

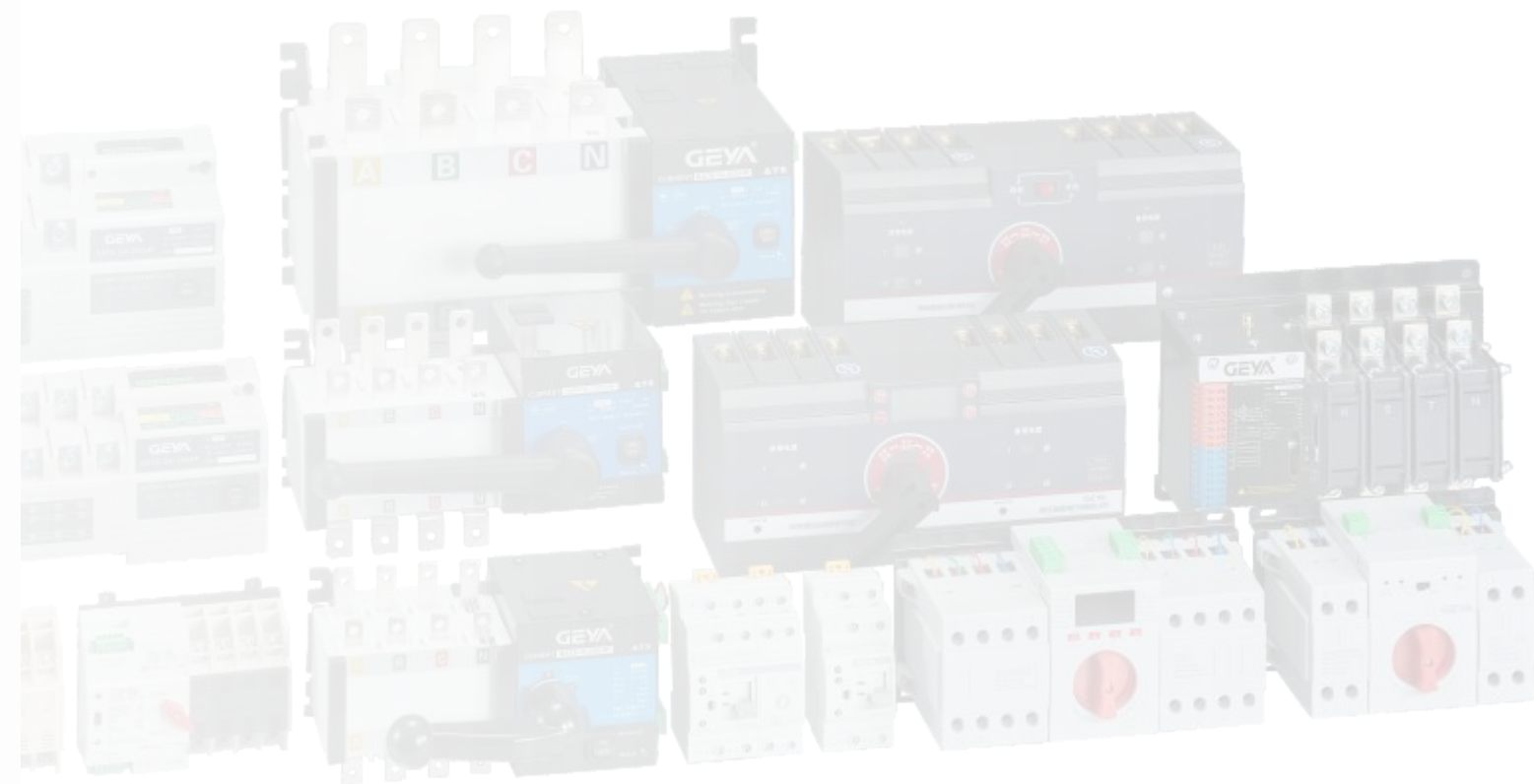


EVERYTHING FOR
ELECTRICAL SAFETY

ATS



Product Selection Manual



ZHEJIANG GEYA ELECTRICAL CO.LTD.

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ZHEJIANG GEYA ELECTRICAL CO.,LTD



ZHEJIANG GEYA ELECTRICAL CO.,LTD Company Profile



R&D



Sales



Production

Established in **2007**

Zhejiang GEYA Electrical Co., Ltd. was established in February 2007 and is headquartered in Wenzhou, Zhejiang. As a technology-oriented private enterprise, the company integrates R&D, production, sales, and service, specializing in the independent development of low-voltage electrical appliances and automation control products. After years of steady growth, the company's annual turnover has exceeded CNY 200 million.

The company offers a comprehensive product line that includes miniature circuit breakers, molded case circuit breakers, earth leakage circuit breakers, isolation switches, contactors, relays, timers, distribution boxes, and related accessories. With a diverse range of products widely applied across various fields, GEYA has earned trust and recognition from customers both in China and overseas.

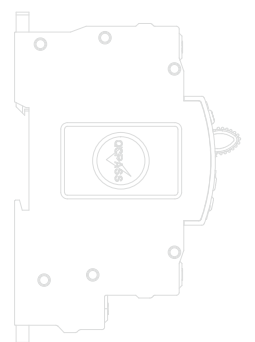
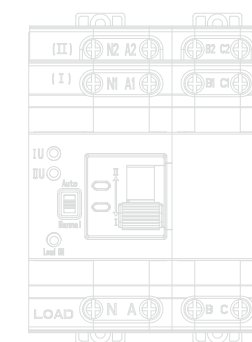
GEYA operates a well-established online sales platform system, with products distributed across six continents through four major sales regions. The company has established partnerships with over 40 overseas companies, continuously expanding the influence of the GEYA brand.

Since its inception, GEYA has adhered to the corporate spirit of "Exploring Truth, Applying Globally," upholding a development philosophy that prioritizes quality and continuous innovation. The company is committed to delivering high-standard, high-quality products and has obtained multiple national patents. The GEYA brand has been successfully promoted in most countries worldwide. Additionally, the company's products have received authoritative international certifications such as CCC, CE, SAA, SEMKO, TUV, and EN, fully complying with European and American product quality standards.

In addition to providing OEM and ODM services to global customers, GEYA has established strategic partnerships with several internationally renowned brands. Leveraging the experience of its seasoned sales team, the company continues to expand into broader domestic and international markets, contributing to the development of the low-voltage electrical and automation control industry.

GEYA sincerely invites partners from around the world to join in promoting the GEYA brand across global markets. We are dedicated to providing high-quality products, comprehensive services, and competitive sales policies.

We look forward to building a brighter future with you!





**This product has undergone insulation testing prior to shipment.
Performing an incorrect dielectric test may damage the control system.
DO NOT perform dielectric tests with the ATS installed.



G2R

Automatic transfer switch

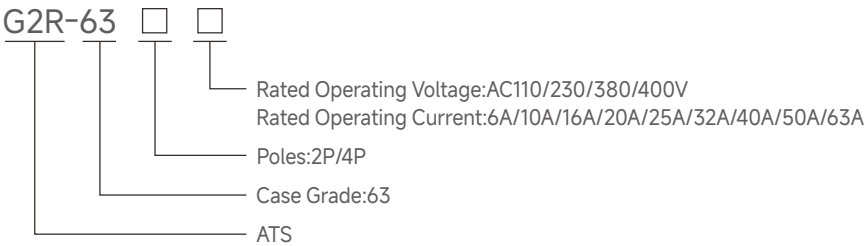
G2R-63 automatic transfer switch is a PC class infrequent change-over switch, with two-station design (commonly used for A and standby for B) suitable for AC systems with AC 50-60hz and rated current 6A-63A. The main function of the automatic transfer switch is when the main power (common power supply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



● 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 working voltage Ue	AC110/220/230V/380V/400V								
Rated frequency f	50/60Hz								
Product Category	PC class:								
Pole number	2P					4P			
Rated short-circuit current Iq	5kA								
Short circuit protection device (SCPD)	RT16-00-63A								
Control circuit	Rated control voltage Us: AC220V/110V, 50/60Hz Normal working conditions: 85%Us-110%Us								
Auxiliary circuit	AC110/220/230V/380V/400V 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	≥4000 times								
Electrical life	≥1500 times								
Usage category	AC-31B								

● Product model and meaning



● Working Conditions

The operating environment temperature range is -5 °C~+40 °C, and the average temperature value within 24 hours does not exceed+35 °C. The storage environment temperature range is -25 °C~+55 °C, and can reach+70 °C in a short period of time (within 24 hours).
The altitude of the installation site shall not exceed 2000.
The relative temperature of the air at the installation site should not exceed 50% when the surrounding air temperature is+40 °C, and there can be higher relative humidity at lower temperatures. For example, when the average lowest temperature in the wettest month is+20 °C, the average highest relative humidity in that month can reach 90%. Appropriate measures should be taken to prevent condensation caused by temperature changes.
Pollution level 3 (with conductive pollution, or dry non-conductive pollution turned into conductive due to condensation). ATS can be installed vertically or horizontally inside the cabinet. If there are special installation requirements, please contact our company. The protection level of the product shell is IP30.
Overvoltage category: Main circuit class III; Control and auxiliary circuits Class II.

Note

Manual/automatic operation can ensure the on/off performance of electrical operation, but in manual operation, it cannot be guaranteed due to the different on/off speeds of the operator. Excessive loss of silver alloy may occur during manual operation. Therefore, the selector switch can only be pulled to the manual position after cutting off all power sources to check and maintain the operating system and contact information. Usually, please pull the selector switch to the electric position. When manual operation is required, pull the selector switch to the manual position. After completing the manual operation, pull the selector switch from the manual position to the automatic position.

The control circuit TSE is immediately excited. After the conversion is completed, the internal switch will damage the coils in the control circuit, which can operate normally at 85% -110% of the rated working voltage. Low input voltage may cause the coil to heat up and burn out.

Install

Before installation and wiring, please ensure that professionals have read this manual.

Before installation, please check the integrity of ATS. Then turn on the ATS with an operating handle, check the flexibility of the operating mechanism, and check the on and off status of each phase as well as the load of the normal and backup power sources.

Please equip ATS with suitable circuit breakers according to the installation requirements of the power distribution system to ensure the safety of personnel and equipment.

Maintenance

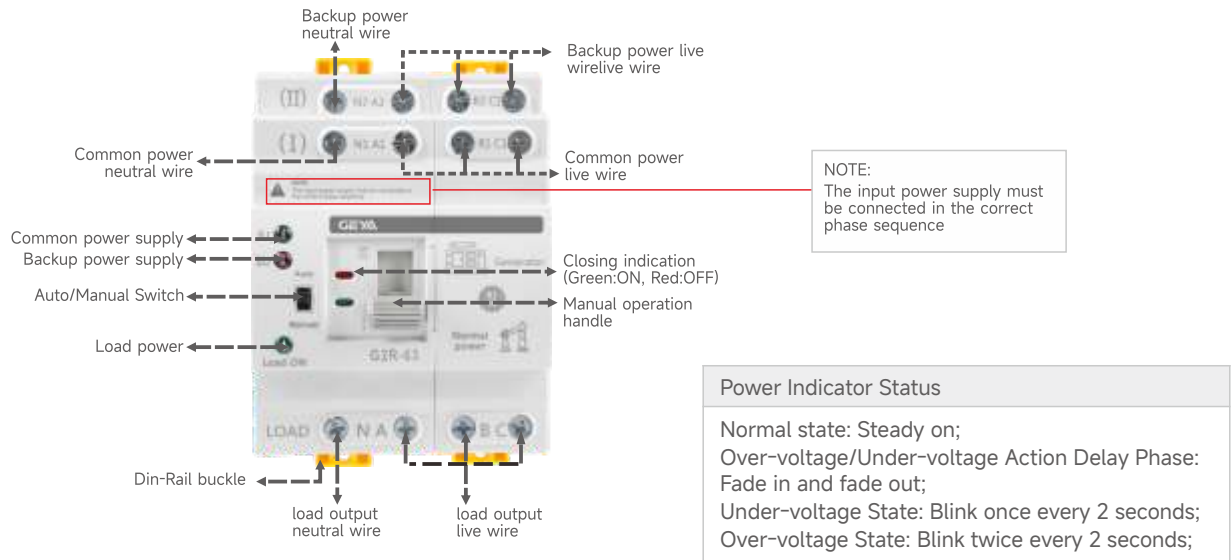
Maintenance and inspection should be carried out by professionals. Before cutting off all power sources. To ensure the good performance of ATS, the first maintenance and inspection should be carried out within 6 months after use. Then maintain and inspect at least once a year. Under harsh installation conditions, the frequency of maintenance and inspection should be increased.

If maintenance and inspection projects fail, please remove dust. b: Please check if the electrical contact components are deformed or damaged, and clean the surface. c: And the surrounding metal particles and scorch. Rust, acidification, and dust on the contact surface may cause poor contact, so please perform some manual operations and measure the necessary contact resistance.

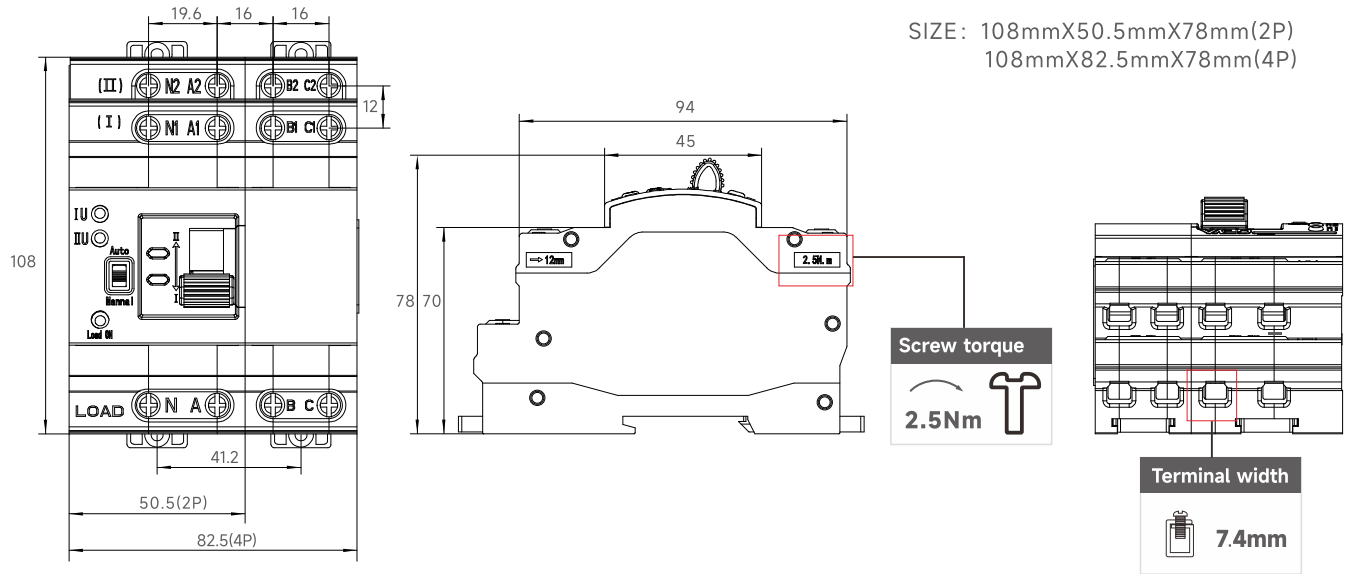
d: If the ATS is damp or has been idle for a long time, please dry it before turning on the power. After removing dust, use a 500V megohmmeter to measure the insulation resistance of the normal power supply and AC power supply. When using live parts and metal plates, the insulation resistance of the load side and two poles, including insulation resistance, should not be less than 10MQ.

Amphetamine type stimulants should be stored in the same environment as normal working conditions, and dust, moisture, and collision prevention measures should be taken.

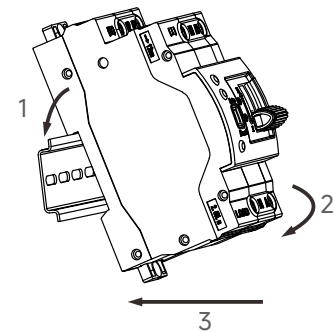
Wiring Instructions



Size

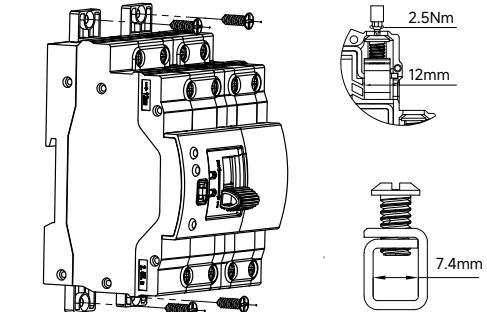


DIN Rail Mounting



- 1.Insert the upper end of the ATS base into the DIN rail.
- 2.Push the lower end of the ATS base onto the DIN rail until the latch securely locks into place.

Screw Mounting



- 1.Pull out the upper and lower latches located at the bottom of the ATS.
- 2.Secure the ATS to the mounting panel using screws.

All work related to the installation and commissioning of the ATS shall be performed by professionals and personnel familiar with this switching device. Appropriate protection and precautionary measures must be taken 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 force. Before installation and commissioning, inspect the switch for any damage or other harmful environmental effects. Additionally, check for loose wiring terminals that may have occurred during transportation. Remove dirt, especially from the surface of insulating components, which may have penetrated through the packaging material during transport or accumulated during storage. When connecting the primary circuit, ensure that the phase sequence of both power supplies is consistent. When connecting the secondary circuit, strictly follow the wiring diagram listed in this manual and pay close attention to the control power voltage rating. The switch must be properly grounded during installation. Considering personal safety and the rapidity of switch switching, the debugging handle is for debugging purposes only. Users must never operate the switch with a load under the debugging handle. During debugging, operate the switch with the handle first. If no abnormalities are found, perform the manual button operation. If there are still no abnormalities, proceed with official operation.



G2R-W

Intelligent Dual Power Transfer Switch

The G2R-W Automatic Transfer Switch is a PC-grade intelligent dual power transfer switch. When the main power supply fails (power outage or fault), the product can automatically switch to the backup power supply to prevent power loss to the load. Equipped with built-in WIFI communication functionality, it enables remote monitoring and control. Features WIFI communication for remote device monitoring and control;

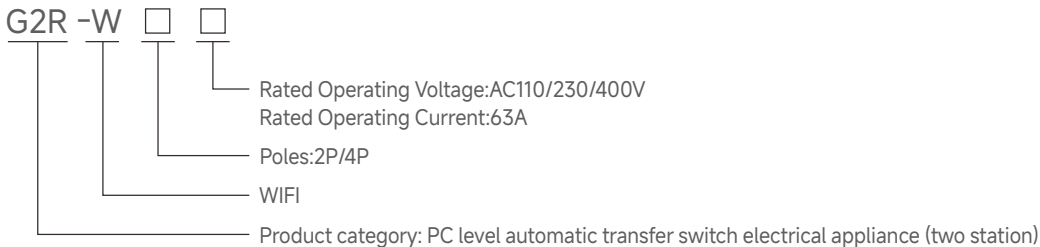
- Automatic over-voltage/under-voltage protection;
- Supports scheduled switching configuration;
- Configurable for automatic transfer with automatic reset or automatic transfer without automatic reset;
- Allows setting either power supply as the main power source.



Technical Specification

Poles	2P / 4P
Rated Operating Voltage Ue	AC 110V / AC 220V / AC 400V (50 / 60Hz)
Rated Operating Current Ie	63A
Product Category	PC
Usage Category	AC-31B
Rated Insulation Voltage Ui	690V
Rated Impulse Withstand Voltage Uimp	8kV
Rated Short-Time Withstand Current Icw	5kA
Network Type	2.4G WIFI (Not Supported 5G)
Electrical Life	≥1500 timer
Operating Temperature	-5°C ~ 40°C

Product model and meaning



Working Conditions

The operating environment temperature range is -5 °C~+40 °C, and the average temperature value within 24 hours does not exceed+35 °C. The storage environment temperature range is -25 °C~+55 °C, and can reach+70 °C in a short period of time (within 24 hours).

The altitude of the installation site shall not exceed 2000.

The relative temperature of the air at the installation site should not exceed 50% when the surrounding air temperature is+40 °C, and there can be higher relative humidity at lower temperatures. For example, when the average lowest temperature in the wettest month is+20 °C, the average highest relative humidity in that month can reach 90%. Appropriate measures should be taken to prevent condensation caused by temperature changes.

Pollution level 3 (with conductive pollution, or dry non-conductive pollution turned into conductive due to condensation). ATS can be installed vertically or horizontally inside the cabinet. If there are special installation requirements, please contact our company. The protection level of the product shell is IP30.

Overvoltage category: Main circuit class III; Control and auxiliary circuits Class II.

Note

Unauthorized personnel operation in a live environment is prohibited.

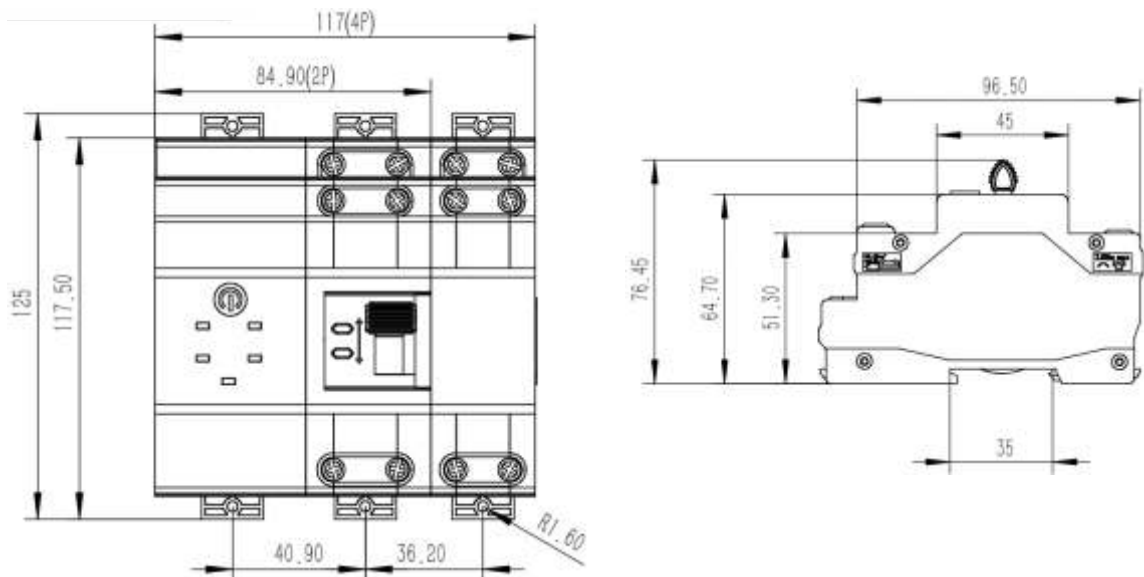
The input power supply must be connected in the correct phase sequence. The ATS can share the N-line, but it must not use 1P circuit breakers to independently control the N-line and L-line. To switch the power supply, operation of both the N-line and L-line is required simultaneously; otherwise, product failure may occur.

