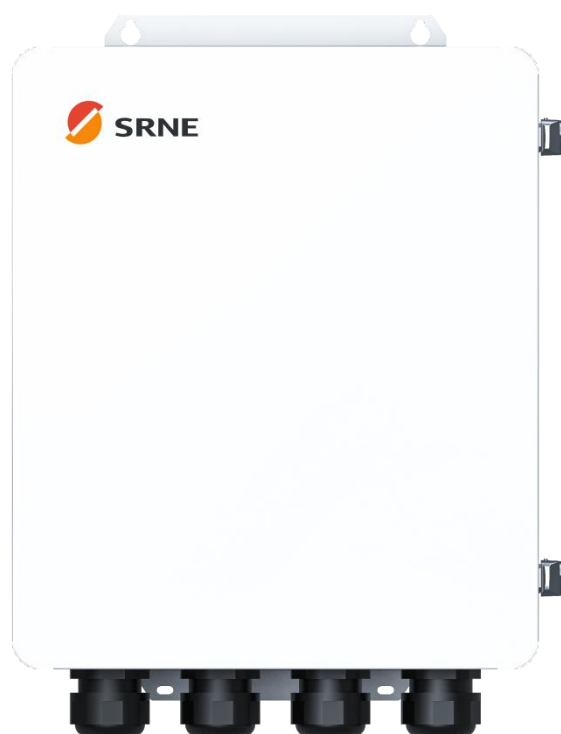




Smart switch box

User Manual



SR-ATS380S63-S3

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1.Safety

1.1、 How to use this manual

- This manual contains important information、 guidelines、 operation and maintenance for **ATS**
- The manual must be followed during installation and maintenance.

1.2、 Symbols in this manual

Symbol	Description
	DANGER indicates a hazardous situations which if not avoided will result in death or serious injury.
	WARNING indicates a hazardous situations which if not avoided could result in death or serious injury.
	CAUTION indicates a hazardous situations which if not avoided could result in minor or moderate injury.
	NOTICE provide some tips on operation of products.

1.3.Safety instructions

DANGER

- This chapter contains important safety instructions. Read and keep this manual for future reference.
- Be sure to comply the local requirements and regulation to install this ATS.
- Beware of high voltage. Please turn off the switch of each power sources before and during the installation to avoid electric shock.
- Do not connect or disconnect any connections when the ATS is working.
- Do not open the terminal cover when the ATS is working.
- Never cause AC output and DC input short circuited.
- Do not disassembly this unit, for all repair and maintenance, please take it to the professional service center.

