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 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 V2.1.6.20201128. 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

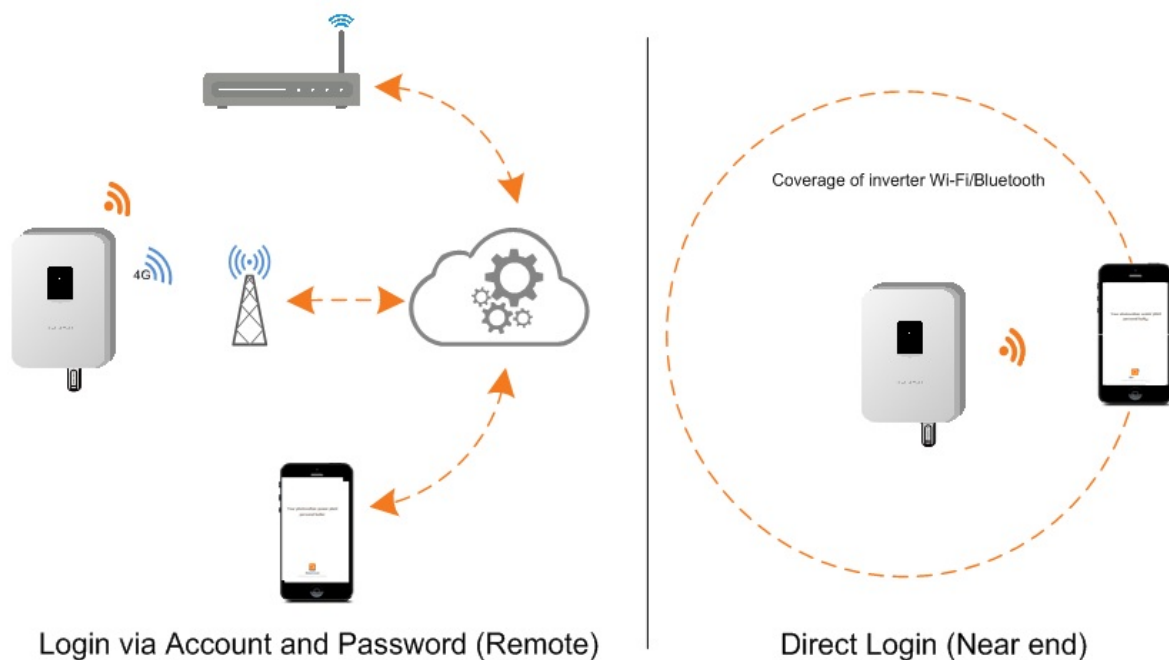
Product Description

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 10.0 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

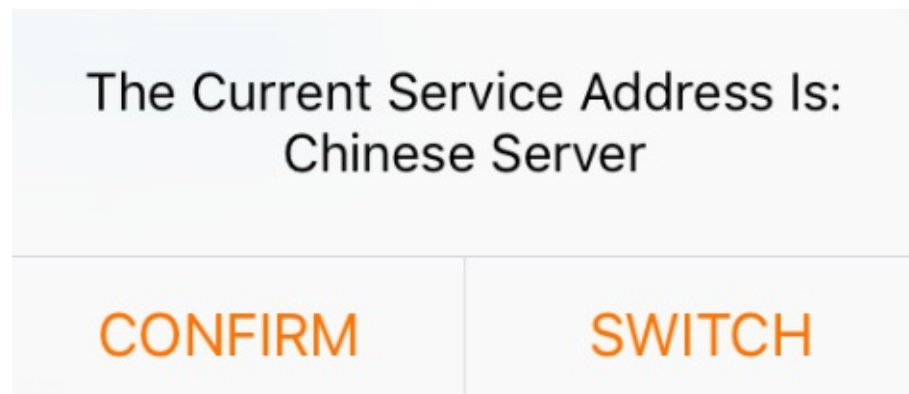
Images in this manual are for reference only, and the actual screens may differ.