The dual power supply is an emergency switching device, and the switching speed and frequency should not be excessive. For testing purposes, the switching interval must not be less than once per minute. The dual power switch has a built-in spring interlock mechanism. Unauthorized personnel are strictly prohibited from manually switching the switch while the device is live, as incorrect operation will cause contact wear and reduce the service life.

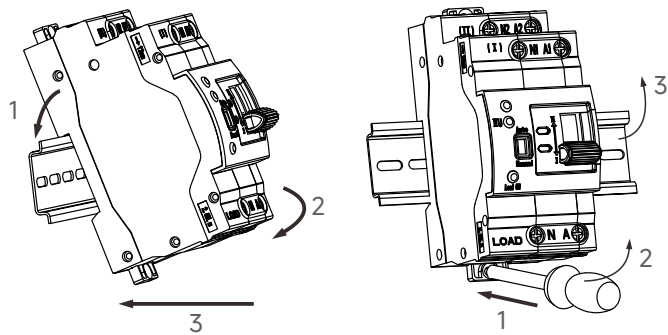
When connecting the power supply, please follow the marked neutral and live wire positions on the product. The input power supply must be strictly connected in the correct phase sequence.

It is mandatory to use an inverter with a power output rating of 3000W or higher (please use a sine wave. Severe electromagnetic interference may cause product failure).

● Size

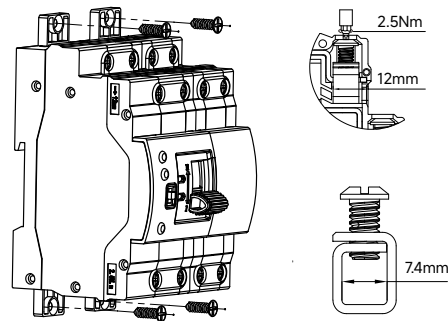


● DIN Rail Mounting



- 1.Insert the upper end of the ATS base into the DIN rail.
- 2.Push the lower end of the ATS base onto the DIN rail until the latch securely locks into place.

● Screw Mounting



- 1.Pull out the upper and lower latches located at the bottom of the ATS.
- 2.Secure the ATS to the mounting panel using screws.

All work related to the installation and commissioning of the ATS shall be performed by professionals and personnel familiar with this switching device. Appropriate protection and precautionary measures must be taken 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 force. Before installation and commissioning, inspect the switch for any damage or other harmful environmental effects. Additionally, check for loose wiring terminals that may have occurred during transportation. Remove dirt, especially from the surface of insulating components, which may have penetrated through the packaging material during transport or accumulated during storage. When connecting the primary circuit, ensure that the phase sequence of both power supplies is consistent. When connecting the secondary circuit, strictly follow the wiring diagram listed in this manual and pay close attention to the control power voltage rating. The switch must be properly grounded during installation. Considering personal safety and the rapidity of switch switching, the debugging handle is for debugging purposes only. Users must never operate the switch with a load under the debugging handle. During debugging, operate the switch with the handle first. If no abnormalities are found, perform the manual button operation. If there are still no abnormalities, proceed with official operation.

● Panel Description



1. Network Configuration Button & WIFI IndicatorPress and hold the network configuration button for 5 seconds to enter the network configuration mode. The WIFI indicator will flash at the same time.Once successfully connected, the WIFI indicator stays lit.
2. Power IndicatorA steady light indicates normal operation; a flashing light indicates abnormal voltage of the corresponding power supply.

● Maintenance

Maintenance and inspection shall be performed by qualified professionals. Prior to disconnecting all power supplies, to ensure optimal performance of the ATS, the initial maintenance and inspection shall be carried out within 6 months after commissioning. Thereafter, maintenance and inspection shall be conducted at least once per year. Under harsh installation conditions, the frequency of maintenance and inspection shall be increased. If maintenance/inspection items reveal abnormalities, proceed with the following steps:

- a. Clear dust accumulation.
- b. Inspect the electrical contact components for deformation or damage, and remove metal particles and burns on and around the contact surfaces.
- c. Corrosion, acidification, and dust on the contact surfaces may cause poor contact. Therefore, perform manual operation of the switch and measure the contact resistance as necessary.
- d. If the ATS is damp or has been idle for an extended period, dry it thoroughly before powering it on. After removing dust, use a 500V megohmmeter to measure the insulation resistance of the normal power supply and AC power supply. The insulation resistance between the load side and each pole, including the insulation resistance between live parts and metal enclosures, shall not be less than 10 MΩ during operation.

The unit shall be stored in an environment consistent with normal operating conditions, with measures taken to prevent dust, moisture, and impact.

● Troubleshooting & Handling

Fault Symptoms	Troubleshooting Methods
WIFI indicator flashes	Product not connected to network, or connected to router but the router cannot connect to the Internet.
Power supply does not switch	Check if the [Auto Switch] option is enabled;
Does not switch back when main power is restored	Check if the [Auto Recovery] option is set to "Auto Return".
Abnormal switching behavior	Check for any extra scheduled tasks; Check the parameters of the over-voltage and under-voltage protection function.



**This product has undergone insulation testing prior to shipment. Performing an incorrect dielectric test may damage the control system. DO NOT perform dielectric tests with the ATS installed.



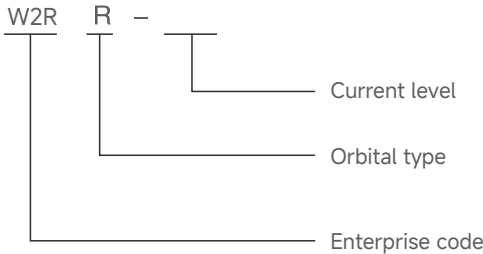
W2R Automatic transfer switch

The dual power automatic transfer switch is a newly developed miniature household power transfer switch. This switch is mainly used to test whether the main or backup power supply is working properly. When the normal power supply is abnormal, the backup power supply will immediately start working to ensure the continuity, reliability, and safety of power supply. This product is designed specifically for household rail installation and is specifically used for PZ30 distribution boxes. According to GB/t14048.11, Part 6-1: Multifunctional Equipment and Switchgear specifies that ATSE is the most compliant low-voltage switchgear and control device.

Technical Specification

model	W2R		
Rated current In	16	20	25 32 40 50 63 80 100
Insulation voltage Ui	AC 690V		
Rated voltage Ue	AC110V/220V/230V/380V/400V,50/60Hz		
Product Category	PC level: capable of manufacturing and withstanding without generating short-circuit current		
Usage category	AC-33iB		AC-31B
Poles	2P	3P	4P
Weight (kg)	1.7	2.1	2.6
Electrical lifespan	2000 times: Mechanical life: 5000 times		
Rated Short-Circuit Breaking Capacity Iq	50kA		
Short circuit protection device (SCPD)	RT16-00-63A		
Rated impulse withstand voltage	8kV		
control circuit	Rated control voltage Us: AC220V, 50Hz Normal working conditions: 85% Us -110% Us		
Auxiliary circuit	2 relays, each with two sets of contact converter contact capacity: AC220V 50Hz Ie=5y		
Convert time	<50ms		
Return time	<50ms		
Return conversion time	<50ms		
Power off time	<50ms		

Product Model and Classification



Normal operating time and installation conditions

- Surrounding air temperature: The highest temperature shall not exceed 40 , the lowest shall not be lower than -5 , and the average temperature within 24 hours shall not exceed 35
- Altitude: The sea level at the installation site should not exceed 2000m
- Atmospheric conditions: When the highest temperature reaches 40 °C, the relative humidity of the installation site should not exceed 50%; When the temperature reaches the lowest temperature of -5 °C and the relative humidity is high, for example, when the temperature is 25 °C, the relative humidity is 90%. Due to temperature changes, special measures should be taken to address occasional condensation on the surface of the product.
- Pollution level: TSE pollution level meets the specified level 3 of GB/t14048.11
- Installation category: The installation type of TSE complies with the specified category in GB/t14048.11
- Installation conditions: TSE can be vertically installed in control cabinets or distribution cabinets. Ensure that the installation distance meets the requirements in Figure 1.

Installation and wiring

- Please check the integrity of TSE before installation. Then use the joystick to turn on and off TSE, check the flexibility of the transmission device, and detect the generation and disconnection conditions of the load at each stage of the normal and backup power supply
- Control voltage detection: AC50HZAC220V. The coil in the control circuit should not be too long. The cross-sectional area of copper wire should not exceed2.0mm²
- According to the installation requirements of the power distribution system, please equip appropriate circuit breakers to ensure the safety of personnel and equipment.

● Note

Manual/Automatic Operation

SE can ensure the performance of power generation and power-off in circuit operation, but TSE cannot guarantee the above performance for manual operation due to differences in power generation and power-off speed or operator. Excessive silver alloy loss may occur during manual power generation and power outages. Therefore, when all power is cut off to check and maintain the operating system and contacts, simply pull the selection switch to the manual position. Generally, please turn the selection switch to the automatic position. When operating manually, pull the selection switch to the manual position. After completing the manual operation, pull the selection switch from the manual position to the automatic position.

control circuit

SE will instantly become active. After the conversion is completed, the coils in the control circuit will be disconnected by the internal converter. At rated voltage of 80% to 110%, the coil can operate normally. Low voltage can cause the coil to heat up or even self ignite.

● Appearance and installation dimensions

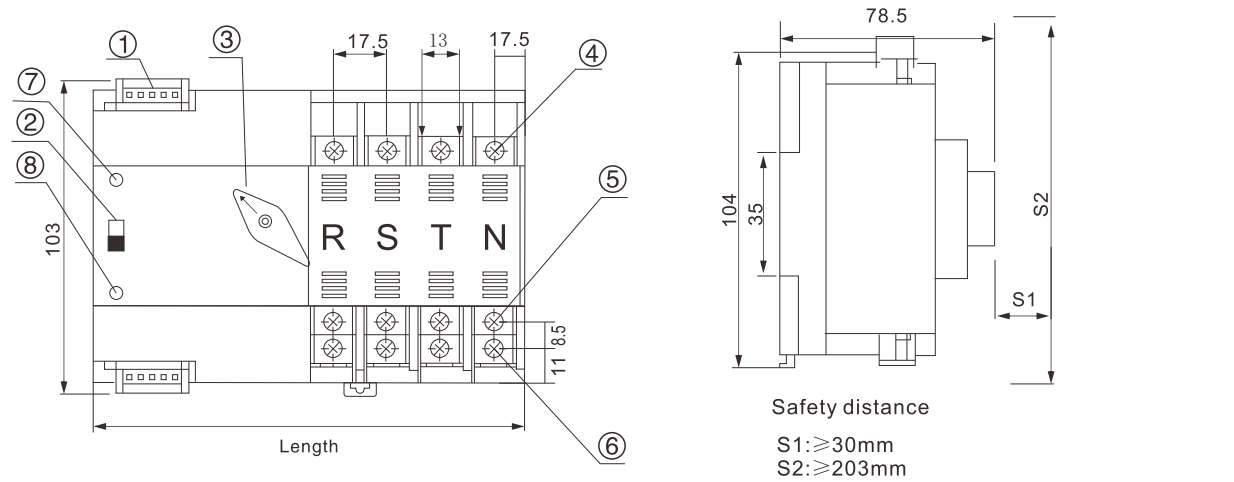
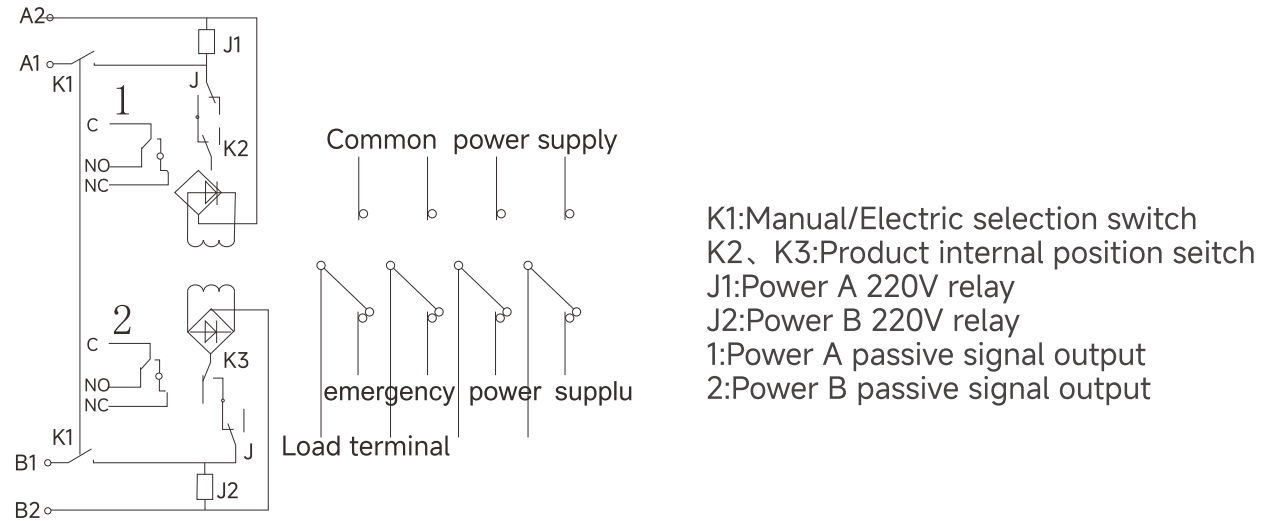


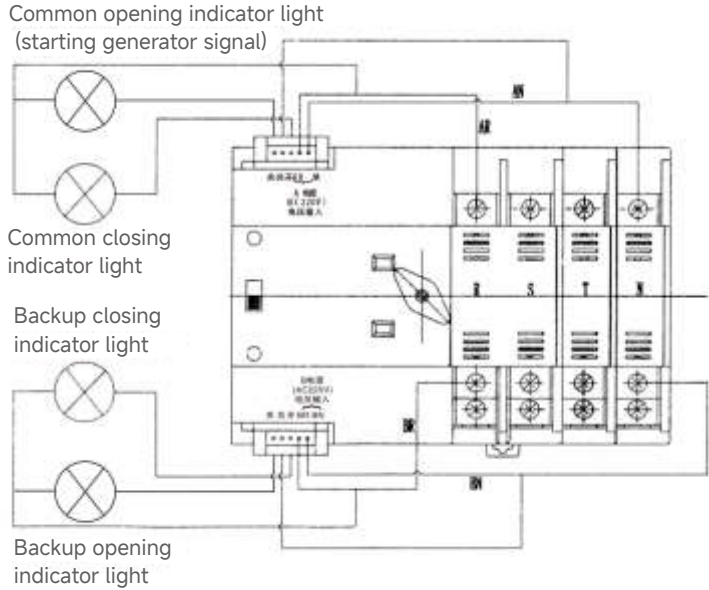
Table 2 dimensions

pole numbers	2P	3P	4P
Length	107.5	125	142.5

● Internal wiring diagram



● Controller wiring diagram



● Maintenance, inspection, and storage

- Maintenance and inspection should be carried out by professional personnel, and all power sources should be cut off in advance.
- To ensure the good performance of TSE, the first maintenance and inspection should be carried out within 6 months after use, and at least once a year. In harsh installation conditions, maintenance and inspection frequency should be increased.
- TSE should be stored in an environment equivalent to normal working conditions, with dust, moisture, and anti-collision measures.
- Maintenance and inspection items
 - Please remove dust and dirt when a malfunction occurs.
 - Please check if the electrical contact parts are deformed or damaged, and remove any burnt metal particles attached to the surface and surroundings.
 - Rust, acidification, and dust on the contact surface may cause poor contact. Please manually operate multiple times and measure the contact resistance if necessary.
 - Due to prolonged exposure to moisture and being in a suspended state, please dry the TSE before use. After removing dust and dirt, use a 500V megohmmeter to measure the insulation resistance between the normal supply, alternating supply, load side pole, including the insulation resistance between live parts and metal plates. And the insulation resistance should not be less than 10M Ω .



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W2R-WIFI Automatic transfer switch

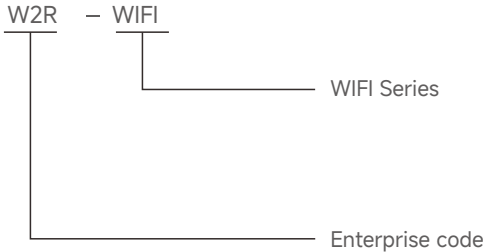
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Technical Specification

model	W2R									
Rated current In	16	20	25	32	40	50	63	80	100	
Insulation voltage Ui	AC 690V									
Rated voltage Ue	AC110V/220V/230V/380V/400V,50/60Hz									
Product Category	PC level: capable of manufacturing and withstanding without generating short-circuit current									
Usage category	AC-33iB					AC-31B				
Poles	2P			3P				4P		
Weight (kg)	1.7			2.1				2.6		
Electrical lifespan	2000 times: Mechanical life: 5000 times									
Rated Short-Circuit Breaking Capacity Iq	50kA									
Short circuit protection device (SCPD)	RT16-00-63A									
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Convert time	<50ms									
Return time	<50ms									
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Power off time	<50ms									

Product Model and Classification



Normal operating time and installation conditions

- Surrounding air temperature: The highest temperature shall not exceed 40 , the lowest shall not be lower than -5 , and the average temperature within 24 hours shall not exceed 35
- Altitude: The sea level at the installation site should not exceed 2000m
- Atmospheric conditions: When the highest temperature reaches 40 °C, the relative humidity of the installation site should not exceed 50%; When the temperature reaches the lowest temperature of -5 °C and the relative humidity is high, for example, when the temperature is 25 °C, the relative humidity is 90%. Due to temperature changes, special measures should be taken to address occasional condensation on the surface of the product.
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Installation and wiring

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- Control voltage detection: AC50HZAC220V. The coil in the control circuit should not be too long. The cross-sectional area of copper wire should not exceed2.0mm²
- According to the installation requirements of the power distribution system, please equip appropriate circuit breakers to ensure the safety of personnel and equipment.