2.Production Instructions

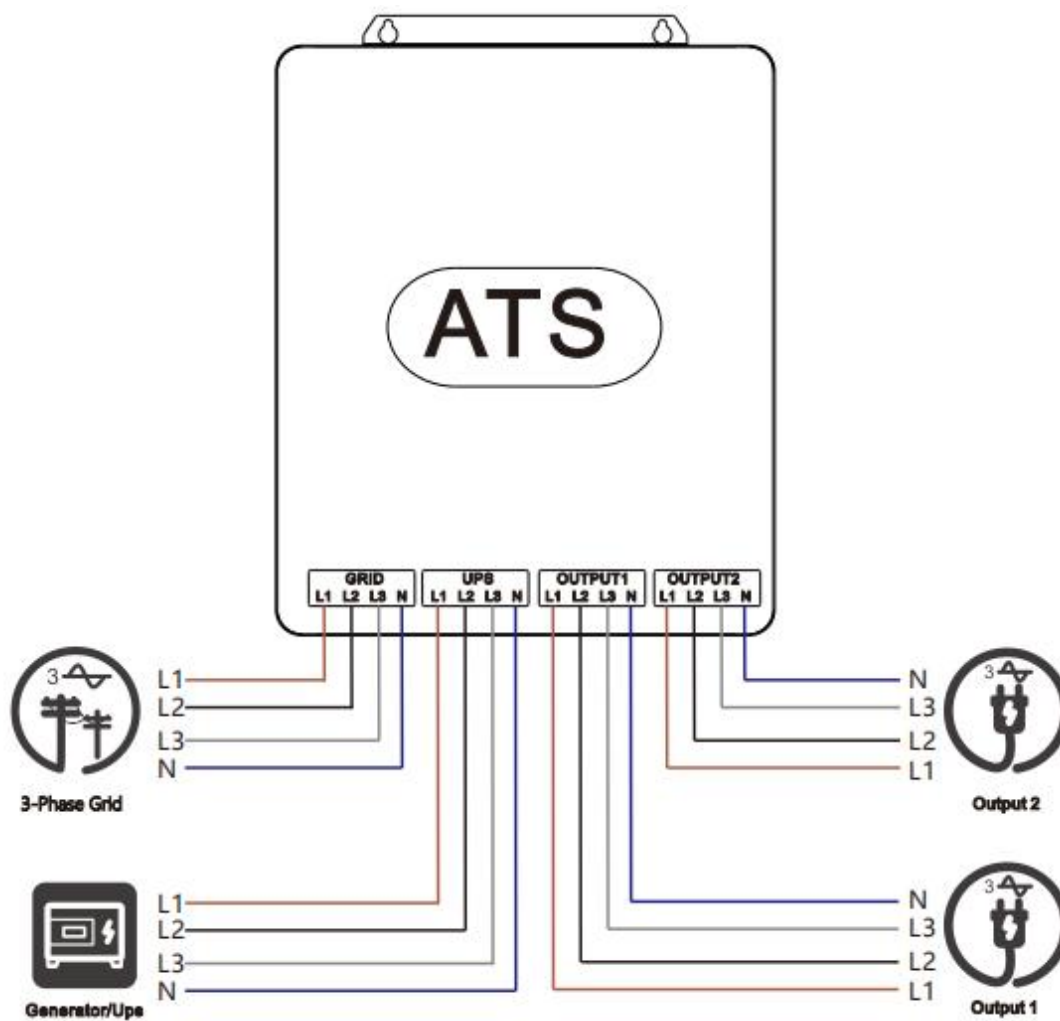
2.1 Instructions

SR-ATS380S63-S3 is generally used for UPS input front-end, which is used for switching between two different AC sources. ATS is mainly used in emergency power supply systems, switching appliances that automatically transfer load circuits from one power supply to another (backup) power supply to ensure continuous and reliable operation of critical loads.

