



Solar Smart Micro Inverter MaySun Series User Manual



Tel : +86-18942450430

E-mail : mark@sunpvsolar.com

Web : www.sunpvsolar.com

Add : 4F, Block C, Keyuan 3 Road, Ronggui Town, Shunde District, Foshan City, Guangdong
Province

Foshan Sunpv Technology Co.,Ltd

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SAFETY PRECAUTIONS

WARNING! DANGER!

Read user manual before operating this equipment. Failure to do so can result in serious injury, property damage, and/or electrical shock.

- Use photovoltaic panel(s) ONLY connect to this equipment.
- This equipment is ON-GRID Microinverter, To make it work properly, it must be connected to the power grid correctly, and the power grid is working properly, When the power grid stopped working, it will also stop generating.
- Do not exceed PV panel(s) voltage over the inverter max input voltage.
- Do not exceed PV panel(s) power over the inverter max input power.
- DC voltage sources are pass through this equipment. Each circuit must be individually disconnected before servicing.
- Do not cover other items on this equipment.
- Do not disassemble the shell. Servicing must be performed by qualified service personnel.
- When PV array is exposed to light, it supplies DC voltage to this equipment.
- Install away from direct sunlight and direct rain exposure.



WARNING SIGNS

Use with caution and follow instructions carefully, failure to follow instructions may result in safety Hazards or lead to equipment failure.



HAZARD OF BURNS

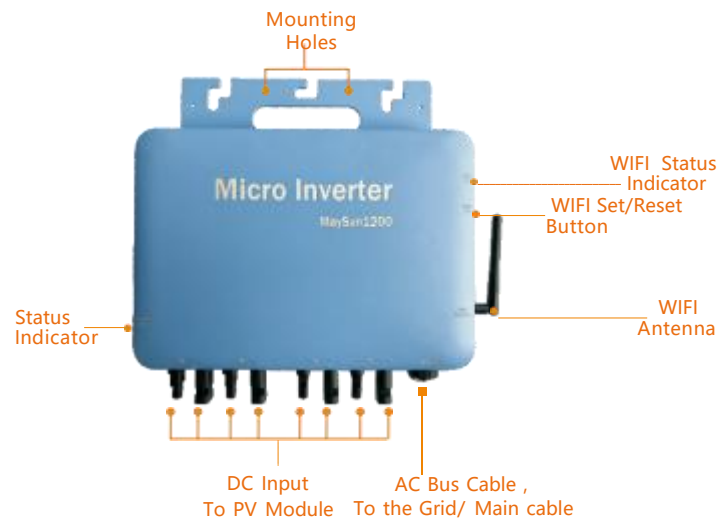
Use with caution and follow instructions carefully, if not follow instructions it will be have the hazard of burns. Note that the body of the microinverter is the heat sink, which can reach temperatures of 80°C under extreme conditions. To reduce the hazard of burns, do not touch.



SAFETY HAZARDS

Please install the inverter out of the reach of children to reduce the risk of electric shock and burns. Minors and mental patients are prohibited from using this product

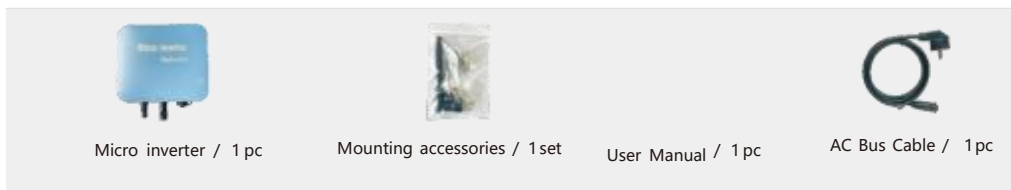
BASIC STRUCTURE



(Model : 1100/1200/1300/1400/1500W)



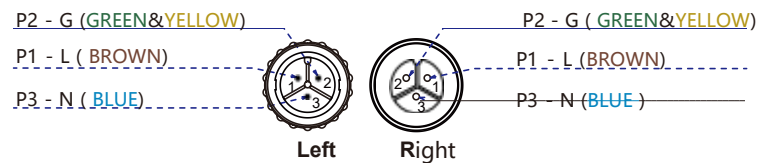
PACKING LIST



PRODUCT FEATURES

- MPPT(maximum power point tracking) , effectively track and lock maximum power output of solar panels.
- When the inverter track the maximum power point of the solar panel, it will automatically locked and with stable output.
- 4 independent MPPT (MPPT).
- standard MC4 input port , easy and safe installation.
- Integration AC output port.
- Pure sine wave output.
- anti-islanding protection function : inverter will automatically stop output when the utility grid off or fault.
- Over-temperature protection, short current protection and over-load protection.
- IP65 waterproof function.