● Note

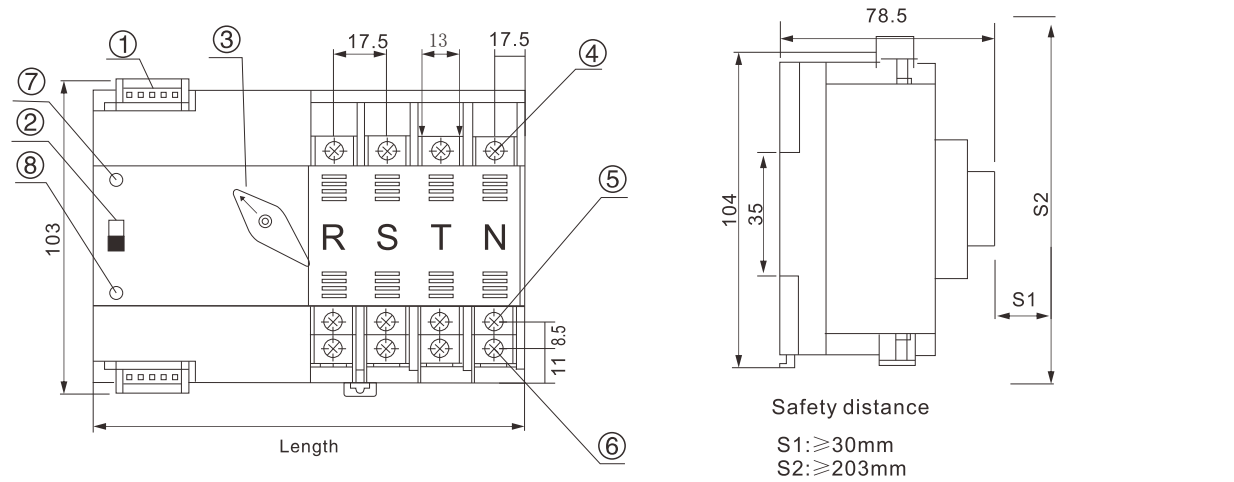
Manual/Automatic Operation

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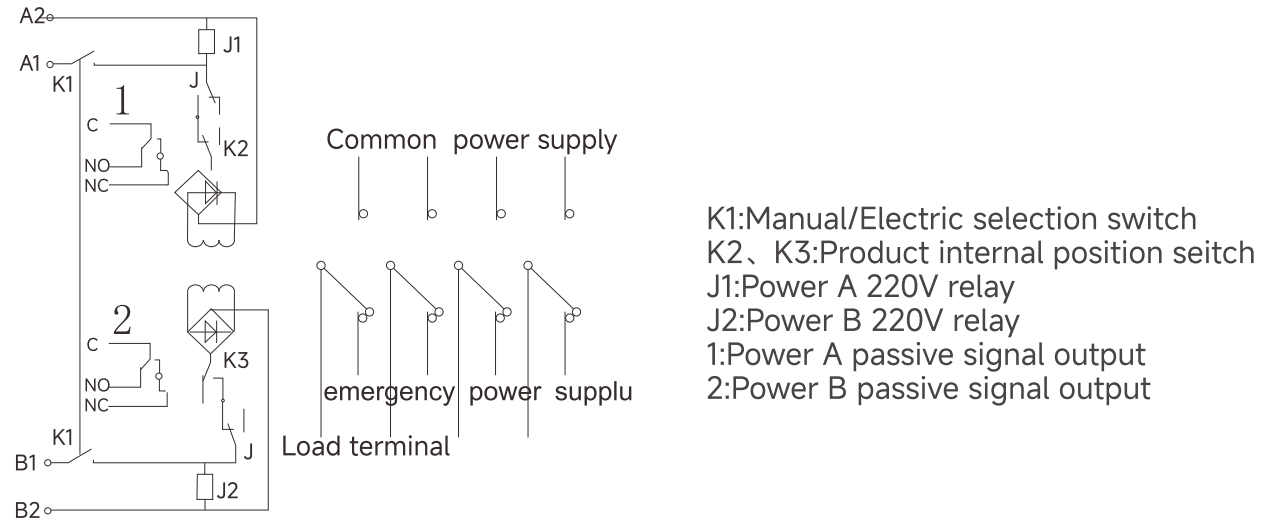
control circuit

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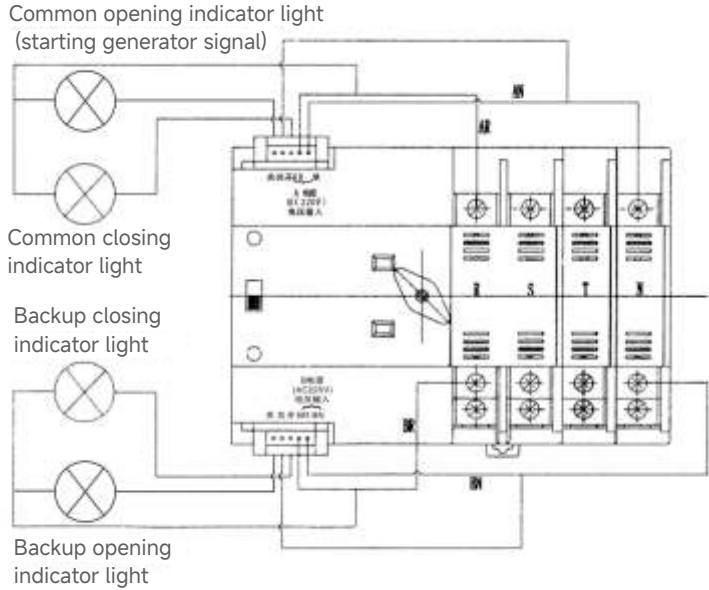
● Appearance and installation dimensions



● Internal wiring diagram



● Controller wiring diagram



● Maintenance, inspection, and storage

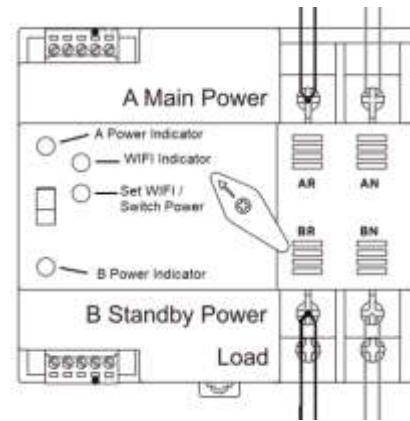
- Maintenance and inspection should be carried out by professional personnel, and all power sources should be cut off in advance.
- To ensure the good performance of TSE, the first maintenance and inspection should be carried out within 6 months after use, and at least once a year. In harsh installation conditions, maintenance and inspection frequency should be increased.
- TSE should be stored in an environment equivalent to normal working conditions, with dust, moisture, and anti-collision measures.
- Maintenance and inspection items
 - Please remove dust and dirt when a malfunction occurs.
 - Please check if the electrical contact parts are deformed or damaged, and remove any burnt metal particles attached to the surface and surroundings.
 - Rust, acidification, and dust on the contact surface may cause poor contact. Please manually operate multiple times and measure the contact resistance if necessary.
 - Due to prolonged exposure to moisture and being in a suspended state, please dry the TSE before use. After removing dust and dirt, use a 500V megohmmeter to measure the insulation resistance between the normal supply, alternating supply, load side pole, including the insulation resistance between live parts and metal plates. And the insulation resistance should not be less than 10M Ω.

● Quick Start

Buttons & Indicator Lights

Short press the button: Manual switch.

Long press the button for 5 seconds: Enter network configuration mode.



APP Download



Adding a New Device

① On the app homepage, tap the [+] in the upper right corner → [Add Device].



② Long press the product's button for 5 seconds. A new device icon will appear in the app.



③ Enter the Wi-Fi information and wait for the process to complete.

Enter Wi-Fi Information

Choose Wi-Fi and enter password



★ Only Support 2.4G WIFI .

Remove Device

1. On the app's homepage for the device you want to remove, tap the  pattern in the upper right corner
2. Tap 【Remove Device】 below .



4. Tap 【Confirm】

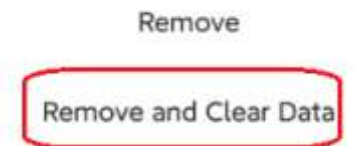
Are you sure you want to disconnect this device and wipe data?

The device will be removed from the device list and reset to factory settings.
All related data will be wiped.

Cancel

Confirm

3. Tap [Unbind and Clear Data];



Add Timer

1. Enter the Timer interface and tap 【Add】 ;
2. Configure parameters such as Switch, time,





GMTS8-63

Manual transfer switch

The purpose of a manual transfer switch is to manually transfer power to the backup power supply. The most common application is to transfer power from the backup power supply to the load during a utility failure. When properly installed, the manual transfer switch provides a convenient method of transferring the load to an alternative source in the event of another power failure.

- 1.The manual transfer switch features a wide voltage range of 1-600 VAC.
- 2.Sufficient durability is ensured by testing in accordance with the IEC 60947-3 standard within durability requirement specifications.
- 3.The manual transfer switch is operated via a handle directly mounted on the switch. Sizes from 16 to 63 Amperes can be mounted on a DIN rail.
- 4.Clearly marked power supply positions, with indicator lights, allow for easy identification of which power supply is in use.
- 5.A label window facilitates clear labeling of the power supply sources.



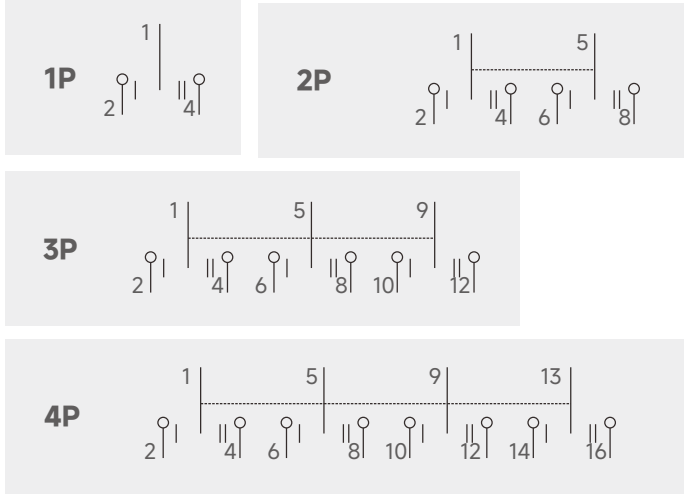
Technical Specification

Technical Data	Rated voltage	AC230/400V
	Rated current	63A
	Rated frequency	50/60Hz
	Technology	1P,2P,3P,4P
	Pilot lamp	1-0-2(1 indicates that the main power is turned on, 0 indicates that it is turned off, and 2 indicates that the standby power is turned on) Indicator light window 1=Red, 0=Green, 2=Yellow (customizable)
Electrical Characteristics	Rated Short-Circuit Breaking Capacity	5kA(SPCD)
	Mechanical life	10000
	IP GRADE	IP30
	Operation temperature	-5°C~50°C
	Wiring size	Max. 10mm²
	Install	DIN 35mm

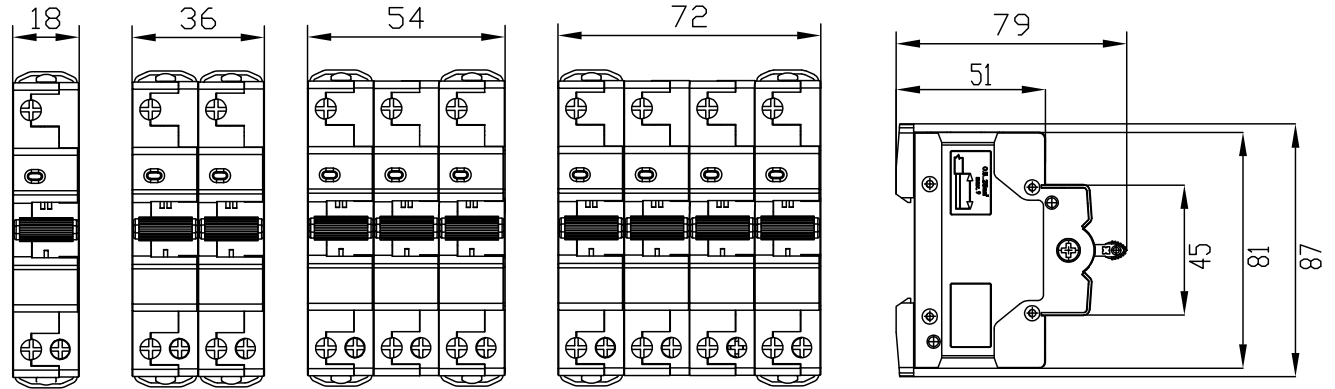
Product Status



Diagram



Dimension





GMTS8-125

Manual transfer switch

The purpose of a manual transfer switch is to manually transfer power to the backup power supply. The most common application is to transfer power from the backup power supply to the load during a utility failure. When properly installed, the manual transfer switch provides a convenient method of transferring the load to an alternative source in the event of another power failure.

1.The manual transfer switch features a wide voltage range of 1-600 VAC.

2.Sufficient durability is ensured by testing in accordance with the IEC 60947-3 standard within durability requirement specifications.

3.The manual transfer switch is operated via a handle directly mounted on the switch. Sizes from 16 to 63 Amperes can be mounted on a DIN rail.

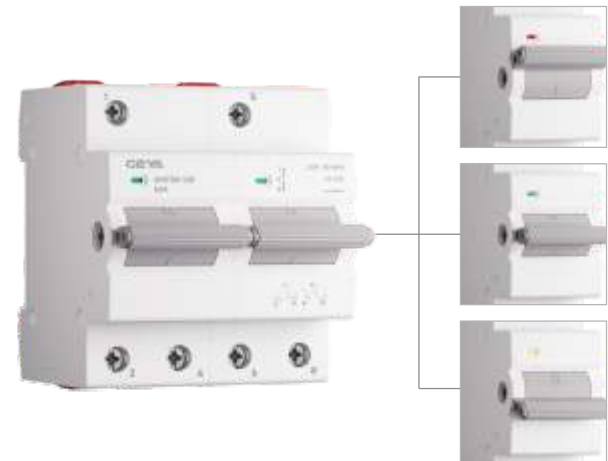
4.Clearly marked power supply positions, with indicator lights, allow for easy identification of which power supply is in use.

5.A label window facilitates clear labeling of the power supply sources.

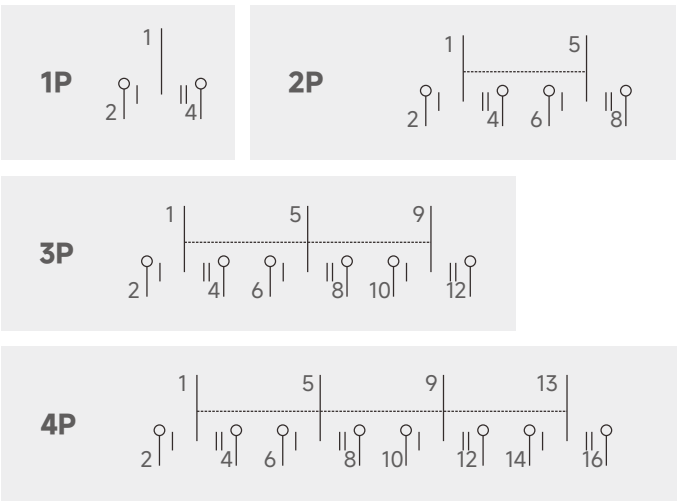
Main technical parameters

Technical Data	Rated voltage	AC230/400V
	Rated current	125A
	Rated frequency	50/60Hz
	Technology	1P,2P,3P,4P
	Pilot lamp	1-0-2(1 indicates that the main power is turned on, 0 indicates that it is turned off, and 2 indicates that the standby power is turned on) Indicator light window 1=Red, 0=Green, 2=Yellow (customizable)
Electrical Characteristics	Rated Short-Circuit Breaking Capacity	5kA(SPCD)
	Mechanical life	10000
	IP GRADE	IP30
	Operation temperature	-5°C~50°C
	Wiring size	Max. 10mm²
	Install	DIN 35mm

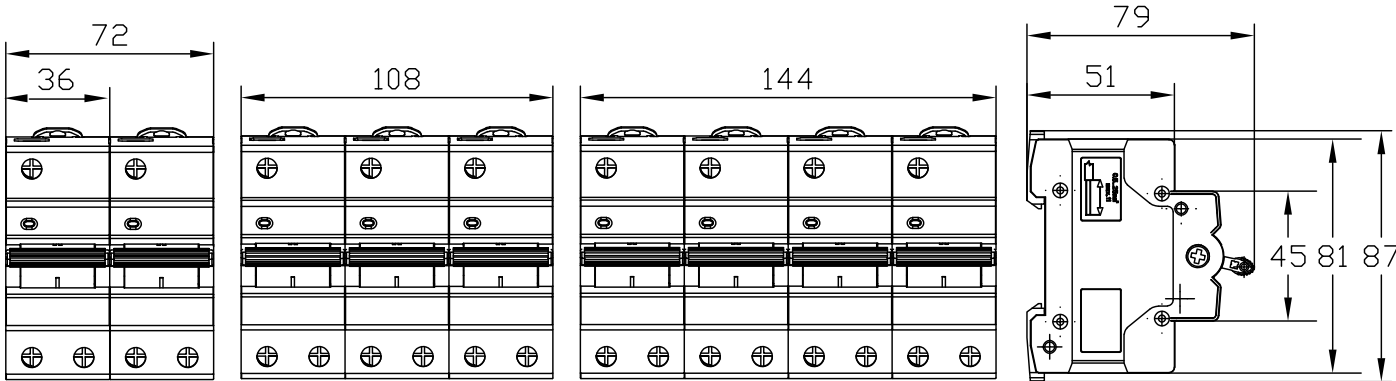
Product status



Circuit Diagram



Dimension





GATS-G

Isolation Type Dual Power Conversion Switch

The Automatic Transfer Switch Equipment (ATSE) integrates switching functions and logical control, truly realizing mechatronic integration. It is suitable for industrial and commercial power distribution equipment operating at AC 50Hz, with a rated voltage up to 440V and an agreed thermal current up to 1600A. Equipped with features such as voltage detection, communication interfaces, and electrical-mechanical interlocks, it enables fully automatic operation, remote control, forced "0" position setting, and emergency manual operations. It is widely used for the automatic transfer of main and backup power supplies in power supply systems, or for the automatic switching and safe isolation between two load devices.

The switch manages motors through various logical commands issued by the control circuit board. The motors drive the operating mechanisms of the main switch body to rapidly connect or disconnect circuits, or to perform circuit conversion. Safe isolation is achieved through clearly visible status indicators.

● Product Model Definition

Enterprise characteristic number	Product Name	Shell level	poles			
GEYA Electrical	Pc level isolated dual power automatic transfer switch		4P	The "F" indicates the fire protection type, which is a three-stage type: main power supply - double split and one backup power supply. No "F" indicates the two-stage type: main power supply and one backup power supply (there are fire protection and non fire protection types below 630A, and all above 800A are fire protection types)	"E" represents 2 in and 1 out, with the main and backup power supply links on the load side integrated, making it convenient for customers to install	"Z" represents intelligent, split type controller: Y701 controller - with functions such as overvoltage, undervoltage, phase loss, and starting the generator; Y702 controller - has functions such as overvoltage, undervoltage, phase loss, generator startup, 485 communication, etc.

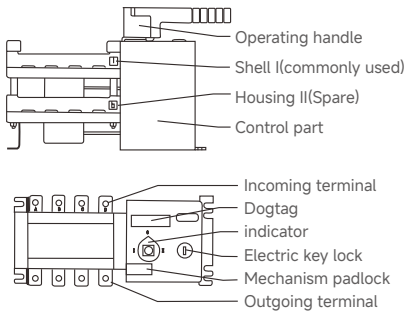
● Main technical parameters

Rated heating current (A)		100	160	250	400	630	1000	1250	1600	2000	2500	3200
Rated insulation voltage		750V			800V		1000V					
Rated impulse withstand voltage		8KV			8KV		12KV					
Rated working current (A)	AC-31A	100	160	250	400	630	1000	1250	1600	2000	2500	3200
	AC-35A	100	160	250	400	630	1000	1250	1600	2000	2500	3200
	AC-33A	100	160	250	400	630	1000	1250	1600	2000	2500	3200
Rated short-time withstand current		7KA	9KA		13KA		50KA				55KA	
Rated limit short-circuit current		100KA			70KA		100KA	120KA		80KA		
Control power supply voltage		DC24V/48V/110V/AV220V										
Conversion time (S)		0.5	1	1.1	1.2		1.25			2.45		

- 1. Compliant with standard: GB/T14048.11
- 2. Rated working voltage (Ue): AC440V
- 3. Rated Connection Capacity (Arms): 10le;
- 4. Rated breaking capacity (Arms): 8le;
- 5. Control power supply voltage:DC24V、48V、110V.AC 220V.

● Switch structure description

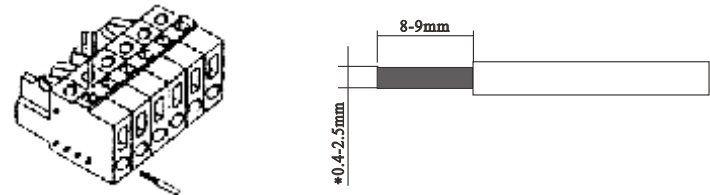
1, electric key lock: control switch internal control line power supply, when the electric lock is opened, the switch can achieve automatic, operational control, strong "0" operation: when the electric lock is closed, the switch can only be manually operated.2. Operating handle: When manually operating with the operating handle, the electric lock must be closed first.3, the mechanism padlock: special maintenance, that is, first use the operating handle to make the switch in the "0" stop position, and then pick up the padlock mechanism and padlock, can be repaired (pick up the padlock will cut off the internal control power supply of the switch, the switch can not be automatic, and can not achieve manual).4, indicator: indicates the working status of the switch position (I, 0, II).



● Usage method

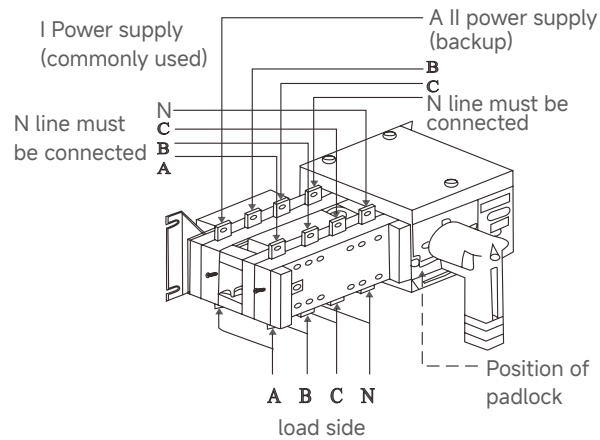
- (1) Switch function
- 1, automatic function: when the common power supply is cut off, the switch automatically switches to the standby power supply; When the usual power supply returns to normal, the switch automatically returns to the usual power supply.
 - 2, strong "0" function: start the strong "0" button, the switch will cut off the dual power supply.
 - 3, remote control function: that is, remote control, press the "I" file button: the common power supply works; Press the "II" button, the standby power supply works: press the "0" button, the dual power supply is cut off.4, please select the switch function according to the need, and wiring according to the corresponding function 5, please specify the switch model, current specifications and required functions when ordering

● Terminal wiring operation method

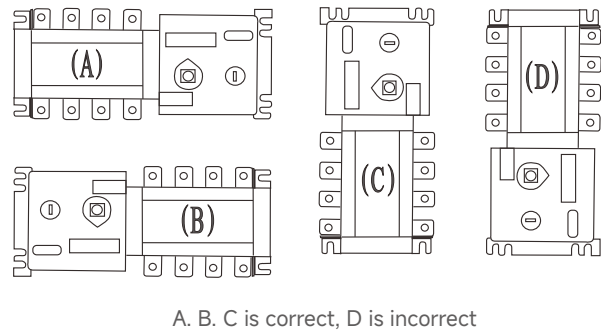


Use a small flathead screwdriver to apply downward force as shown in the diagram, and insert the wire as shown in the diagram