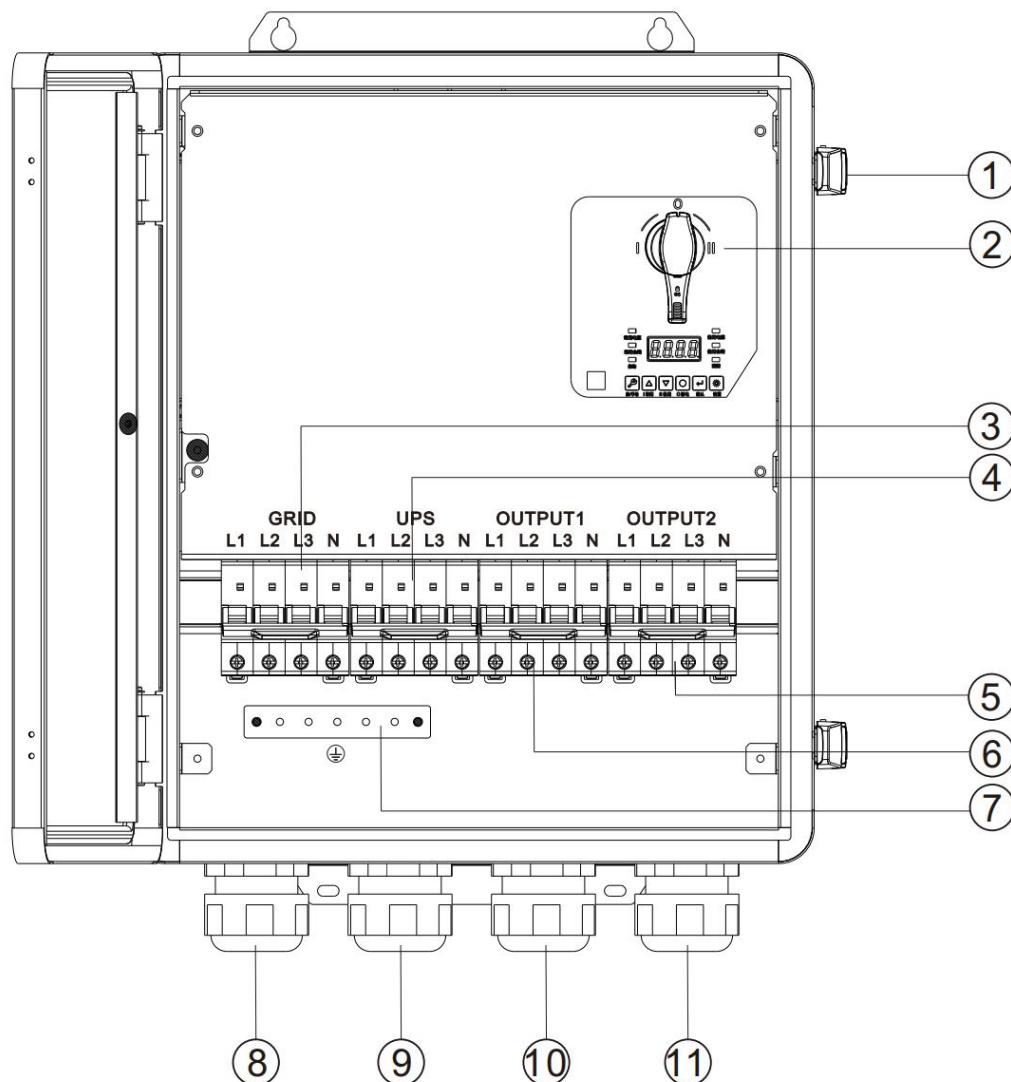
2.2 Features

1. It has IP54 waterproof level.
2. Support three-phase pure sinusoidal output.
3. Dual AC input automatic switching, with dual output.

2.3 System connection diagram

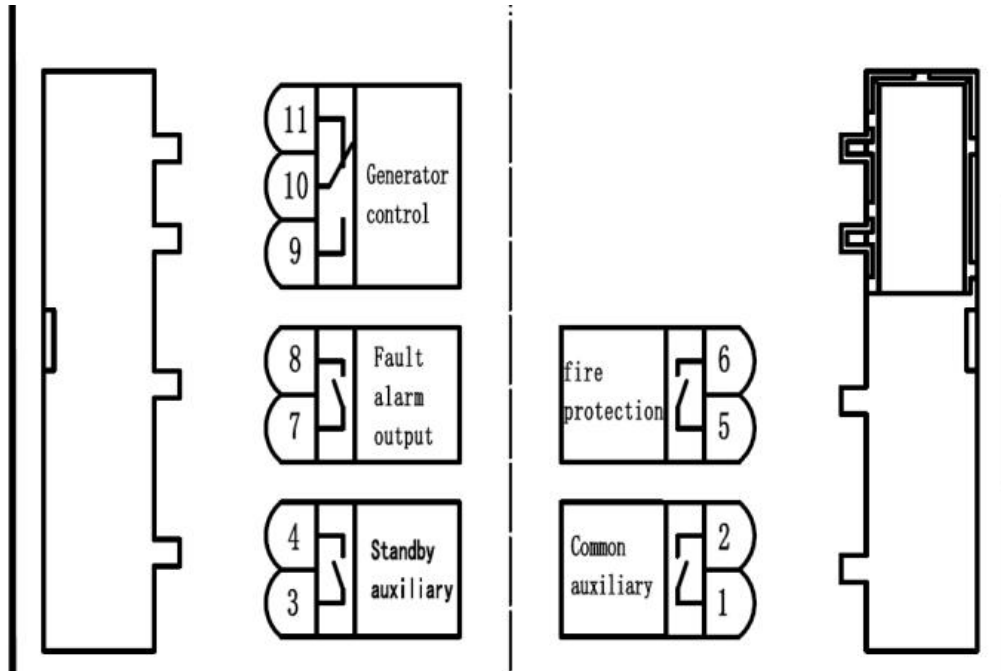


2.4 Product Overview



1	Cover clips	7	Grounding
2	Automatic transfer switch	8	GRID Input port
3	AC Input (L1+L2+L3+N)	9	UPS Input port
4	UPS Input (L1+L2+L3+N)	10	Output 1 port
5	Output 2	11	Output 2 port
6	Output 1		

2.5. Overview of external interface pins



1-2: common switching signal output, and external power connecting indication signal output, (dry contact).

3-4: standby switching signal output, and external power connecting indication signal output, (dry contact).

5-6: firefighting with double connections (dry contact or access to DC 24V available).

Note: To resume, you need to confirm that the fire signal is released, and press the Manual/Automatic key continuously in the manual screen.

7-8: fault alarm output. When the normal changeover of the product cannot be realized, the controller outputs the fault signals with the fault types, for example, inching switch fault, and motor blocking;