AC Bus Cable And Connectors



PARAMETER TABLE

Model	MaySun300	MaySun350	MaySun400	MaySun450	MaySun500	
Input Data(DC, PV)						
Number of Input MC4 Connector	1 set					
MPPT Voltage Range	28V-55V					
Operation Voltage Range	20V-60V					
Maximum Input Voltage	60V					
Startup Voltage	20V					
Maximum Input Current	10A	11.66A	13.33A	15.33A	16.66A	
Output Data(AC)						
Single-Phase Grid Type	120V / 230V					
Rated Output Power	295W	330W	380W	430W	480W	
Maximum Output Power	300W	350W	400W	450W	500W	
Nominal Output Current	@120VAC	2.5A	2.75A	3.16A	3.58A	4A
	@230VAC	1.3A	1.43A	1.65A	1.86A	2.09A
Nominal Output Voltage	120VAC / 230VAC					
Default Output Voltage Range	@120VAC : 80V-160V / @230VAC : 180V-280V					
Nominal Output Frequency	50Hz / 60Hz					
Default Output Frequency Range	@50Hz : 47.5Hz-52.5Hz / @60Hz : 57.5Hz-62.5Hz					
Power Factor	>0.99					
Total Harmonic Distortion	THD <5%					
Efficiency						
Peak Efficiency	95%					
CEC Weighted Efficiency	@120VAC : 92.5% / @230VAC : 93.5%					
Nominal MPPT Efficiency	99.9%					
Night Power Consumption	<700mW					
Mechanical Data						
Operating Ambient Temperature Range	-40°C to +65°C					
Storage Temperature Range	-40°C to +85°C					
Dimensions (W x H x D)	18cm x 20.5cm x 4cm					
Weight	0.83kg					
Max Current of AC Bus Cable	20A					
Waterproof Grade	Ip65					
Cooling Mode	Natural Convection - No Fan					
Other Features						
Communication	WIFI With Cloud Monitoring					
Transformer Design	High Frequency Transformers, Galvanically Isolated					
Integrated Ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required.					
Protection Functions	Isolated Island Protection, Voltage Protection, Frequency Protection, Temperature Protection, Current Protection, etc.					
Design Compliance	CE RoHs etc.					

PARAMETER TABLE

Model	MaySun600	MaySun700	MaySun800	MaySun900	MaySun1000	
Input Data(DC, PV)						
Number of Input MC4 Connector	2 sets					
MPPT Voltage Range	28V-55V					
Operation Voltage Range	20V-60V					
Maximum Input Voltage	60V					
Startup Voltage	20V					
Maximum Input Current	2*10A	2*11.66A	2*13.33A	2*15.33A	2*16.66A	
Output Data(AC)						
Single-Phase Grid Type	120V / 230V					
Rated Output Power	580W	650W	760W	850W	950W	
Maximum Output Power	600W	700W	800W	900W	1000W	
Nominal Output Current	@120VAC	4.83A	5.41A	6.33A	7.08A	7.91A
	@230VAC	2.52A	2.82A	3.3A	3.69A	4.13A
Nominal Output Voltage	120VAC / 230VAC					
Default Output Voltage Range	@120VAC : 80V-160V / @230VAC : 180V-280V					
Nominal Output Frequency	50Hz / 60Hz					
Default Output Frequency Range	@50Hz : 47.5Hz-52.5Hz / @60Hz : 57.5Hz-62.5Hz					
Power Factor	>0.99					
Total Harmonic Distortion	THD <5%					
Efficiency						
Peak Efficiency	95%					
CEC Weighted Efficiency	@120VAC : 92.5% / @230VAC : 93.5%					
Nominal MPPT Efficiency	99.9%					
Night Power Consumption	<700mW					
Mechanical Data						
Operating Ambient Temperature Range	-40°C to +65°C					
Storage Temperature Range	-40°C to +85°C					
Dimensions (W x H x D)	21.5cm x 23cm x 4cm					
Weight	1.22kg					
Max Current of AC Bus Cable	20A					
Waterproof Grade	Ip65					
Cooling Mode	Natural Convection - No Fan					
Other Features						
Communication	WIFI With Cloud Monitoring					
Transformer Design	High Frequency Transformers, Galvanically Isolated					
Integrated Ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required.					
Protection Functions	Isolated Island Protection, Voltage Protection, Frequency Protection, Temperature Protection, Current Protection, etc.					
Design Compliance	CE RoHs etc.					

