GEYA POWER

G2R

Automatic Transfer Switch

G2R-63 automatic transfer switch is a PC class infrequent change-over switch, with two-station design (commonly used for A and standby for B), suitable for AC systems with AC 50-60hz and rated current 6A-63A. The main function of the automatic transfer switch is when the main power (common power supply A) fails, the ATS will automatically switch to the backup power (Backup power supply B) to continue working, which can effectively solve the troubles caused by power outages.

• Working Conditions •

The temperature range of the operating environment is -5°C~+40°C, and the average temperature within 24 hours shall be lower than +35°C, and the temperature range of the storage environment is -25°C~+55°C, which can be reached +70°C in a short time (within 24 hours)
The altitude of the installation site should be lower than 2000m.
The relative temperature at the installation site shall not exceed 50% when the ambient air temperature is +40°C.Higher relative humidity is possible at lower temperatures. For example: when the average minimum temperature of the wettest month is +20°C,the monthly average maximum relative humidity of that month can reach90% . Appropriate measures should be taken to prevent condensation due to temperature changes.
Pollution level 3 (conductive pollution, or dry non-conductive pollution becomes conductive due to condensation). ATS can be installed vertically or horizontally in the cabinet, if there are special installation requirements, contact us.
The protection grade of ATS case is IP30.
Overvoltage category
Main circuit category III; control and auxiliary circuit category II.

• Product model and meaning •

G	2	R	—	63	□	□
Company code	Product Category	Installation method		Case grade	Pole	
ZHEJIANG GEYA ELECTRICAL CO.,LTD	PC class automatic transfer switch (two stations)	Din-rail installation		63	2P/4P	Rated working voltage: AC220V，AC110V Rated operating current: 6A/10A/16A/20A/25A/ 32A/40A/50A/63A

• Technical Specification •

	63								
Rated operating current Ie(A)	06A	10A	16A	20A	25A	32A	40A	50A	63A
Rated insulation voltage Ui	690V								
Rated impulse withstand voltage Uimp	8kV								
Rated operating voltage Ue	AC220V/AC110V								
Rated frequency	50/60Hz								
Class	PC class: can be switched on and loaded without generating short-circuit current								
Pole number	2P				4P				
Rated short-circuit current Iq	5kA								
Short circuit protection device (fuse)	RT16-00-63A								
Rated impulse withstand voltage	8kV								
Control circuit	Rated control voltageUs:AC220V/110V,50/60Hz Normal working conditions:85%Us-110%Us You must use an inverter with a power output of at least 3000W (please use a sine wave Severe electromagnetic interference may cause the product to malfunction.)								
Auxiliary circuit	AC220V/110V 50/60Hz Ie=5A								
Overvoltage/undervoltage protection range	220V/50Hz Undervoltage value: 175V (±5V) Recovery value: 190V (±5V). Overvoltage value: 270V (±5V) Recovery value: 250V (±5V) 110V/50Hz Undervoltage value: 85V (±5V) Recovery value: 90V (±5V). Overvoltage value: 140V (±5V) Recovery value: 135 (±5V)								
Mechanical life	≥8000 times								
Electrical life	≥1500 times								
Usage category	AC-31B								

Notes

The input power supply must be connected inthe correct phase sequence

ATS can share N lines but cannot use a 1p circuit breaker to independently control N lines and L lines. To switch the power supply. you need to operate N lines and L lines at the same time. Otherwise, product faults may occur

Manual/automatic operation can ensure the opening and closing performance of electrical operation, but in manual operation, there is no guarantee due to the different opening/closing speeds of the operators. in manual operation, there's possible for excessive silver alloy loss . Therefore, the selector switch should only be puled to the manual position after all power has been cut of for inspection and maintenance of the operating system and contact information.

Normally, pull the selector switch to the electric position. When manual operation is required, pull the selector switch to the manual position. After manual operation is complete, pull the selector switch from the manual position to the automatic position.

The dual power supply belongs to the emergency switching switch, and the switching speed and frequency should not be too high .

If testing is required, the switching time should not be less than a frequency of once every minute.

The dual power switch is equipped with a interlocking mechanism. and it is strictly prohibited for non professionals to manually switch the switch when powered on. Incorrect operation can cause contact loss and reduce service life.