● Wiring diagram

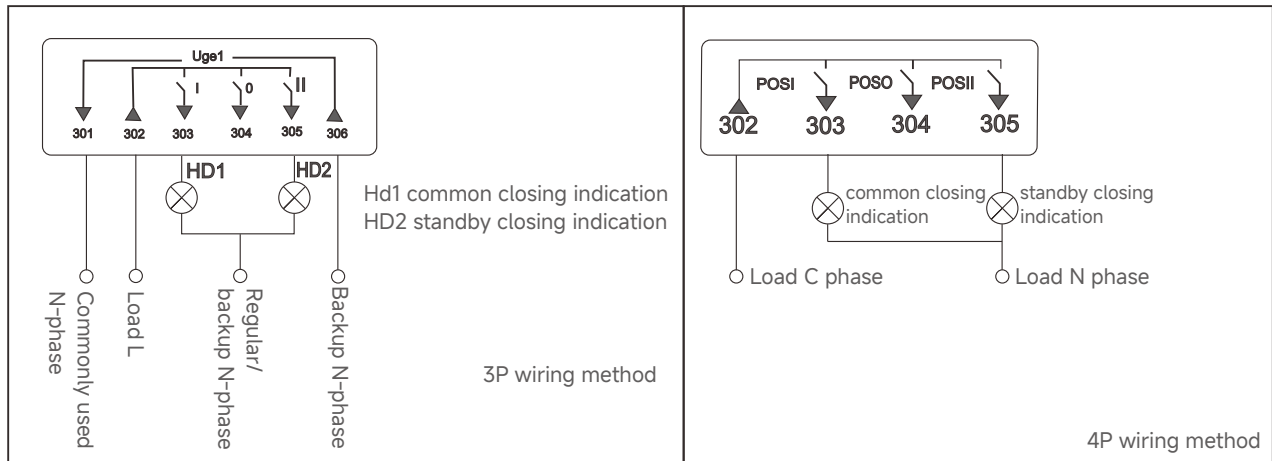


● Correct installation method of switch

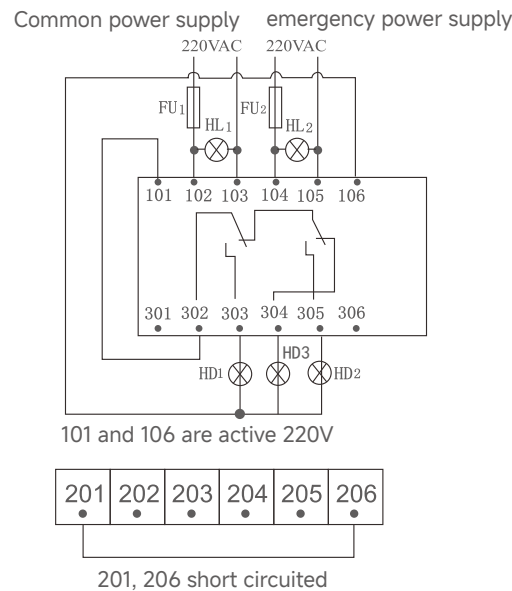


● External terminal wiring diagram

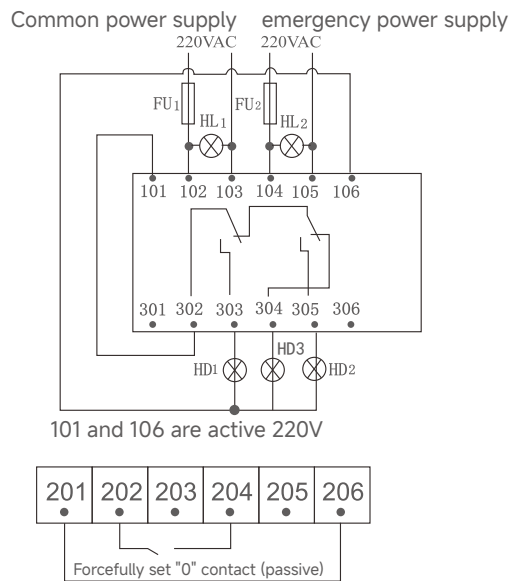
1. Non fire type wiring method (3P and 4P):
Below 630A (including 630A), there are two types: fire type and non fire type. Above 630A (excluding), all are fire type



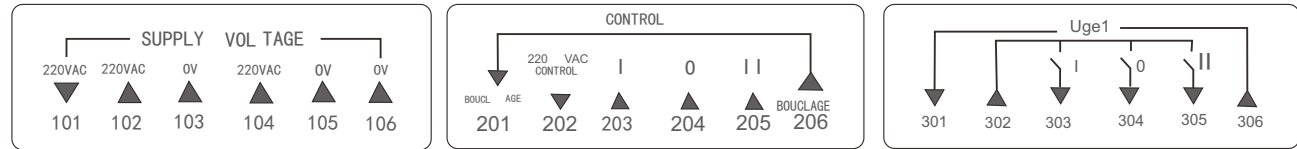
2. 100A (fire protection type)~3200A automatic conversion wiring method (all applicable to 3P and 4P)



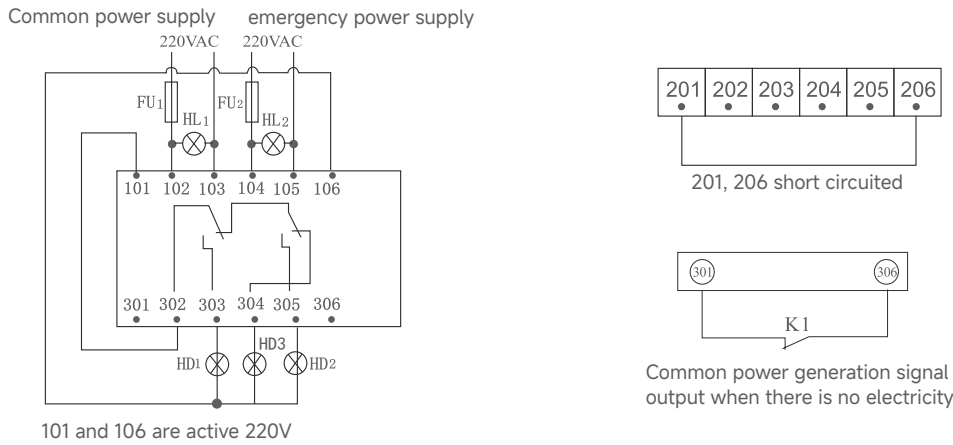
3. 100A (fire protection type)~3200A fully automatic+forced "0" (both power sources are disconnected) wiring method:



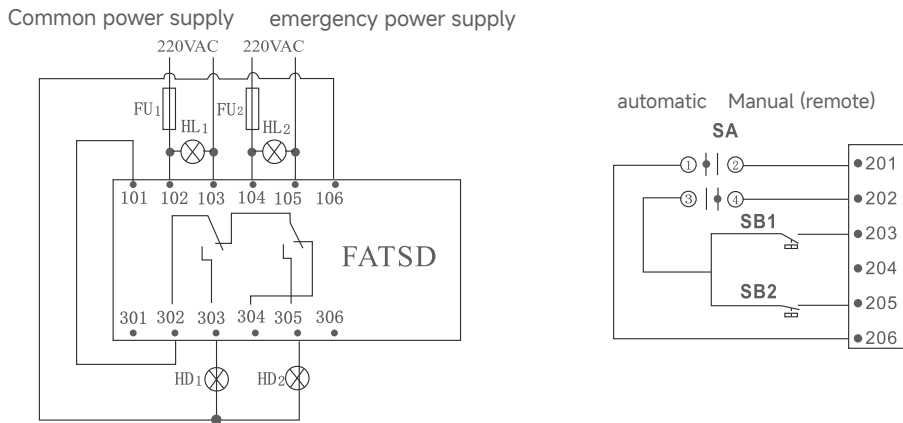
4. 100A (fire protection type) ~3200A wiring terminal diagram:



100~3200 fully automatic+generator signal output wiring method



Fully automatic+manual (remote control) wiring method

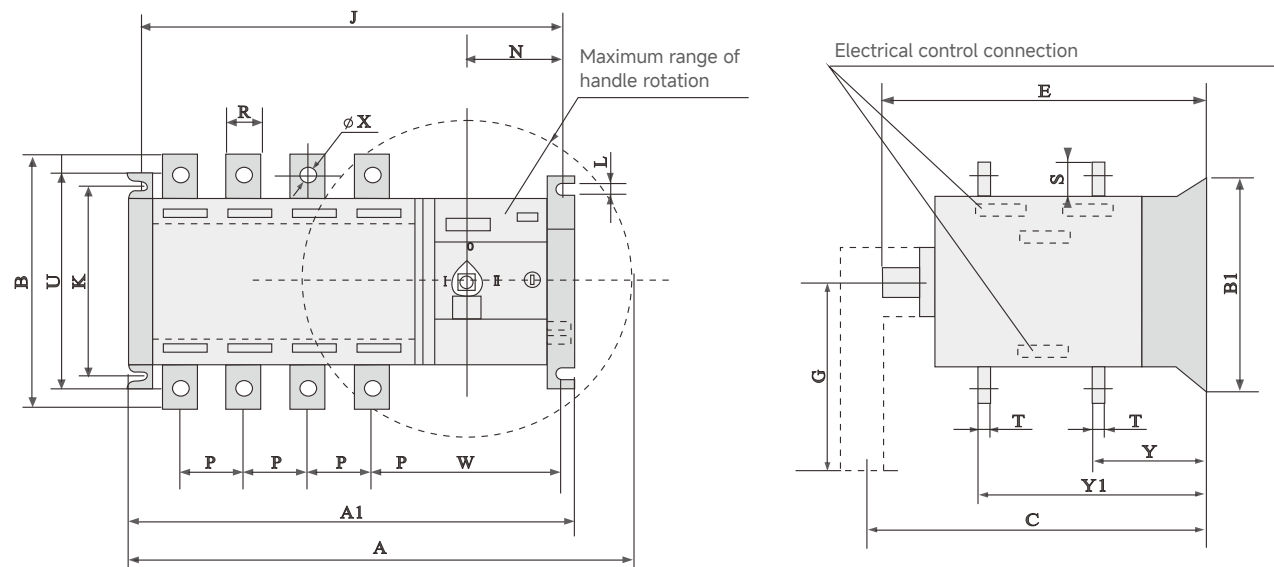


● Letter and symbol description

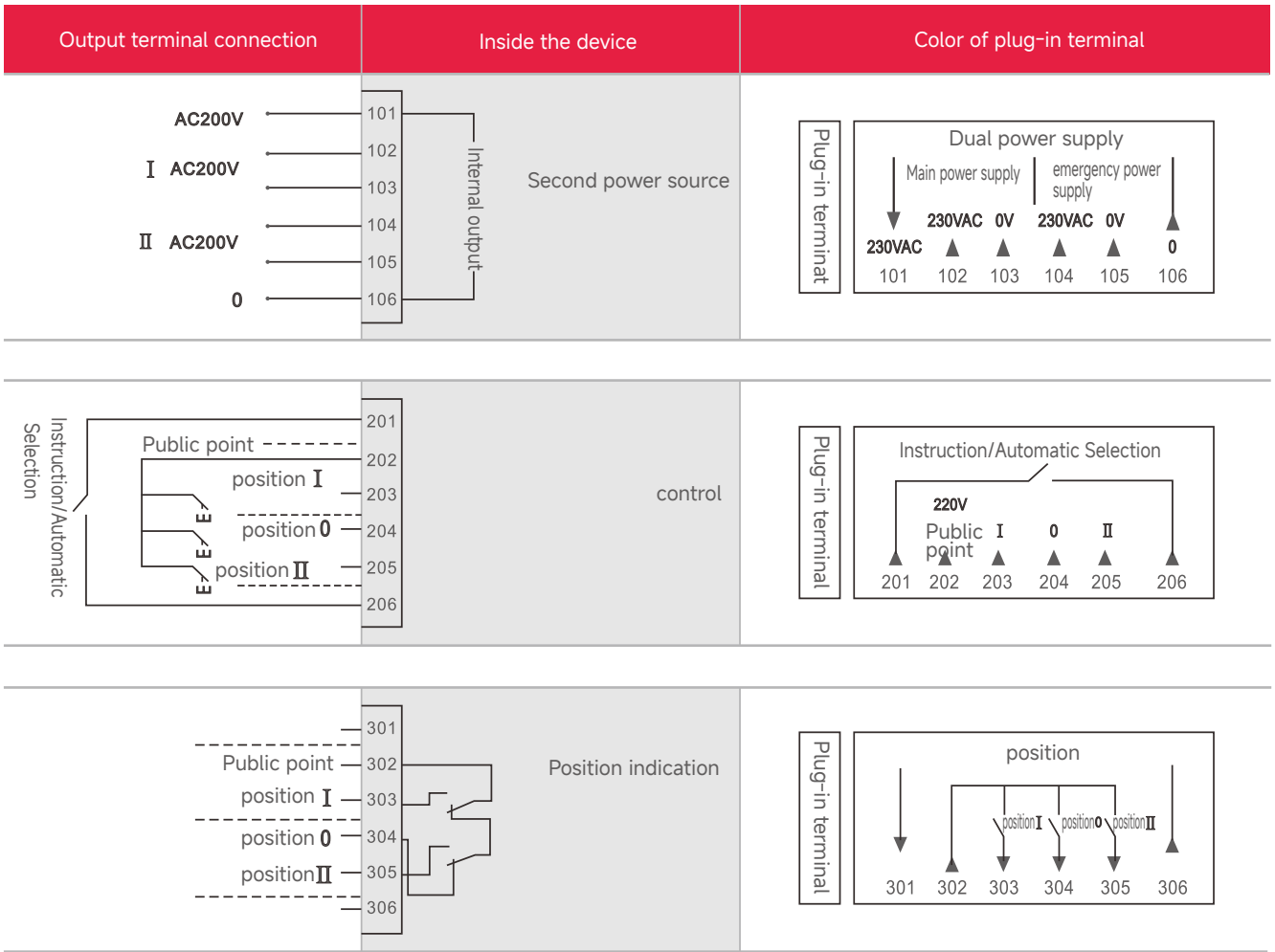
1) C1 and N1 are the common power supply live line and neutral line respectively, C2 and N2 are the standby power supply live line and neutral line respectively. HL1 and HL2 are the common power supply and the standby power supply respectively. HD1, HD2, HD3 are the common power supply, standby power input indicator and fire (double) indicator respectively. FU1 and FU2 are 2A fuses.2) 101-106 and 201-206 are automatic conversion secondary terminals.3) 301-306 is the automatic switch external indicator terminal.

4) Automatic wiring mode 201, 206 must be short-circuited.
5) Forced "0" contact (passive) can also input DC24V power supply:
6) K1 is the output of the power generation signal (when commonly used out of power).
7) SA is the automatic/manual function selection switch, SB1 and SB2 are the common power supply respectively, and the standby power manual input button (passive contact).

● Appearance and installation dimensions



In	Installation size																			
	A	A1	B	B1	C	E	G	H	J	K	L	N	O	P	R	S	T	U	V	ϕX
100A/3	235	232	106	105	150	140	115	19	222	84	7	83	142.5	30	14	18	2.5	103	13	6
100A/4	280	244	107	105	150	140	115	19	226	84	7	83	142.5	30	14	18	2.5	103	13	6
160A/3	292	270	140	142	213	200	145	10	254	117	7	93	192	36	20	25	3.5	127	21	9
160A/4	360	303	140	142	213	200	145	10	285	117	7	93	192	36	20	25	3.5	127	21	9
250A/3	356	312	170	142	216	208	145	6	293	103	7	93	250	50	25	28	3.5	141	29	11
250A/4	420	362	180	142	216	208	145	6	343	103	7	93	250	50	25	28	3.5	141	29	11
400A/3	530	370	270	222	286	275	245	20	365	179	9	97	268	65	32	37	5	222	38	11
400A/4	590	440	270	222	286	275	245	20	425	179	9	97	328	65	32	37	5	222	38	11
630A/3	530	370	270	222	286	275	245	20	365	179	9	97	268	65	40	45	6	222	38	11
630A/4	590	440	270	222	286	275	245	20	425	179	9	97	328	65	40	45	6	222	38	11
800~1000A 3P	785	520	380	250	351	340	360	20	503	220	11	88	415	120	60	64	8	250	59	13
800~1000A 4P	1080	634	380	250	351	340	540	20	613	220	11	88	529	120	60	64	8	250	59	13
1250~1600A 3P	785	520	380	250	351	340	360	20	503	220	11	88	415	120	80	68	8	250	59	13
1250~1600A 4P	1080	634	380	250	351	340	540	20	617	220	11	88	529	120	80	68	8	250	59	13
2000A/3	785	535	423		560		360		408				490		80	81	10		30	
2000A/4	1080	650	423		560		540		523				605		80	81	10		30	
2500A/3	785	535	433		560		360		408				490		80	81	15		30	
2500A/4	1080	650	433		560		540		523				605		80	81	15		30	
3200A/3	785	535	443		560		360		408				490		80	81	20		30	
3200A/4	1080	650	433		560		540		523				605		80	81	20		30	





GATS-GA

Isolated Automatic Transfer Switch

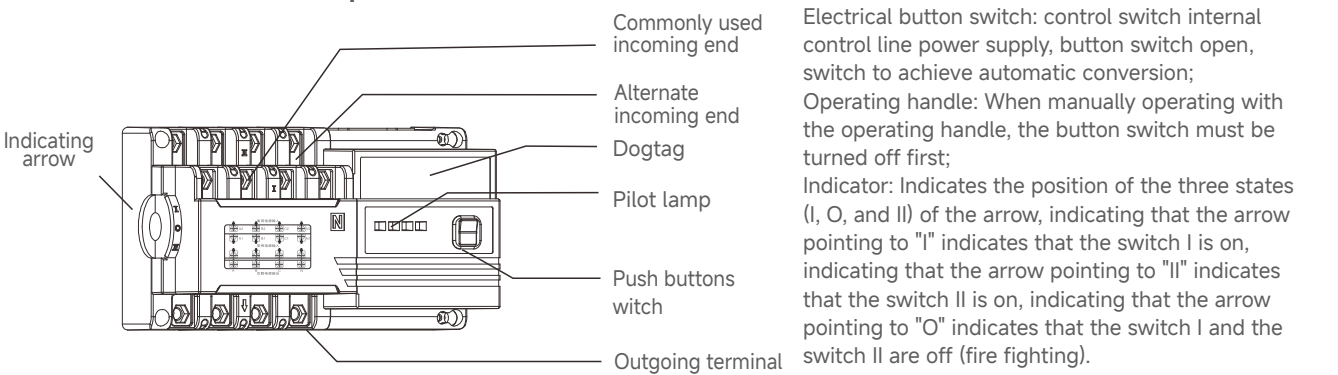
Control mode: built-in relay, external controller
Product structure: small size, large current, simple structure, ATS integration
Features: low failure rate, easy maintenance, reliable performance

● Technical Specification

Dual power automatic transfer switch is a new type of automatic transfer switch that integrates switch and logic control in one and truly realizes mechatronics integration. It is suitable for rated insulation voltage to 1000V, rated frequency 50Hz, rated voltage to 400V, and agreed heating current to 800A power distribution equipment of industrial enterprises. The automatic conversion of the main power supply and the standby power supply used as a power supply system or the automatic conversion pole of two load devices are safely isolated; Widely used in hospitals, shopping malls, banks, high-rise buildings, coal mines, telecommunications, iron ore, highways, airports, industrial assembly lines and military facilities do not allow power outage important occasions.

GATS-GA	
Product shell	125 250 800
Product current	16 20 32 40 50 63 80 100 125 160 180 200 225 250 300 315 400 500 630 800A
Product classification	Load switch type
Product standard	GB/T14048.11-2016 IEC60947-6-1
Product Category	PC grade
Rated operating voltage(Ue)	AC220/230/380/400V 50/60Hz
Rated switching capacity(AEms)	10Ie
Rated Breaking capacity(AEms)	8Ie

● Switch structure description



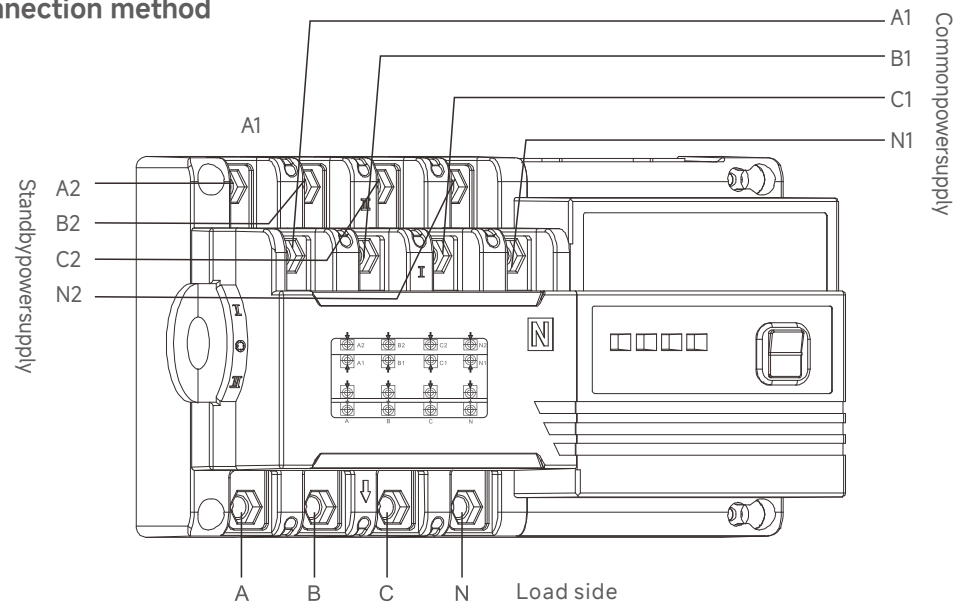
● Switch control type and corresponding function (automatic switching)

- 1).Basic type: self-recovery, I route priority, with starting generator signal;
- 2).Fire type: self-recovery, I priority,DC24V strong cutting, with start generator signal;
- 3).Intelligent type: split external wiring intelligent controller, with overvoltage, undervoltage, lack of phase, broken equal detection protection, can set I priority, II priority, no priority (self-throw not self-recovery) automatic fire 24V double, fire broken line double, fire feedback signal, start generator signal.
- 4).Self-recovery: when the usual power is off (or out of phase), the switch automatically switches to the standby power supply, and when the usual power supply returns to normal, the switch automatically returns to the usual power supply.
- 5).Fire double: In an emergency or equipment maintenance, start the fire power supply (constant voltage), the switch automatically switches to "O" to cut off the power.
- 6).With generator (oil engine): when the mains power supply is off (or out of phase), it sends a signal to start the oil engine, so that the oil engine automatically starts, such as normal power generation, the switch will automatically convert to the power supply and when the mains power supply returns to normal, the double power switch will automatically return to the mains power supply, and the generator signal will automatically turn off and start, the generator will stop generating power.

