

目 录

About This Manual

Product Description

Operation Instruction

 Login Interface

 Remote Monitoring

 Account Registration

 Login via Account

 WLAN Configuration

 Home

 Create Plant

 Sharing and Deleting Plant

 Configuration

 Viewing Plant Information

 Device Initialization

 Cleaning Robot

 Viewing Fault Information

 More

 Firmware Download

 Smart IV Curve Diagnosis

 Live Data

WLAN Login (Near End)

 Login

 Function Overview

 Home

 Chart

 More

Bluetooth Login (Near End)

 Login

 Function Overview

 Home

 Run Information

 Records

[More](#)

[Appendix](#)

[Manual Description](#)

[Contact Information](#)

About This Manual

About This Manual

Target Group

This manual is intended for distributor/installer, end user, and O&M personnel of PV residential system, energy storage system, commercial system, and microgrid.

Symbols

NOTE indicates additional information, emphasized contents or tips to help you solve problems or save time.

Introduction

This manual mainly describes how to install, configure, and operate the iSolarCloud App.

Screenshots in this manual are based on the iSolarCloud App V2.1.6.20221019. All icons and data displayed are for reference only, and the actual screens may differ.

Operation method is described by using the iOS system as an example. The method for the Android system is the same, except that the screens are somewhat different. The actual screens prevail.

Product Description

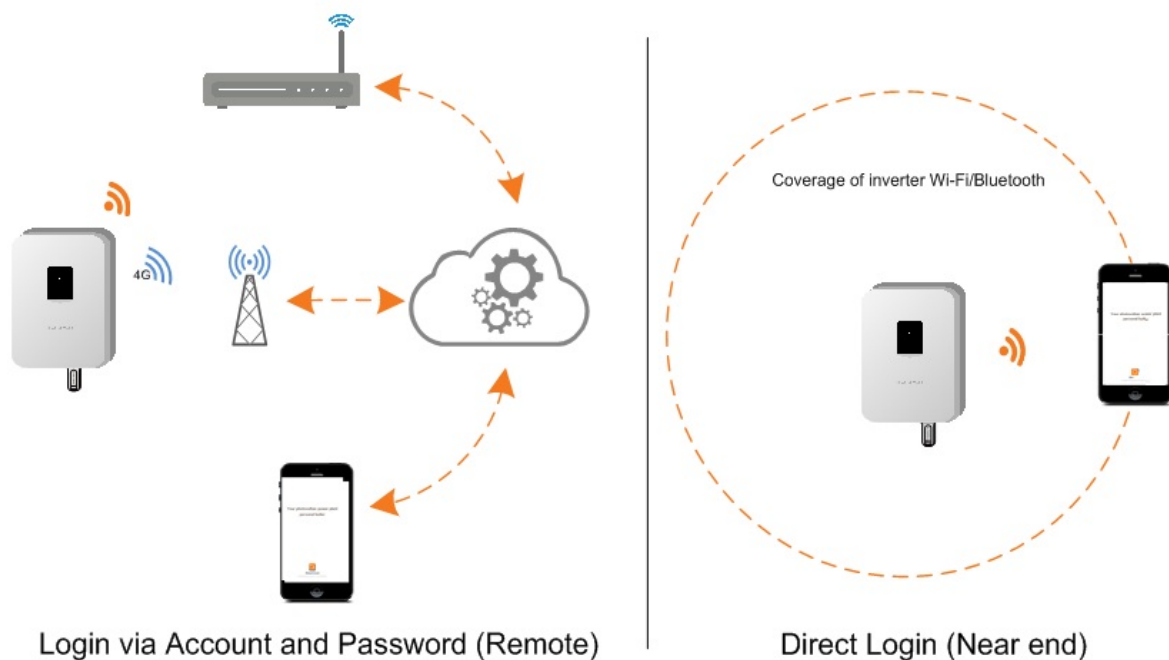
Product Description

App Introduction

The iSolarCloud App is a mobile application used for managing PV plants. The App can provide power plant operation analysis and mobile intelligent O&M services. It is designed with functions such as display of plant operation data, rapid plant access, remote parameter setting, quick fault positioning and notification, and power generation and revenue analysis, achieving convenient and efficient end-to-end operation and maintenance.

Networking Modes

Users can monitor plant device information either remotely or locally via the App.



Login via Account and Password (Remote)

Establish communication connection between the communication module and home router or base station, so that the inverter can communicate with cloud server. The users can view inverter data or send instructions to control the inverter through the App.

Direct Login (Near end)

Establish communication connection between the mobile phone and WiFi wireless communication module or Bluetooth module integrated into the inverter, achieving near-end maintenance on the inverter. The users can view inverter information and set parameters through the APP.

Bluetooth login is only applicable to SUNGROW inverters with built-in Bluetooth module. For whether the inverter is equipped with the Bluetooth module, consult the distributor/installer.

App Installation

This section introduces how to download and install the iSolarCloud App.

Prerequisites

- Mobile phone operating system: Android 5.0 or later; iOS 11.0 or later.
- The mobile phone can be normally connected to WLAN or 2G/3G/4G network.
- The mobile phone has sufficient memory space for App installation.
- The mobile phone has sufficient battery power.

Procedure

1.Download the iSolarCloud App from Myapp (Android mainland China users), Google Play (Android users outside mainland China), or APP Store (iOS users). Alternatively, scan the following QR code and follow the instructions on the screen to download the App.



2.Select the downloaded installation package and follow the instructions on the screen to complete the installation. After installation, the iSolarCloud icon will be displayed on the mobile phone screen.



iSolarCloud

Operation Instruction

Operation Instruction

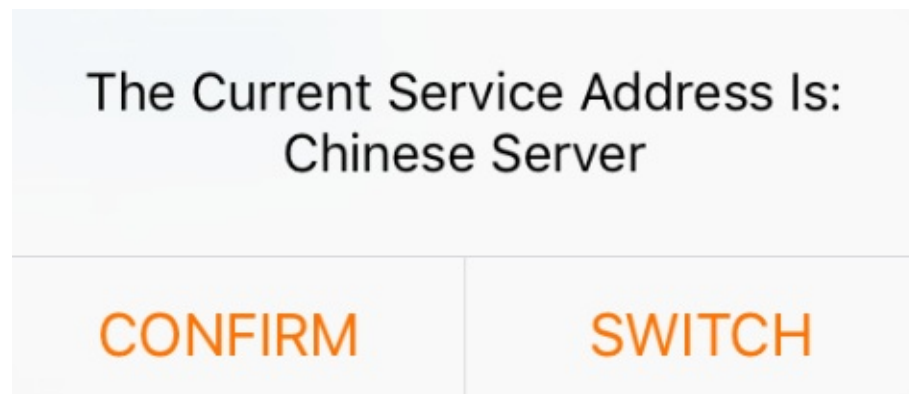
Images in this manual are for reference only, and the actual screens may differ.

Login Interface

Login Interface

Server Setting

When you first access the App, a server selection box will pop up. Tap “Confirm” to connect the current address displayed on the screen, or tap “Switch” to select another one.




It is recommended that mainland China users select “Chinese server”, European and African users select “European server”, Australian users select “Australian server”, and users in the other regions select “International server”.


The service address accessed by the App must be the same as that accessed by the Logger, and c

Users can switch the service address according to demands.

Procedure

1. Tap the icon  in the upper right corner of the login screen.
2. Tap “Select server”.
3. Select the corresponding service address.

Help

Tap the button  in the upper right corner of the login screen to view the corresponding user manual, FAQs, terms of service, etc.

Remote Monitoring

Remote Monitoring

This section describes how to register an account, log into the iSolarCloud App via the account and password, view plant information and set plant parameters.

Account Registration

Account Registration

Introduction

The account distinguishes two user groups end user and distributor/installer.

The end user can view plant information, create plants, set parameters, share plants, etc.

The distributor/installer can help the end user to create plants, manage, install, or maintain plants, and manage users and organizations.

Procedure

1. Tap “Register” to enter the registration screen.

2. Select “End user” or “Distributor/installer” to enter the corresponding screen.

Select "Chinese server", only distributor/installer is allowed to register.

Select "International server", "European server", or "Australian server", end user and distributor/installer are allowed to register.

3. Fill in the registration information, including select server, email or phone number, verification code, password, confirm password, country (region), and time zone. The distributor/installer further has the permission to fill in the company name and the code of upper level distributor/installer.

Select "Chinese server", phone number is allowed to register.

Select "International server", "European server", or "Australian server", email is allowed to register.

4. Tick “Accept privacy protocol” and tap “Register”, to finish the registration operation.

- Mainland China users select “Chinese server”, European users and African users select “European server”, Australian users select “Australian server”, and the other users select “International server”.
- The code of upper level distributor/installer can be obtained from the upper level distributor/installer. Only when your organization belongs to the upper level distributor/installer organization, can you fill in the corresponding code.
- When the country (region) is set to Brazil or Mexico, the field code of upper level distributor/installer must be filled in.

Login via Account

Login via Account

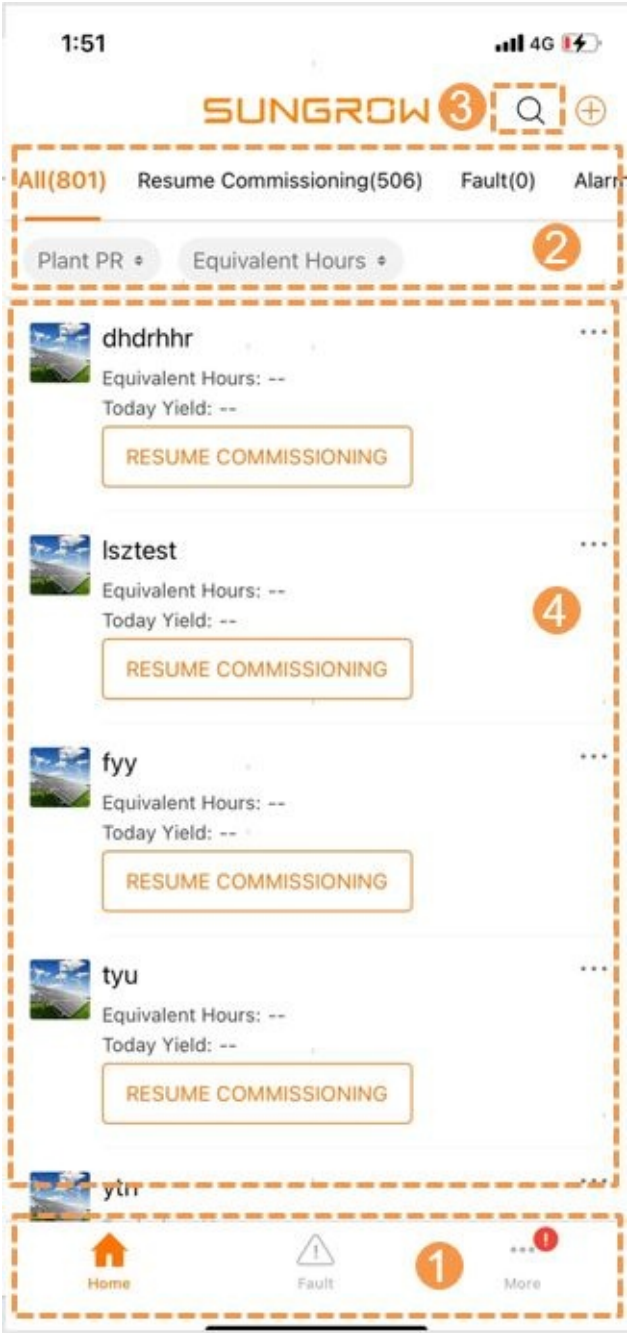
This section describes how to log into the iSolarCloud App.

Prerequisites

- The iSolarCloud App has been installed.
- You have already registered an account or have got the account and password from the distributor/installer or SUNGROW.

Procedure

1. Enter the account and password on the login screen.
2. Tap “Login” to enter the home screen.







1. Navigation bar 2. Plant status bar 3. Search bar 4. Plant information list

Description of home screen

- Navigation bar

Navigation bar	Description
Home	The plant list shows plants created and plants shared to others. Users can create plants, share plants, view plant information and set plant parameters on this screen.
Fault	Tap “Fault” to view fault types and detailed fault information.