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Install

The installation and debugging of ATS should be carried out by professionals and personnel familiar with the switchgear, and corresponding protection and preventive measures must be considered during the work. The wiring method of the main circuit of the switch must ensure that the leads are not subjected to any pressure or strong force. Before installation and debugging, the switch should be checked for any damage or other harmful environmental effects. At the same time, any loose wire heads that may be caused during transportation should be checked to remove dirt, especially on the surface of insulation parts. These dirt may be caused by passing through packaging materials during transportation or during storage. When connecting the primary circuit, attention should be paid to ensuring that the phase sequence of the two power sources is consistent. When connecting the secondary circuit, strict adherence to the wiring diagram listed in this manual should be followed, and attention should be paid to controlling the voltage level of the power supply; The switch must be installed with good grounding. Considering personal safety and the speed of switch switching, the debugging handle is only for trial use. Users should not use the debugging handle to operate under load. When debugging, the switch should be operated with a handle first. If there are no abnormalities, the manual button should be used for electric operation. After there are no abnormalities, the official operation can be carried out.

Installation environment: Install ATS on a clean, dry, and well ventilated surface. Electrical connections: Ensure that all connections are secure to prevent overheating and fire hazards. Avoid neutral wire grounding connection: Do not connect the neutral wire to the grounding system as this can cause danger. Comply with local regulations: Ensure compliance with applicable local electrical codes to ensure safety and reliability. Adhering to these guidelines can ensure the safe operation of ATS,

Maintenance

Maintenance and inspection should be carried out by professionals.

In order to ensure the good performance of the ATS, the first maintenance and inspection should be carried out within 6 months after use. Then do the maintenance and inspection at least once a year. In

harsh installation conditions, the frequency of maintenance and inspection should be increased.

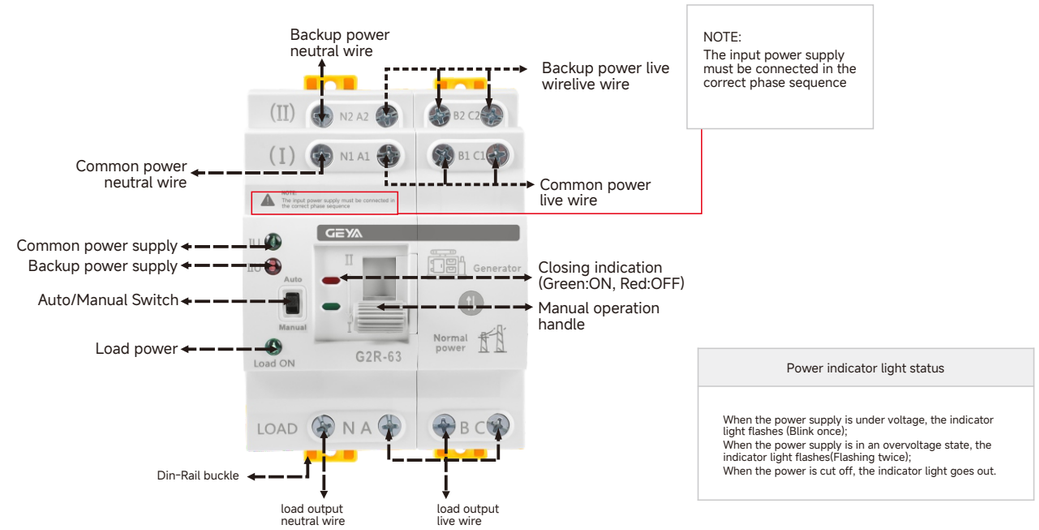
If the maintenance and inspection items fail, please remove the dust. b: Please check whether the electrical contact parts are deformed and damaged, and clean the surface. c: metal particles and burnt around it. Rust, acidification and dust on the contact surfaces can cause poor contact, so do some manual work and measure the necessary contact resistance. d: If the ATS is wet or left unused for a long time, please dry it before turning on the power.