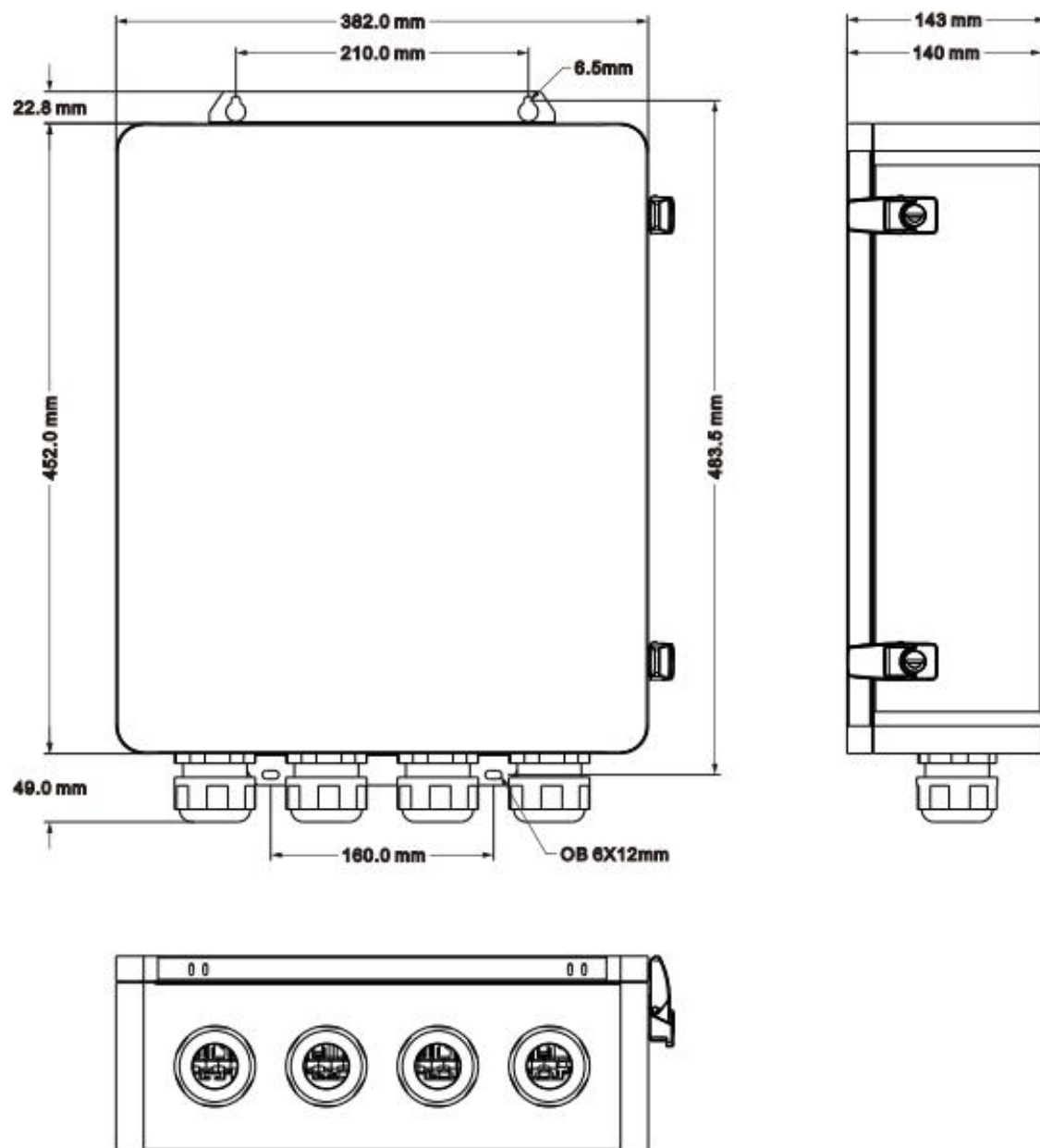


9-10-11: generator control signals

9-Normally open terminal; 10-Common terminal; 11-Normally closed terminal;

When the standby power supply is the auto-start generator set, the user may finish automatic start of the generator functions by connecting the generator controller through 10-11 terminals. Inside 9-10-11, there is a group of dry contacts for the passive relay, where 10 is common terminal for relay, 11 is normally closed terminal, 9 is the normally open point; when the common power supply is normal, 9 and 10 are closed, 10 and 11 are disconnected; when the common power supply is in fault, 9 and 10 are disconnected, 10 and 11 are closed, giving the generator start signal.

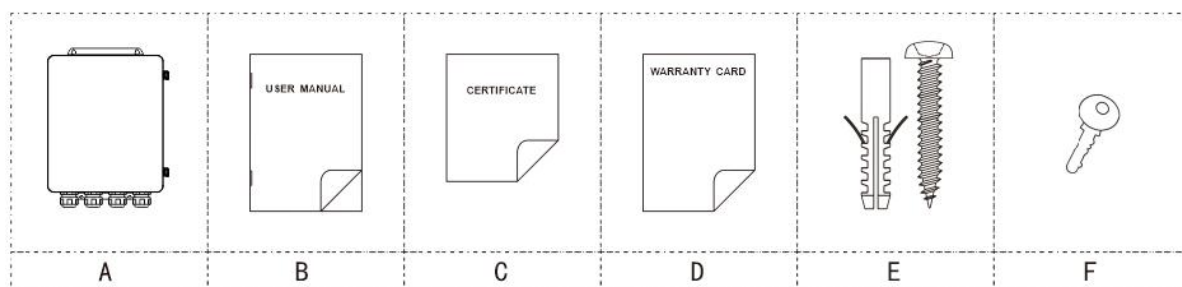
2.6.Dimension drawing



3. Installation

3.1 Packing list

Before unpacking the SR-ATS380S63-S3, inspect the outer packaging for visible damage, such as cracks or other possible signs of damage inside. If there is any packaging abnormality, please do not open it and contact us as soon as possible.