More	Tap “More” to perform operations such as WLAN configuration, local access, and personal setting.
------	--

- Plant status bar
 - View plant status information such as number of plants, number of faults, number of alarms, number of offline devices, etc.
 - View plant status indicator information such as plant PR, equivalent hours, etc. Tap  to reorder the plant information list.
- Search bar
 - Tap  to search plants by manually entering the plant name or device S/N.
 - Tap  and  to search the device by scanning the QR code.

WLAN Configuration

WLAN Configuration

The WiFi or WiNet-S module can be connected to the home network, so that the inverter can communicate with the iSolarCloud server. Users can view inverter data or send instructions to control the inverter through the App.

Prerequisites

- You have already got the account and password from the distributor/installer or SUNGROW.
- The inverter has been connected with the WiFi or WiNet-S wireless communication module researched by SUNGROW.
- You have got the WLAN name and password of the home network.

Procedure

1. Enter the account and password on the login screen and tap "Login", to enter the App home screen.

2. Tap "More" on the navigation bar to enter the corresponding setting screen.

3. Tap "WLAN Configuration" to enter the corresponding interface, and scan the QR code on the wireless communication module.

4. Follow the page prompt to connect the mobile device to the inverter WLAN or home network. For Android users, tap "Settings" to enter the wireless network page. For iOS users, tap "Setup" -> "Wireless LAN".

- WiFi module: Select the inverter WLAN named as "SG - WiFi module SN". The WiFi module SN can be obtained on the side of the WiFi module.
- WiNet-S module: Select home network and enter home network password.




5. When the mobile device is connected to the inverter WLAN or home network, tap “Next” at the bottom of the page.

- When the communication module is WiNet-S, complete the WLAN activation according to the page prompt. And then tap “Next”.

6. WLAN Configuration

- WiFi module: Tap the home network WLAN, enter the password, and tap "Complete".
- WiNet-S module: Enter the home network password, and tap "Complete".

7. The connection is successfully established if a tick “√” appears on the page. Tap “Complete” to end the WLAN configuration.

Alternatively, you can tap the icon  (http://base.isolarcloud.com:8181/uploads/202102/0981bc2f05e288fc608ce11f9b9271ab.jpg) in the upper right corner on the login screen and select WLAN configuration to configure the WLAN.

Disconnect the mobile phone from the inverter WLAN to ensure the phone can normally access the Internet. Then connect the mobile phone to the home network, or enable the "Mobile data".

Home

Home

Create Plant

Create Plant

This section describes the procedure of creating plants through the App.

The plant creation screen may slightly vary with plant type, inverter type, and communication device. For details, refer to the actual screen.

Prerequisites

- You have already got the account and password from the distributor/installer or SUNGROW.
- The inverter is normally connected to the communication device researched by SUNGROW.


Introduction

The end user assigns the plant to the distributor/installer for management and gets the distributor/installer code from the distributor/installer.



The distributor/installer who creates a plant for the end user needs to get the end user's e-mail address.






In creating a plant, the e-mail address is required, and each e-mail address can be registered only once.

Procedure

If there is no plant in the account, tap "Create Plant". If there is a plant in the account, tap  to enter the "Create Plant" interface.

Fill in Basic Plant Information

Parameter name	Description
*Plant name	The plant name is the device SN by default
*Plant type	Tap  to select corresponding plant type
*Installed power (kWp)	Enter the installed power
*Country (region)	Tap  to select the country (region) of the plant

*Time zone	Tap  to select the time zone of the plant
*Plant address	The plant address can be added in two ways: Manual entry: enter the plant address manually in the input box; Automatically access: tap  to get the current location or search the plant address automatically.
*Grid-connection type	Tap  to select the grid-connection type of the plant
Grid-connection date	Tap  to select the grid-connection date
*Owner email address/phone number	Enter the owner's email address or phone number
Postcode	The postcode where the plant is located
Plant picture	Tap  to upload the plant picture
Feed-in tariff and consumption tariff	<ol style="list-style-type: none"> 1. Enter the feed-in tariff 2. Tap "More configurations": <ol style="list-style-type: none"> a. Enter the tariff unit b. Enter grid tariff or turn on time-of-use tariff and fill in the grid tariff in different time segments

Note:

1. *indicates required fields.
2. The time zone of the plant and the plant address are automatically obtained when "Creat Plant" is tapped.

Add Communication Device

1. Scan the QR code on the communication device or identify the QR code picture. Tap "Confirm" to add the device.
2. Select a communication device type and view the serial number of the device in the lower part of the interface. Manually enter the S/N of the communication device and click "Confirm" to add the communication device.

System Debugging

When the communication device is successfully added, the device interface is displayed by default.

- If the communication device is WiNet or WiFi, perform the following steps.

Network Configuration

Tap “System Debugging” in the lower left corner of a device to enter the system debugging interface, on which the network configuration and grid-connection debugging can be accessed.

- If the communication device is WiNet:

Tap “Network Configuration”. If the mobile device (such as a mobile phone) is connected to a non-communication device network, the Easyconnect interface is displayed. If the mobile device is connected to a communication device network, the WLAN direct connection interface is displayed:

- WLAN


- Easyconnect

(1) The prompt “Activate EasyConnect” pops up. Tap “Activated”.

(2) Enable WLAN of the mobile phone and connect it to the home network in network list and return to iSolarCloud App.

(3) If the mobile device runs iOS, enter the home network name and password, and tap “Connect”; If the mobile device runs Android, tap a home network in the WLAN list, enter the password, and tap “Confirm”.

(4) If the network is configured successfully, the waiting processing interface is displayed. After processing, the system debugging interface is automatically displayed.

(5) When  appears on the left of “Network Configuration”, the network is successfully configured.


(6) If the network configuration fails:

a. Tap “Try Again”.

b. Tap “WLAN Direct Connection” to connect the mobile phone to the network of the communication device. After connection, access the WLAN direct networking.

- WLAN Direct Connection

(1) Tap the home network in the WLAN list. After connection, the waiting process interface is displayed. Then the system debugging interface is displayed when processing finishes.


(2) When  appears on the left the “Network Configuration”, the network is successfully configured.

- Ethernet

(1) Tap “Ethernet Connection” in the lower left corner of the interface. The interface displays “Activate hotspot”. Tap “Next”.

(2) The interface prompts to connect the mobile device to the WLAN of “SG-Communication Module SN”. After connection, the prompt of successful connection is displayed on the App interface. Click “Next”.


(3) Fill in the relevant information, including automatically obtain IP settings (DHCP), subnet mask, IP address, default gateway, DNS1 and DNS2, and then tap “Confirm” to return to the system debugging interface.


(4) When  appears on the left the “Network Configuration”, the network is successfully configured.

- If the communication device is WiFi:

(1) When the communication device is successfully added, the device interface is displayed by default. Tap the “System Debugging” at the bottom left corner of the individual device to enter the corresponding interface.

(2) Tap the “Network Configuration”, and a pop-up prompt that iSolarCloud asks to connect to device “SG-Communication Module SN” for system debugging is displayed. Agree the request and select the home network.

(3) Tap the home network in the WLAN list. After connection, the system debugging interface is displayed. Tap  to refresh the WLAN list.

(4) When  appears on the left the “Network Configuration”, the network is successfully configured.

When the network is successfully configured, grid-connection debugging button can be tapped.

Grid-connection Debugging

(1) Tap “Grid-connection Debugging”.

(2) If there is no latest device installation package in the system, skip to step 6 directly. If the latest device upgrade package is available in the system, a pop-up prompt appears with the following content:

iSolarCloud provides important upgrades for the device.

Note: Please make sure the DC side is powered on when upgrading.

(3) Enable WLAN of the mobile phone and connect it to the home network in network list and

return to iSolarCloud App.

(4) Tap "Update Now".

(5) When the communication device is updated, connect the mobile phone to the WLAN of "SG-Communication Module SN" according to the prompt.

(6) After upgrade, the version number of the package before and after the upgrade and the upgrade time are displayed on the interface. Tap "Next" to enter the initialization interface.

(7) Set the initialization protection parameters according to the actual needs. Save the settings and return to the system debugging interface.

The parameter "country (region)" must be set to the country (region) where the inverter is located. Otherwise, the inverter may report errors.

(8) When  appears on the left of the "Grid-connection Debugging", the initialization parameters are successfully set.

(9) Tap "Complete" when the connection of the communication device, the network configuration and the grid-connection debugging are finished. Return to the App home page to view the plant information.

The "User Review" interface is displayed when the plant is created or the creation is suspended. Tap to enter the corresponding interface.

- If the communication device is "EyeM4" or "Logger1000":


Network Configuration

When EyeM4 and Logger1000 use the data card, the following operations are not necessary.

(1) When the communication device is successfully added, the device page is displayed by default.

(2) Connect the mobile device to the WLAN of the "SG-Communication Module SN".

(3) Open the browser and enter the webpage <http://11.11.11.1>

(4) Tap  > "Login", and enter the password to log in.

(5) Tap "System"> "Port Parameter"> "WLAN", enable the WLAN, and connect the device to a nearby WLAN. The prompt of successful connection is displayed when the connection is completed.

(6) Return to the App.

Grid-connection Commissioning

(1) The network configuration is completed.

(2) Tap the “Not Configured” at the upper right corner of the device.

If the device has been initialized, there is no “Not Configured” button at the upper right corner of the device.

(3) Set the initialization protection parameters according to the actual needs. Save the settings and return to the device list.

The parameter "country (region)" must be set to the country (region) where the inverter is located. Otherwise, the inverter may report errors.

Intelligent Networking

(1) The grid-connected Commissioning is completed.

(2) Tap “Complete”. The device will be intelligent networking automatically. The optimizer and layout display may be abnormal during the intelligent networking. You can tap “Background Operation” to continue using other service.

(3) Intelligent networking succeeded. Tap “Confirm”.

Note: This function is only applicable to power plants with optimizers.
If there is a hybrid inverter in the plant, it is necessary to keep the status of the hybrid inverter as "Self-Consumption" before performing intelligent networking (For details, see "Operation Instruction-Remote Monitoring-Viewing Plant Information-Device Information").

Sharing and Deleting Plant

Sharing and Deleting Plant

This section describes how to share and delete plants.


Plant sharing

End user can assign plants to other end users or distributor/installer for management.

Prerequisites

The end user has the permission to share plants, but the distributor/installer does not have the permission.

Procedure

1. Select the to-be-shared plant on the home screen, and tap the icon  on the right of the plant.
2. Tap "SHARE" to enter the "SHARE PLANT" screen.
3. Tap "ADD Share" to enter the corresponding screen.

Description of sharing permission

Type	Permission	Description
Designated user	Browser	User can only view plant data
Designated user	Administrator	User can manage plant
Visitor	Browser	Visitor can only view plant data

4. Tap "Confirm", after which the added new information will be displayed on the plant sharing screen.


Plant deletion

Delete the plant when it is connected abnormally or the corresponding onsite plant has been shut down.

Prerequisites

End user has the permission of deleting plants, and distributor/installer can delete plants assigned to the distributor/installer for management.

Procedure

1. Select the to-be-deleted plant on the home screen, and tap the icon  on the right of the plant.
2. Tap "DELETE".
3. Select "STILL DELETE" on the pop-up window.
4. Tap "CONFIRM DELETE" to delete the selected plant.

Configuration


Configuration

This section describes plant configuration, device configuration, device replacement, tariff configuration and smart IV curve diagnosis.

Plant configuration

You can set plant name, plant type, etc.


Procedure

1. Tap a plant listed on the home screen to enter the plant detail screen.
2. Tap the icon  in the upper right corner of the detail screen, to enter the “Configuration” screen.
3. Select “Plant” to enter the corresponding screen.
4. Fill in the plant information.