PARAMETER TABLE

Model	MaySun1100	MaySun1200	MaySun1300	MaySun1400	MaySun1500	
Input Data(DC, PV)						
Number of Input MC4 Connector	4 sets					
MPPT Voltage Range	28V-55V					
Operation Voltage Range	20V-60V					
Maximum Input Voltage	60V					
Startup Voltage	20V					
Maximum Input Current	4*9A	4*10A	4*10.8A	4*11.66A	4*12.5A	
Output Data(AC)						
Single-Phase Grid Type	120V / 230V					
Rated Output Power	1080W	1150W	1250W	1350W	1450W	
Maximum Output Power	1100W	1200W	1300W	1400W	1500W	
Nominal Output Current	@120VAC	9A	9.58A	10.41A	11.25A	12.08A
	@230VAC	4.69A	5A	5.43A	5.86A	6.3A
Nominal Output Voltage	120VAC / 230VAC					
Default Output Voltage Range	@120VAC : 80V-160V / @230VAC : 180V-280V					
Nominal Output Frequency	50Hz / 60Hz					
Default Output Frequency Range	@50Hz : 47.5Hz-52.5Hz / @60Hz : 57.5Hz-62.5Hz					
Power Factor	>0.99					
Total Harmonic Distortion	THD <5%					
Efficiency						
Peak Efficiency	95%					
CEC Weighted Efficiency	@120VAC : 92.5% / @230VAC : 93.5%					
Nominal MPPT Efficiency	99.9%					
Night Power Consumption	<700mW					
Mechanical Data						
Operating Ambient Temperature Range	-40°C to +65°C					
Storage Temperature Range	-40°C to +85°C					
Dimensions (W x H x D)	31.5cm x 29cm x 4cm					
Weight	2.42kg					
Max Current of AC Bus Cable	40A					
Waterproof Grade	Ip65					
Cooling Mode	Natural Convection - No Fan					
Other Features						
Communication	WIFI With Cloud Monitoring					
Transformer Design	High Frequency Transformers, Galvanically Isolated					
Integrated Ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required.					
Protection Functions	Isolated Island Protection, Voltage Protection, Frequency Protection, Temperature Protection, Current Protection, etc.					
Design Compliance	CE RoHs etc.					

INSTALLATION PROCEDURES

***Prior to installing the Microinverters, Please verify that the utility voltage at the point of common grid connection matches the voltage rating on the Microinverter label.**

Step 1 -

Attaching the Microinverters to the Racking.

- Mark the location of the Microinverter on the rack, with respect to the PV module junction box or any other obstructions.
- Mount one Microinverter at each of these locations using hardware recommended by your module racking vendor.

Step 2 -

Connecting the Microinverter AC bus cable one by one,

Step 3 -

Connecting Microinverters to the PV Module,

Please do NOT exceed PV panel(s) VOC over inverter max. input voltage.

Step 4 -

Double check all Microinverters, connectors and cables are correctly and well connected.

Step 5 -

Turn ON the main AC circuit breaker of utility-grid. Your system will start producing power after a 30secs safety delay period.

LED DISPLAY

1.Green light steady

=Microinverter in generating.