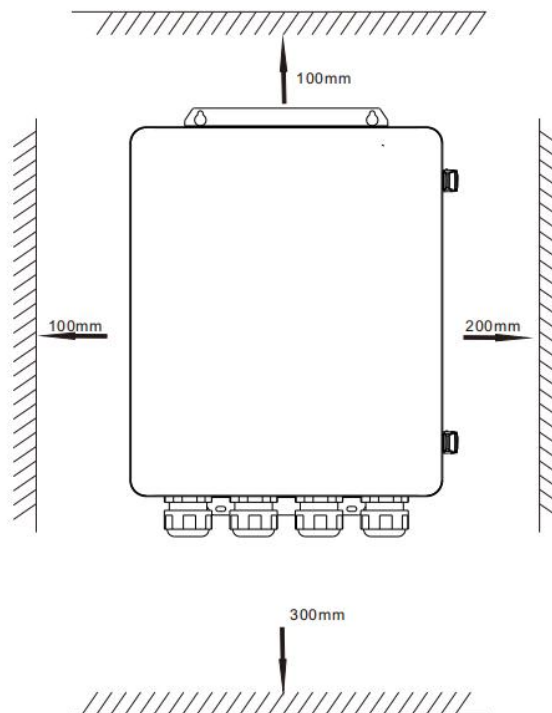


NO	Description	Quantity
A	Smart switch box	1
B	User manual	1
C	Quality Certificate	1
D	The warranty card	1
E	M5*35mm plastics Expansion bolts	4
F	key	2

3.2. Select the mount location

ATS series can be used outdoors (protection class IP54). Please consider the followings before selecting the location:

- Choose the solid wall to install the ATS.
- Mount the ATS at eye level.
- The ambient temperature should be between $-25\sim 60^{\circ}\text{C}$ ($-13\sim 140^{\circ}\text{F}$) to ensure optimal operation.



DANGER

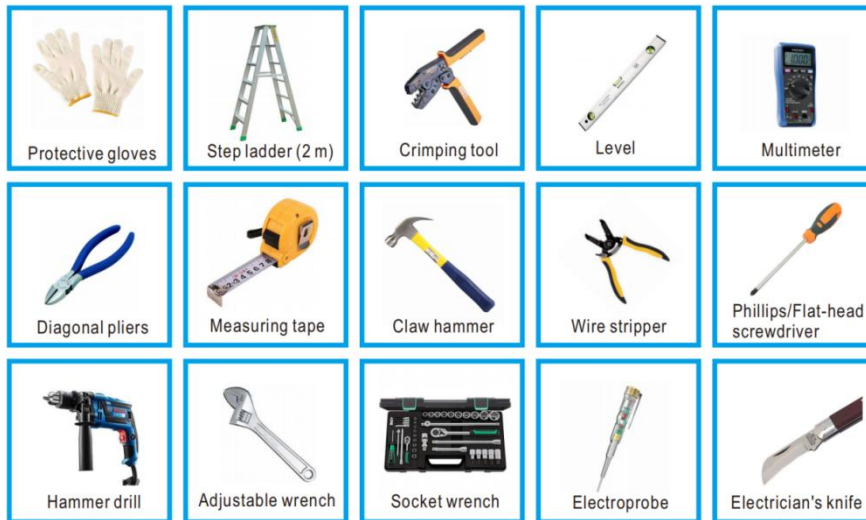
- Do not install the inverter where highly flammable materials are near by.
- Do not install the inverter in potential explosive areas.
- Do not install the ATS in a confined space.

CAUTION

- Do not install the ATS in direct sunlight.

3.3.Installation tool preparation

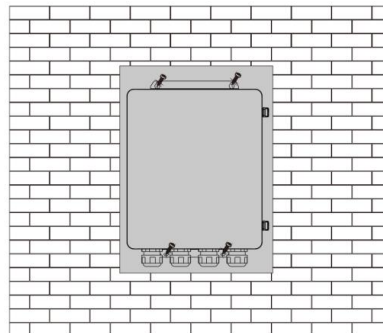
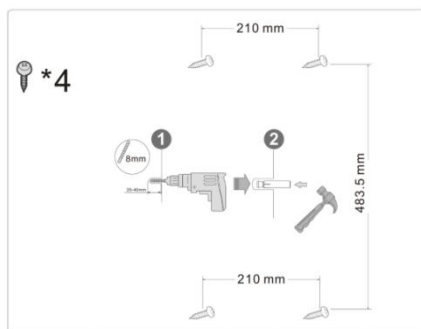
Before installation, the following equipment can be prepared for subsequent



installation.