Description of plant parameters

Parameter	Description	End user	Distributor/installer
Plant name*	Name of the plant	√	√
Plant type*	Type of the plant including residential PV plant, residential energy storage plant, commercial PV plant, and microgrid	√	√
Battery type**	Type of the battery including lithium battery and lead-acid battery	√	√
Battery capacity**	Capacity of the battery	√	√
Distributor/installer code***	Fill in the distributor/installer code, so that the distributor/installer can view and manage the plant.	√	√

Owner's phone or Owner's email*	The first time you fill in the end user's mobile phone number, the system will create an account for the end user and send a text message to the end user. The Distributor/installer creates plants for the end user and can manage the plants by default.	×	√
Channel/Partner	Assign plants to other channel/partner for management. Refer to the "Plant sharing" chapter to set sharing permissions.	√	√
Power installed	Installed power of PV modules	√	√
Creation date	Time of constructing the plant	√	√
Grid-connection date	Time at which the plant starts feed-in operation	√	√
Grid-connection type	Type of grid-connection including 100% feed-in, self-consumption, surplus electricity feeds to grid, zero export and off-grid	√	√
Time of connection	Time at which iSolarCloud starts to monitor the plant	√	√
Image	Upload plant picture	√	√
Country (region)*	Country (region) where the plant is located at	√	√
Plant time zone*	Time zone of the plant	√	√
Plant zip	Zip code of the place where the plant is located	√	√
	Location of the plant, which can be added in two		

Plant address*	manners. Manual input: enter the plant location manually. Automatic obtaining: tap the icon  to automatically obtain current location or search for plant location, and tap "Confirm".	√	√
Delivery zip	Zip code of the place of the receiver	√	√
Delivery address	Address of receiver	√	√

Note: * indicates fields that must be filled in.

** applicable only to residential energy storage plant and microgrid.


*** indicates fields that must be filled in for distributor/installer.

5. Tap "Confirm" in the lower part of the screen to finish the plant configuration.

Equipment configuration

You can add or delete communication devices on the device configuration screen.


1. Tap a plant listed on the home screen to enter the plant detail screen.

2. Tap the icon  in the upper right corner of the detail screen, to enter the "Configuration" screen.

3. Select "Device" to enter the corresponding screen.

4. Perform the following operations according to actual conditions.

- Add device

1. Tap the icon  in the upper right corner of the screen.


2. Scan the QR code on the communication module or manually input the serial number of the module. Tap "Confirm" after the QR code is recognized or the serial number input is correct.

3. Tap "Confirm" to finish the adding operation.


It takes 1 to 10 minutes to establish communication connection after the communication device is added. The n

- Delete device

1. Select a to-be-deleted device, swiping left (iOS) or pressing and holding (Android).


2. Tap the icon  (iOS) or “Delete” (Android), to delete the device.

- Querying device

1. Tap the icon  in the upper right corner of the screen.

2. Enter device name or S/N to view the corresponding devices.

- Modify device name

1. Tap the icon  next to the device name.

2. Modify the device name and tap “Confirm”.


Device replacement

If plant device is faulty or it has been replaced on site, perform device replacement through the App.

You can replace communication device or inverter on the device replacement screen.

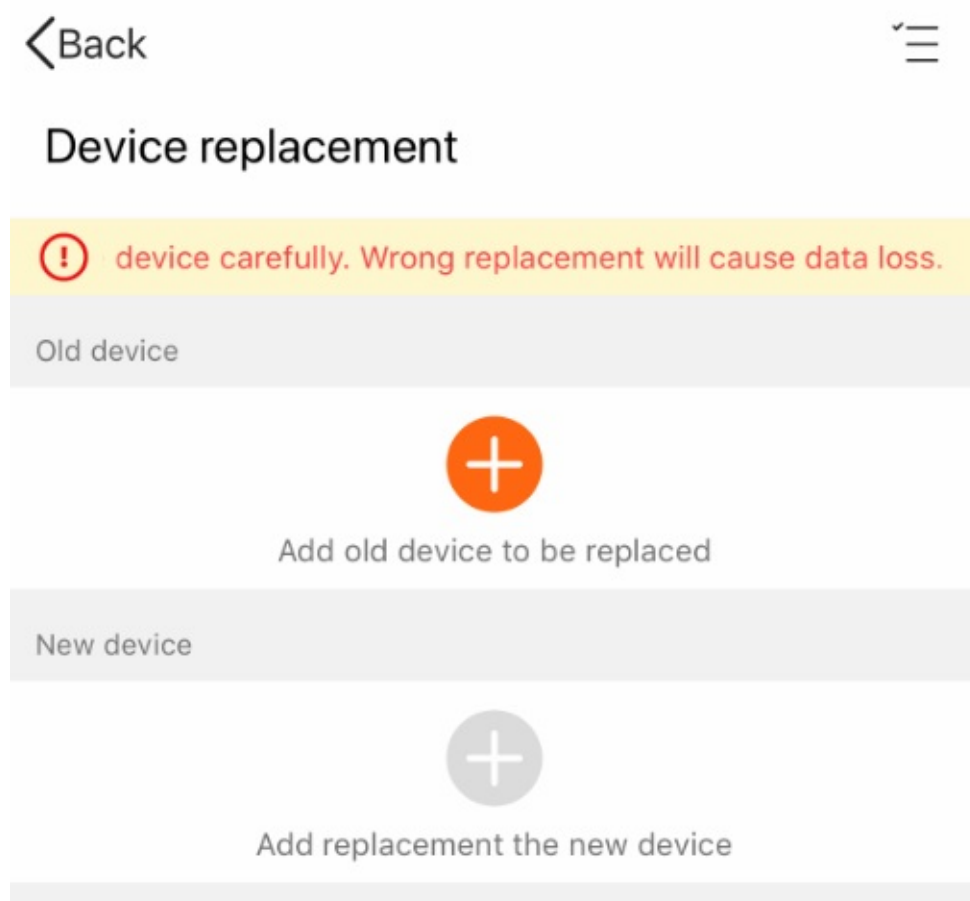
Procedure


1. Tap a plant listed on the home screen to enter the plant detail screen.

2. Tap the icon  in the upper right corner of the detail screen, to enter the “Configuration” screen.


3. Select “Device replacement” to enter the corresponding screen.


4. Tap “Continue”.



5. Tap the icon  under “Old device” to enter the “Add old device” screen. You can add old devices in the following two manners:

- Switch the “Communication device” tab and “Inverter” tab, and select desired to-be-replaced device from the device list under corresponding tab.
- Enter the inverter name or communication device serial number into the searching box.

6. Tap the icon  in the upper right corner of the screen after selecting the to-be-replaced device, so as to successfully add the device.

7. Tap the icon  under “New device” to enter the “Add new device” screen.

8. Scan the QR code on the communication module or inverter, or manually input the serial number of the device, to add the new device.


9. Tap “Start replacement” after confirming that the old device and new device are desired ones. Device replacement is completed once the instruction delivered successfully.

When replacing an inverter, you can tick "Power generation compensation to new device", so that the total power

Tariff

Tariff is used for revenue calculation. This section describes how to set specific electricity price and TOU tariff.

Procedure

1. Tap a plant listed on the home screen to enter the plant detail screen.
2. Tap the icon  in the upper right corner of the detail screen, to enter the "Configuration" screen.
3. Select "Tariff" to enter the corresponding screen. The electricity price can be set to a specific value or Time-of-Use tariff.
 - Set electricity price
 - a. Select a price unit.
 - b. Enter the feed-in price and consumption tariff according to actual conditions, and tap "Confirm".
 - Set Time-of-Use tariff
 - a. select a price unit.
 - b. Turn on the feed-in price and consumption tariff switches as you need.
 - c. Tap "ADD TIME SEGMENT", enter unit price, set start time and end time, and click "CONFIRM".
 - d. Optionally, repeat the foregoing step to set Time-of-Use tariffs for multiple time segments within a day.
 - e. Tap "Other time" and enter unit price for other time segment.
 - f. Tap "Confirm".


Tap the time segment to enter the "EDIT TARIFF" screen, on which you can modify and delete Time-of-Use tariff.

Time-of-Use tariff should cover 24 hours and be different in each time segment.

Smart IV Curve Diagnosis

Scan PV module IV curve in online manner, automatically locate faulty PV modules through the diagnostic algorithm analysis, and generate diagnostic reports and O&M advice, etc. thereby greatly improving O&M efficiency and power generation.

Procedure

1. Tap a plant listed on the home screen to enter the plant detail screen.
2. Tap the icon  in the upper right corner of the detail screen, to enter the "Configuration" screen.

3. Select “Smart IV Curve Diagnosis” to enter the corresponding screen, on which you can perform unit level scanning and inverter level scanning (See “Operation - Remote Monitoring - Smart IV Curve Diagnosis”).

Viewing Plant Information

Viewing Plant Information




This section describes how to view power generation information and information of plant devices.


Parameters displayed may vary with plant types, and actual screens prevail.

Description is given by using residential PV plant as an example.

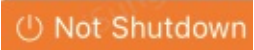

Plant Information

1. Tap a plant listed on the home screen to enter the plant detail screen.
2. Tap “Overview” tab to view power generation information of the plant.

Parameter	Description
Power flow chart	<p>Including information such as PV power generation power and feed-in power, where the line with an arrow indicates energy flow between connected devices, and the arrow pointing indicates energy flow direction.</p> <p>If the current user has permission for the live data function, the following statuses can be viewed:</p> <p> : live data synchronization in progress;</p> <p> : live data is being enabled;</p> <p> : device is offline or faulty, and the live data can not be enabled.</p>
Real-time power	Present output power of all inverters in the plant
Installed power	Installed power of PV modules
Today yield	Today power yield of all inverters in the plant
Total yield	Accumulative power yield of all inverters in the plant
E-use today	Display the electricity consumption of the plant today
Cumulative electricity	Display the cumulative electricity consumption of the plant

consumption	
Today revenue	Today's revenue
Total revenue	Total revenue
Power generation chart	Including daily, monthly, and annual power generation histograms
Weather	Weather of today, tomorrow, and the day after tomorrow
Energy Conservation and Emissions Reduction	Including information such as CO2 emission reduction, equivalent trees planted, and save standard coal. Click the icon  to view the calculation standards for energy conservation and emissions reduction of PV power generation


Quickly Shutdown

1. Click  in the upper right corner to remotely shut down the plant, after that the inverter will stop generating power.
Note: This function is only applicable to power plants with optimizers.
2. To start the inverter again, click  in the upper right corner. Before remotely starting, ensure that the cable connection is normal and no personnel is working on site. Select "No personnel are working on site" and click "Continue to Start".

If the inverter is in an emergency stop status, it can only be started manually on site and cannot be started remotely.


Layout Template


On the "Home" interface, click a plant name in the plant list, and click the "Layout" tab to view and set the layout information of optimizers in the plant.

Note: If there is  on the top right corner of a plant on the "Home" interface, the optimizer is installed in the plant. If there is no optimizer in a plant, there is no "Layout" tab.


- Publishing Layout


- 1) Click "Complete Them Now" to enter the "Layout Settings" interface.


- 2) Click  at the bottom of the interface to set the optimizer layout information.


- 3) Click “Generate From Image” to enter the corresponding interface.
- 4) Click the plus button to upload the layout template picture as required.
- 5) Click “Start Recognition”, and click “Continue” to enter the “Layout Settings” interface if the “Recognition Results” interface pops up.
- 6) Check whether optimizers are all uploaded. If some QR codes are not recognized, you can set the layout by adding modules manually. Click  at the bottom of the interface, click “PV Module”, and fill in information as guided. After the PV module is added, click the module, click “Bind” in the bottom left corner of the interface, and select the corresponding optimizer to complete the binding. If a module and an optimizer are wrongly bound, click “Unbinding” or “Delete” to make changes.
- 7) Click “Logic” at the bottom of the interface to set the logical layout of the plant as guided. First, select the inverter and strings to set, click or slide the corresponding modules according to the actual wiring order of optimizers, and then click “String Together”. If modules are connected wrongly, click the module and click “Clear” at the bottom of the interface to clear the short codes of the current string and all subsequent strings.
- 8) After the layout is set, click “Publish” at the top right of the interface to finish setting the optimizer layout.

- Viewing Layout and Other Information

1) Click  on the top left of the interface, and select Physical Layout/Logical Layout to view the relevant layout of the plant.

