

## Product Certificate

Model:

Name: Dual power automatic transfer switch

The product is qualified after inspection and meets the standard GB/T 14048.11, and it is allowed to leave the factory.

Inspector:

Inspection date: see product packaging

# POTRIC

## 63 TYPE(MICRO BREAK TYPE) AUTOMATIC TRANSFER SWITCH

### OPERATING INSTRUCTION

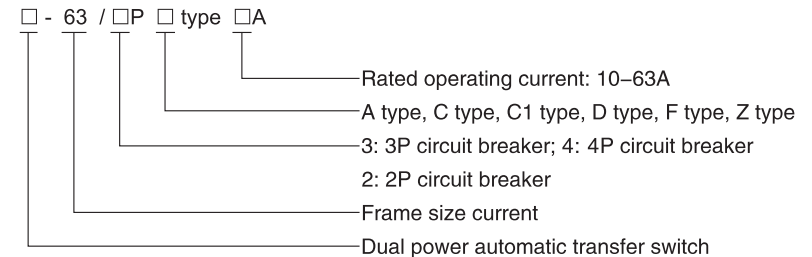
Please read the instructions carefully, when product acceptance and installation, and retain it for future reference.

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## 1. Safety precautions

- 1.1 Carefully read the operating specifications and strict compliance practices should avoid causing serious damage.
- 1.2 Warn those who do not regulate the operation caused serious damage to the product device.
- 1.3 Warnings
  - 1.3.1 Not hot plug controller plug, otherwise it will cause electric shock or product damage.
  - 1.3.2 Operation and maintenance of non-professionals prohibition that would otherwise result in electric shock or product damage.
  - 1.3.3 Please read the instructions carefully when setting the parameters within the controller changes, otherwise it will damage the product or does not work properly.
  - 1.3.4 The load capacity can not exceed the rated capacity of the switch, otherwise it will cause the switch to trip or burn.
  - 1.3.5 Can not be neutral (N) mistakenly access phase, two -phase input circuit breaker must be consistent, the choice of the three-pole double. Power when the common power supply (NN) and standby power (RN) also received wiring terminals No.1 foot, otherwise it will cause damage to the switch. Ground should be connected reliably to ensure safe use.
  - 1.3.6 Can not be installed directly outdoors, otherwise shorten the life or cause a bad product.
  - 1.3.7 Can not be installed directly in explosive, humidity, direct sunlight high temperatures, vibration, shock and other places. Otherwise it will shorten the life of the product or cause a fire explosion.
  - 1.3.8 Can not be directly installed in a conductive dust, metal wire invade the place, otherwise it will damage the product or mechanical failure.
  - 1.3.9 Shall meet the requirements of the specification, otherwise it will shorten life.

## 2. Model and meaning



## 3. Product structure and features

63 type dual power automatic transfer switch is made up of two units miniature circuit breaker and accessories (auxiliary contact, alarm contact), the mechanical interlocking transmission, controller and other components. 63A specification is composed of miniature circuit breaker, especially suitable for lighting and small motor control equipment. Its features is:

- The switch has the advantages of small volume, simple structure, convenient operation and long service life, which can be provided by 2p, 3P and 4P;
- Transfer switch driving by single motor, a smooth, no noise, the impact is small;
- With mechanical interlocking and electrical interlock, change over credibility, could be supply by manual or automatic operation;
- Common, standby circuit breaker rated current can be different;
- A.T.S is equipped with terminal for user wiring, which can reflect the status of circuit breaker (open or closed); there are various indications on A.T.S panel.

## 4. Working principle

This series of dual power supply controllers and driving mechanisms all use AC220V power supply, and their power supply signals depend on Phase A and Line N of the incoming ports of common switches or standby switches. When the dual power supply is in an automatic state, when the voltages of the incoming Phase A and Line N of the common switches are normal (AC190-240V), the common switches would be closed preferentially regardless of whether the voltages of the common power supply B, C and the standby switches A, B, C and N are normal. In the meantime, the power indicator and the common closing indicator are on. When there is no voltage on the incoming Phase A and Line N of the common switch and the voltage on the

incoming Phase A and Line N of the standby switch is normal, the dual power supply will be turned to the standby closing regardless of whether the voltage on the normal and standby switches B and C is normal. The power indicator and the standby closing indicator are on. Manual function, no matter whether the common power supply and standby power supply have voltage or not, manual operation mode can be adopted. During manual operation, the manual-automatic button shall be placed in the manual operation position. When the push handle rotates clockwise to the terminal, the standby power circuit breaker R opens and the common power circuit breaker N closes. When the push handle rotates counterclockwise to the terminal, the standby power circuit breaker R closes and the common power circuit breaker N opens.