3.4.Mount the ATS

Punch 4 mounting holes in the wall with an hammer drill according to the specified size, and insert 4 M5*35 expansion screws above.

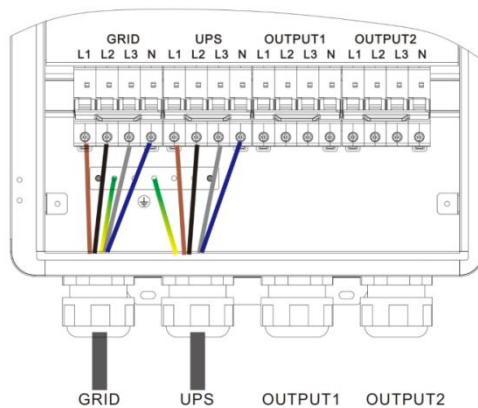


CAUTION

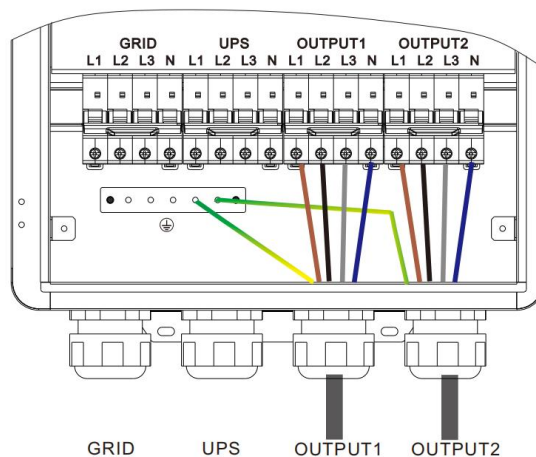
- 1、 When handling SR-ATS380S63-S3, please pay attention to maintain the balance to prevent the machine from falling and injuring the operator.

4.Connection

4.1.AC sources connection



4.2.Load connection



Cable recommend

Model	Cable Diameter	Max input current
SR-ATS380S63-S3	10mm ² /6AW	63A

⚠ DANGER

- Please make sure that the positive and negative terminals of the distribution board are connected correctly, and do not connect them in reverse, otherwise the distribution board may be damaged.
- Before connecting AC inputs and outputs, the circuit breaker must be opened to avoid the risk of electric shock and must not be operated with electricity.
- Please check that the cable used is sufficient for the requirements, too thin, poor quality cables are a serious safety hazard risk.

5.Operation

5.1.Operation and display panel



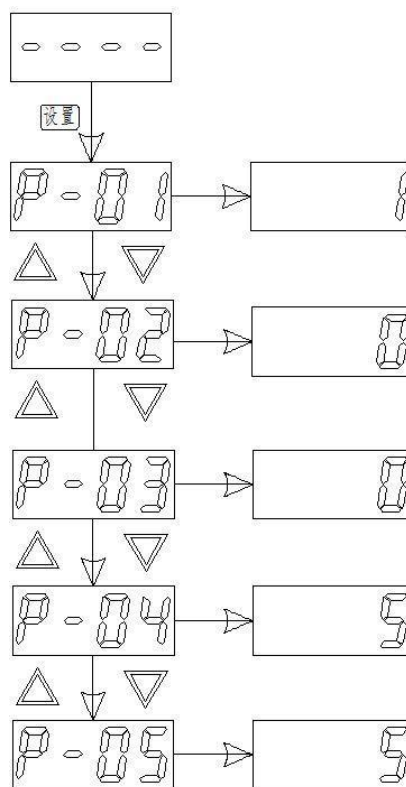
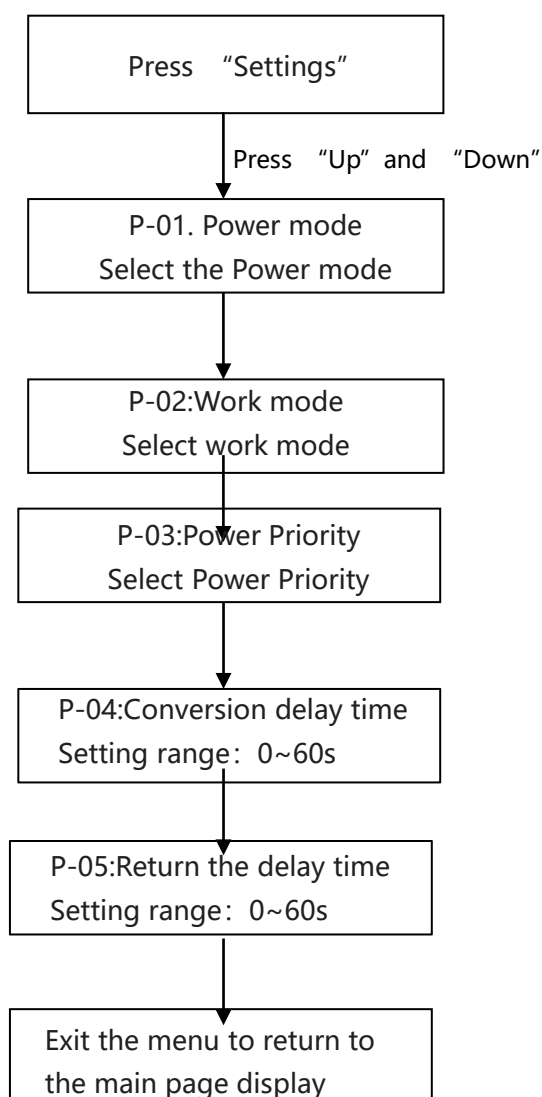
	Function name	Function description
Indicator	Common power	The red LED indicates the status of the Common power supply, and under normal conditions, the red LED is "steady". The phase disconnection indicator is off, the overvoltage or overfrequency indicator flashes at 5Hz,