2) Click  on the top right of the interface, and select Daily Yield/Monthly Yield/Annual Yield/Total Yield/Power to view the corresponding information of the module that has an optimizer bound to it in the layout.

3) Click  on the right of the interface to check the binding status and SN of inverters and optimizers in the plant.

4) Click  on the right, select a module, click “Curve” to view the power generation information.

5) Click a module on the interface to view the device information and operation data information of the optimizer.

6) Select the inverter icon and click “Information” at the bottom left to view the information about the inverter. See the “Device Information” section for details. Click “Quick Shutdown” below to shut down the inverter remotely, after which the inverter will stop generating power. Click

“Settings” to set the parameters of the inverter and the optimizer connected to it.


7) To start the inverter again, select the inverter icon and click “Quickly Start” below. Before remotely starting, ensure that the cable connection is normal and no personnel is working on site. Select “No personnel are working on site” and click “Continue to Start”.

If the inverter is in an emergency stop status, it can only be started manually on site and cannot be started remotely.

8) Judge the status of the optimizer by the module color. Blue means that the optimizer is running normally. Red means that the optimizer is faulty. Yellow means that alarms occur to the optimizer. Gray means that the optimizer is offline.

- Modifying Plant Layout

- Only distributor/installer accounts can modify the plant layout.

1) Click  on the top right of the interface to enter the “Plant configuration and advanced features” interface.


2) Click “Layout Settings”.


3) To modify and publish the layout, please refer to “Publishing Layout”.

Device Information


1. Tap a plant listed on the home screen to enter the plant detail screen.

2. Tap “Device” tab to view all devices of the plant.

3. Optionally, tap the icon  in the upper right corner to screen devices displayed. You can screen according to device state and device type.

4. Tap  > “Quick Shutdown” on the right of a inverter to remotely shut down the inverter, after which the inverter will stop generating power.

Note: This function is only applicable to inverters with optimizers.

5. To start the inverter again, tap  > “Quickly Start”. Before remotely starting, ensure that the cable connection is normal and no personnel is working on site. Select “No personnel are working on site” and click “Continue to Start”.

If the inverter is in an emergency stop status, it can only be started manually on site and cannot be started remotely.

6. Tap device name, and you will enter “General information” screen by default. Switch the tabs “Active Fault”, “Fault History”, “Curve”, “Yield information”, and “Settings” to access respective

screen.

Parameters displayed may vary with device types, and actual screens prevail.

Description is given by using PV inverter as an example.

Description of plant parameters


Tab	Description
General information	Prerequisite: permission to view measuring point data. Display measuring point data such as device overview information, MPPT information, load information, battery information, grid information, and device information such as device status, model, S/N, and manufacturer.
Existing fault	Display fault lists including fault, alarm, prompt, and advice.
Fault history	Display a list of historical fault messages that have been cleared.
Curve	Display the equipment's power generation history curve.
Energy information	Display inverter power change curve.
Settings	You can perform initial grid-connection setting on the inverter. You can further set system parameters, protection parameters and power control.

Fault Information

1. Tap a plant listed on the home screen to enter the plant detail screen.
2. Tap "Fault" to enter the corresponding screen, where the screen displays the fault list whose types are "Fault" and "Alarm" by default.
3. Enter fault name and select fault state, plant name, and fault type, to view corresponding fault list.
4. Tap the fault name to view detailed fault information.

Remote Signaling Status

1. Tap a plant listed on the home screen to enter the plant detail screen.
2. Tap "Device" tab to view all devices of the plant.
3. Tap device name, and you will enter "General information" screen by default.

4. Tap “Remote Signaling Status” tab to view parameter information of the device.
5. Click the icon  and then select time segment to view history information.

Device Initialization

Device Initialization

Prerequisites

If the inverter has not been initialized, perform initial grid-connection setting.

If there are multiple inverters that have not been initialized, perform initial grid-connection setting for each inverter.

Procedure

1. Tap a plant listed on the home screen to enter the plant detail screen.
2. Tap “Device” tab. Tap the name of the device that needs to be initialized and switch to “Settings” tab.
3. Tap “Initial grid connection” to enter the corresponding screen.
4. Set initial grid-connection parameters.

Parameters displayed may vary with device types, and actual screens prevail.

Different countries (regions) have different parameter setting requirements, please refer to the local regulations.

Description is given by using PV inverter as an example.

Description of initial grid-connection parameters

Parameter	Description
Country (region)	Country (region) where the inverter is located at
Grid type	Type of grid

The parameter "country (region)" must be set to the country (region) where the inverter is installed.


5. Tap “Send down instruction” to finish the initial grid-connection setting.

Cleaning Robot

Cleaning Robot

This section introduces how to view the cleaning robot information and information on devices in the power plant, as well as how to add, start and stop the cleaning robot.

Cleaning Robot Information

On the power plant list interface, tap the plant with the icon  in the lower right corner of the plant picture, to enter the “Cleaning Robot” tab by default, on which you can view the cleaning robot information.

Plant Parameter	Description
Current Status	Display the current status of the cleaning robot in the plant
Fault Alarm	Display the number of faults and alarms related to the cleaning robot in the plant.
Scheduled Tasks	Display the latest three tasks of the cleaning robot.
Availability	Display information including number of operating cleaning robots, un-operating cleaning robots, and availability in the last 15 days by default. Tap time to change the time range.
Cleaning Times	Display information including number of operating cleaning robots and cleaning hours in the last 15 days by default. Tap time to change the time range.
Plant Information	Display information such as plant picture, cleaning capacity, and installed power.

Device Information

For detailed operation instructions, refer to “Viewing Plant Information”.



Cleaning View


This section describes how to start, stop, and add cleaning robots.

Prerequisites

The current user has the permission of operating the cleaning robot.


Procedure

1. On the power plant list interface, tap the plant with the icon  in the lower right corner of the plant picture, to enter the “Cleaning Robot” tab.
2. Tap the icon  in the upper right corner, to enter the “Cleaning View” interface.
3. Perform the following operations if necessary.
 - Start all cleaning robots


Tap the icon  **Start All**, to access the “Settings” window. Enter task name, select instruction valid period, and tap “CONFIRM AND ISSUE”, so that the system will generate the parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.

If the delivered instruction has not been executed within the set time, it will turn to be invalid.


- Stop all cleaning robots

Tap the icon  **Stop All**, to access the “Settings” window. Enter task name, select instruction valid period, and tap “CONFIRM AND ISSUE”, so that the system will generate the parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.


- Start the cleaning robot

Select a PV array, and tap the icon  , to access the “Settings” window. Enter task name, select instruction valid period, and tap “CONFIRM AND ISSUE”, so that the system will generate the parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.


- Stop the cleaning robot

Select a PV array, and tap the icon  , to access the “Settings” window. Enter task name, select instruction valid period, and tap “CONFIRM AND ISSUE”, so that the system will generate the parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.

- Reverse operation of the cleaning robot


Select a PV array, and tap the icon  , to access the “Settings” window. Enter task name, select instruction valid period, and tap “CONFIRM AND ISSUE”, so that the system will generate the parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.

- Rest the cleaning robot


Select a PV array, and tap the icon  , to access the “Settings” window. Enter task name, select


instruction valid period, and tap “CONFIRM AND ISSUE”, so that the system will generate the parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.

- View device information

Select a PV array, and tap the icon , to access the “DEVICE INFORMATION” window, on which device running information and running records are displayed.



- View history tasks

Tap the icon  in the upper right corner, to access the “TASK HISTORY DETAILS” interface.



Optionally,) tap the icon  in the upper right corner and enter task name, to view corresponding history tasks.


Tap the task name to view instruction name, set value, read-back value, and execution result.

- Pre-set cleaning operation

Tap the icon  in the upper right corner, and then the icon , to access the “CLEANING PREVIEW” interface, on which parameters, such as plant width and cleaning rows, can be set.

- Add cleaning robots

Tap the icon  in the upper right corner, and then the icon  in the lower right corner, to fill in device information.

Plant Parameter	Description
Device S/N	Enter the device S/N, or tap the icon  on the right to scan the S/N on the cleaning robot.
Device Name	Set the name of the cleaning robot.
Starting Coordinates (X,Y)	Set the location from where the cleaning robot starts working.
Cleaning Direction	Select the cleaning direction.
Number of Single Rows to be Cleaned	Set the number of PV panels to be cleaned in a single row.
Single-Module Cleaning Distance	Set the distance for the cleaning robot to clean a single PV panel.



Cleaning Strategy

This section describes how to set cleaning strategy.

Prerequisites

The current user has the permission of setting cleaning strategy.

Procedure

1. On the power plant list interface, tap the plant with the icon  in the lower right corner of the plant picture, to enter the “Cleaning Robot” tab.
2. Tap the icon  in the upper right corner, to access the “CONFIGURATION” interface.
3. Tap “Cleaning Strategy”, to access the cleaning strategy interface.
4. Tap “Policy 1”, to access the “ADD” interface.
5. Perform the following operations if necessary.

- Temporary Strategy

Execute the cleaning strategy only once in the specified time.

Select “Temporary Strategy”, to set start date and start time, and tap “CONFIRM”.

- Fixed Strategy

Execute the cleaning strategy periodically in the specified time.

Select “Fixed Strategy”, to set start date, start time, and cleaning interval (Days), and tap “CONFIRM”.

1. (Optionally) repeat step 4 and step 5, to add the cleaning strategy 2 to cleaning strategy 4.
2. Tap “APPLY SETTINGS”, enter task name, select instruction valid period, and tap “CONFIRM AND ISSUE”, so that the system will generate the parameter delivery task. The “Instruction valid period” can be set to 0.5h, 1h, or 72h.


If the delivered instruction has not been executed within the set time, it will turn to be invalid.

Viewing Fault Information

Viewing Fault Information

This section describes how to query fault types and view detailed fault information.

Procedure

1. Tap “Fault” to enter the corresponding interface, on which the faults whose types are “Fault” and “Alarm” are displayed by default.
2. Tap the icon  to Enter fault classification or fault code and select fault state, plant name, and fault type, to view corresponding fault list.
3. Tap the fault name to view detailed fault information.
4. Tap the faulty device on Fault Detail interface to jump to the device detail interface.
5. Tap the name of the associated plant on Fault Detail interface to jump to the single plant overview interface.
6. Tap “View” on the right of “Fault Recorder” to view the fault recorder tasks. Tap the icon on the right of the fault recorder task to view the fault record of the corresponding task.



More


More

This section describes WLAN configuration, FAQs, and personal setting.

Tap “More”, to enter the corresponding screen.

Parameter description






Parameter	Description
Profile	You can view and modify the general information of the account. The distributor/installer can also view and modify organization information.
WLAN configuration	For details, refer to “WLAN Configuration”.
Local access	For details, refer to “WLAN Login (Near End)” and “Bluetooth Login (Near End)”.
Firmware Download	For details, refer to “Firmware Download” .
Smart IV Curve Diagnosis	For details, refer to “Smart IV Curve Diagnosis”.
Message Center	You can view the history records of creating plants, sharing plants, upgrading device, and changing installers.
My Service Provider	You can view service provider information.
FAQs	You can view frequently asked questions about using the App.
Feedback	You can submit your feedback. Tap the icon () in the upper right corner to view all feedback.
	<p>You can perform private settings.</p> <p>1. Tap “General” and “Default Language”, to switch the language. Alternatively, you may tap the icon () in the upper right corner and select “Language”, to switch the language.</p> <p>2. Tap “General” and “Unit” to switch the units of radiation and temperature.</p> <p>3. Tap “Report push” and “Add” to enter the corresponding screen. Tap “Add”, fill in receiver e-mail address, select the</p>

Settings	<p>desired type of reports (“Daily Report”, “Weekly Report”, “Monthly Report” and “Annual Report”), and tap the icon () in the upper right corner of the screen. You can view information such as revenue, power generation, energy conservation and emission reduction.</p> <p>4. Tap “Account and Security” to bind the phone number or email address for retrieving password. You can change the password and cancel the account.</p> <p>5. Tap “Notification” to determine whether to receive notifications. If you turn off “Allow notifications”, you will not receive system notifications after parameter setting.</p> <p>6. Tap “Application Sharing” to invite friends to scan and download the App.</p> <p>7. Tap “Declaration” to view system declaration terms.</p> <p>8. Tap “About” to view system version and privacy policy.</p> <p>9. Tap “Website” to jump to SUNGROW official website and view more information.</p>
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Firmware Download

Firmware Download

Users can download the upgrade package of the firmware through “Firmware Download”.