### 5. Installation and use

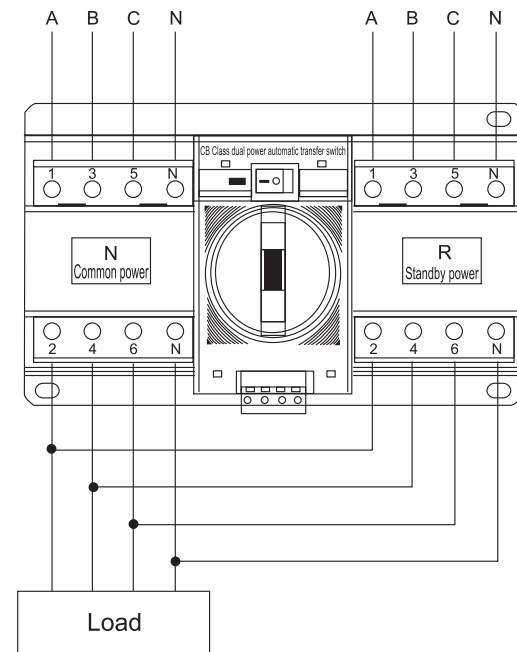
Before installation and use, check the appearance of dual power supply products and whether there is any damage during transportation. If there is any damage, contact the dealer in time. When wiring, please connect the three-phase and four-wire of the common and standby power supplies to the incoming terminals of the common and standby circuit breakers. Then the two circuit breakers are connected in parallel for load. If the selected dual power supply is three poles, the common zero line and the standby zero line must be connected to the dedicated terminal (not connected in reverse), otherwise the dual power supply will not work.

**Note:** During the installation and wiring process, do not forget the signal line originally connected to the incoming end of the circuit breaker, short circuit or open circuit.

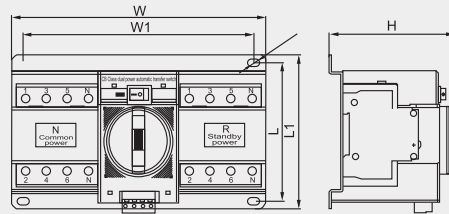
Whether common power or standby power with voltage or not, all can be by manual mode operated. Under manual, put the auto-manual button to manual position, pull the handle by clockwise to end, standby power implementation circuit breaker Qr is OFF, implementation of common power supply circuit breaker Qn ON; When pull handle counterclockwise to the end, the implementation of standby power source Qr is ON, implementation of common power supply circuit breaker Qn is OFF;

Set the auto position, if the common power is normally, ATS will transfer to common power working. The common power indication will bright on panel; If the common power is unusually, ATS will transfer to standby power working. The standby indication will be bright on the panel.

ATS has 1A of two units fuses and a electric connector, fuse as short-circuit protection in automatic controller. The terminal provides active power for the indicator light to be connected to the control box panel, and its voltage is AC220 V, current is 150mA, the specific operation can refer to the attached manual circuit diagram for connection.



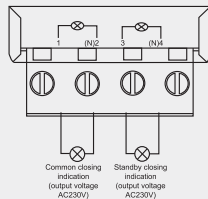
## 6.Overall and installation dimension of 63R type



Specification	W	W1	L	L1	H
63/2P R type	155	137	136	125	114
63/4P R type	225	208	136	125	114

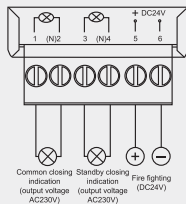
## 6.Terminal wiring schematic diagram of 63R type

General output terminal wiring diagram



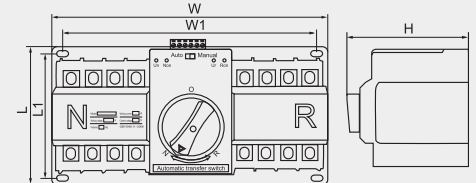
Terminals:  
 1-2: common closing indication  
 3-4: standby closing indication  
**Note:** wiring when the switch is three pole  
 Common zero line access terminal 2  
 Standby zero line connected to terminal 4  
 Terminal 2 and terminal 4 are connected to the zero line of power supply and shared with the zero line of closing indication; The zero line N should not be connected to the phase line by mistake, otherwise the double power switch controller will be burned.

Intelligent output terminal wiring diagram



Terminals:  
 1-2: common closing indication  
 3-4: standby closing indication  
 5-6: connect fire fighting voltage  
**Note:** wiring when the switch is three pole  
 Common zero line access terminal 2  
 Standby zero line connected to terminal 4  
 Terminal 2 and terminal 4 are connected to the zero line of power supply and shared with the zero line of closing indication; The zero line N should not be connected to the phase line by mistake, otherwise the double power switch controller will be burned.