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 user select “Chinese server”, European and African users select “European 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" or "European 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" or "European 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”, 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.




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)".
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 desired type of reports (“Daily Report”, “Weekly Report”, “Monthly Report” and “Annual Report”), and tap the icon ().</p>

Settings	<p>) 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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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.

SUNGROW



Plant status ▼

Today yield: --

RESUME COMMISSIONING

A1806163081

...

Equivalent hours: --

Today yield: 33.7 kWh



A20190119

...

Device with problem: ● 2

Equivalent hours: 0 Hour

Today yield: 0 kWh



A1812016638

...

Equivalent hours: 0 Hour

Today yield: 0 kWh



A1908050017

...

Equivalent hours: --

Today yield: --

RESUME COMMISSIONING

Home



Fault

...

More

Description of home screen

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.

WLAN Configuration

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.

Prerequisites

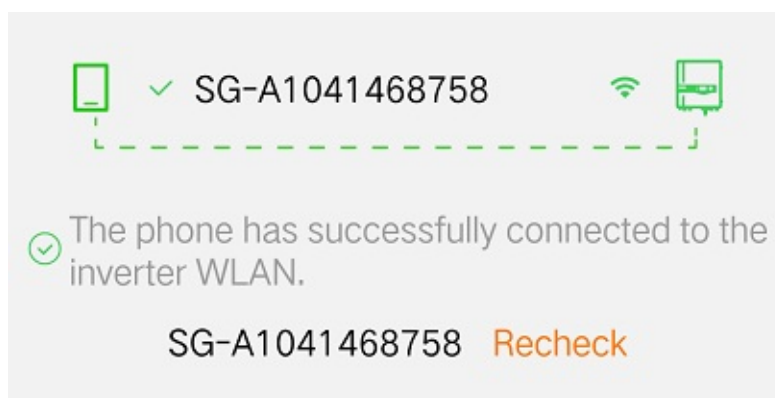
- You have already got the account and password from the distributor/installer or SUNGROW.
- The inverter has been connected with the WiFi wireless communication module researched by SUNGROW.
- You have got the WLAN name and password of the home network.

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 config" 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 connect the mobile phone to the home network, or enable the "Mobile data".

Creating Plant

Creating 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

The operation steps for the communication device to be "WLAN" are as follows.

1. Enter the account and password on the login screen and tap "Login", to enter the App home screen.
2. If there is no plant, tap "Create power plant"; and if there are plants, tap the icon  in the upper right corner to enter the creating screen.
3. Select plant type. If the plant is a residential plant, tap "RESIDENTIAL"; and if the plant is a commercial plant, tap "COMMERCIAL".
4. Select inverter type. Tap "PV" when all inverters of the plant are PV inverter. Tap "HYBRID" when the plant has at least one hybrid inverter.
5. Add an inverter. You can scan the QR code on the communication device or manually enter the serial number of the communication device. Tap "Next" after the QR code is identified or the serial number entered is correct and then tap "CONFIRM". The inverter is thus added successfully.

6. Select communication device is "WLAN".

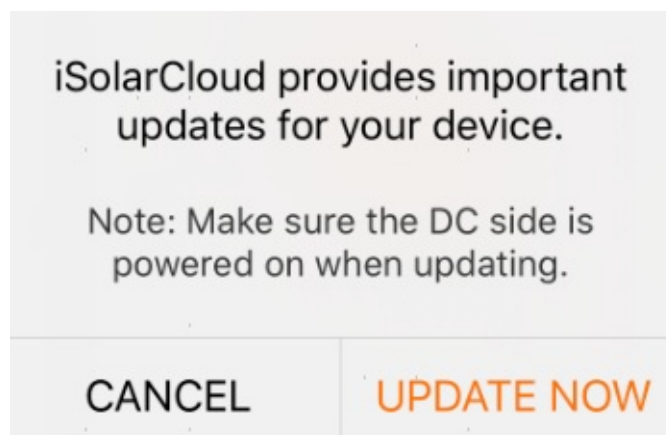
Skip to step 7 when scanning the QR code on the communication device adds an inverter.