1. Click “More”->“Firmware Download” to enter corresponding interface on which you can view the device list.
2. The default device type is Inverter. Click  to filter the device type you need to upgrade.
3. Click , enter “Device Model” and click “Enter” or “Search” to search for the device that needs to perform a firmware upgrade.
4. Click the device name in the device list to enter the firmware upgrade package detail interface, and click  behind the firmware upgrade package to download it.
5. Return to the “Firmware Download” interface, click  in the upper right corner of the interface to view the downloaded firmware upgrade package.
6. Click on the name of the upgrade package and then , select the upgrade package, and click “Delete” to delete the corresponding upgrade package.
7. Optional: Click “Delete All” at the bottom left of the page, the Delete All confirmation prompt box will pop up, click “Confirm”, and the system will delete all downloaded upgrade packages.

Smart IV Curve Diagnosis

Smart IV Curve Diagnosis

Scan PV module IV curve in online manner, automatically locate faulty PV modules through the diagnostic algorithm analysis, and generate diagnostic reports and O&M advice, etc. thereby greatly improving O&M efficiency and power generation.

IV Intelligent Curve



This section describes how to scan IV curve and view the diagnosis analysis.

Prerequisites

The user has the permission of the “Smart IV Curve Diagnosis”.

Unit Scan

1. Tap “More -> Smart IV Curve Diagnosis” to enter the “Select plant” interface.
2. Select the desired plant.
3. Enter the “Unit Scan” interface by default.
4. Select unit devices and tap “Start Diagnosis” in the lower right corner. The system will judge whether the device parameters have been configured. If not, a “Prompt” window will pop up. Tap “Complete them now” to jump to the corresponding interface and perform parameter settings. Set plant terrain, tap “Confirm and continue”. Tap the inverter that needs to be parameterized and set the parameters as required.
 - a. Single setting: After finishing parameter setting, tap “Confirm”.
 - b. Batch setting: After finishing parameter setting, tap “Confirm and copy”. Select the inverters that require the same settings, tap “Confirm”.
5. Enter task name and login password on the pop-up window and tap “Confirm”.
6. After the instruction is delivered successfully, the unit state is changed to “Scanning” and you can view the scanning progress.
7. After the scanning, tap “Diagnosis complete, ready to view” to enter “Task List” interface.
8. Tap the task name to enter “Report List” interface.
9. Tap “New Report” to enter the corresponding interface.
10. Select report type and unit equipment, tap “New Report” to enter “Report List” interface.

11. Tap the report name to enter “Report List” interface. Tap the icon  to preview the diagnostic report online. Tap the icon , prompt for successful copying. Open the copied website in your browser and download the diagnostic report.

Inverter Scan

1. Tap “More -> Smart IV Curve Diagnosis” to enter the “Select plant” interface.
2. Select the desired plant.
3. Enter the “Unit Scan” interface by default.
4. Tap “Inverter Scan” to scan a single inverter or several inverters.
5. Select inverters and tap “Start Diagnosis” in the lower right corner.
6. Refer to step 5 to step 11 in unit level scanning.

Residential PV plant and residential energy storage plant only have inverter level scan.
If the module connected to the inverter is equipped with an optimizer, the module-level IV scan is available and the diagnostic result is only the IV curve of this PV module.


Parameter Setting

This section describes how to set plant or inverter parameters.


Prerequisites

The user has the permission of the “Smart IV Curve Diagnosis”.



Procedure

1. Tap “More -> Smart IV Curve Diagnosis” to enter the “Select plant” interface.
2. Select the desired plant.
3. Tap the icon  in the upper right corner to enter the “Settings” interface.
4. Perform the following operations if necessary.
 - Set plant terrain on the “Parameter Setting” interface. After finishing the parameter setting, click “Confirm” to save the operation.
 - Tap the tab “Inverter Parameters”. Tap the inverter that needs to be parameterized and set the parameters as required.
- a. Single setting: After finishing parameter setting, tap “Confirm”.

b.Batch setting: After finishing parameter setting, tap “Confirm and copy”. Select the inverters that require the same settings, tap “Confirm”.

- Tap the icon  in the upper right corner to enter the “Item management” interface, on which you can query, add, delete, or view PV module information.




You can only delete and modify the information of the components you have added.

- Query PV module: tap the icon  in the upper right corner, enter PV module manufacturer and module type, select the filter range as “Last three years” or “All” to view corresponding PV modules.
- Add PV modules: tap the icon  in the upper right corner, to fill in corresponding information and tap “Confirm”.
- Delete PV module information: tap “Edit” in the upper right corner, select the desired PV module information. Tap “Delete” on the pop-up window, and tap “Confirm” on the prompt window to finish the operation.
- View PV module information: tap module type to enter the “PV module information” interface, on which you can view detailed information on the PV modules.

View Task History

You can view the IV scanning records.

Procedure

- 1.Tap “More -> Smart IV Curve Diagnosis” to enter the “Select plant” interface.
- 2.Tap the icon  in the upper right corner, to enter “Task List” interface.
- 3.Tap the task name to enter “Report List” interface.
- 4.Tap “New Report” to enter the corresponding interface.
- 5.Select report type and unit equipment, tap “New Report” to enter “Report List” interface.
- 6.Tap the report name to enter “Report List” interface. Tap the icon  to preview the diagnostic report online. Tap the icon , prompt for successful copying. Open the copied website in your browser and download the diagnostic report.

Live Data

Live Data

Users with live data permission can use this function to judge the operating status of the device.




Prerequisites

The current user has permission for live data function.



Procedures

1. Tap “More -> Live Data” to enter the “Plant” interface.

2. Select the needed plant or search the plant by entering the plant name to view its live data.

3. Live data status: -  : live data synchronization in progress; -  : live data is being enabled; -  : device is offline or faulty, and the live data can not be enabled.

4. View live data

- Click the device to enter the live data interface. The interface displays the measuring point interface and the curve interface.
- Click  behind the measuring point to view the measuring point curve.
- Measuring point preceded by  is a live data measuring point that is not supported by the current device.

WLAN Login (Near End)

WLAN Login (Near End)

In case of WLAN direct login, a WiFi wireless communication module researched by SUNGROW is required.

The WiFi wireless communication module establishes a communication connection with the mobile phone through WLAN, achieving near-end maintenance on the inverter. Users can view inverter information and set parameters through the App.

Parameters displayed may vary with inverter types, and actual screens prevail.

Description is given by using PV inverter as an example.

Login

Login

Prerequisites

- The AC and DC sides of the inverter are energized or the AC side of the inverter is energized.
- The Bluetooth of the mobile phone is enabled.
- The mobile phone is within the coverage of the wireless signal of the WiFi module.

Procedure

There are two ways to establish WLAN connection, QR code connection and manual connection.

QR Code Connection

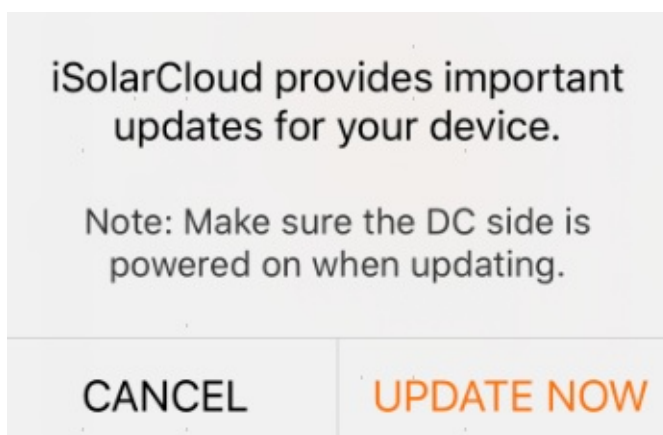
(1) Tap “Local Access” at the bottom of the interface, and scan the QR code to establish the WLAN connection.

(2) Tap “Activated” when seeing the prompt “Activate hotspot”.

(3) Connection status

- Successfully connected: enter the account and password on the verification interface.
- Connection Failed: repeat the foregoing procedure or perform manual connection.

(4) Tap “Verification”. If there is no latest upgrade package, skip to step 9. If a latest upgrade package is available, the following prompt window pops up.



(5) Tap “Update Now” to prompt the phone to reconnect to the Internet. Disconnect the mobile phone from the inverter WLAN to ensure the phone can normally access the Internet. Then connect the mobile phone to the local network, or enable the data network.

(6) Tap “Next” to download the latest upgrade package when successful connection to the Internet is displayed on the App interface.

(7) After download, tap “Next”.

a. When the system automatically connects to the hotspot of the mobile phone, successful connection of the mobile phone to the inverter is displayed on the interface. Tap “Next” to upgrade the device.

b. If the system fails to automatically connect to the hotspot, the system prompts the mobile phone to reconnect to the WLAN of SG-Device SN. After connection, tap “Next” to upgrade the device.

(8) After successful upgrade, the version numbers before and after the upgrade as well as the upgrade time are displayed on the interface. Tap “Complete” to enter the verification interface.

(9) Tap “Verification”.

a. If the device initialization parameters are set, the home page is displayed.

b. If no initialization parameter is set, the system debugging interface is displayed. Perform debugging referring to “System debugging”. After debugging, the home page is displayed.

User name is "user" by default. And the initial password is "pw1111", which should be changed as soon as possible to ensure the account security.

Munual Connection

(1) Tap “Local Access” at the bottom of the interface to enter the QR code scanning interface. Tap “Manual Connection” at the bottom of the interface.

(2) Enable WLAN of the mobile phone and connect it to the WLAN of SG-Device SN, which can be found at the side of the WiFi module.

(3) Select the device type on the App.

(4) For connection status, refer to step 3 in “QR Code Connection”.

(5) Tap “Verification”. If there is no latest upgrade package, skip to step 6. If a latest upgrade package is available, refer to step 5~8 in “QR Code Connection”.


(6) Tap “Verification”, referring to step 9 in “QR Code Connection”.

System Debugging

After connection, the system debugging interface is displayed.

Network Configuration

- (1) Tap "Network Configuration".
- (2) Tap available home networks in the WLAN list.
- (3) After connection, the system debugging interface is automatically displayed.

- (4) When  appears on the left of "Network Configuration", the network is successfully configured.

Grid Connection Debugging

- (1) Tap "Grid Connection Debugging" to enter the initialization interface.
- (2) Set initialization protection parameters according to actual needs and confirm the settings. After setting, the system debugging interface is displayed.

The parameter "country (region)" must be set to the country (region) where the inverter is located. Otherwise, the inverter may report errors.

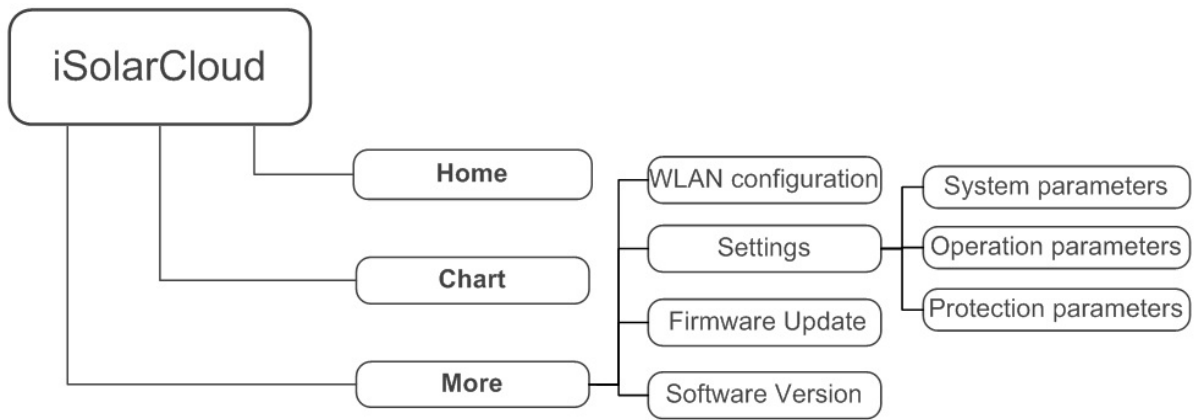
- (3) Tap "Complete", and the plant information is displayed on the App home page.