2. Red flash

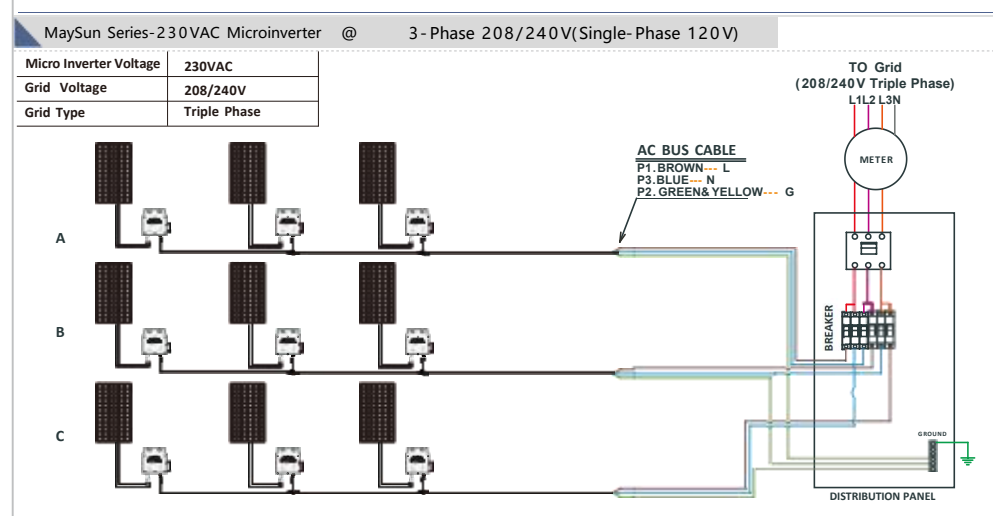
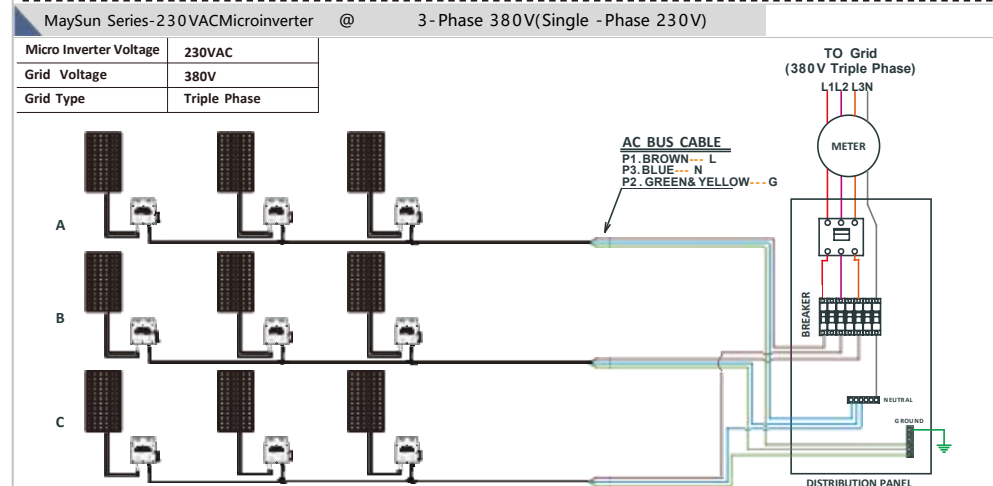
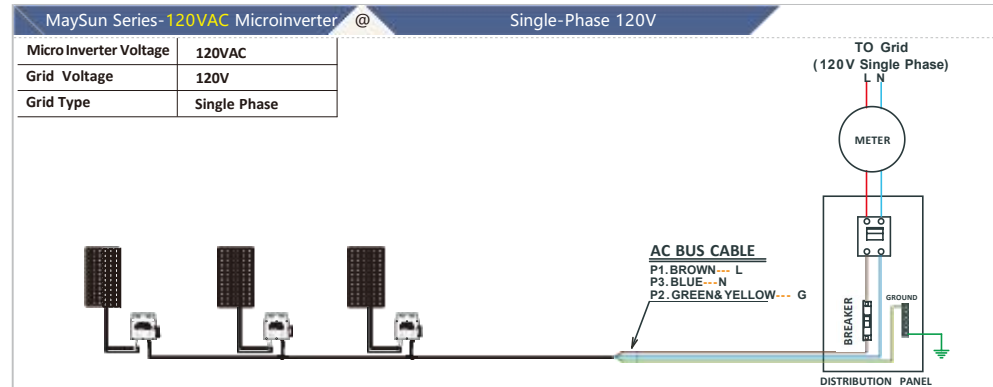