● Switch instruction

- 1、 non-professionals, do not install; Do not open it without our permission to avoid damage.
- 2、 Please read this manual carefully before installation to avoid improper use.
- 3、 the rated voltage of the internal control power supply of the switch is 220V, from the C1.N1 of the common power supply and the C2.N2 of the standby power supply, within the rated control voltage range of 85%-110%, the switch can work normally.
- 4、 the switch into the wire end power supply should have overvoltage protection, so as not to damage the internal circuit board control motor.
- 5、 the switch outlet power supply should have short-circuit protection, so as not to short-circuit the current is too large and burn the switch body.
- 6、 when using the installation, please turn off the electric button switch, and switch to: "O".
- 7、 When wiring the switch, please measure and distinguish the A.B.C.N of the power input line and connect it to the corresponding pole of the switch.
- 8、 before power use, please measure again whether the C.N voltage is within the rated control voltage range of 85%-110%, and then turn on the electrical button switch and formally put into work.

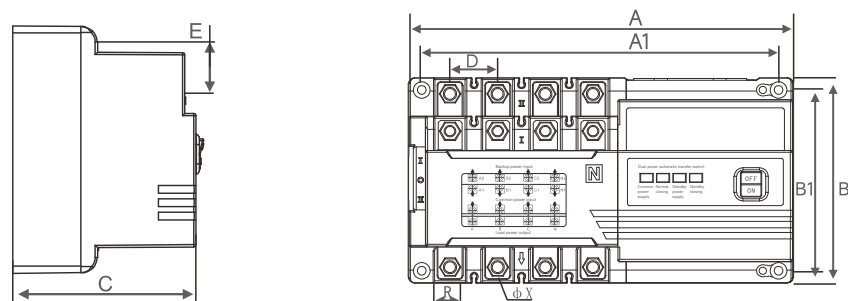
- Switch connection method



- Switch debugging instruction

- 1、 use the operating handle, repeatedly operate the switch three times, the switch should operate flexibly
- 2、 automatic debugging: according to the wiring diagram to connect the corresponding line, confirm and then open the button switch and switch on the dual power supply, the switch should be switched to "I" : then disconnect the common power supply, the switch should be switched to "II" : then switch on the common power supply, the switch should return to "I".
- 3、 fire debugging: in any case, start the fire power button, the switch should be turned to "0" file
- 4、 detection signal indicator: normal/standby power on/off, switch "I/II" when the signal indicator should be given the corresponding indication.
- 5、 after debugging, please turn off the power first, and then use the handle to switch to "0".

● Outline Overall And Installing Dimensions

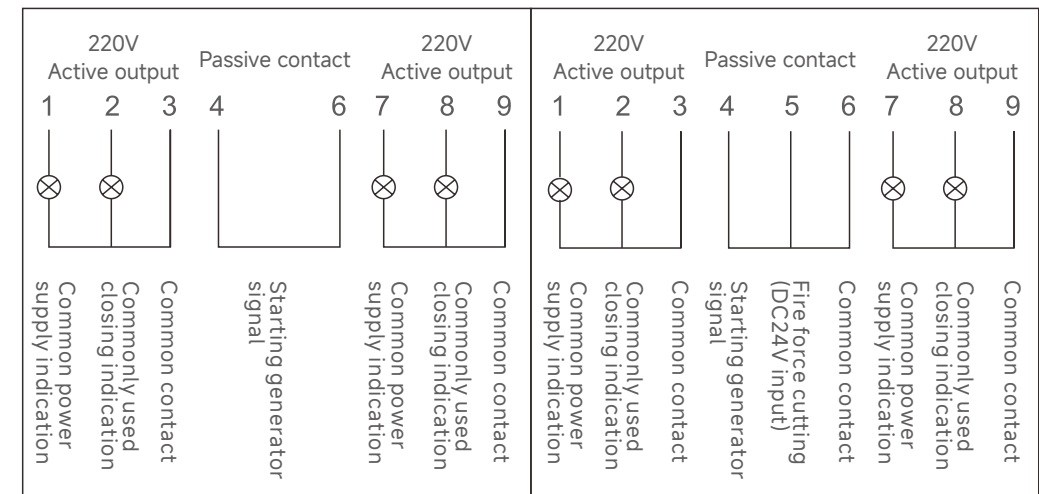


Mounting size table

Type specification \ Size	A	A1	B	B1	C	D	R	ΦX
125/4P	235	217	129	113	95	29	14	6
250/4P	310	291	176	150	131	46	25	8
630/4P	452	429	255	221	199	65	40	12

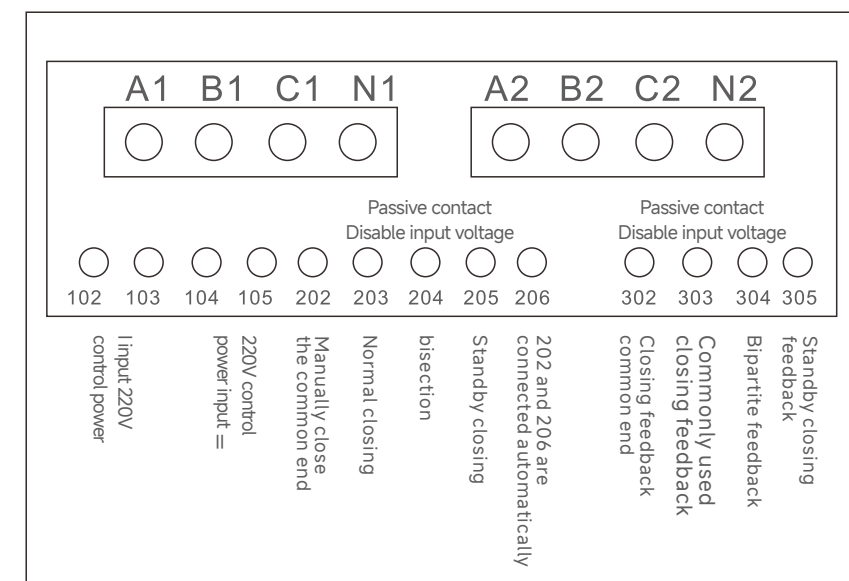
Unit (mm)

- External terminal wiring diagram



Basic type

Fire protection type



intelligent

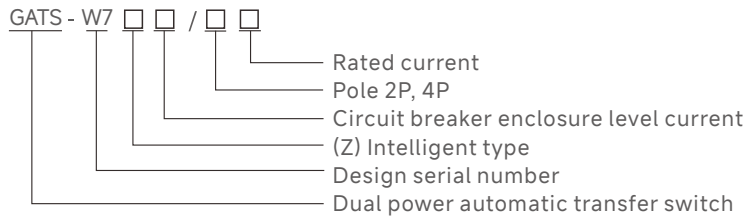


GATS-W7

Automatic Transfer Switch

This product has a reasonable structure, small size, beautiful appearance, and is equipped with a protective cover for safer and more reliable power supply. It has complete protection functions, such as short circuit, overload, phase loss, undervoltage, etc. It is also compatible with EPS fire power supply interface and can reliably split DC12-24V over long distances; No noise movement, energy-saving and easy installation, simple operation, reliable and stable performance.

Model and meaning



Work environment

- ✓ Ambient Air Temperature: -5°C to +40°C, with a 24-hour average temperature not exceeding +40°C.
- ✓ Monthly Maximum Relative Humidity: 90%. The product is resistant to the effects of humid marine air. Higher relative humidity is allowed at lower temperatures. Special measures shall be taken to address condensation that may occasionally occur due to temperature fluctuations.
- ✓ Altitude of Installation Location: Not exceeding 2000 meters.
- ✓ Pollution Degree: The environmental pollution level of the installation location is Level 3.
- ✓ Installation Category: Installation Category IV.

Purpose

The GATS-W7 (hereinafter referred to as ATS) is applicable to 50Hz/60Hz AC power systems with rated operating voltages of 220V (2P) and 380V (4P). It features a CB-level rated current range of 6-63A for terminal-type dual-circuit power supply systems, and a PC-level rated current range of 6-125A for terminal-type dual-circuit power supply systems. Designed to automatically switch between the normal power supply and backup power supply, the ATS ensures high reliability of power supply. It is mainly used in scenarios such as high-rise buildings, shopping malls, fire pumps, smoke control fans, elevators, domestic water pumps, and emergency lighting systems. This product complies with the GB/T 14048.11 standard.

Basic structure

The Dual-Power Automatic Transfer Switch (ATS) is mainly composed of power conversion execution circuit breakers (1 each for the common power supply execution circuit breaker K1 and the standby power supply execution circuit breaker K2), an automatic control box, and an electric operating mechanism. It features a modular assembly structure for convenient maintenance and inspection. Both circuit breakers K1 and K2 retain their original over-current protection and circuit breaker protection functions, serving simultaneously as main circuit on/off switching and protection devices.

Functional Overview

Automatic Control Principle Switch the Auto/Manual toggle to the Auto position.

1. When the utility power is normal: The switch automatically connects to the utility power line and supplies power to the user line.
2. When the utility power is abnormal: The switch cuts off the utility power supply line and automatically switches to the backup power source to supply power to the user line.

Set the Auto/Manual switch to the Manual position. This configuration allows manual control of the power supply path as follows:

1. Manually disconnect the Normal Power Supply and connect the Standby Power Supply to power the user circuit.
2. Manually disconnect the Standby Power Supply and connect the Normal Power Supply to power the user circuit.
3. Simultaneously disconnect both the Normal Power Supply and Standby Power Supply to achieve Dual Isolation (Double Separation). This isolates the power supply system from the load, facilitating maintenance operations on the user circuit.

Danger Warning ⚠

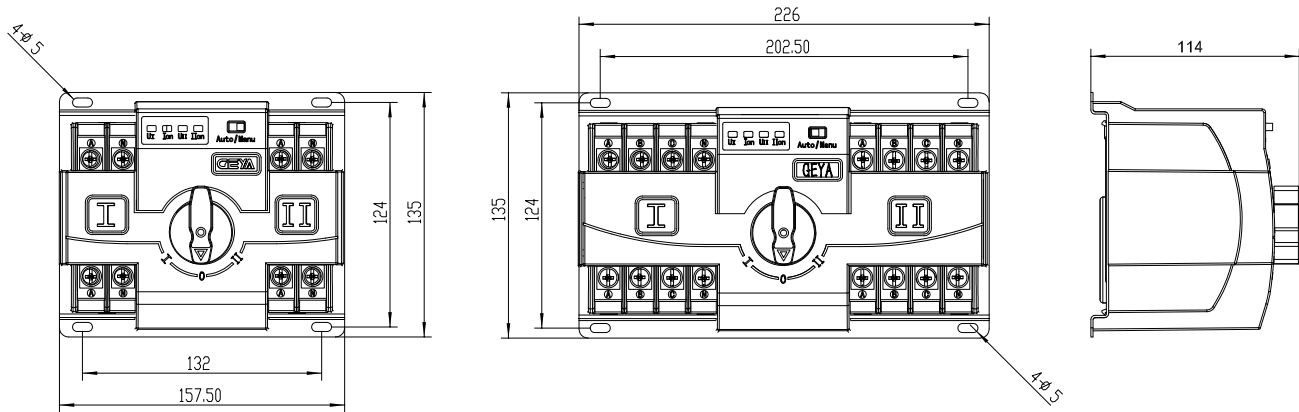
- This device must be installed, configured, and maintained by qualified professionals only. The manufacturer shall not be liable for any damages or losses caused by improper operation that deviates from the instructions.
- a) Installation & Maintenance: This device shall only be installed, debugged, and maintained by professional technicians.
 - b) Power Isolation: Before installation, debugging, or maintenance, all two power supply circuits must be completely disconnected. Note: Active fire protection control signals may also pose electric shock risks—ensure full disconnection.
 - c) Voltage Verification: During maintenance, use a voltmeter to confirm that all power sources are fully disconnected to prevent electric shock.
 - d) Grounding Requirement: The device must be reliably grounded in accordance with installation instructions.
 - e) Cabinet Closure: Before energizing the device, all cabinet doors/covers must be securely closed.
 - f) Safety Risk Warning: Unauthorized operation may result in electric shock, fire, or explosion!

● Usage and Operation

Manual operation can be used regardless of whether the common power supply and backup power supply have voltage. When operating manually, the manual/automatic switch should be placed in the manual position. When the handle is pushed clockwise to the terminal, the common power supply will close circuit breaker K1, and the backup power supply will open circuit breaker K2. When the handle is rotated counterclockwise to the terminal, the common power supply opens circuit breaker K1, and the backup power supply closes circuit breaker K2.

The panel displays the status. If the common power indicator light (I power) and the backup power indicator light (I power) do not light up, it indicates that there is a fault with the input working power supply and it cannot be used normally. Check the input power supply and wait for it to be repaired before putting it into operation. Place the manual automatic button in the automatic position. If the common power supply is working properly, the switch will automatically switch to the common power supply to close circuit breaker K1. The common closing indicator light (I closing) on the panel will light up; When the common power supply is abnormal, the switch is switched to the backup power supply to close the circuit breaker K2, and the backup closing indicator light (I closing) lights up.

● Appearance and installation dimensions



● Common faults and troubleshooting

When the switch cannot be converted normally, please refer to the table below for common troubleshooting. After referring to the table, it still cannot be resolved. Please contact our company or local agent.

Fault phenomenon	Fault inspection	Troubleshooting
The controller indicator light does not light up after power on	The power sampling line has fallen off	Connect the corresponding wires properly
	The neutral wire of the system is not connected to the neutral wire termina	
The controller displays normally and cannot convert automatically	Is the automatic/manual switch in the automatic position	Turn the automatic/manual switch to the automatic position
The power supply is normal, the switch is in the closed position, and there is no power at the load end	Check if the switch is tripped	After the load fault is eliminated, manually press the switch again

● Warranty period and after-sales service

This product is manufactured under a comprehensive quality management system. In the event of a malfunction, the warranty period and after-sales service are as follows:

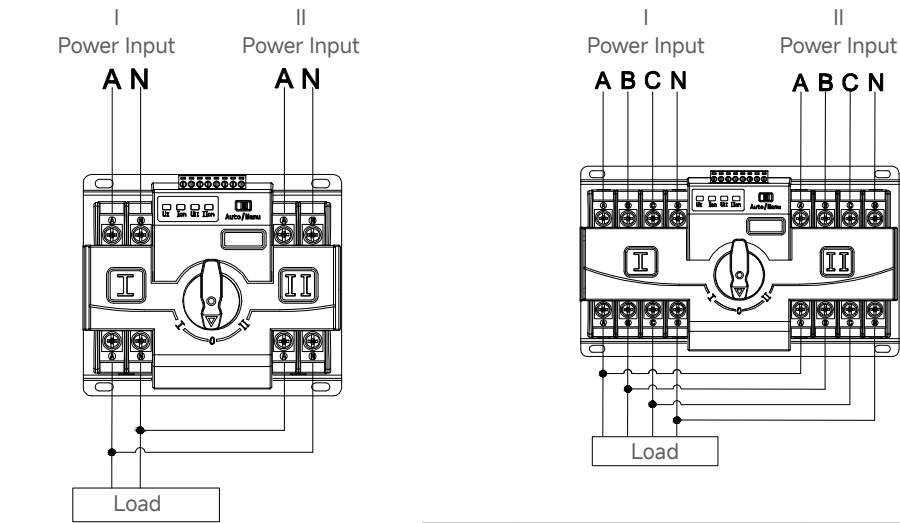
The conversion switch body should be regularly inspected and maintained according to the requirements of the selected circuit breaker and electric operating mechanism. For products that are not used for a long time, attention should be paid to moisture and dust prevention. Before use, they should be debugged according to the above content, and can only be put into operation after being normal.

Warranty period: Under the user's compliance with storage and usage conditions, this product is covered by a three guarantee policy for 12 months from use (but not exceeding 18 months from the date of shipment). During the three guarantee period, the user must adjust, use, and maintain the product according to the specified usage requirements. But if the sealing of the switching device is intact and the product is damaged or cannot be used normally due to quality problems, our company will repair and replace it for the user free of charge.

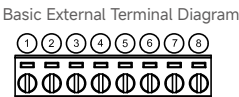
However, if the malfunction is caused by the following reasons, paid repairs or replacements will be made even during the warranty period.

- Due to usage errors, self modifications, and inappropriate repairs.
- *Use beyond the requirements of standard specifications.
- *Due to reasons such as falling and damage during installation after purchase.
- *Due to earthquakes, fires, lightning strikes, abnormal voltage, other natural disasters, and secondary disasters.

● Appearance, installation dimensions, and wiring diagram



External terminal diagram



2 3	Active indication of commonly used power supply	The port voltage is active AC230V, Terminal capacity 250VAC, 1A
7 8	Active indication of backup power supply	
1 3	Commonly used active closing indicator	
6 8	Backup closing active indicator	
4 5	Generator start stop control point	The terminal is a passive contact with a capacity of 250VAC and 1A



GATS-W8

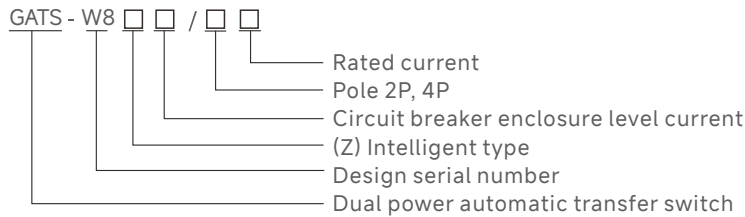
Dual Power Automatic Transfer Switch

The dual power automatic transfer switch is composed of two micro circuit breakers with two poles, three poles or four poles, mechanical interlocking transmission mechanism, built-in controller, etc.

Its characteristics are:

- Small in size and simple in structure; Easy to operate and long service life;
- The switch switching drive adopts a single motor drive, which is stable, noiseless, and has low impact force;
- Equipped with mechanical and electrical interlocking, reliable switching, both manual and automatic can be switched;
- A. T.S is equipped with wiring terminals for users to connect and reflect the status of the circuit breaker (open or closed);
- A. There are various status indicators set on the T.S panel.
- 2P, 3P, and 4P are all available;
- Product current: 10, 16, 20, 25, 32, 40, 50, 63A;

Model and meaning



Work environment

- ❖ Ambient Air Temperature: -5°C to +40°C, with a 24-hour average temperature not exceeding +40°C.
- ❖ Monthly Maximum Relative Humidity: 90%. The product is resistant to the effects of humid marine air. Higher relative humidity is allowed at lower temperatures. Special measures shall be taken to address condensation that may occasionally occur due to temperature fluctuations.
- ❖ Altitude of Installation Location: Not exceeding 2000 meters.
- ❖ Pollution Degree: The environmental pollution level of the installation location is Level 3.
- ❖ Installation Category: Installation Category IV.

Purpose

GATS-W8 dual power automatic transfer switch (hereinafter referred to as A.T.S) is suitable for 50Hz/60Hz, rated working voltage 220V (2P), 380V (3P, 4P), rated current 10A~63A terminal type dual circuit power supply system. It can automatically switch between commonly used power sources and backup power sources to ensure the reliability of power supply, mainly used in high-rise buildings, shopping malls, fire pumps, smoke fans, elevators, domestic water pumps, emergency lighting and other places. This product complies with the GB/T14048.11 standard.

Basic structure

The dual power automatic transfer switch is mainly composed of a power transfer execution circuit breaker (one common power execution circuit breaker K1 and one backup execution circuit breaker K2), an automatic control box, an electric operating mechanism, and other parts. It is assembled in a modular manner, making maintenance and repair convenient and fast; Both circuit breakers K1 and K2 maintain their original overcurrent protection and circuit breaker protection functions, and can be used for both switching and protecting the main circuit.

Functional Overview

A new type of dual power automatic transfer switch. The intelligent controller is operated by buttons and displayed on a digital display, and performs three-phase detection on the commonly used power supply (I) A, B, and C, as well as the backup power supply (II) A, B, and C;

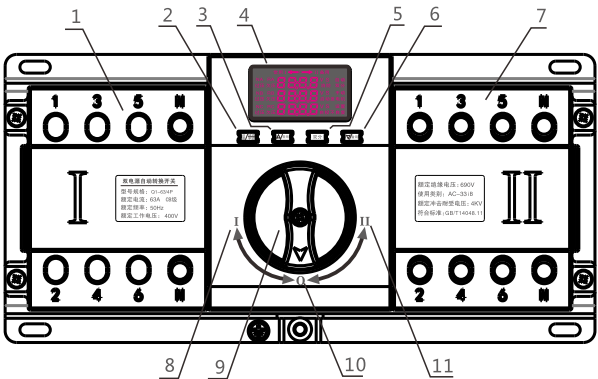
In automatic working mode, when switching to automatic reset working mode: the microcomputer detects common power supply voltage loss, undervoltage or overvoltage. When the phase voltage is below 170V+10%, it is judged as undervoltage, and when the phase voltage is above 263V ± 10%, it is judged as overvoltage; If the common power supply fails, the microcomputer will process the detection results and issue instructions to cut off the common power supply line, automatically switch to the backup power supply to supply power to the power supply line, and display the current working status on the digital display; After the common power supply is restored to normal, the microcomputer processes the detection results and then issues instructions to cut off the backup power supply line, automatically switching to the common power supply to supply power to the power supply line, while the digital display shows the current working status; Provide users with a good human-computer dialogue interface;

When operating in manual mode: press the auto/manual button to place the controller in manual mode, then press the backup button or handle to cut off the common power supply and connect the backup power supply to power the power line; You can also press the commonly used button or handle to cut off the backup power supply and connect the commonly used power supply to power the power line; Pressing the double split button or handle operation can cut off the common power supply and backup power supply, implement double splitting, disconnect the power supply system from the load, and carry out power line maintenance.

When the controller detects a fire command (DC24V power supply), it sends a command to double open the switch;

Example: If the common power supply (I) experiences an abnormality, it will automatically switch to the backup power supply (II) for power supply. When the common power supply (I) returns to normal, it will automatically return. If both working power supplies experience an abnormality, the one whose power supply returns to normal will be given priority for operation.