		and the undervoltage or underfrequency indicator flashes at 1Hz.
	Backup power	Red LED, indicating the backup power supply status. Normally, the Backup power source supply is "steady on". Any phase off indicator is off. The overvoltage or overfrequency indicator blinks at 5HZ, and the undervoltage or underfrequency indicator blinks at 1HZ.
	common switch	Green LED, indicating the state of common switching, common switch is close, LED "steady on", common bit switch is open, LED "off".
	backup switch	Green LED, indicating the state of backup switching, backup switch is close, LED "steady on", backup switch is open, LED "off".
	Automatic	Red LED, automatic mode "steady on", manual mode "off".
	fire signal	Red LED, fire signal input, LED "steady on", fire signal withdrawal, press the automatic/manual button twice to remove the fire signal LED "off", no fire signal input LED

		"off".
Keys	Automatic or Manual	<p>To switch the working mode of the controller to Automatic mode or Manual mode, press Automatic or Manual</p> <p>Double key to deactivate the fire signal.</p>
	I common/ Δ key	<p>This is a multiplexing key, manual mode, press this key, dual power forced to I common switch closing; In the Settings state, press this key to set the parameter increase.</p>
	II Backup/ ∇ key	<p>This is a multiplexing key, manual mode, press this key, dual power forced to II Backup switch closing; In the Settings state, press, this key is set to reduce parameters.</p>
	Power off/Esc key	<p>For the reuse key, as a menu to return and exit; In the manual state, press this key to force the mechanism to power off. Set the status as a menu to return and exit.</p>
	Setting	<p>In the normal state, press this key to enter the Settings menu.</p>
	Enter	<p>Press this key to confirm the parameter setting</p>

5.2.Operation setting

- ①P-01 Power mode: 0: Grid--Grid; 1: Grid--Generator; Default setting: Grid--Generator;
- ②P-02 Work mode: 0: Self-work and self-recovery; 1: Self-work and not self-recovering;
default: Self-work and not self-recovering;
- ③P-03 Power Priority: 0: Normal priority; 1: Backup Priority; Default: Normal priority;
- ④P-03 Conversion delay time:0~60s Default: 0.5s;
- ⑤P-03 Return the delay time:0~60s Default: 0.5s;



When the controller is working, press the "Settings" button on the control panel to enter the menu setting interface, and press " \triangle " and " ∇ "in the settings interface to select settings.Press "Esc"
You can save the parameters and exit the menu.

5.3.LED indicator

Indicator	status	description
Common power source	on	Grid connected
	off	Grid disconnected
Backup power source	on	UPS/Generator connected
	off	UPS/Generator disconnected
Normal switch	on	Common power source is loading
	off	Common power source is not loading
Backup switch	on	Backup power source is loading
	off	Backup power source is not loading
Automatic	on	Enable automatic mode
	off	Enable manual mode
Fire signal	on	Enable the fire protection double state
	off	Disable the fire protection double state

5.4.Manual mode setting

Exit the setting interface and click, press the button [Auto/manual] to switch to manual mode, press the button [Common] switch to switch to the common power load, press the button [Backup] switch to switch to the standby power load, and press the button [ESC] switch to switch to the suspended state.