After removing the dust, use a 500V megohmmeter to measure the insulation resistance of the normal

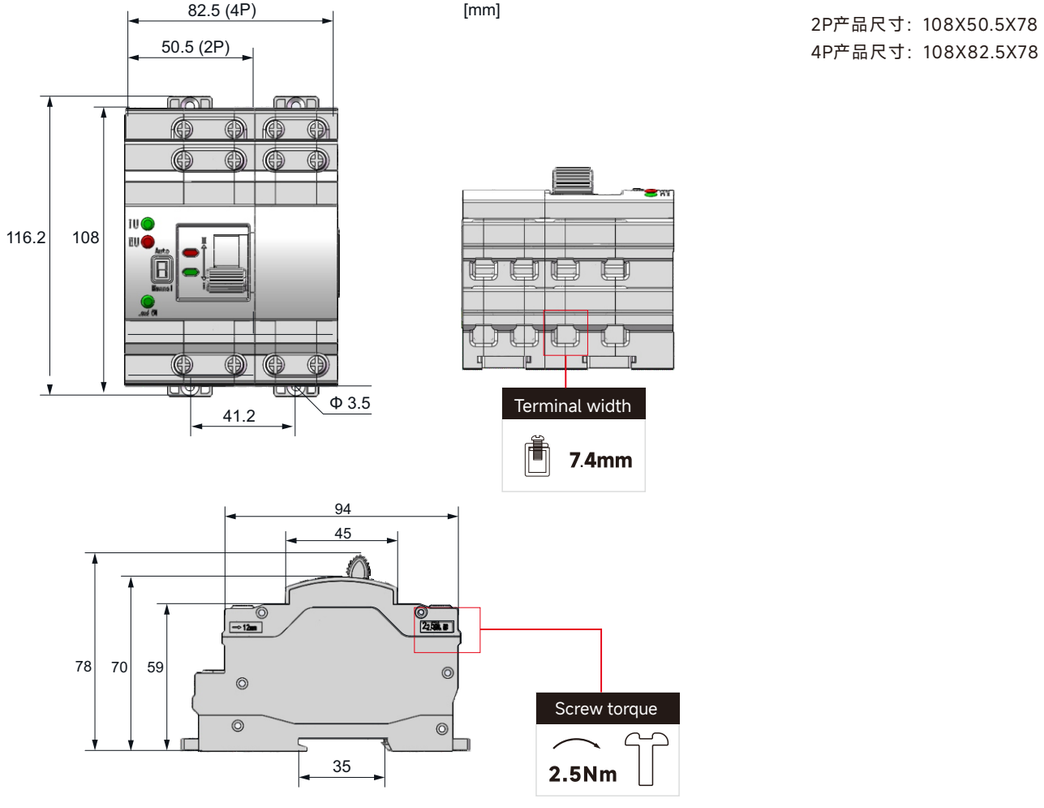
power supply and the AC power supply. The load side and two poles, including the insulation resistance, when using live parts and metal plates, the insulation resistance should not be less than 10MQ.

Professional Inspection: Engage qualified personnel to regularly inspect the ATS, verifying proper operation.
Routine Cleaning: Periodically remove dust and debris to ensure optimal performance.
Electrical Contact Check: Inspect electrical contacts for wear or damage and tighten any loose connections to maintain reliable operation.
Humidity Control: Maintain a dry environment to prevent moisture-related malfunctions
Insulation Testing: Routinely test insulation resistance to verify adherence to safety standards.
Proper Storage: Store the ATS in a protected environment, shielded from dust, humidity, and physical harm when not in use.
Adhering to these refined maintenance procedures ensures the safe and effective functionality of ATS.

Wiring instructions



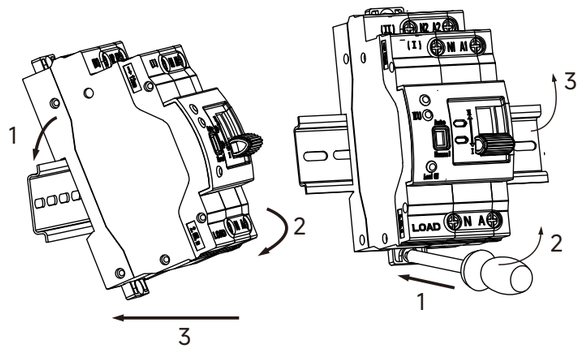
Product Size



2P产品尺寸：108X50.5X78
4P产品尺寸：108X82.5X78

DIN Rail Installation

1. Insert the upper end of the ATS base into the DIN rail.
2. Push the lower end of the ATS base into the DIN rail until the snap fastener locks securely.