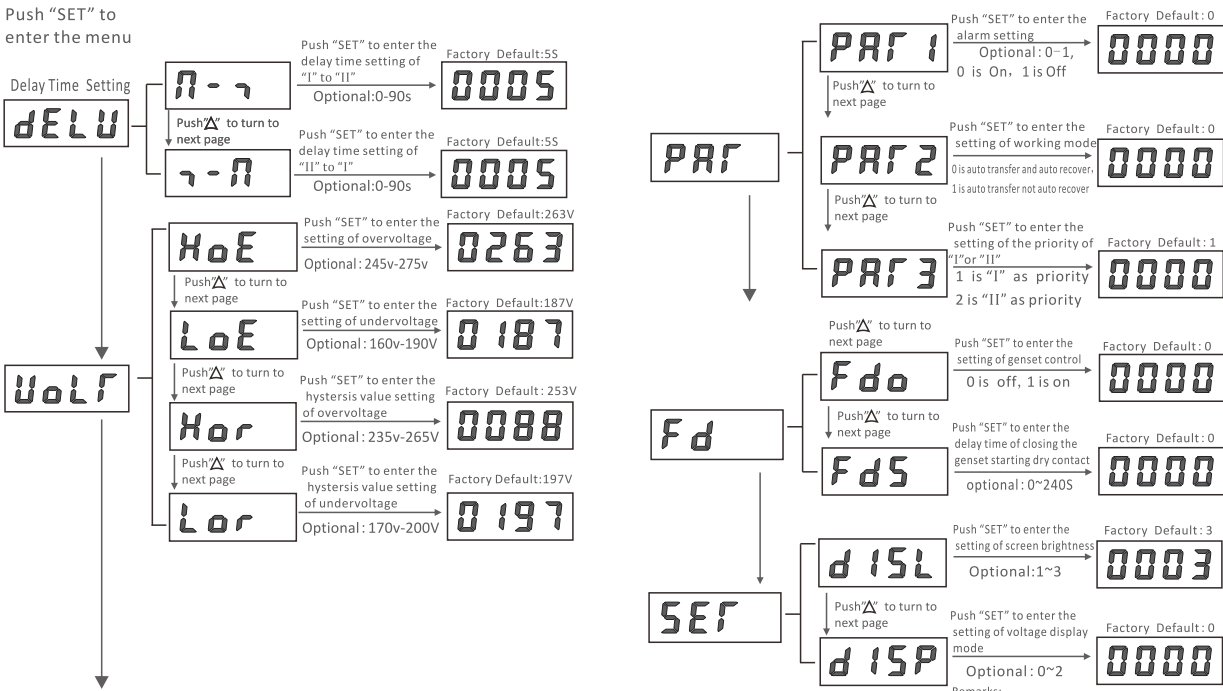
Panel Display& Operation



- 1.Normal Source Side ;
- 2.Button to Choose Auto or Manual Mode .
- 3.Button to switch to normal source &increase the value ;(For Manual Mode)
- 4.LED screen
- 5.Button for Dual Breaking(Two Power Both Off);
- 6.Button to switch to reserve power & decrease the value ;(For Manual Mode);
- 7.Reserve Power Side ;
- 8.The arrow switch to this position means the normal source is working
- 9.Manual Operation Knob & To indicate the Working Status ;
- 10.The arrow switch to this position means dual breaking ;
- 11.The arrow switch to this position means the reserve power is working.

Programing Instructment

When the digitals move to flicker, it's adjustable, Push "SET" key to move. and push "v" to increase the value, Push "A" to decrease the value; Then Push "OFF" button to save and exit setting.



Appearance and installation dimensions

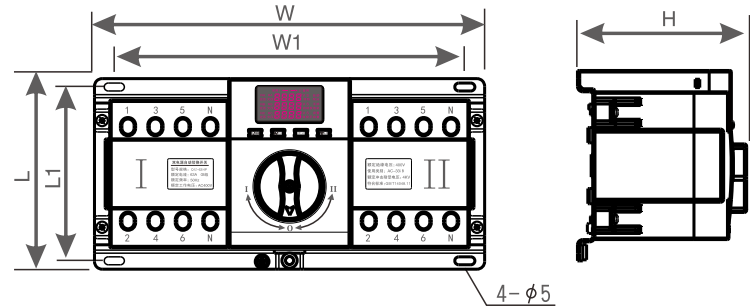
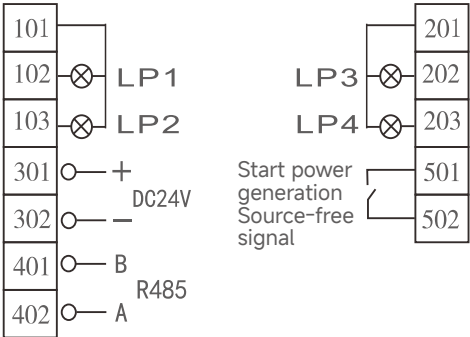


Table with 6 columns: , W, W1, L, L1, H. Rows for 2P and 4P configurations.

Product wiring diagram

Wiring instructions: ♦ External terminal wiring diagram



- 101:3-pole normal source naturnal line terminal and the external indicator naturnal line terminal
- ♦LP1:The normal source indicator
- ♦LP2:The normal source closing indicator
- ♦LP3:The reserve power indicator
- ♦LP4:Reserved power closing indicator
- ♦201:3-pole reversed power zero line terminal and the external indicating zero line
- ♦301.302:Fire Protection(DC24V)
- ♦401.402:RS485 Communication
- ♦501.502:Startthe genset (dry contact)

Usage and Operation

Manual operation can be used regardless of whether the common power supply and backup power supply have voltage. When operating manually, the controller should be placed in manual mode. When the handle is pushed clockwise to the terminal, the common power supply will close circuit breaker K1, and the backup power supply will open circuit breaker K2. When the handle is rotated counterclockwise to the terminal, the common power supply opens circuit breaker K1, and the backup power supply closes circuit breaker K2.

The controller panel displays the status, and the voltage of the common I and backup II power supplies is normal. If a fault is displayed, it indicates that the I or II power supplies have overvoltage, undervoltage, or phase loss, and cannot be used normally. Check the input power supply and wait for it to be repaired before putting it into operation. Press the automatic/manual button to put the controller into automatic working mode. The common power supply is normal, and the switch will automatically switch to the common power supply. The I circuit will be closed, and the common I will be displayed on the panel; When the common power supply is abnormal, the switch is switched to the backup power supply I circuit and closed, and the backup II is displayed;

Common faults and troubleshooting

When the switch cannot be converted normally, please refer to the table below for common troubleshooting. After referring to the table, it still cannot be resolved. Please contact our company or local agent.

Table with 3 columns: Fault phenomenon, Fault inspection, Fault malfunction. Rows describe LED display issues, conversion problems, and power supply faults.

Warranty period and after-sales service

This product is manufactured under a comprehensive quality management system. In the event of a malfunction, the warranty period and after-sales service are as follows: the switch body should be regularly inspected and maintained according to the requirements of the selected circuit breaker and electric operating mechanism. For products that are not used for a long time, attention should be paid to moisture and dust prevention. Before use, they should be debugged according to the above content, and can only be put into operation after being normal. Warranty period: Under the user's compliance with storage and usage conditions, this product is covered by a three guarantee policy for 12 months from use (but not exceeding 18 months from the date of shipment).

However, if the malfunction is caused by the following reasons, paid repairs or replacements will be made even during the warranty period.

- *Due to usage errors, self modifications, and inappropriate repairs, exceeding the requirements of standard specifications.
- *Due to reasons such as falling and damage during installation after purchase
- *Due to earthquakes, fires, lightning strikes, abnormal voltage, other natural disasters, and secondary disasters.



GATS-N Dual Power Automatic Transfer Switch

This series of dual power automatic transfer switches (ATSE) is a high-tech product developed by our company using the latest technology. It complies with the GB/T14048.11 standard, as well as the "Code for Fire Protection of Tall Buildings", "Guidelines for Emergency Lighting Design", "Code for Electrical Design of Civil Buildings", etc.

The components and parts of the product undergo strict aging screening, and the finished product undergoes continuous 72 hours of dry storage and power on operation. Finally, it can only be shipped after passing the loading inspection. This ensures the reliability and safety of the product.

This product is mainly used for the first and second level loads specified by the state, and is widely applicable to important places that require continuous power supply, such as fire protection, postal and telecommunications, hospitals, hotels, urban rail transit, high-rise building industrial assembly lines, television stations, etc. The main and backup power sources can be the power grid, self starting generator sets, etc.

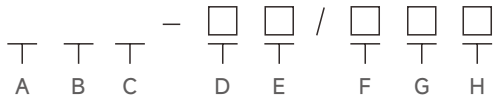
Working conditions

- Ambient air temperature: Ambient air temperature of -5 °C to +40 °C, and a 24-hour average temperature does not exceed +35 °C, Around +40°C air temperature is above or below -5 °C users should consult with the manufacturers.
- Atmospheric humidity: The maximum temperature of +40 °C the relative humidity of not more than 50 percent, the largest of 90 % relative humidity, ability Humid air by the impact of the sea, at a lower temperature may allow a higher relative humidity,Occasionally the temperature under Congeal Dew should take special measures.
- Installation Altitude: Locations of not more than 2,000 meters above sea level. For a higher altitude, taking into account the air Xinhua strength and cooling down, in consultation with the manufacturer.
- Pollution levels: Installation on grade III
- Installation sort: Installation sort IV type
- Installed tilt: Products in the cabinet fixed installation, the largest inclination to ±22.5°
- Flash Arc-distance: In AC 380 V-arc distance of 80 mm. ACat 660 V-arc distance of 100 mm. Under 125Ainstallation can't consider flash arc.
- use category400A and the following is the AC-33B, 630A and above for the AC-33B

Products structure

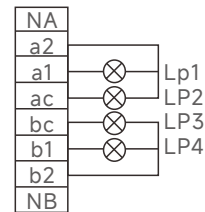
- ATSE by the switch body and controller two major components. Switch body with electrical and mechanical Lock, closing instructions as the isolation of the indicators used.
- Products using electromagnetic drive, M-type, Q-single-coil DC pulse operation, C-, N-type.T-type, NA - adopt Dual-coil DC pulse operation, transfer controller work power using the main power,backup power line voltage 220V AC, without add controller .

Products Model and classify



Serial number	name	Sequence number specification
A	Corporate code	
B	Product category	PC class dual source automatic transfer switch
C	Design sequence number	1
D	Frame grade	32,125,250,400,630
E	Product code	C,N
F	Number of poles	2P(limited to products below 125A),3P,4P
G	Rated working current	16,20,25,32,50,40,63,80,100,125,160,180,200,250,315,350,400A
H	Working mode	R(self-injection and self-recovery)(default).S(self-injection and non-self-recovery) F(power-generation)(controller generator start-stop function)

NC Type (32A-125A)



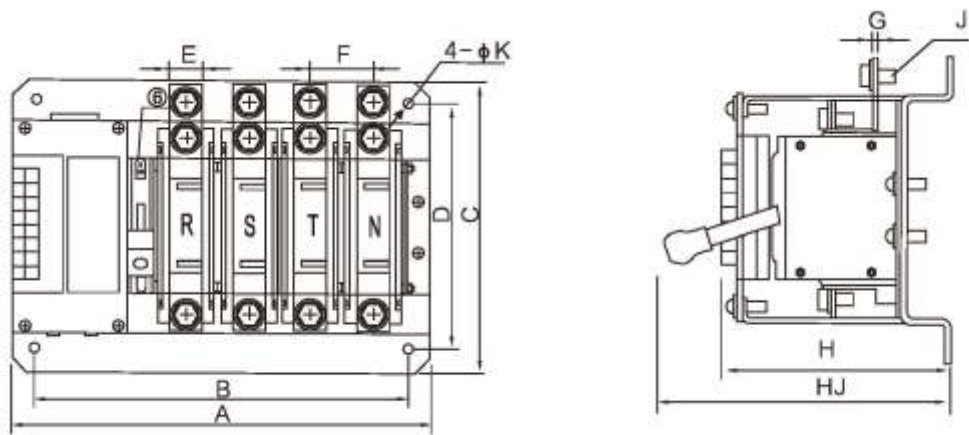
Terminal diagram



LP2.LP3: indicates the standby power supply
IP1.LP4: Common standby closing indication
NA.NB: 3-pole dedicated power supply connected to the zero terminal

NC type dual power supply is for the user installation and wiring convenience, our company will simplify the product, eliminating the external control part, the user only needs to connect the product working power supply and copper bar, you can achieve the self-casting self-recovery function use (common priority), to solve the user caused by wiring unnecessary trouble.

● NC type (32A-125A) product appearance and installation size



Dimension Model number	A			B			C	D	E	F	G	H	HJ	J	K
	2P	3P	4P	2P	3P	4P									
32NC	170	197	224	150	177	204	184	167	12	27	3	110	155	5	9
125NC	191	228	265	171	208	245	184	167	20	37	3	110	155	8	9

● Technical characteristics of Type NC (32A-125A)

Rated operating current (A)		16	20	25	32	40	50	63	80	100	125
Rated control supply voltage (V)		Ac220V									
Rated control supply current (A)		3.5									
Rated short-time withstand current (KA)		10									
Service life	Machine	20000									
	Electric	6000									
Operation cycle (seconds/time)		10									

● Type N (32A-125A connection type)

Available controller:
L-801 and L-700 controllers are available for N/T models. For details about the wiring and functions of the controllers, see the controller description.

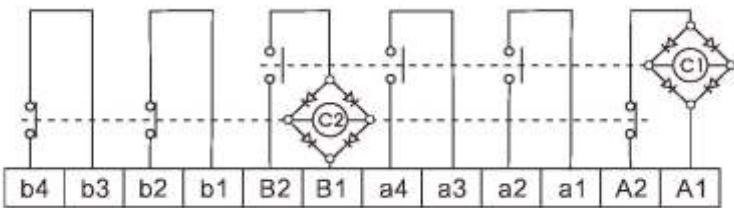


● Type N (160A-630A)

Available controller:
N/T type products can choose L-801, L-700 two kinds of controller, the specific wiring and controller function see the controller description.

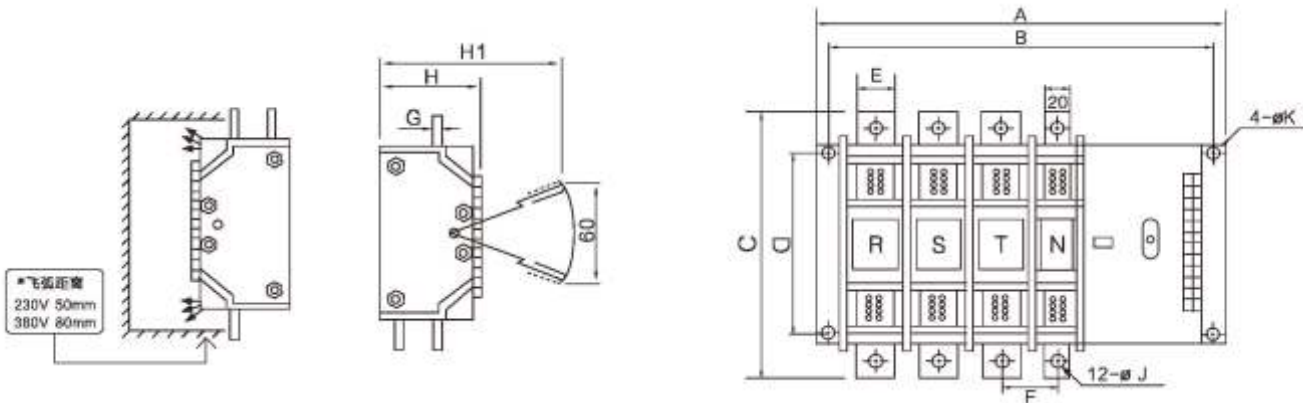


● N-type product body electrical schematic diagram



Note: Do not use without a dedicated ATS controller. The two power supplies of the controller loop cannot be powered on at the same time.

● N-type (160A-630A) product appearance and mounting dimensions



Dimension Model number	A		B		C	D	E	F	G	H	H1	J	K
	3P	4P	3P	4P									
250A	322	372	302	352	294	200	20	49	5	146	295	8	10
400A	352	402	332	382	294	200	30	59	6	146	295	10	10
630A	352	412	332	392	294	200	35	59	6	146	295	12	10

● Technical features of Type N (160A-630A)ATS

Rated operating current (A)		160A	180A	200A	225A	250A	315A	350A	400A	500A	630A
Rated control supply voltage (V)		AC220V									
Rated control supply current (A)		7									
Rated short-time withstand current (kA)		10									
Service life	Machine	17000									
	Electric	6000									
Operation cycle (seconds/time)											



National Patented Products



GATS-S7

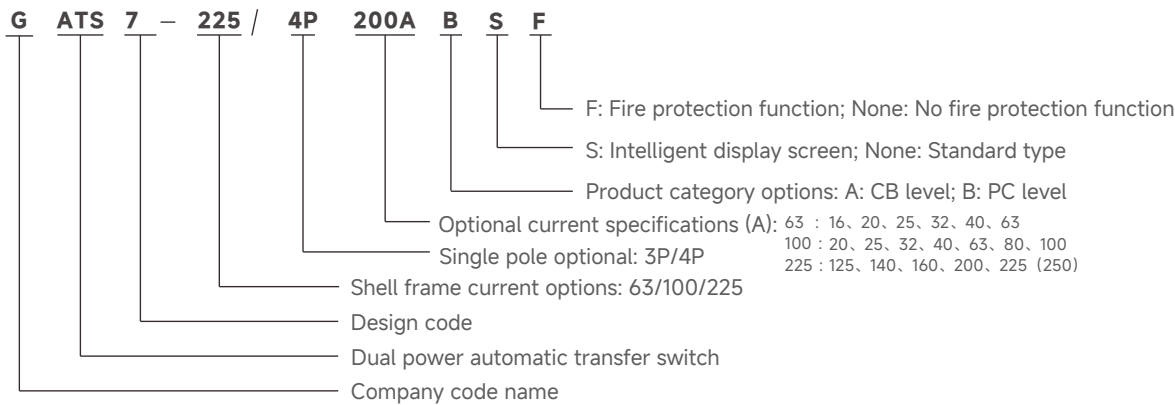
Dual Power Automatic Transfer Switch

The GATS-S7 series dual power automatic transfer switch is suitable for Class I loads, including high-rise buildings, hospitals, shopping malls, banks, fire protection, chemical engineering, metallurgy, etc., with a rated voltage of 400V, 50Hz and a rated current of 250A and below, which do not allow power outages. Some Class II loads are also used to complete the automatic power transfer of the dual circuit power supply system, thereby ensuring the reliability of power supply for important users.

This series of products has two types: CB level and PC level, with automatic operation (self switching and self resetting) and optional manual operation.

This series of products comply with the GB14048.11 standard.

Quick Selection

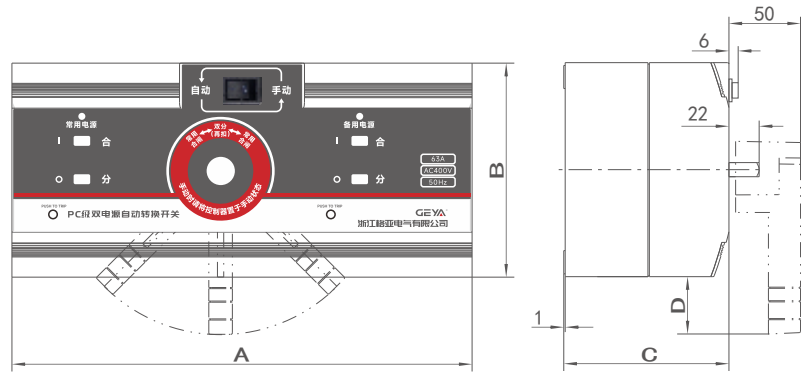


Technical data and performance

Model	GATS-S7-63	GATS-S7-100	GATS-S7-225
Shell current I _{nm} (A)	63	100	225
Rated insulation voltage U _i	AC660V		
Rated working voltage U _e	AC400V		
Rated current I _e (A)	16、20、25、32、40、63	20、25、32、40、63、80、100	125、140、160、200、225 (250)
Poles	3、4		
Rated impulse withstand voltage	4kV		
Usage category	AC-33iB		
Rated short-circuit connection capacity I _{cm}	7.65kA(AC400V) (CB)	17kA(AC400V) (CB)	17kA(AC400V) (CB)
Rated short-circuit breaking capacity I _{cn}	5kA(AC400V) (CB)	10kA(AC400V) (CB)	10kA(AC400V) (CB)
Rated limit short-circuit current I _a	5kA(AC400V) (PC)	10kA(AC400V) (PC)	10kA(AC400V) (PC)
Mechanical life	5000		
Electrical lifespan	1500	1500	1000
Rated working system	Uninterrupted work system		
Contact transfer time	≤2s		
Fire protection function	YES		
Start the generator	YES		

GATS-S7-63、100, 225 shell rack CB level, PC level external dimensions and installation dimensions

The appearance of the integrated dual power automatic transfer switch



The appearance of the integrated dual power automatic transfer switch

Size Specifications		Overall dimensions			D
		A	B	C	
GATS-S7-63	3P、4P	271	135	98.6	53
GATS-S7-100	3P、4P	323	150	116	40
GATS-S7-225	3P、4P	370	165	133	33

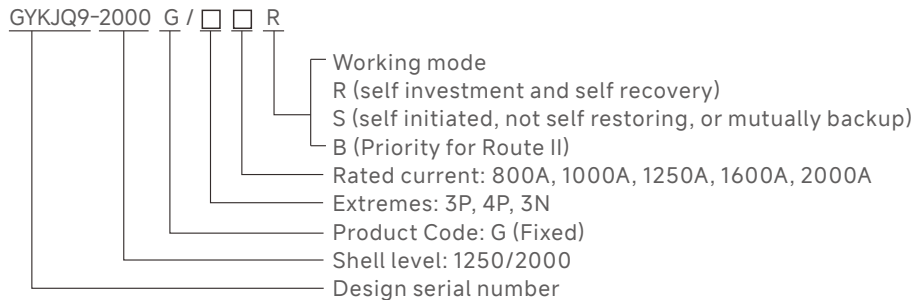


GYKJQ9 Automatic Transfer Switch

Automatic transfer switch electrical appliances comply with GB/T14048.11 standard, as well as the "Fire Protection Code for High rise Civil Buildings", "Guidelines for Emergency Lighting Design", etc. The components and parts of the product undergo strict aging screening, and the finished product can only be shipped after passing the confirmation inspection. This ensures the reliability and safety of the product.