6.Trouble shooting

6.1 Lack of phase

1、 When the main power is switched to backup power, the back power is lack of phase, and it can be switched (when the main power is lost, when the backup power is lack of phase, the ATS will act, and the missing phase is the live wire) Note:When the main and backp power L1 aree lost at the same time, the ATS will be shut down directly (when the L1 of main power lost,it will be switched to the backup power it will not be switched when L2 or L3 are lost).

2、 When backup power is used, such as when the main power is incoming but it is lack of phase, the ATS does not operate and does not switch to the main power supply.

3、 When the main power is in use, if there is a sudden loss of phase, the ATS will automatically switch to backup power.

4、 When the backup power is lost and the main power is lack of phase, the ATS will not operate and will not switch to the main power for use.

5、 When the main and backup power are lack of phase at the same time, there are still voltage and current on the output side of the ATS.

6、 When the main power is lost and the backup power is present, but the N phase of backup power is missing, the ATS will not switch to the backup power, the ATS screen will be darker than normal, and the backup indicator will be dimmed with a slight flash.

7、 When the L of main power is out of phase and the N of backup power is out of phase, if the main power is lost, the ATS will not switch to backup power.

8、 When the main power is out of N, the live wire of backup power is out of phase, and the main and backup power are both present, the ATS switch will switch to the middle side, and an error will sound a warning sound.

6.2 Wiring

- 1、 When the main power is lost and the backup power is present but the backup power line connection is reversed, the ATS switches to the backup power.
- 2、 When the main and standby power are connected at the same time, but the main wire sequence is misconnected and reversed, the ATS will not automatically switch to the standby side. (Occasional automatic switch changeover)
- 3、 When the main power is lost and the backup power is present but the line connection of backup power is reversed, the ATS switches to the backup power.
- 4、 When the main power is lost and all three phases of the backup power are reversed, the ATS will switch to the backup power and there is a voltage on the output side (the phase sequence is actually wrong).

7. System maintenance

In order to ensure the long-term operation of SR-ATS380S63-S3, it is recommended to perform routine maintenance as described in this section.



1. When carrying out system maintenance, cleaning, electrical connection, grounding reliability and other maintenance, please perform the above operations after power-off to ensure that SR-ATS380S63-S3 has no power and ensure personal safety.

2. If you need to open the cupboard door in wet or snowy weather, take protective measures to prevent rain and snow from entering the cupboard. If there is no protection do not open the cupboard door in wet or snowy weather.

Checking contents	Method	Maintenance intervals
Box inspection	<p>Check the appearance of the SR-ATS380S63-S3 for damage and deformation.</p> <p>Check the SR-ATS380S63-S3 for dust and dirt and keep it well insulated.</p>	Once a year
The running status of the system	<p>Check whether all devices in the SR-ATS380S63-S3 are running properly.</p> <p>Listen for any abnormal sounds during the operation of the SR-ATS380S63-S3.</p>	Semi-annually
Electrical connections	<p>Check whether the cable connection is coming loose.</p> <p>Inspect the cable for damage, focusing on the outer layer of</p>	Semi-annually/Once a year

	<p>the cable in contact with the metal surface for cuts.</p> <p>Check that the plug of the unused waterproof connector is properly inserted and the locking cap is secured.</p>	
Ground reliability	Check that all grounding cables are securely earthed	Semi-annually/Once a year
Conversion experiments	<p>Check and carry out the conversion test to confirm that the product is working normally, pay attention to moisture-proof and dust-proof switches that are not used for a long time, and debug them according to manual or automatic conversion before use, and the switches can be put into operation only if they are normal.</p>	Every three months

8.Datasheet

Model	SR-ATS380S63-S3
AC input (GRID)	
Grif connection	Three phase
Rated AC voltage/Range	380,400,415/342~440
Rated input voltage	230V/400V
Rated input frequency range	50~60HZ(± 0.3 HZ)
Max. current	63A
AC INPUT (UPS)	
Inverter connection	Three phase
Rated AC voltage/Range	380,400,415/342~440
Rated input voltage	230V/380V
Rated input frequency range	50~60HZ(± 0.3 HZ)

Max.Number of connection	2
Load output	
Load connection	Three phase
Rated AC voltage/Range	380,400,415/312~485
Rated output voltage	230V/380V
Rated output frequency range	50~60HZ(± 0.3 HZ)
Max.Number of connection	2
General	
Operating Temperature range	-25~60°C (45°C~60°C Derating)
Ambient Humidity	0-100%
Altitude	3000m
Protective Class	Class I
Overvoltage Category	III

Ingree Protective	IP54
Dimension	452mm*382mm*143mm
Weight	13.5KG
Warranty	5 years
Cetification	IEC62109-1/-2 EN61000



Contact US

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