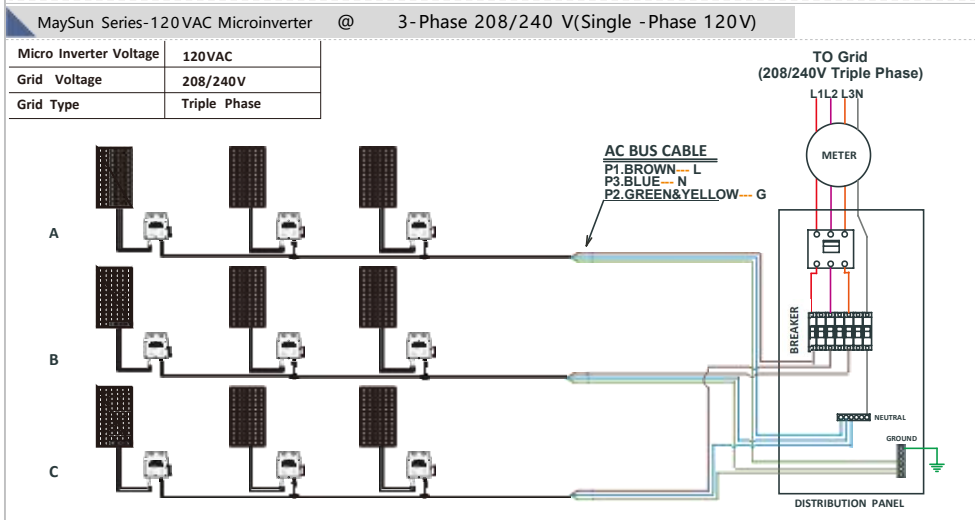
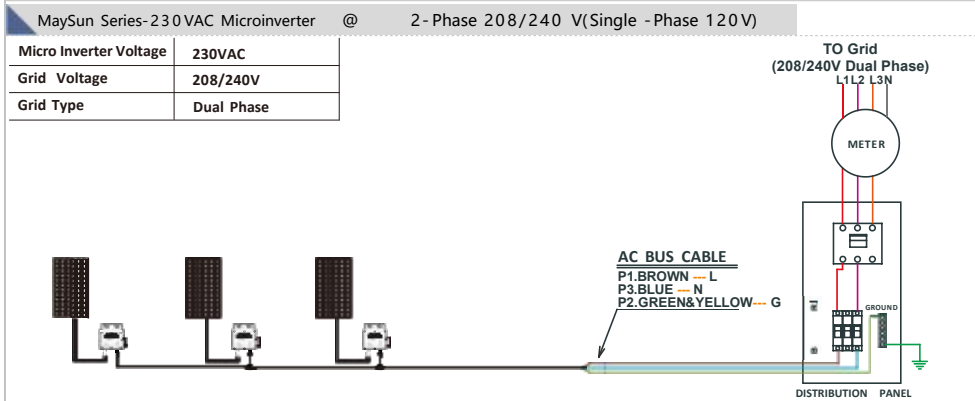
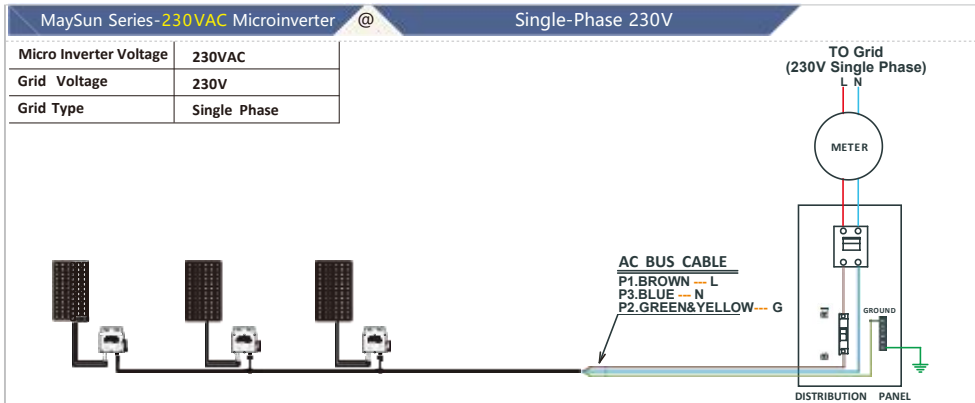
=Microinverter in waiting.