7. Connect the inverter. 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.

8. Return to the App, and the screen displays successful connection to the inverter WLAN. Tap "NEXT".

9. Select local network. Select local WLAN network and enter the WLAN password. The symbol "✓" indicates successful connection to the local Wi-Fi network. Tap "NEXT", and the screen displays prompt information of successful connection to the local network. Tap "NEXT".

10. If there is no latest equipment upgrade package, skip to step 16. If a latest equipment upgrade package is available, the following prompt window pops up.



11. 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 "Mobile data".

12. Return to the App, and the screen displays successful connection to the Internet. Tap "NEXT" to download the latest upgrade package.

13. After download, Tap "NEXT" to prompt the phone to reconnect to the inverter WLAN.

14. Return to the App, and the screen displays successful connection to the inverter. Tap "NEXT" to update device.

15. After successful upgrade, the screen will show the version numbers before and after the upgrade as well as the upgrade time. Tap "COMPLETE".

If the communication equipment is upgraded, after successful upgrade, check and confirm that the phone is connected to the inverter WLAN.

16.If initialization setting is not performed on the inverter, you will set the initialization protection parameters according to actual needs. After finishing the setting, tap “NEXT”.

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


17.The screen displays that the inverter is successfully configured. Tap “NEXT”.

18.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 “Mobile data”.

19.Return to the App, and the screen displays successful connection to the Internet. Tap “NEXT”.

20.The screen displays the inverter device added in step 5. Tap “Add more” and repeat step 5 to step 19, to add more inverters. Tap “NEXT”.

21.Configure the plant. Tap “NEXT” to fill in the plant information.

Parameter	Description	End user	Distributor/installer
Plant name*	Name of the plant,device serial number (default)	√	√
Plant time zone*	Time zone of the plant	√	√
Country (region)*	Country (region) where the plant is located at	√	√
Plant address*	Location of the plant, which can be added in two 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”.	√	√
Postal code	Zip code of the place where the plant is located at	√	√
Battery type**	Type of the battery including lithium battery and lead-acid battery	√	√

Battery capacity**	Capacity of the battery	√	√
Grid-connection date	Time at which the plant starts feed-in operation	√	√

Note: * Indicates fields that must be filled in.

** is only applicable to energy storage inverters.

22.(Optionally) Configure tariff. Tap “NEXT” to fill in the tariff information. The electricity price can be set to a specific value or Time-of-Use tariff.

Feed-in price: the price of selling power to the grid.

Consumption tariff: the price of purchasing power from the grid.

- Set electricity price

a.Select a price unit.

b.Enter the feed-in price and consumption tariff according to actual conditions, and tap “NEXT”.

- 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 “NEXT”.

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.

23.Distributor/installer creates new a plant and fills in the end user’s e-mail address. The first time you fill in the end user’s e-mail address, the system will create an account for the end user and send a email to the end user. The Distributor/installer creates plants for the end user and can manage the

plants by default.

If the plant type select "RESIDENTIAL", the end user's e-mail address is required. If the plant type select "COMMERCIAL", the end user's e-mail address is optional.

The end user creates a new plant and fills the distributor/installer code (optional). Fill in the distributor/installer code, so that the distributor/installer can view and manage the plant.

The distributor/installer code must be filled in if the parameter "country (region)" is set to Brazil.


24. Tap "NEXT" to wait for the inverter to connect to the iSolarCloud.

25. After the inverter is connected to the iSolarCloud, tap "COMPLETE". Return to the App home screen on which information of the newly created plant will be displayed.

Procedure

The operation steps for the communication device to be "Ethernet", "COM100/Logger1000" or "EyeM4" are as follows.