Suitable for distribution systems with a rated operating voltage of AC400V. When there are faults such as phase loss, overvoltage, undervoltage, etc. in the power supply, the transfer switch under the control of the controller can quickly switch the load from the common power supply to the backup power supply (at this time, the backup power supply must be normal). Users can also place the load in an intermediate position when needed, so that the load is neither connected to the regular power supply nor to the backup power supply. This product is mainly used for the first and second level loads specified by the state, and is widely applicable to places that require continuous power supply, such as fire protection postal and telecommunications, hospitals, hotels, urban rail transit, high-rise buildings, industrial assembly lines, television stations, etc. The backup power source can be the power grid, self starting generator sets, battery packs, etc.

Product model and meaning

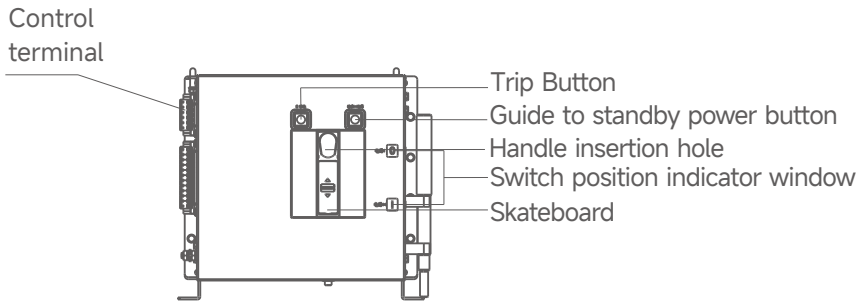


Note: The optional controller comes with a default power grid generator start stop port, and communication is optional. 3N is for neutral line overlap conversion.

Technical data and performance

Category	Item	
Parameter	Rated working current In	800、1000、1250、1600、2000
	Rated working voltage Ue	AC380V、AC400V、AC415V
	Rated insulation voltage Ui	AC1000V
	series	3 poles, 4 poles
	Rated control power supply current Uimp	16A
	Rated impact resistance	12kV
	electrical grade	PC
	Job position	I Position (Closed)、II Position (Closed)、 O Position (Open/Disconnected)
	Limit short-circuit current Iq (SPCD)	120kA(Front fuse protection)
	Usage category	AC-33B
	electrical life	3000 times
	mechanical life	7000 times
Use	Installation method	Fixed type
	wiring method	Horizontal wiring behind the back
	Control method	Split-type
	Controller adaptation	L801/700B
	conversion method	Handle manual, electric conversion, controller automatic conversion
Execution standard	Split wiring harness connection method	Terminal block connection
	Split harness length	Standard 2m cable (length can be customized)
	GB/T14048.11	3C Certificate
	IEC60947-6-1	

Appearance Introduction

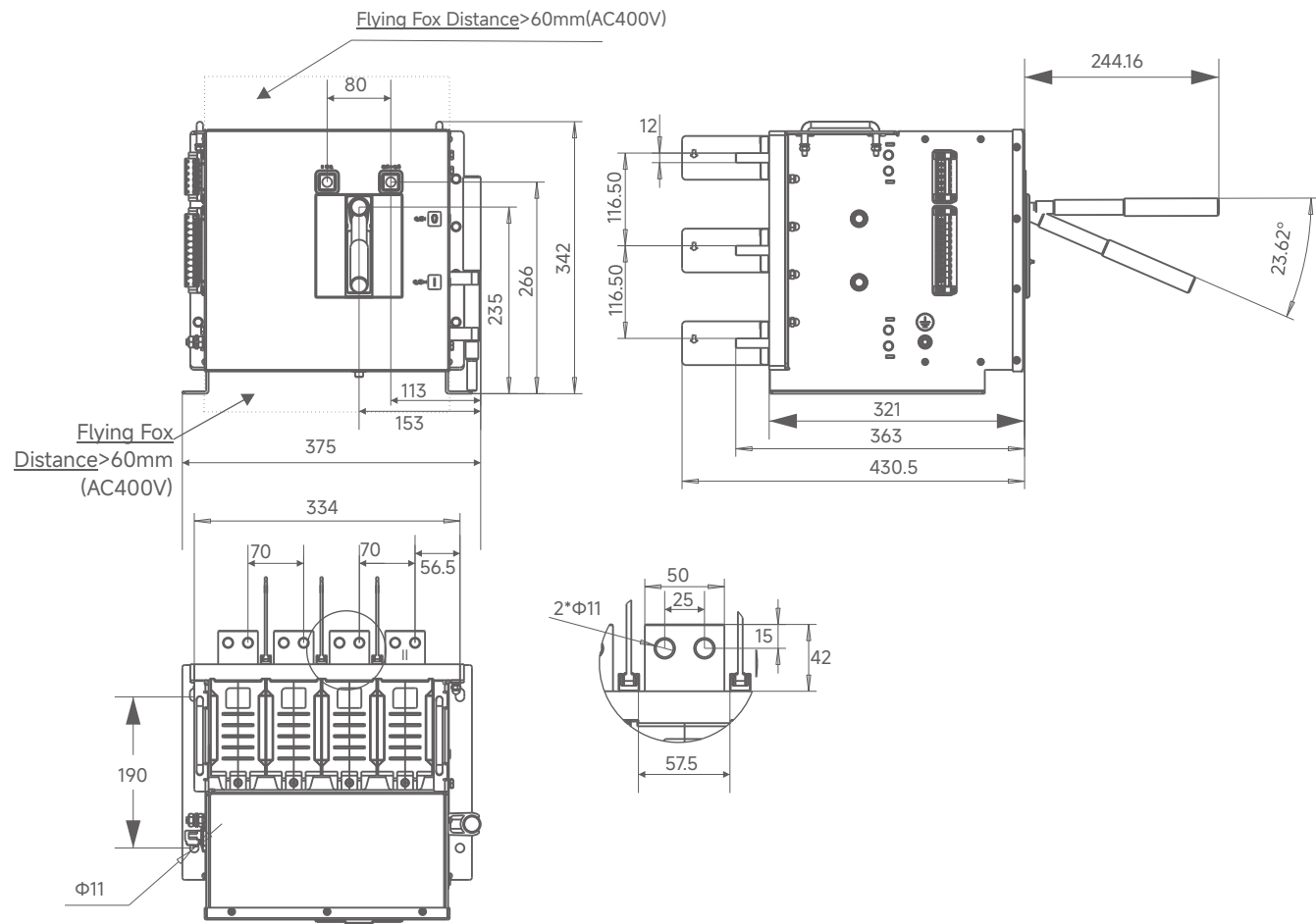


Working environment

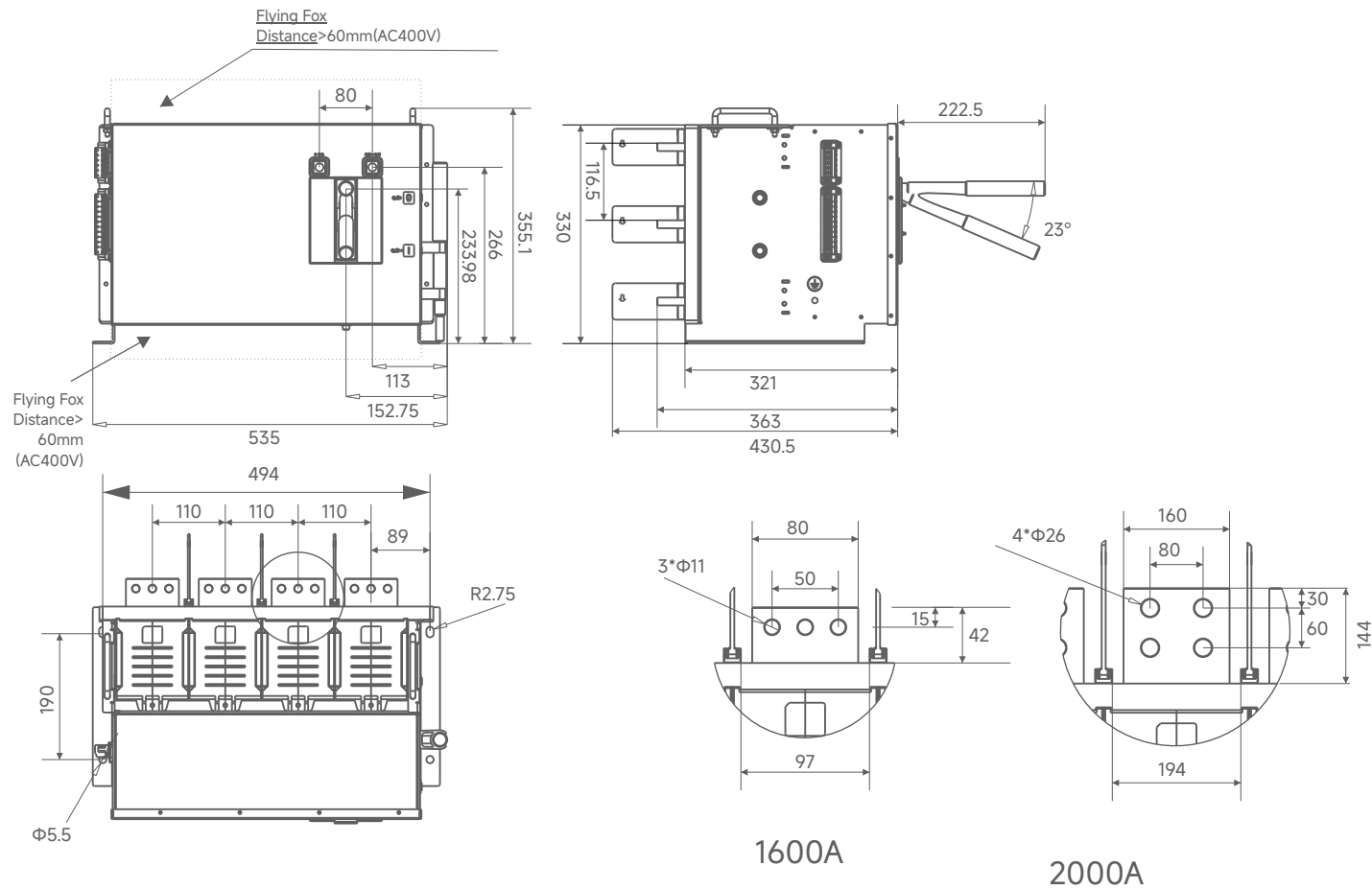
Item	Specific Requirements
Surrounding air temperature	Range: -5 °C to +40 °C; 24-hour average value: ≤+35 °C; Special temperature zone: When the temperature is above +40 °C or below -5 °C, consultation with the manufacturer is required.
Atmospheric humidity	At high temperature (+40 °C): relative humidity ≤ 50%; Monthly maximum relative humidity: 90%; Low humidity environment: allowing for higher relative humidity; Warm condensation: Special measures need to be taken.
Installation height	Standard altitude: ≤ 2000 meters; Over altitude: Consider the decrease in air dielectric strength and cooling effect, and negotiate with the manufacturer.
Pollution level	Level 3
Installation category	Class IV
Installation inclination	Fixed installation inside the cabinet, maximum inclination: ±15°
Flying distance	When communicating at 400V, ≥60mm

Appearance and installation dimensions

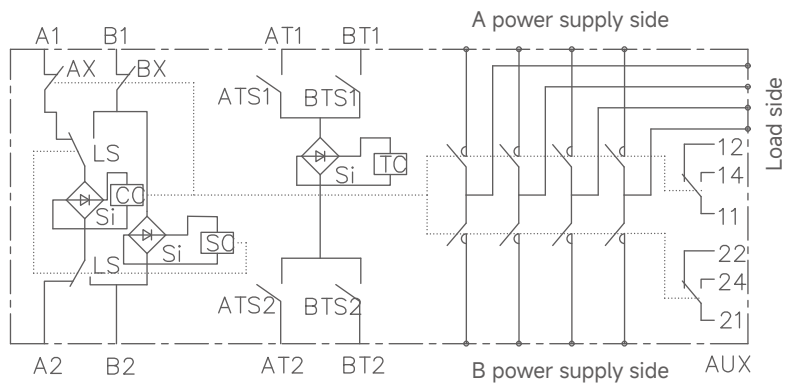
1250A



1600A-2000A

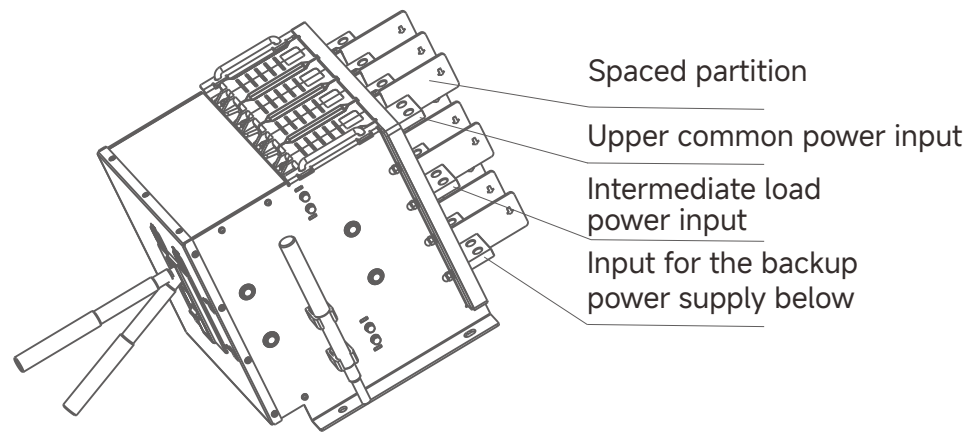


Internal schematic diagram

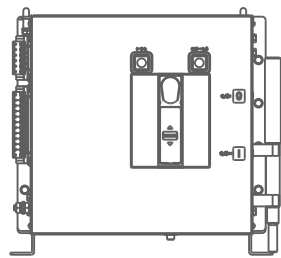


A1-A2	A power supply side input terminal
B1-B2	B power supply side input terminal
T1-T2	A power side trip terminal
G1-G2	B power side trip terminal
CC	Closing coil
AX/BX	Control switch
Si	Silicon rectifier
SC	Directional coil selection
LS	Selector switch
TC	Release coil
ATS1/ATS2	Release control switch
BTS1/BTS2	Release control switch
AUX	Auxiliary switch

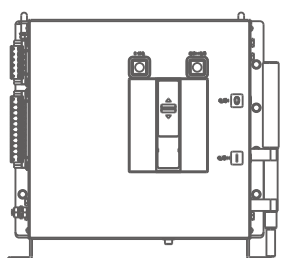
● operating instructions



Introduction to Isolation Skateboards:



In manual mode, the electrical connection is disconnected, the handle hole is exposed, and the handle is inserted and pressed down



In automatic mode, the electrical system is connected, and the handle operation hole is sealed

Attention: It is strictly prohibited to operate with electricity on. During maintenance, the power must be disconnected before manual operation. After completing the manual handle operation, the operating handle must be removed to avoid loss. Please fix it on the left side of the switch.

Operating instructions:

Common input method: Press the "Two Power Supply Cut Off" button to place both the common and backup power supplies in the O position. Use the handle to press down on the manual shaft in the direction indicated by the arrow, and the switch will make a clear closing sound. Place the common window in the I position and complete the closing process.

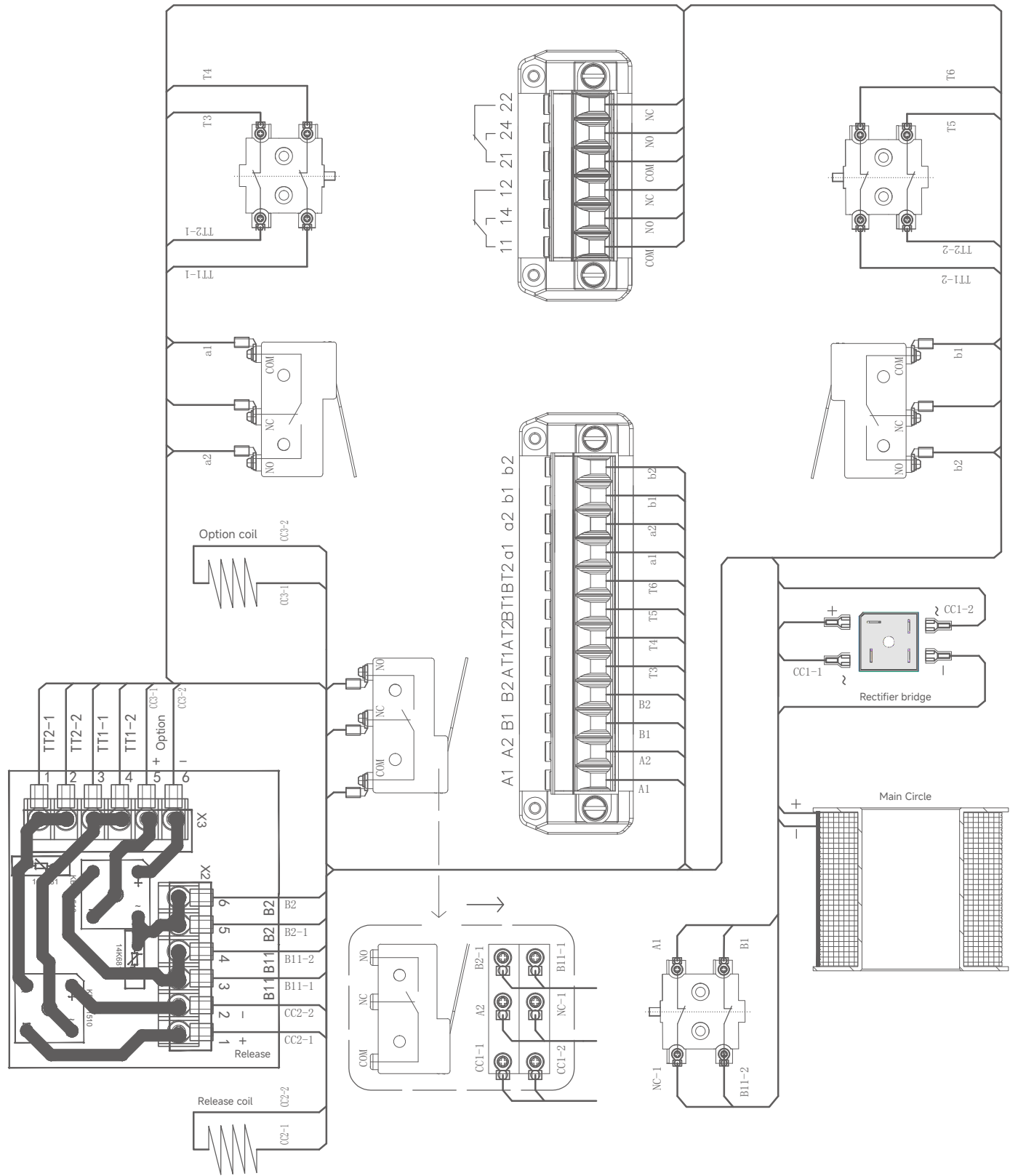
II Backup Input Method: Press the "Power Off for Two Power Sources" button to place both the common and backup power sources in the O position, then press and hold the "Guide II Backup" button. At the same time, press down the manual shaft in the direction indicated by the arrow, and the switch will make a clear closing sound. Place the I backup window in the I position, and the closing is complete.

Manual Two way Power Off Operation: To ensure safety, please press the "Two way Power Off" button while the power is off to disconnect the two power sources (please confirm with the O/indicator window whether both switches are in the disconnected O position).

● Maintenance and storage

Manual operation methods and precautions: Inspection and maintenance must be carried out by professionals, and all external power sources should be cut off during inspection and maintenance. To maintain the performance and continuous good condition of the dual power conversion switch, the first maintenance check should be conducted within one year after installation, and regular maintenance should be carried out at least once a year thereafter.

● Internal wiring layout diagram





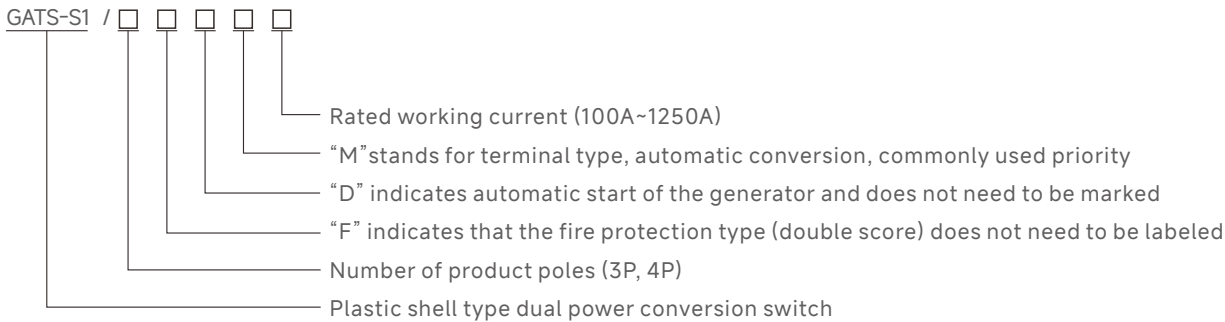
GATS-S1

CB-level Molded Case Series Dual-Power ATS

The CB grade plastic shell series dual power automatic transfer switch (hereinafter referred to as the switch) is suitable for AC 50Hz, rated working voltage of 380V, and rated working current of 63A~225A dual power supply system. It can be operated automatically or manually to switch between the common power supply and the backup power supply. This toggle switch is mainly used in important occasions such as hospitals, shops, banks, chemical, metallurgical, high-rise buildings, military facilities, etc.