The "User Review" interface is displayed when the plant is created or the creation is suspended. Tap to enter the corresponding interface.

Function Overview

Function Overview

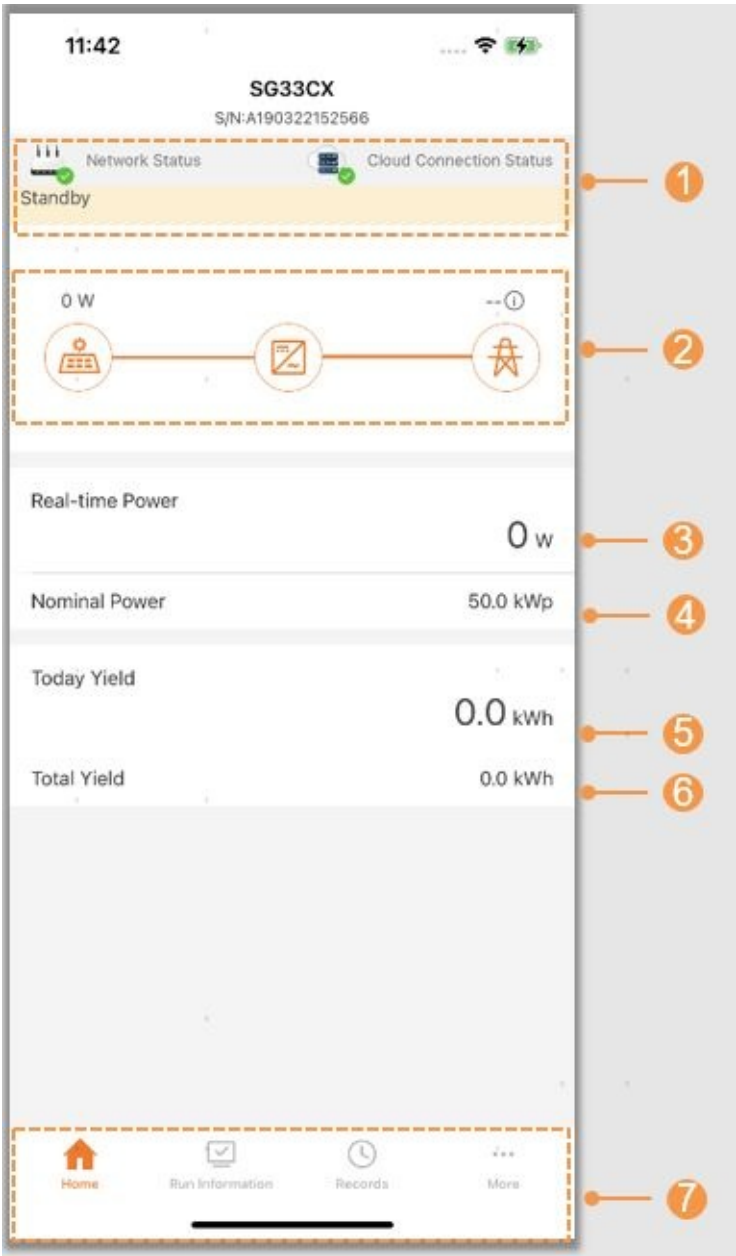
You can view inverter real-time power and power generation, to start/stop the inverter, and to upgrade firmware, etc.



Home

Home


You will enter the home screen after login.



Function description of home screen

No.	Name	Description
	Inverter state	Present operation state of the inverter

1	Network status	Present the current network status. (1) Tap “Network Status” to enter the “Select Home Network” interface. (2) Tap a home network in the WLAN list to configure.
	Cloud connection status	Present the cloud connection status. Tap “Cloud Connection Status” to select the server site.
2	Power flow chart	Indicate the PV power generation power, feed-in power, etc. The line with an arrow indicates energy flow between connected devices, and the arrow pointing indicates energy flow direction.
3	Real-time power	Present output power of the inverter
4	Nominal power	Nominal power of PV modulesr
5	Today yield	Today yield
6	Total yield	Accumulative power yield of the inverter
7	Navigation bar	Including menus of “Home”, “Run Information”, “Records” and “More”

If the inverter runs abnormally, the fault icon  appears in the upper left corner of the screen. Users can tap the icon to view detailed fault information and corrective measures.

Chart

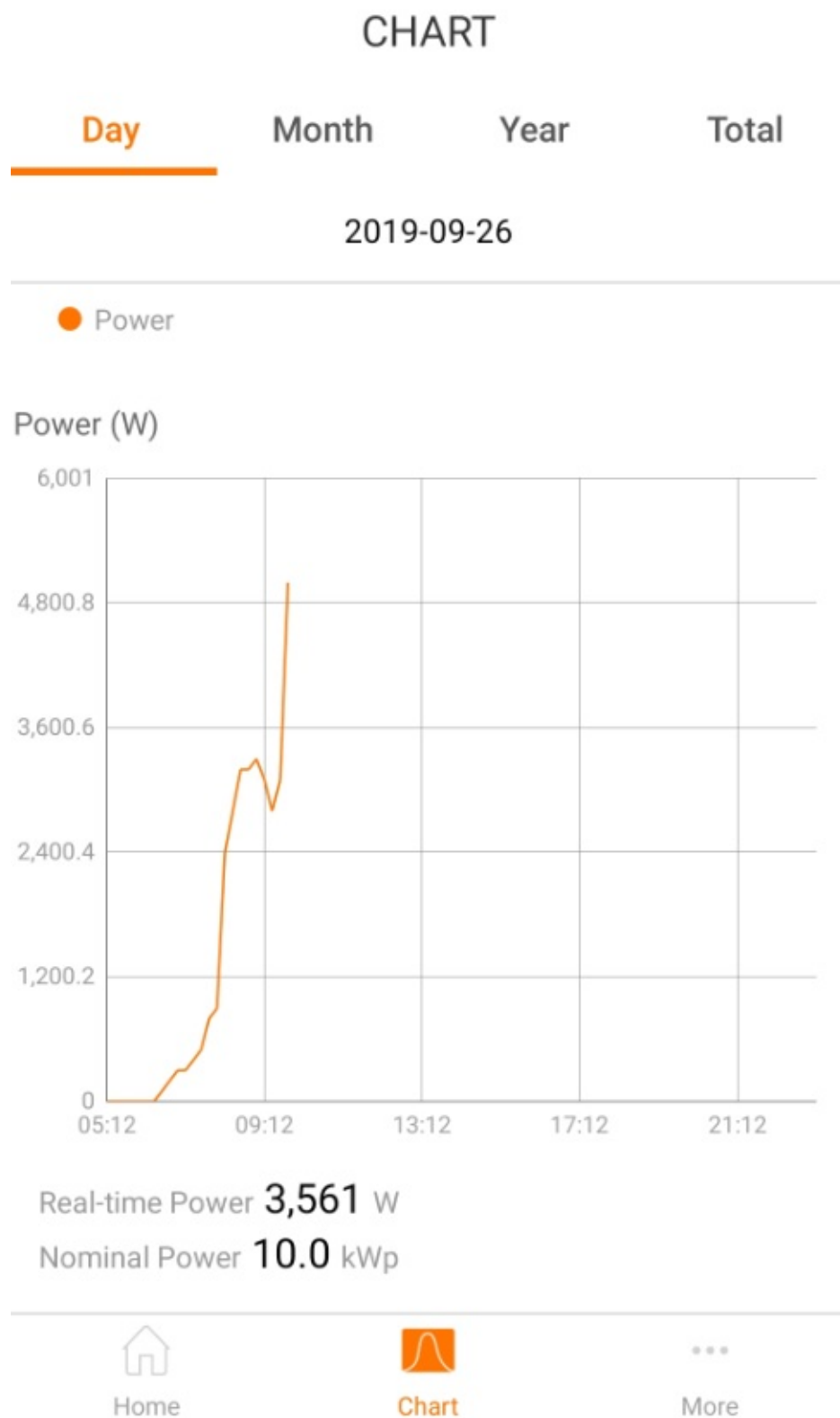
Chart

The App displays power generation records in a variety of forms, including daily power generation graph, monthly power generation histogram, annual power generation histogram, and total power generation histogram.

Description of power generation chart

Parameter	Description
Daily power generation graph	Curve showing change of power between 5 am and 22 pm every day. (Each point on the curve corresponds to a power value).
Monthly power generation histogram	Display power generation of the current month and monthly equivalent hours.
Annual power generation histogram	Display power generation of the current year and annual equivalent hours.
Total power generation histogram	Display total power generation and total equivalent hours.

1.Click “Chart” on the navigation bar to enter the screen showing daily power generation curve.

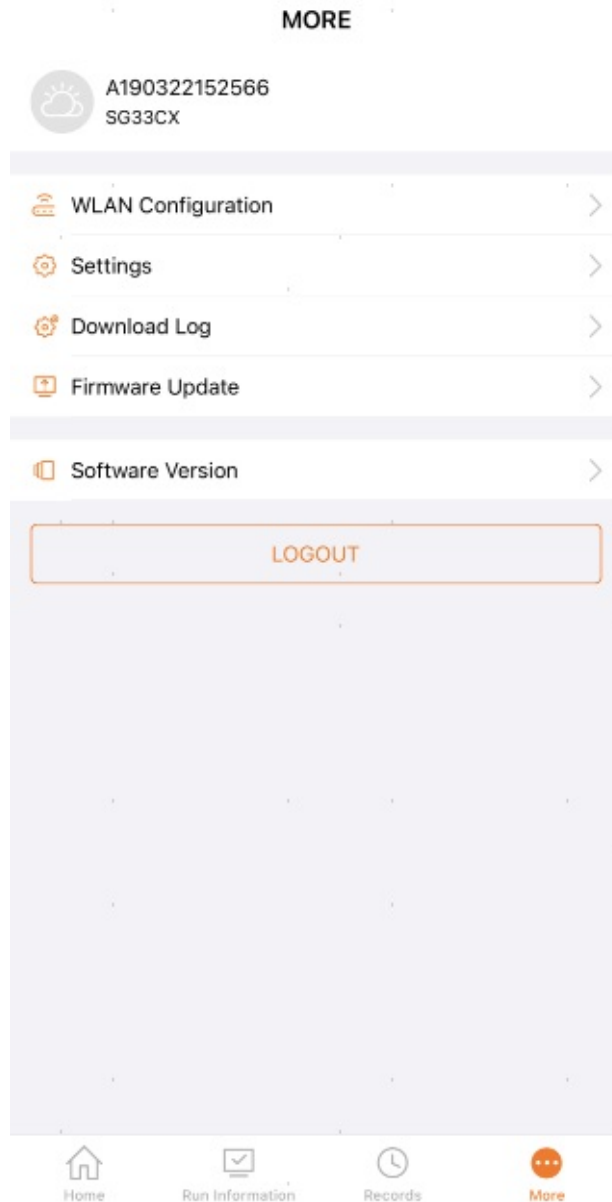


2. Swipe the screen left to view monthly power generation histogram, annual power generation histogram, and total power generation histogram.

More

More

Tap “More” to enter the corresponding screen, on which you can perform WLAN configuration,



settings, update firmware, etc.

Description of parameters on the “More” screen

Parameter	Description
WLAN Configuration	The WiFi module can be connected to the home network, so that the inverter can communicate with the iSolarCloud server. Users can view inverter data or send instructions to control the inverter through the App.

Settings	Tap “Settings” to set inverter system parameters, operation parameters and protection parameters.
Firmware update	Tap “Firmware Update” to upgrade the firmware of the inverter.
Software version	Tap “Software Version” to view the version of the software.