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

2. If there is no plant, tap "Create power plant"; and if there are plants, tap the icon  in the upper right corner to enter the creating screen.

3. Select plant type. If the plant is a residential plant, tap "RESIDENTIAL"; and if the plant is a commercial plant, tap "COMMERCIAL".

4. Select inverter type. Tap "PV" when all inverters of the plant are PV inverter. Tap "HYBRID" when the plant has at least one hybrid inverter.


5. Add an inverter. You can scan the QR code on the communication device or manually enter the serial number of the communication device. Tap "Next" after the QR code is identified or the serial number entered is correct and then tap "CONFIRM". The inverter is thus added successfully.

6. Select communication device is "WLAN", "COM100/Logger1000" or "EyeM4".

Skip to step 7 when scanning the QR code on the communication device adds an inverter.

7. The screen displays the inverter device added in step 5. Tap "Add more" and repeat step 5 to step 19, to add more inverters. Tap "NEXT".

8. Configure the plant. Tap “NEXT” to fill in the plant information.

Parameter	Description	End user	Distributor/installer
Plant name*	Name of the plant, device serial number (default)	√	√
Plant time zone*	Time zone of the plant	√	√
Country (region)*	Country (region) where the plant is located at	√	√
Plant address*	Location of the plant, which can be added in two 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”.	√	√
Postal code	Zip code of the place where the plant is located at	√	√
Battery type**	Type of the battery including lithium battery and lead-acid battery	√	√
Battery capacity**	Capacity of the battery	√	√
Grid-connection date	Time at which the plant starts feed-in operation	√	√

Note: * Indicates fields that must be filled in.

** is only applicable to energy storage inverters.

9. (Optionally) Configure tariff. Tap “NEXT” to fill in the tariff information. The electricity price can be set to a specific value or Time-of-Use tariff.

Feed-in price: the price of selling power to the grid.

Consumption tariff: the price of purchasing power from the grid.

- Set electricity price

a. Select a price unit.

b. Enter the feed-in price and consumption tariff according to actual conditions, and tap "NEXT".

- 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 "NEXT".

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.

10. Distributor/installer creates new a plant and fills in the end user's e-mail address. The first time you fill in the end user's e-mail address, the system will create an account for the end user and send a email to the end user. The Distributor/installer creates plants for the end user and can manage the plants by default.

If the plant type select "RESIDENTIAL", the end user's e-mail address is required. If the plant type select "COMMERCIAL", the end user's e-mail address is optional.

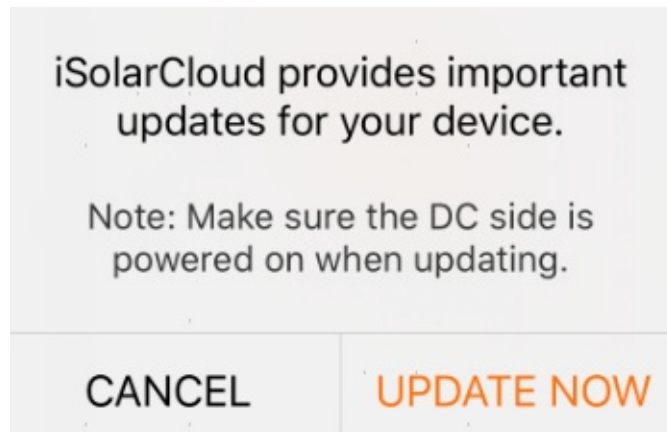
The end user creates a new plant and fills the distributor/installer code (optional). Fill in the distributor/installer code, so that the distributor/installer can view and manage the plant.

The distributor/installer code must be filled in if the parameter "country (region)" is set to Brazil.

11. Tap "NEXT" to wait for the inverter to connect to the iSolarCloud.

12. After the inverter is connected to the iSolarCloud, tap "COMPLETE".

13. If there is no latest equipment upgrade package, skip to step 15. If a latest equipment upgrade package is available, the following prompt window pops up.