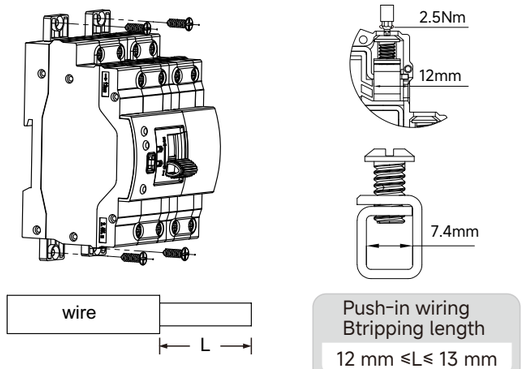


DIN Rail Disassembly

1. Insert a screwdriver into the round hole of the DIN rail snap fastener at the bottom of the ATS.
2.Use a screwdriver to pry the DIN rail snap fastener downward.
3. Tilt the ATS upwards and remove it from the DIN rail.

Screw Mounting

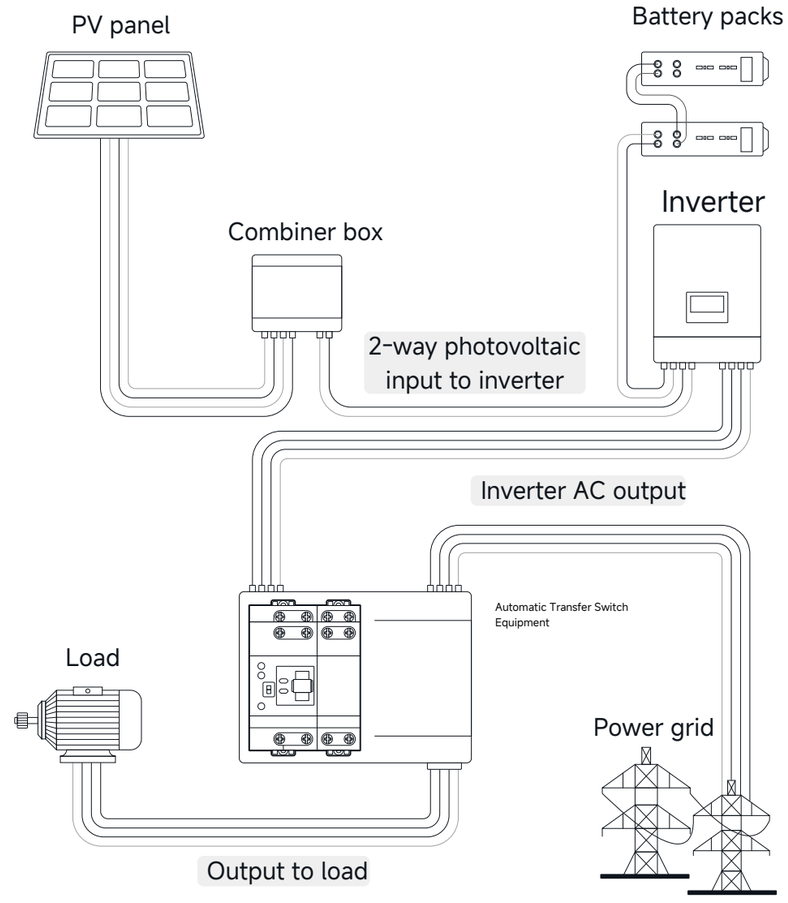
1. Pull out the upper and lower snap fasteners located at the bottom of the ATS.
2. Secure the ATS to the panel with screws.



Wiring

1. The ATS is equipped with screw-type terminals, each with a width of 7.4 mm, suitable for copper wires with a cross-sectional area of 1 to 16 mm^2
2. When wiring, strip the wire to a length of 12 to 13 mm; it is recomm ended to use a duckbill-shaped terminal for secure connection.
3. Tighten the screws with a recommended torque of 2.5 Nm to ensure proper tightening without damaging the terminals.

Easy Installation Instructions



This product has undergone insulation testing before leaving the factory. Incorrect dielectric testing will damage the control system, and it is strictly prohibited to conduct dielectric testing with ATS.