recovery or Utility-Generator type mode		
Display	LED display		LCD display
Conversion time delay	0.5s-60s continuous adjustable		
Return time delay	0.5s-60s continuous adjustable		

Technical Parameter

Type	100/225	400	630/800
Mechanical life	5000	3000	2500
Electrical life	1000	1000	500
Rated working	ongoing working		
Over-voltage transfer setting value	200-300VAC(adjustable)		
Under-voltage transfer setting value	200-300VAC(adjustable)		
Contacts conversion time	<4s		
Disconnect delay	0.5s-30s continuous adjustable		
Closing delay	0.5s-30s continuous adjustable		

Outline And Intallation Dimension





Dimension / Specification	A		D	B		C	H1	H2
	3P	4P		3P	4P			
63	380	405	250	340	365	230	<160	25
100	405	435	250	365	395	230	<170	25
225	450	480	250	410	440	230	<190	25
400	570	620	330	510	560	300	<200	25
630	680	740	330	620	680	300	<250	25
800	750	820	330	690	760	300	<250	25

Automatic Transfer Switch

Type 63

Main uses and scope of application

-63 automatic transfer switch is a terminal type automatic transfer switching equipment newly developed by our company, applicable for three-phase four-wire (or one-phase one-wire) dual-supply power grid systems of AC 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 voltage of normal power and A-phase voltage of reserve power only if there is no-voltage or open-phase), to ensure normal power supply for load circuits.

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

Model description

63 - □/□

- Pole number
- Rated operating current
- Frame size of miniature circuit breaker
- Design No.
- Enterprise code

Main technical parameters

See table 1 for main technical parameters.

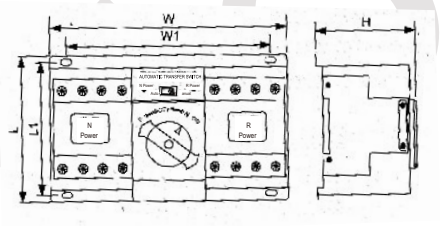
Table 1

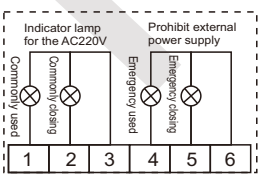
Rated operating current Ie (A)	6、10、16、20、25、32、40	50、63
Grade of electrical equipment	Grade CB	
Utilization categor	AC-33iB	
Tripping current	5-10In (type C), 10-15In (type D)	
Rated operating voltage Ue	220V(2-pole), 380V (3-pole, 4-pole)	
Rated frequency	60Hz	
Rated short-circuit making capacity Icm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

Normal operating and installation conditions

1) Ambient air temperature: -5℃~+40℃;
2) Altitude of the installation site shall not exceed 2000m;
3) Class of pollution: class 3;
4) Installation category: III;
5) Installation condition: vertically or horizontally installed.

Appearance And Installation Dimensions





Terminals:
1.2 Commonly used closing indicate output
3.4Standy closing indicate output
Note: When the ATS with 3 poles
Please :
Connect the commonly used neutral line to Terminal 2
Connect the standby neutral line to Terminal 4

-63 (terminal) dual power automatic transfer switch appearance and installation dimensions

Specifications	(W)	(W1)	(L)	(L1)	(H)
-63/2P A type	150	135	132	120	122
-63/3P A type	185	165	132	120	122
-63/4P A type	220	200	132	120	122

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 powerand 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 withan 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).

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 anddisplays 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 outother manual operation, just place the controller switch in position "Manual". Under "Manual" operating mode, controllerstops working, the circuit breaker can be closed by manual, andthe switch will not transfer automatically.

3) When there is load short-circuit or overload 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 time 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).

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, don't carry out withstand voltage test among the connection terminals (unless these secondary conductors are removed)! Power frequency withstand voltage tests can be carried out between the main circuit and the shell, or between the secondary auxiliary terminal and the shell.

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

Remedy of simple faults

If there is any fault in operation, please ask for specialized 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.

②Reserve 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.