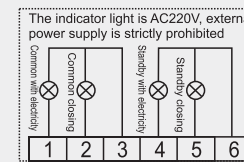
## 7.Overall and installation dimension of 63C type



Specification	W	W1	L	L1	H
63/2P C, C1 type	155	137	136	125	110
63/3P C, C1 type	190	173	136	125	110
63/4P C, C1 type	225	208	136	125	110

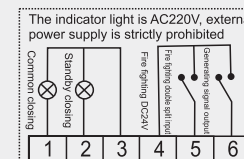
## 7.Terminal wiring schematic diagram of 63C type

(Basic type) terminal wiring schematic diagram



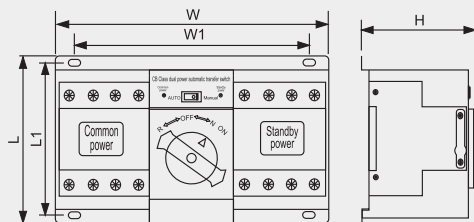
Terminals:  
 1: Common electrical indication output  
 2: Common closing indication output  
 3: Common common zero line output  
 4: Standby electrical indication output  
 5: Standby closing indication output  
 6: Standby common zero line output  
**Note:** when the double power supply is three pole, please send:  
 Common zero line access terminal 3  
 Standby zero line connected to terminal 6

(Fire protection and power generation type) terminal wiring schematic diagram



Terminals:  
 1: Common closing indication output  
 2: Standby closing indication output  
 3: Common zero line output  
 4: Fire fighting double split (DC24V) signal input  
 5: Generator oil engine signal output  
 6: Public signal point of fire power generation  
**Note:** when the double power supply is three pole, please send:  
 Common and standby common zero line access terminal 3

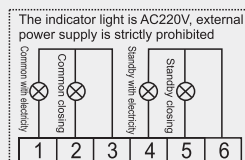
## 8. Overall and installation dimension of 63Z type



型号规格	W	W1	L	L1	H
63/2P Z型	150	135	132	120	122
63/3P Z型	185	165	132	120	122
63/4P Z型	220	200	132	120	122

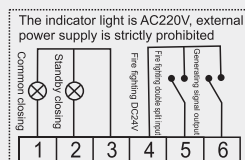
## 8. Terminal wiring schematic diagram of 63Z type

(Basic type) terminal wiring schematic diagram



Terminals:  
 1: Common electrical indication output  
 2: Common closing indication output  
 3: Common common zero line output  
 4: Standby electrical indication output  
 5: Standby closing indication output  
 6: Standby common zero line output  
**Note:** when the double power supply is three pole, please send:  
 Common zero line access terminal 3  
 Standby zero line connected to terminal 6

(Fire protection and power generation type) terminal wiring schematic diagram



Terminals:  
 1: Common closing indication output  
 2: Standby closing indication output  
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**Note:** when the double power supply is three pole, please send:  
 Common and standby common zero line access terminal 3

## 9. Switch commissioning and maintenance

### ⚠ Hazard warning

This device can only have professional installation, commissioning and maintenance. Failure to specification requirements for all damage caused by the operation, the manufacturer will not be liable.

- The device must be installed by professionals, commissioning and maintenance and maintenance.
- When installation and maintenance, please cut off the power supply.
- the device must be grounded as required.
- illegal operation may cause electric shock, fire or explosion!

#### 14.1. Switch commissioning instructions

- The first use of the operating handle is not energized, the switch three times repeated operation, the switch should operate flexible cable wiring;
- Confirm that the main circuit and auxiliary circuit wiring is correct electrical operation inspection;
- Press the manual button, click the manual used, points again to press the manual button to display alternate characters on the screen this time manually.

Thus, dual power should immediately turn to standby power, dual power button is pressed the parties unconditionally transferred to the position of the double points; d) All the way to the automatic mode according to the usual or common mode debugging road, see the instructions detailed functional description action specific functions to analyze the debug process.

#### 14.2. Routine maintenance

To prevent dual power failure to ensure normal operation, long life, dual power supplies are required to be routine maintenance, routine maintenance as follows:

- Check that the ambient temperature at 0 °C ~ 40 °C, the temperature at 20 to 90% and non-condensing;
- Confirm the input supply voltage and frequency within the allowable range;
- Confirmed that no oil mist and dust within dual power, no condensation.

#### 14.3. Regular maintenance

In order to prevent double power failure, ensuring its high performance and stable operation for a long time, the user must periodically (six months or less) for the dual power for inspections as follows:

- Check the main circuit line busbar contact is good;
- Check the external wiring terminal screws are loose;
- Check the electrical instructions and instructions or external LCD controller LED indicates whether the same.