3.Red light steady

=

- Island protection.
- Over-temperature protection.
- Over / low AC voltage protection.
- Over / low DC voltage protection.
- Over / low AC frequency protection.
- Fault.

WIRING SCHEMATIC





Solar Smart Micro Inverter WIFI Cloud Monitoring User Manual

READ ME FIRST

** User manual subject to change without notice**

- Before configuring WiFi cloud monitoring, please correctly install the micro inverter and make it work normally.
- This micro inverter is a grid tie inverter. Please pay attention to the danger of electric shock.
- The micro inverter will generate heat during power generation. Please pay attention to high temperature scald.
- You must have a smart device (smart phone or tablet) with Bluetooth function and Android or IOS system.
- You must have a wireless network device (such as a wireless router) that can provide WiFi and Internet service.
- Please turn on the Bluetooth function of the smart device first before configuring WiFi cloud monitoring.
- Your smart device must use the same WiFi network as the micro inverter to be configured.
- Please install the WiFi antenna of the micro inverter before configuring and using WiFi cloud monitoring.
- Please ensure that the straight-line distance between the wireless network equipment (such as wireless router) providing WiFi network and the micro inverter shall not exceed 20m, and there shall be no or few obstructions.
- Please ensure that your smart device can connect to wireless network devices and access the Internet in the same location of the micro inverter.

Hardware Description



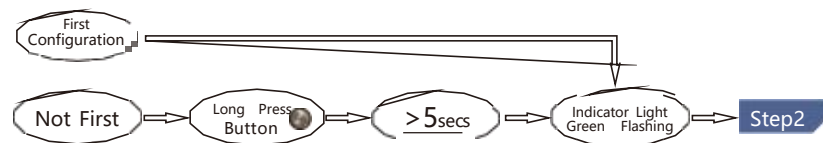
★ Preparation Before Configuration And Use

1. Please install the micro inverter correctly and make it work normally to generate power.
2. Please use a smart device (smart phone or tablet) to scan the right QR code (you can also use "Android App Store" or "Apple App Store" search for "Smart Life") download and install the "Smart Life" App correctly.
3. Turn on the Bluetooth function of your smart device.
4. Check that your wireless network device (such as wireless router) is working properly and connected to the Internet.
5. Use your smart device ("Smart Life" App installed) at the installation location of micro inverter to connect to the wireless network device and test if you can access the Internet normally. If you can access the Internet normally, please read the configuration and use steps on the next page to start configuration and use.



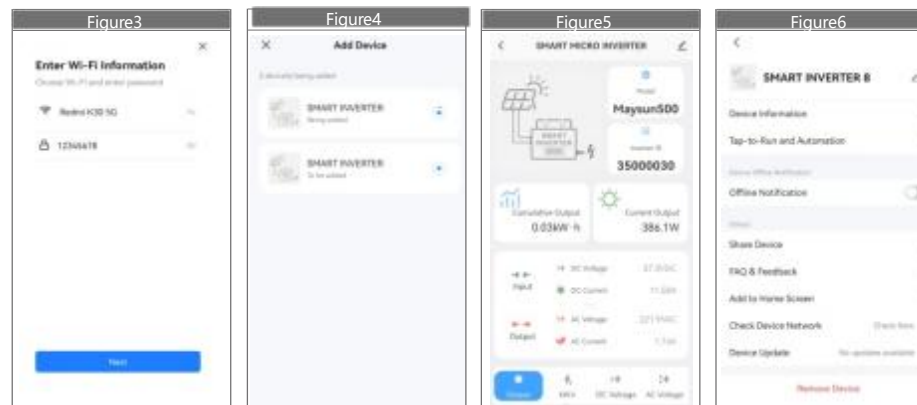
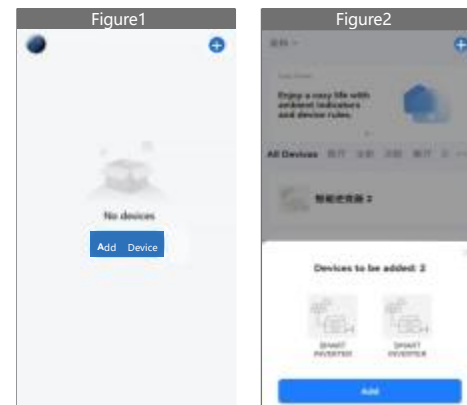
Configuration Steps Of WIFI Cloud Monitoring