WLAN Configuration

Prerequisites

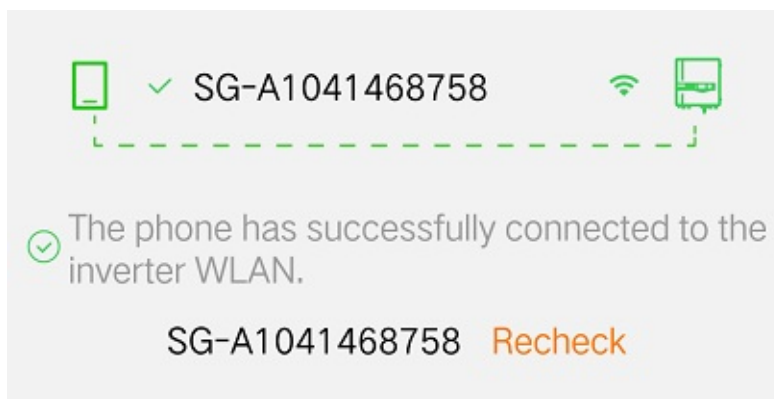
- You have already got the account and password from the distributor/installer or SUNGROW.
- The inverter has been connected with the WiFi wireless communication module researched by SUNGROW.
- You have got the WLAN name and password of the home network.

Procedure

1. Enter the account and password on the login screen and tap “Login”, to enter the App home screen.
2. Tap “More” on the navigation bar to enter the corresponding setting screen.
3. Tap “WLAN Configuration” to enter the corresponding screen.
4. Connect to the inverter WLAN. For Android system, tap “Settings” to automatically enter the wireless network screen. For iOS system, manually switch to “Settings-WLAN”. Select the inverter WLAN named in the form of “SG-WiFi module serial number”, where the serial number can be found on the side of the WiFi module.



5. Prompt information will pop up once you successfully connect to the inverter WLAN.



6. Tap “Next” at the lower part of the screen to connect the inverter to the home network. Select the home network WLAN and enter the password. The symbol “√” indicates a successful connection to the home network WLAN.



Please select the home network connection for the inverter.



SG-A20190119



OPPO R15x



SG-A190206I864



MERCURY_NO1



MW_TEST



SG-CG666888



sungrow-cloud



qiang的 iPhone



sungrow



7. Tap “Next”, and information indicating a successful connection to the home network will pop up. Tap “Complete” to finish the WLAN configuration.




sungrow



The inverter has successfully connected to the home network.

Connect your mobile device back to the Internet, then switch to the iSolarCloud APP to continue.

Proceed to Set>>

Alternatively, you can tap the icon  in the upper right corner on the login screen and select WLAN

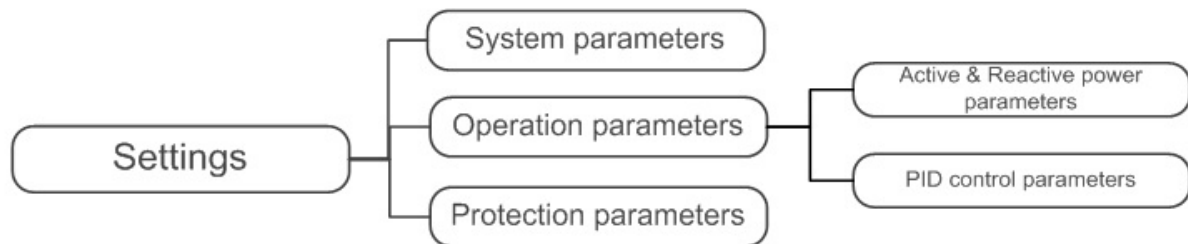
configuration to configure the WLAN.

Disconnect the mobile phone from the inverter WLAN to ensure the phone can normally access the Internet. Then

Parameter Setting

1. Tap “Settings” to enter the parameter setting screen.

2. You can set inverter system parameters, running parameters and protection parameters.



Parameter ranges and default values will update from time to time, and the actual screens prevail. If there a

Firmware Update

This section describes how to upgrade inverter firmware.

Prerequisite

The user has the permission of upgrading firmware.

Procedure

1. Obtain the firmware upgrade package. See “Firmware Download” for details.
2. Click “More” -> “Local Access” -> “WLAN” on the remote terminal to log into the system. For details, please refer to “Login”.
3. Click “More” -> “Firmware Upgrade” in the navigation bar to enter the firmware upgrade interface.
4. Click the upgrade package file, a prompt box will pop up asking you to upgrade the firmware with the file, click “Confirm” to perform the firmware upgrade.
5. Wait for the file to be uploaded. When the upgrade is finished, the interface will inform you of the upgrade completion. Click “Complete” to end the upgrade.

When the user has not copied the local upgrade package and remote download upgrade package, the upgrade packa

Click "Download Now" to jump to the "More" interface. Click "Firmware Download", follow the steps to complete

If the WiFi wireless communication module is upgraded from non-encrypted version to encrypted version, the pa

Bluetooth Login (Near End)

Bluetooth Login (Near End)

The WiFi wireless communication module establishes a communication connection with the mobile phone through Bluetooth, achieving near-end maintenance on the inverter. Users can view inverter information and set parameters through the App.

Parameters displayed may vary with inverter types, and actual screens prevail.

Login

Login

Prerequisites

- The AC and DC sides of the inverter are energized or the AC side of the inverter is energized.
- The mobile phone is within 5m away from the inverter or the EyeS4 and there are no obstructions in between.
- The mobile device is within 60° azimuth of the EyeS4 or the inverter.
- The Bluetooth of the mobile phone is enabled.
- The mobile phone has had access to network

Procedure

There are two ways to establish Bluetooth connection, QR code connection and manual connection.

QR Code Connection

(1) Tap “Local Access” at the bottom of the interface, and scan the QR code to establish the Bluetooth connection.

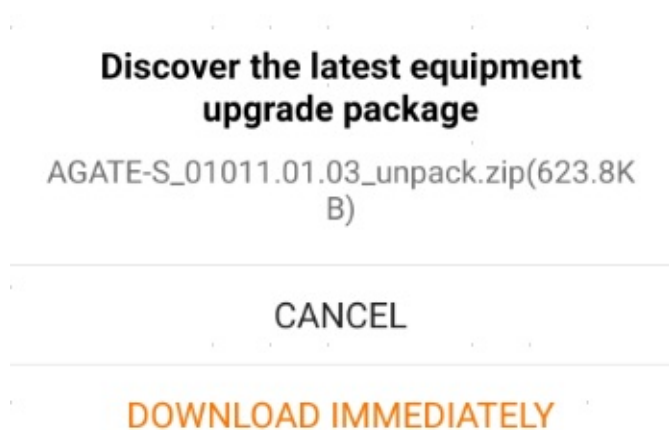
(2) Enable bluetooth notification:

- If the mobile phone runs iOS, enable the Bluetooth on the system settings interface when seeing the prompt “Please turn on the bluetooth setting”, and tap “Close” on the App;
- If the mobile phone runs Android, tap “Allow” when seeing the prompt “iSolarCloud requests that you enable Bluetooth to connect to the device”.

(3) Connection status

- Successfully connected: enter the account and password on the verification interface.
- Connection Failed: the connection failure interface is displayed. Check the device as prompted.
 - a. Refer to the procedure in “Manual Connection”;
 - b. Tap “Close”, and repeat the procedure of “QR Code Connection”.

(4) Tap “Verification”. If there is no latest upgrade package, skip to step 8. If a latest upgrade package is available, the following prompt window pops up.



(5) Tap "Download Now", to download the latest upgrade package. After download, tap "Update Immediately" to enter the firmware upgrade interface.

(6) If upgrade fails, a corresponding prompt window pops up. Tap "Confirm" to continue the upgrade. After successful upgrade, the version numbers before and after the upgrade as well as the upgrade time are displayed on the interface.

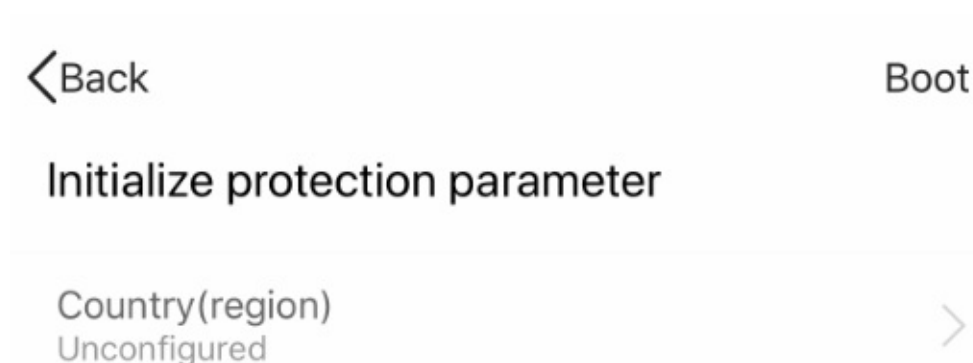
(7) Tap "Complete", the upgrade success prompt is displayed. Tap "Close" to enter the verification interface.

(8) Tap "Verification".

a. If the device initialization parameters are set, the home page is displayed.

b. If no initialization parameter is set, the setting interface of initialization protection parameter is displayed. After setting, tap "Boot" in the upper right corner of the interface.


The App delivers the start instruction, and the inverter starts and operates. After initialization, the home page is displayed.



The parameter "Country (region)" must be set to the country (region) where the inverter is located. Or

User name is "user" by default. And the initial password is "pw1111", which should be changed as soon as possible.

Munual Connection

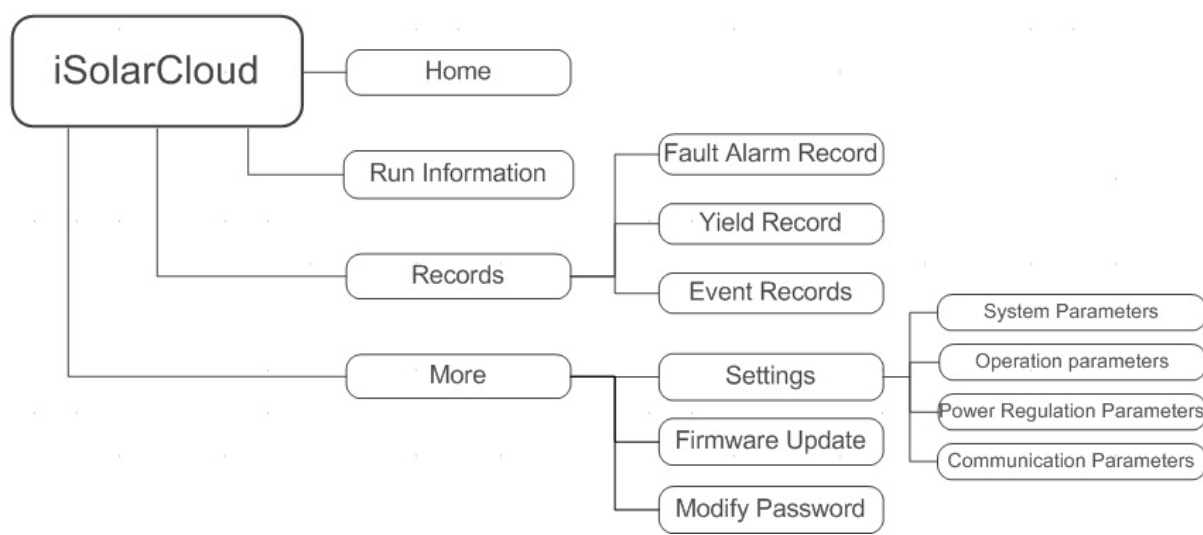
- (1) Tap "Local Access" at the bottom of the interface to enter the QR code scanning interface.
- (2) Tap "Manual Connection" at the bottom of the interface.
- (3) Tap the devices with Bluetooth communication function at the bottom of the interface.
- (4) Enter the identity verification interface, and the Bluetooth search interface pops up automatically.
 - a. Select the to-be-connected inverter according to the serial number on the nameplate on the side of the inverter.
 - b. Or tap  to scan the QR code on the side of the inverter to establish Bluetooth connection.
- (5) After connection, enter the account and password.
- (6) Tap "Verification". If there is no latest upgrade package, skip to step 7. If a latest upgrade package is available, refer to step 4~7 in "QR Code Connection".
- (7) Tap "Verification", referring to step 8 in "QR Code Connection".