Product model and meaning

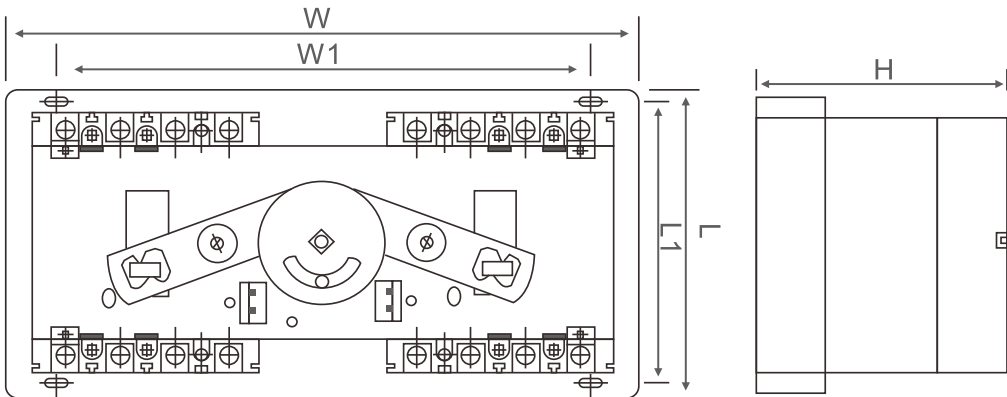


Normal working conditions

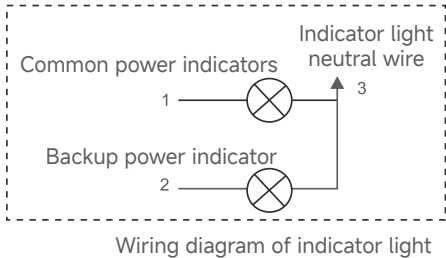
- 1. The installation altitude shall not exceed 2000 meters.
- 2. The upper limit of the ambient temperature shall not exceed +40 ° C, the lower limit shall not be lower than -5 ° C, and the 24-hour average shall not exceed +35 ° C
- 3. The relative humidity of the atmosphere should not exceed 50% when the ambient air temperature is +40 ° C. At lower temperatures, there may be higher humidity, and it should be considered that humidity changes can cause condensation on the surface of the product.
- 4. The medium has no explosive hazard, and there is no gas or dust that can corrode or damage the insulation.
- 5. A place without significant shaking or impact vibration.

Basic structure

The automatic power switch is mainly composed of a power conversion execution circuit breaker. The switch has three status positions for users to choose from: common power (N) on, double off, and backup power (R) on. The switch is small in size, light in weight, stable in operation, and easy to use.



	Overall dimensions			Installation dimensions	
	W	L	H	W1	L1
100/3P	290x205x120			253X186	
100/4P	320x205x120			282X186	
225/3P	330x215x140			296X195	
225/4P	365x215x140			333X195	
400/3P	465x310x190			410X285	
400/4P	508x310x190			455X285	
630/3P	528x318x195			478X295	
630/4P	588x318x195			535X295	
800/3P	608X334X190			556X310	
800/4P	678X334X190			626X310	
1250/4P	695X480X280			642X365	
1600/4P	695X480X280			642X365	





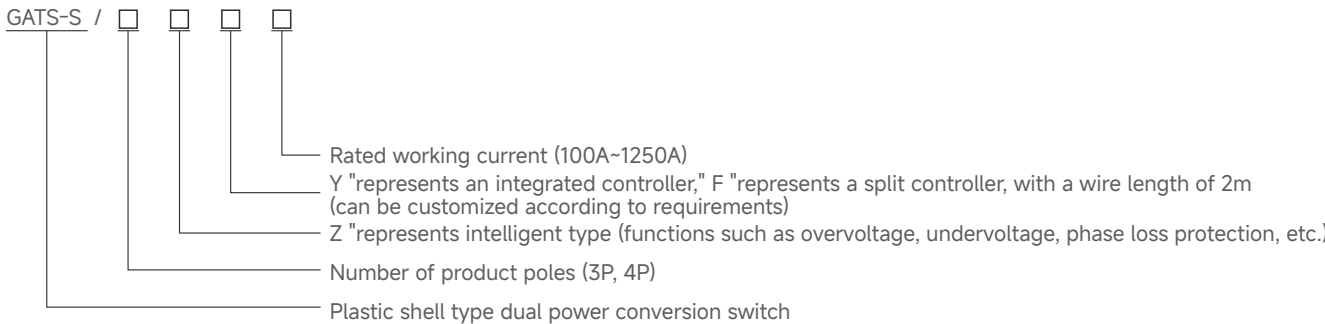
GATS-S

CB grade plastic shell intelligent type Dual power automatic transfer switch

The intelligent series dual power automatic transfer switch has complete detection and protection functions. It uses a high-speed single-chip embedded microprocessor as the main control chip to detect the power supply status in real time, ensuring high reliability operation of the power supply system.



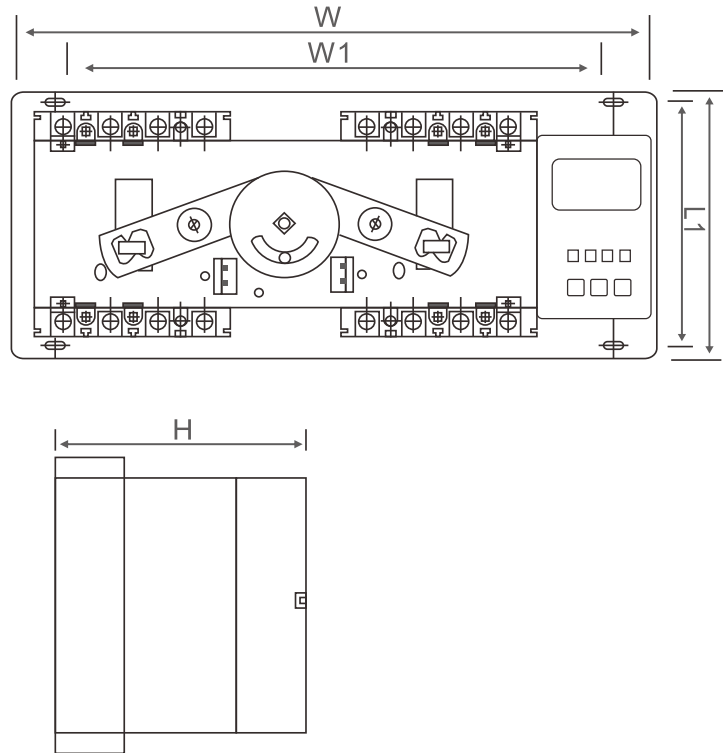
Product model and meaning



Performance Characteristics

1. It has dual protection functions of mechanical interlocking and electrical interlocking to prevent two circuit breakers from closing simultaneously;
2. It has six control operation methods: "manual control", "self switching and self restoring", "common power supply", "backup power supply", "power-off and re adding", and "self switching but not self restoring".
3. It has undervoltage, overvoltage, and phase loss protection functions to prevent the faulty power supply from supplying power to the load.
4. It has alarm or indication functions for power failure, circuit breaker tripping and other faults.
5. It has the function of preventing secondary reclosing: that is, the load side short circuit, overload, and automatic closing (tripping) of the circuit breaker cannot be automatically detected by itself.
6. It has adjustable operating parameter values (undervoltage value, overvoltage value, opening delay value), and the LCD displays two phase voltages simultaneously; Full Chinese menu operation, convenient for users to query in real-time.
7. Equipped with a fire interface, in emergency situations, as long as the fire control DC24V (control voltage selected by the user) is connected, this controller will immediately output a control contact to quickly cut off the relevant circuit.

Product dimensions

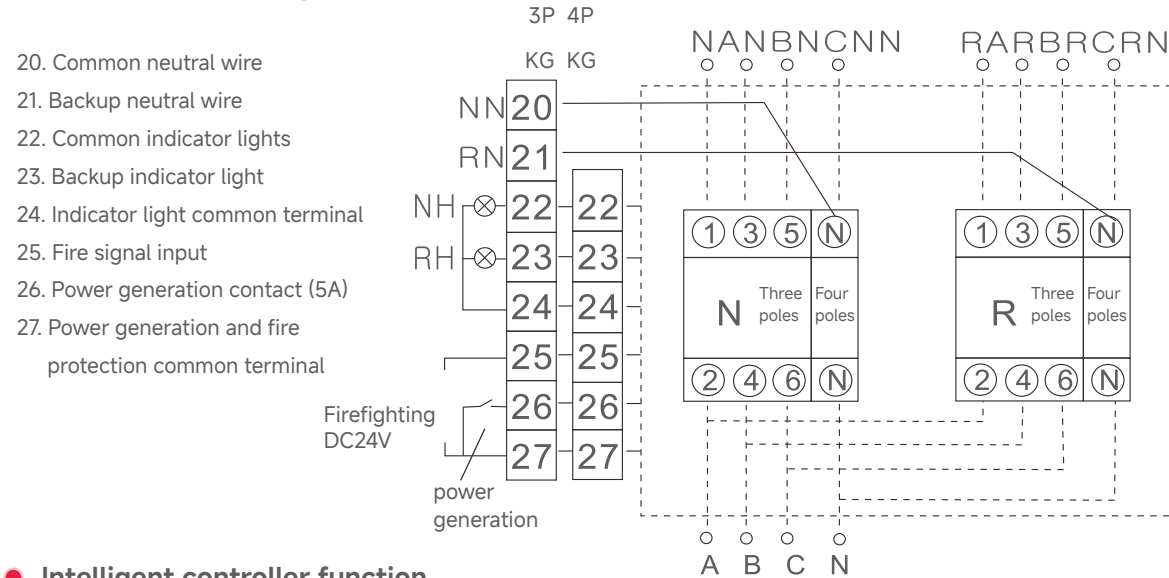


	Overall dimensions			Installation dimensions	
	W	L	H	W1	L1
100/3P	390	220	120	355	200
100/4P	420	220	120	385	200
225/3P	430	220	140	395	205
225/4P	466	220	140	435	205
400/3P	560	310	190	510	258
400/4P	605	310	190	555	258
630/3P	625	320	195	570	295
630/4P	690	320	195	635	295
800/3P	705	340	195	655	315
800/4P	780	340	195	730	315
1250/4P	800	480	280	745	365
1600/4P	800	480	280	745	365

● Main technical parameters

	100/3	100/4	225/3	225/4	400/3	400/4	630/3	630/4	800/3	800/4	1250/3	2000/3
Circuit breaker model	CM1 series/TM30 series											
Cabinet current A	100		225		400		630		800		2000	
Rated working current A	10/16/20/32/40 50/63/80/100		100/125/140/160 180/200/225		200/250/315 350/400		250/315/350 400/500/630		630/700/800		1250/1600/2000	
Breaking current KA	Refer to the specific model circuit breaker manual											
Rated working voltage V	400											
Insulation voltage V	2500 No flicker or breakdown within 1 minute											
Frequency	50~60Hz											
Delay time	Adjustable from 0 to 30 seconds											
Control the rated working voltage V	AC230V											
Mechanical life	5000 times											

● Installation and usage methods



● Intelligent controller function

The intelligent controller is input by keyboard position and displayed on LED, which can synchronously detect the common power supply (N) and backup power supply (R) in three phases, and alternately display the status of each phase voltage: for phase failure, voltage loss, undervoltage or overvoltage, undervoltage is judged when it is below 80% of the rated working voltage value, and overvoltage is judged when it is above 120% of the rated working voltage value. The microcomputer processes the detection results and issues corresponding instructions, and the processing results can be displayed on LCD, providing users with a good human-machine dialogue interface; When the controller detects a fire command (DC24V power supply), it sends a command to double open the switch; When the alarm system is turned on (press Press the key and the LCD will display "alarm", indicating that the alarm system is turned on. When an abnormal fire command or common power supply is detected, a "beep" alarm sound will be emitted; The alarm and alarm system can be manually turned off (press Press the key, and the word 'alarm' on the LCD will disappear.

Example: Self switching and self resetting. If the common power supply (N) is abnormal, it will automatically switch to the backup power supply (R) for power supply. When the common power supply (N) returns to normal, it will automatically return. When the alarm system is turned on, if both working power supplies fail at the same time, the microcomputer will issue an alarm prompt, and the power supply will resume normal operation first.

Working mode:

Self investment and self recovery (R) formula - applicable to power grid and power gridSelf investment without self recovery (S) formula - applicable to power grids and power gridsSelf investment and self recovery (F) formula - applicable to power grid and generationBuilt in power generation and fire protection function DC24VNote: Self protection is a feature of this series, which has the characteristic of first protecting and then delaying when there is an abnormality in the power supply.

■ Self investment and self restoration power grid - power grid

At the initial startup, the default power supply is automatic and commonly used (manual, dual split). When there is an abnormality in the power supply (overvoltage, undervoltage, or phase failure of any phase), the NA, NB, NC, PA, PB, and PC on the controller LCD will disappear accordingly. The common power supply (N) will automatically switch to a dual split state after experiencing an abnormality for 3 seconds, and then switch to the backup power supply (R) for power supply after a delay of 0-30 seconds. The delay time can be set to 3 seconds at the factory. When the common power supply returns to normal, it will automatically switch to the common power supply (N) for power supply; When the backup power supply (R) is abnormal, the controller will emit a "beep" alarm sound. This alarm can also be manually turned off. The "alarm" text on the LCD disappears, indicating that the alarm system has been turned off. Pressing the down button to display the "alarm" text will also emit a "beep" sound, indicating that the alarm system has been turned off.

■ Self investment without self restoration of power grid - power grid

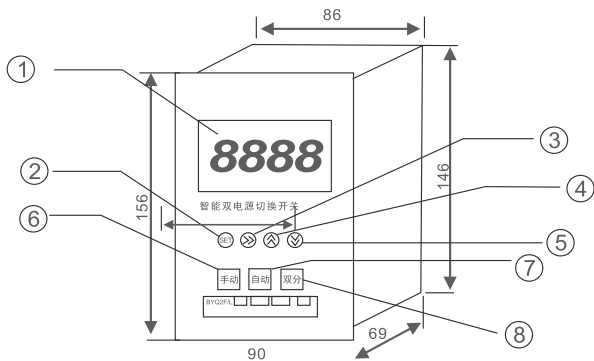
At the initial startup, the default power supply is automatic and commonly used (manual, dual split). When there is an abnormality in the power supply (overvoltage, undervoltage, or phase failure of any phase), the NA, NB, NC, PA, PB, and PC on the controller LCD will disappear accordingly. The common power supply (N) will automatically switch to the dual split state after an abnormality of 3 seconds, and then switch to the backup power supply (R) for power supply after a delay of 0-30 seconds. The delay time can be set to 3 seconds at the factory. When the common power supply returns to normal, it cannot automatically return to the common power supply (N) for power supply and needs to be manually returned; When the backup power supply (R) is abnormal, the controller will emit a "beep" alarm sound. This alarm can also be manually turned off. The "alarm" text on the LCD disappears, indicating that the alarm system has been turned off. Pressing the down button to display the "alarm" text will also emit a "beep" sound, indicating that the alarm system has been turned on.

■ Self investment and self restoration power grid - power generation

The controller detects the common power source (N) and the power generation source ®. When there is an abnormality in the common power source (N), the system sends a power generation command to the generator set with a normally closed contact and an unloading command (normally open contact) to start the generator set. When the grid voltage (N) returns to normal, the control system will automatically return to the common power source (N) for power supply after a delay, and the generator set needs to be manually shut down.

● LCD display and controller setup instructions

SET setting key, shift ②, increase ③ decrease ④, initial password is 8888. The internal parameters have been pre-set by the manufacturer and do not need to be changed by the user."0.3S "delay time", "FFF0" automatically does not reset, "SF01" double split time.



1. LCD display screen
2. Set key
3. Right shift key
4. Number plus key
5. Digital subtraction key/alarm
6. Manual key
7. Auto key
8. Double split key

Controller installation hole size: 86 × 146mm

Note: LCD displays the abbreviation for self restoration (self restoration), and the abbreviation for self restoration without self restoration(Not self resetting), "SF01" cannot be modified.

● LCD screen displays content

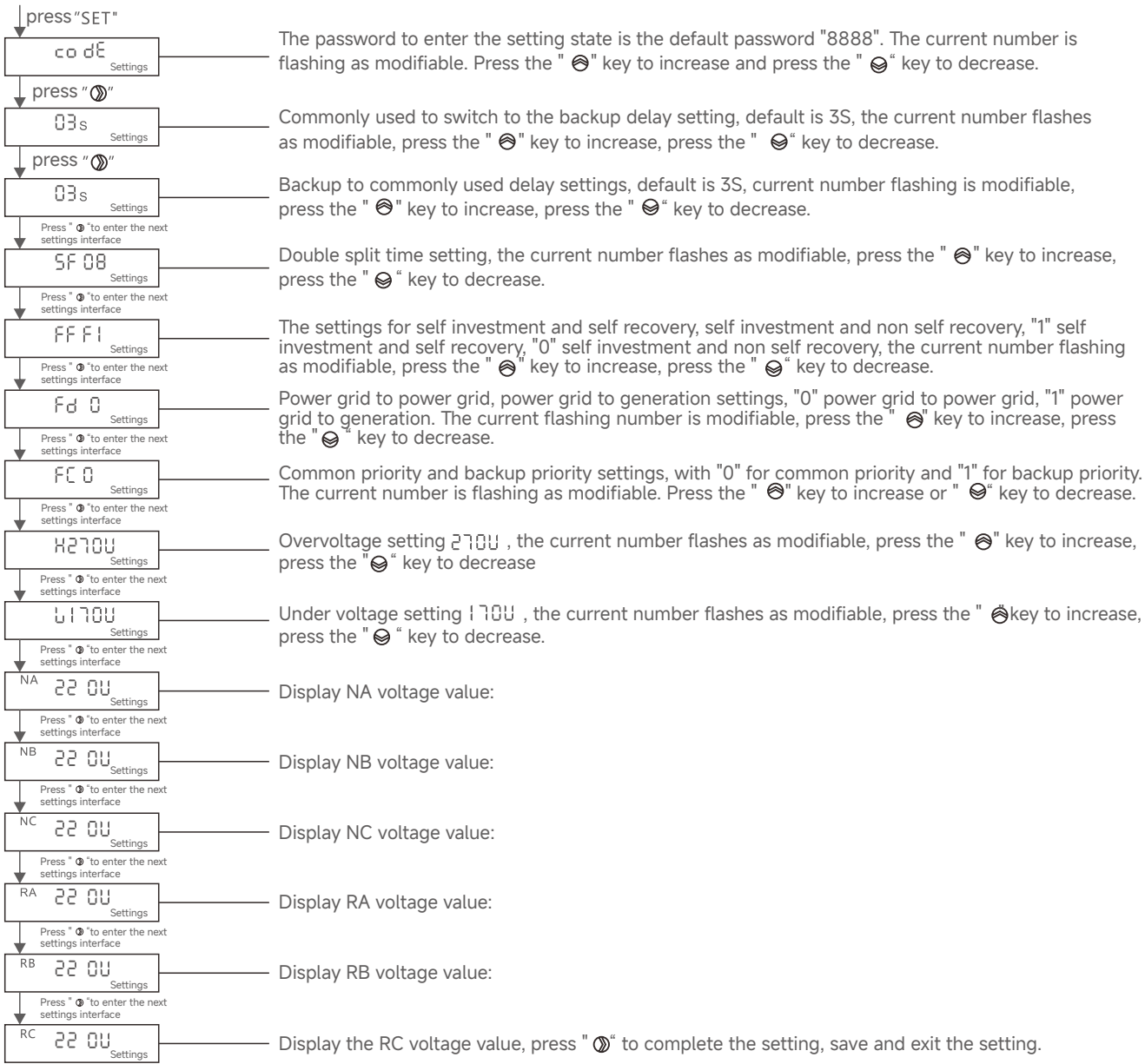


1. "Common" indicates that the switch is in the common closing position;
 2. "Backup" indicates that the switch is in the backup closed position;
 3. "NA" displays commonly used A-phase voltage for detection;
 4. "NB" displays commonly used B-phase voltage for detection;
 5. "NC" displays commonly used C-phase voltage for detection;
 6. "RA" displays the standby A-phase voltage for detection;
 7. "RB" displays the backup B-phase voltage for detection;
 8. "RC" displays the backup C-phase voltage for detection;
 9. "Setting" indicates that the controller has entered the setting state;
 10. "Automatic" indicates that the controller is in automatic working mode, automatically detecting common and backup use
- Check if the voltage of each phase is normal and switch the switch position according to the set state;
11. "Manual" indicates that the controller is in manual mode, and pressing the manual button switch can switch once;
 12. "Double split" means that the controller has detected that the manual button has been pressed to switch to the double split position;
 13. "Self switching and self resetting" means that the controller is in a self switching and self resetting working state;
 14. "Self switching but not self resetting" indicates that the controller is in a working state of self switching but not self resetting;
 15. "Alarm" indicates that the controller alarm system has been turned on;
 16. "N-R" flashing indicates common priority;
 17. "R-N" flashing indicates backup priority;
 18. Press " " to display the corresponding voltage value.



Intelligent controller operation instructions: Entry method and button instructions: When the controller is working, press the "SET" button to enter the setting state, as shown in Figure 1. Press the " " button to enter the next parameter display or right shift, press the " " button to increase the current data, and press the " " button to decrease the current data.

Controller setting operation instructions



● Warning

1. Do not plug or unplug the controller plug with power on, otherwise it may cause electric shock danger or product damage;
2. Non professionals are prohibited from operating and repairing, otherwise it may cause electric shock hazards or product damage;
3. The internal setting parameters of the controller do not need to be changed by the user and are already set at the factory;
4. The load capacity cannot exceed the rated capacity of the switch, otherwise it will cause the switch to trip or be damaged;
5. It is not allowed to mistakenly connect the neutral wire (N) to the phase wire. The phase inputs of the two circuit breakers must be consistent. When using a three-level circuit breaker, connect the neutral wires of the common power supply (NN) and the backup power supply (RN) to the first pin (N) of the terminal block (KC) at the same time, otherwise it will cause damage to the switch. The grounding wire should be reliably connected to ensure safe use.
6. It cannot be directly installed for outdoor work, otherwise it will shorten the service life or cause adverse reactions;
7. It cannot be directly installed in flammable, explosive, humid, direct sunlight, high temperature, vibration, impact and other places. Otherwise, it will shorten the service life or cause the product to burn and explode.
8. It cannot be directly installed in places with conductive dust or metal wire intrusion, otherwise it will cause product damage or mechanical failure;
9. All requirements in the manual should be met, otherwise the service life will be shortened.