Step1





Step2

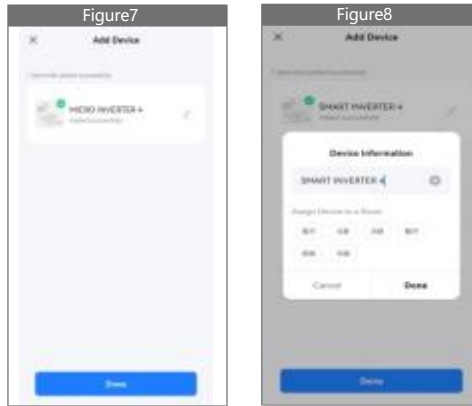
1. Turn on the Bluetooth function of the smart device and connect to WiFi at the installation position of the micro inverter .
2. Run "Smart Life" APP.
3. If it is the first time to add, click the "Add Device" button. If there are other inverters, click the "+" button in the upper right corner (Figure 1).
4. App will automatically scan and find all devices that in configuration status, After discovering the devices, click the "Add" button (Figure 2) and enter device network configuration page.
5. On the network configuration page (Figure 3), select the correct SSID of WiFi (same as your smart device) and input the WiFi password, and click the "Next" button.
6. App completes micro inverter addition and shows the list of micro inverters (Figure 4).
7. Click the newly added item of list, you can enter the device information details page (Figure 5), On this page, you can view the detailed status data of the device.




Usage Of WIFI Cloud Monitoring App

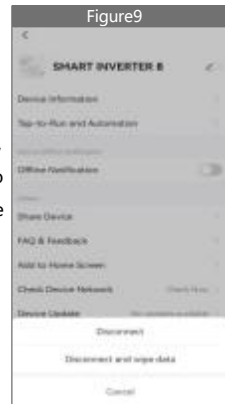
Modify Device Name

1. Click the device to be modified in the device list on the home page to enter the device information details page (Figure 5).
2. Click the button  in the upper right to enter the device setting page (Figure 6), Continue to click the upper button  to the page of name & position (Figure 7) click name item, then enter a new name and save it (Figure 8).




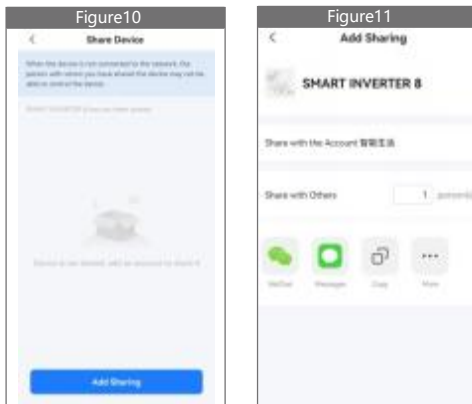
Remove Device

1. Click the device to be deleted in the device list on the home page to enter the device information details page (Figure 5).
2. Click the button  in the upper right to enter the device setting page (Figure 6), Click "Remove Device" button below (Figure 9), click the "Disconnect" button to remove the device or click the "Disconnect and wipe data" button to remove the device and clear all data saved by the device in the cloud at the same time.



Share Device With Others

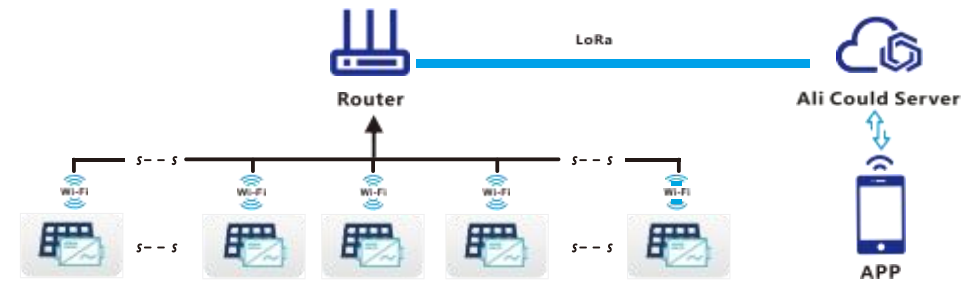
1. Click the device to be shared in the device list on the home page to enter the device information details page (Figure 5).
2. Click the button  in the upper right to enter the device setting page (Figure 6).
3. click the "Share Device" item to enter the device sharing page (Figure 10), click **Add Sharing** button to enter "Add Sharing" page (Figure 11), and select best sharing way that you think it is most convenient to share the link of micro inverter.