User name is "user" by default. And the initial password is "pw1111", which should be changed as soon as

Function Overview

Function Overview

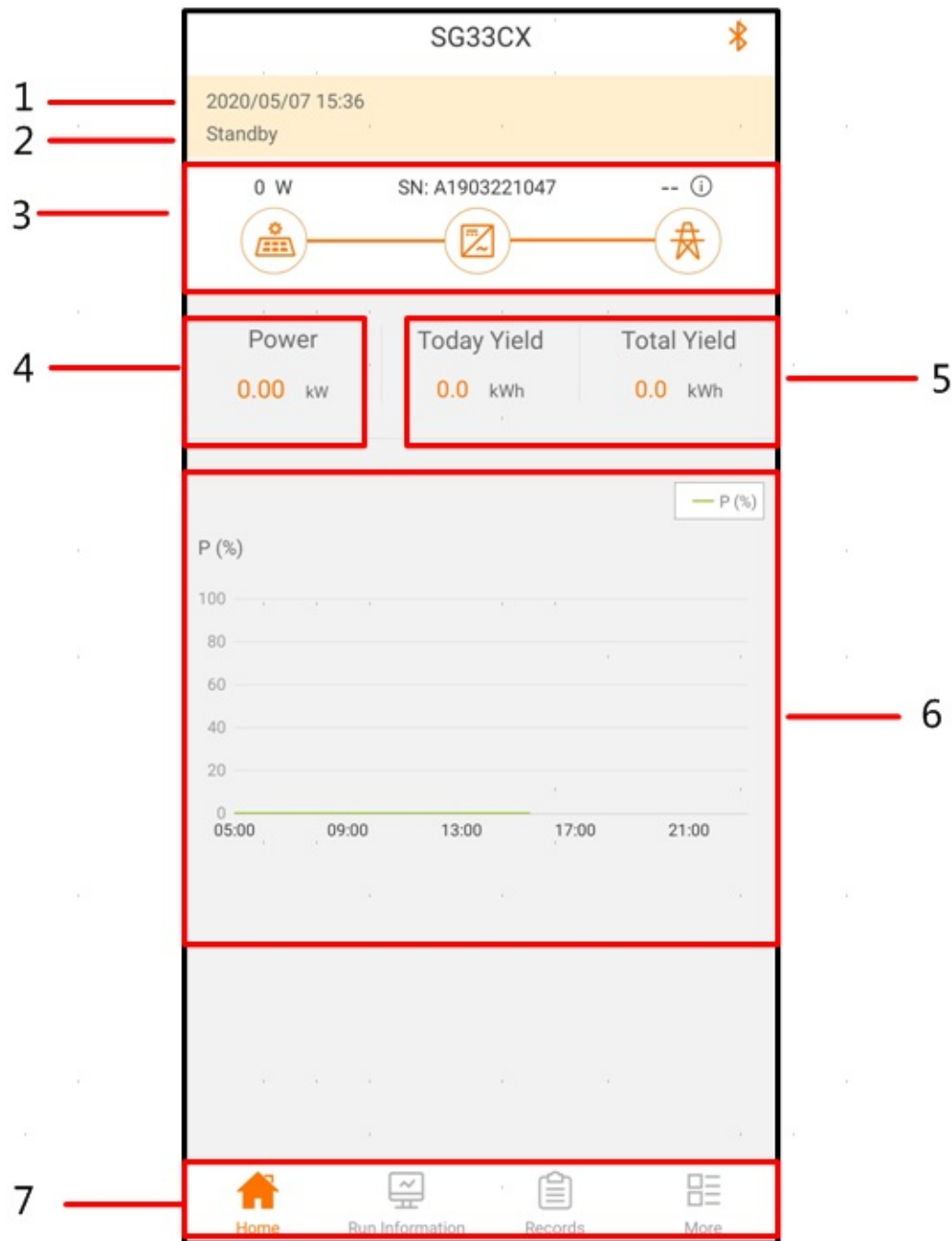
You can view inverter running state and power generation, to start/stop the inverter, and to change password, etc.



Home

Home

You will enter the home screen after login.




Function description of home screen

No.	Name	Description
-----	------	-------------

1	Date and time	The system date and time of the inverter
2	Inverter state	The current operating state of the inverter
3	Power flow chart	Indicate the PV power generation power, feed-in power, etc. The line with an arrow indicates energy flow between connected devices, and the arrow pointing indicates energy flow direction.
4	Power	Present output power of the inverter
5	Power yield	Today power yield and accumulative power yield of the inverter
6	Power curve	Curve showing change of power between 5 am and 23 pm every day.(Each point on the curve is the percentage of inverter current power to rated power)
7	Navigation bar	Including menus of “Home”, “Run Information”, “Records”, and “More”

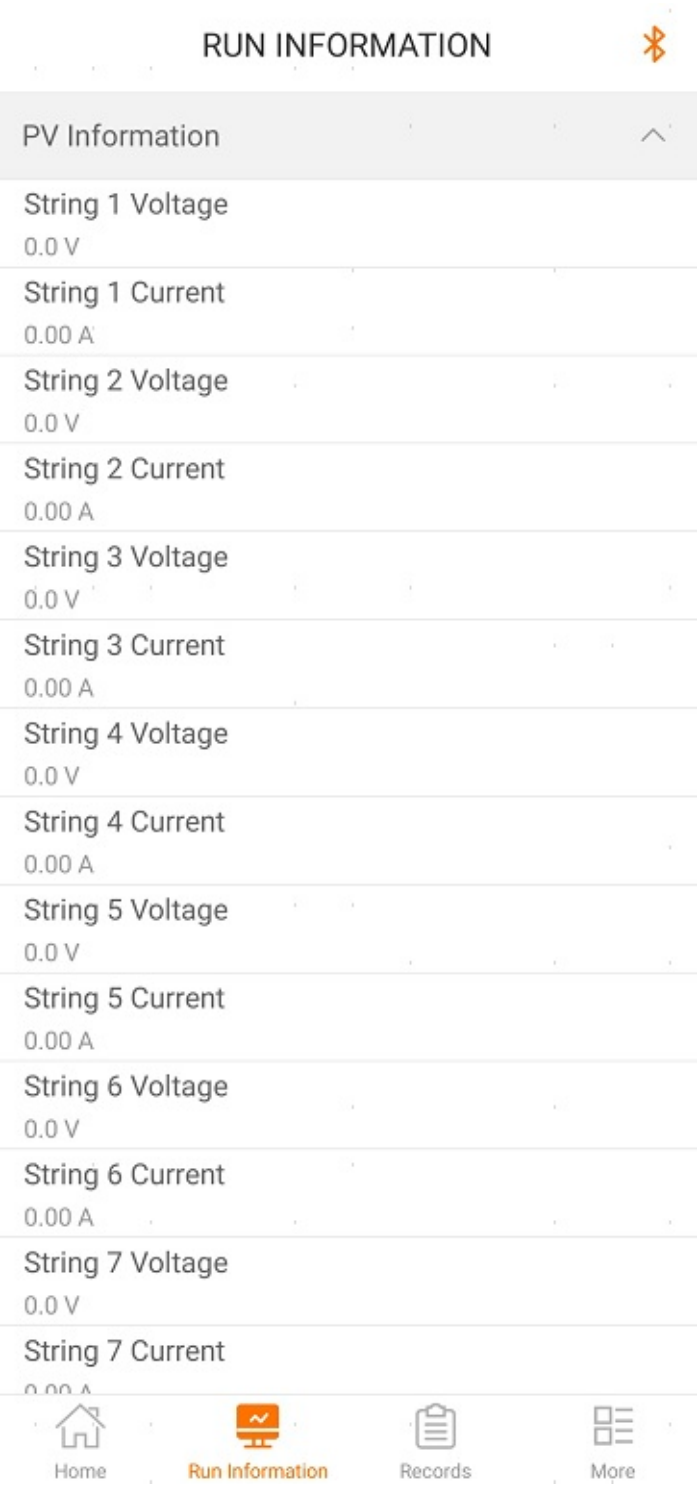


If the inverter runs abnormally, the fault icon  appears in the lower right corner of the inverter icon on the power load chart. Users can tap the icon to view detailed fault information and corrective measures.

Run Information

Run Information

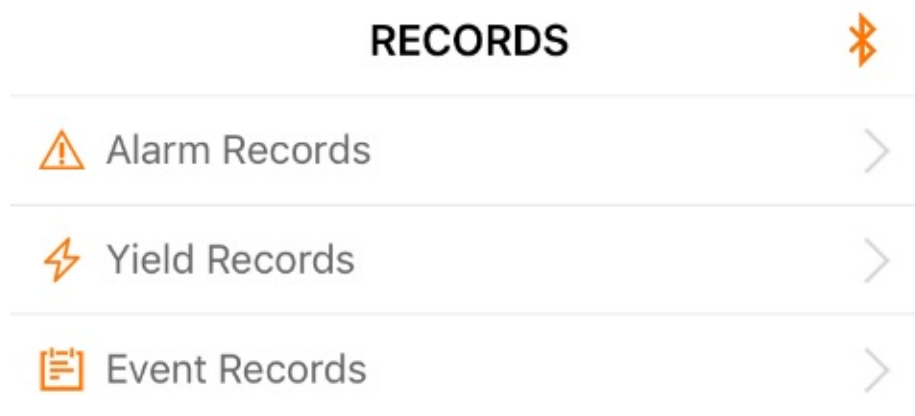
Tap “Run Information” on the navigation bar to enter the running information screen. Running information includes PV information, inverter information, input, output, and more.




Records

Records


Tap “Records” on the navigation bar to enter the history record screen on which you can view alarm records, energy records and event record.




Viewing alarm records

1. Tap “Fault Alarm Record” to enter the corresponding screen.
2. Tap the icon  to select a time segment and view records within this period.
3. Select a record and tap it to view detailed fault information, including alarm level, occurrence time, alarm ID, and repair advice.

Viewing energy records

1. Tap “Yield Record” to enter the power curve screen.
2. Tap the time bar  2019-03-13 on the top of the screen to select a time segment and view the corresponding power curve.
3. Swipe the screen left to view daily power generation histogram, monthly power generation histogram and annual power generation histogram.

Viewing event record

1. Tap “Event Records” to view the event record list.
2. Tap the icon  to select a time segment and view event records within this period.

More

More

Tap “More” to enter the corresponding screen, on which you can start or stop the machine, set parameters, firmware update and change password.

Setting Parameter

1. Tap “Settings” to enter the parameter setting screen.
2. Set the following parameters if necessary.

Parameter	Description
System Parameters	Deliver a start or stop command to the inverter, set the date and time, and view the ARM and MDSP software versions.
Operation parameters	Set running time and PID parameters.
Power Regulation Parameters	Perform active power regulation or reactive power regulation on the inverter.
Communication Parameters	Set the device address.

Firmware Update

This section describes how to upgrade inverter firmware.

Prerequisite

The user has the permission of upgrading firmware.

Procedure

1. Obtain the firmware upgrade package. See “Firmware Download” for details.
2. Click “More” -> “Local Access” -> “Bluetooth” on the remote terminal to log into the system. For details, please refer to “Login”.
3. Click “More” -> “Firmware Upgrade” in the navigation bar to enter the firmware upgrade interface.
4. Click the upgrade package file, a prompt box will pop up asking you to upgrade the firmware with

the file, click “Update Immediately” to perform the firmware upgrade.

5.Wait for the file to be uploaded. When the upgrade is finished, the interface will inform you of the upgrade completion. Click “Complete” to end the upgrade.

When the user has not copied the local upgrade package and remote download upgrade package, the upgrade package

Click "Download Now" to jump to the "More" interface. Click "Firmware Download", follow the steps to complete

Modify Password

1.Tap “Modify Password” to enter the corresponding screen.

2.Enter new password and tap “Confirm” to finish changing the password, where the new password must consist of 8 - 20 characters, a combination of letters and digits.

Appendix

Appendix

Manual Description

Manual Description

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The content of the manual will be periodically updated or revised as per the product development. It is probably that there are changes in manuals for the subsequent module edition.

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Contact Information

Should you have any question about this product, please contact us.

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