WIFI LED Display

1. The green light flashes after always on = the WiFi cloud monitoring module is waiting for configuration.
2. The green light off after always on = the WiFi cloud monitoring module starts and enters the normal working state.
3. The green light flashes = the network is not configured or the network cannot connect to the wireless network device, or the micro inverter has been deleted in the cloud.
4. No light = WiFi cloud monitoring is working normally.

Communication mode



-  CO-2 induced environmental analysis
-  Inverter temperature
-  Daily and total energy generation in kWh
-  Online switch for the inverter start stop
-  Actual DC input voltage, current and power
-  Historical (daily, weekly, monthly) power curve
-  Actual AC output voltage, current and power

★ Q&A

1. HOW TO DO when "Smart Life" App can't find the micro inverter to be added?
A: Please check the following points. If you still can't find it after all the checks are normal, please long press the reset button for more than 5 seconds to reset. After the WiFi indicator light flashes blue again, use "Smart Life" App to reconfigure the network.
 - ◆ Check if the WiFi status indicator of the micro inverter is in the "Green Flashing" state;
 - ◆ Check if the Bluetooth function of your smart device is turned on;
 - ◆ Check if the signal of the wireless network is good.
2. HOW TO DO if I have multiple micro inverters to configure?
A: Please install all micro inverters properly and make them work normally to generate power, and then operate according to the configuration and use steps. App can search all inverters to be added at one time and configure them at one time.
3. HOW TO DO if the SSID of my WiFi network is changed or the password is changed ?
A: Please reconfigure the inverter according to the configuration and use steps.
4. HOW TO DO if the WiFi status indicator of the inverter goes out, but the device displayed on the app is not online?
A: This means that you can connect to the wireless network device, but you can't connect to the cloud server. It means that your wireless network device can't connect to the Internet. Please check if your Internet is working properly.
5. The installation site of the inverter is temporarily not equipped with a router and no WiFi signal. How does App connect the inverter and detect if the inverter is working properly?
A: You can use an idle smartphone to open the WiFi sharing of mobile phone signal hotspot for connection, and reconfigure the network connection after installing the router.
6. There are multiple WiFi signals on site. Can we connect with different WiFi signals?
A: No, the WiFi connected of the micro inverter and the smart phone must be consistent before the network can be configured.
7. Can App configure the micro inverter in different places? Can I view data in different places?
A: You can't configure the micro inverter in different places, but you can view data in different places, The inverter uploads the latest status data to the cloud server every minute.
8. After checking that there is no problem, App still cannot find the micro inverter ?
A: Please press and hold the inverter button for more than 5 seconds to reset the inverter. After the WiFi indicator flashes again, use App to reconfigure the network.
9. HOW TO DO if I want to monitor the same inverter on two or more smart devices?
A: You can share the inverter with another phone using the share device feature.
10. Will App data be saved?
A: Yes, App data will be stored on cloud server. After the network is successfully configured, you can view the data at any time and place.
11. The inverter cannot be connected to the app at night?
A: At night, because the solar panel does not generate power, the micro inverter does not have any power input, so it will offline and it is impossible to re-configure the network at night.

PRE-SALE, SALES, AFTER-SALE FULL SERVICE



24-hour consultation service.

E-mail: mark@sunpvsolar.com

Pre-sale

According to the customer's needs and actual situation, recommend the best cost-effective products for customers. And at the same time, according to the customer's understanding of the products conduct a series of relevant basic knowledge training for customers and develop perfect system solutions for customers.

Sale

We will communicate with customers about the delivery time. When the product arrives customers, we will have corresponding service personnel to guide the installation service online. Guarantee that customers can use our products on the expected date.

After-sale

After products are delivered and accepted, the quality assurance period is five years. During the warranty period, if there is a quality problem, we will provide free maintenance services; after the warranty period, we provide lifetime paid repair and maintenance services, and provide accessories. We will conduct regular telephone return visits and on-site visits to customers, provide counseling and assistance to customers, so as to solve the problems by customers in use.