14. Tap "UPDATE NOW". After successful upgrade, the screen will show the version numbers before and after the upgrade as well as the upgrade time. Tap "NEXT".

15. If initialization setting is not performed on the inverter, you will set the initialization protection parameters according to actual needs. After finishing the setting, tap "NEXT".

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


16. The screen displays that the inverter is successfully configured. Tap "NEXT".

17. After the inverter is connected to the iSolarCloud, tap "COMPLETE". Return to the App home screen on which information of the newly created plant will be displayed.

Procedure

The operation steps for the communication device to be "WiNet" are as follows.

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

2. If there is no plant, tap "Create power plant"; and if there are plants, tap the icon  in the upper right corner to enter the creating screen.

3. Select plant type. If the plant is a residential plant, tap "RESIDENTIAL"; and if the plant is a commercial plant, tap "COMMERCIAL".

4. Select inverter type. Tap "PV" when all inverters of the plant are PV inverter. Tap "HYBRID" when the plant has at least one hybrid inverter.

5. Add an inverter. You can scan the QR code on the communication device or manually enter the serial number of the communication device. Tap "Next" after the QR code is identified or the serial number entered is correct and then tap "CONFIRM". The inverter is thus added successfully.

6. Select communication device is "WiNet".

Skip to step 7 when scanning the QR code on the communication device adds an inverter.

7. Select inverter access. If the inverter is connected to the iSolarCloud via WLAN, tap "WLAN"; if the inverter is connected to the iSolarCloud via Ethernet, tap "Ethernet".

- WLAN

(1) Tap "WLAN", and prompt mobile device to connect to the local network. After connecting to the local network, return to the App and the screen will display that your mobile device is connected to the local network. Tap "NEXT".

(2) The screen prompts that WiNet is set to EasyConnect mode. Tap "NEXT".

(3) Enter local network information. Enter the name and password for the local network, and tap "NEXT".

(4) The screen prompts that the inverter is connected to the Internet. Tap "NEXT".

If the screen prompts you for failure, tap "TRAY AGAIN" and repeat the above steps. Or tap on "WLAN DIRECT CONNECTION" to configure to the network through the AP hotspot, the steps are as follows.

a. The screen prompts to activate the AP hotspot. Tap "NEXT".

b. The screen prompts that the mobile phone is connected to WLAN named in the form of "SG-communication module serial number". Return to the App, and the screen displays successful connection to the WLAN. Tap "NEXT".

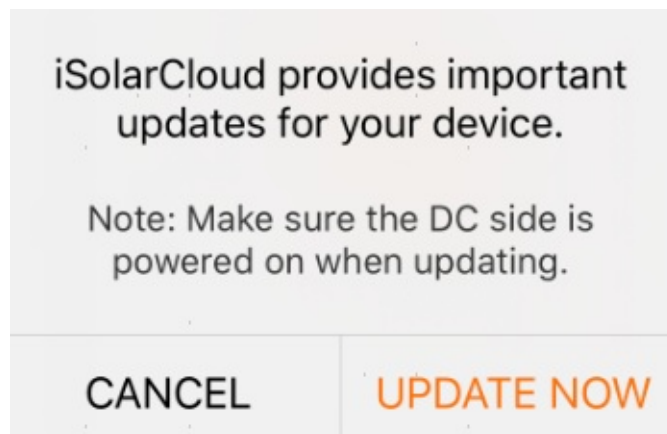
c. Select local network. Select local WLAN network and enter the WLAN password. The symbol "√" indicates successful connection to the local Wi-Fi network. Tap "NEXT", and the screen display prompt information of successful connection to the local network. Tap "NEXT".

- Ethernet

(1) Tap "ETHERNET", and prompt to activate the AP hotspot. Tap "NEXT".

(2) The screen prompts that the mobile phone is connected to WLAN named in the form of "SG-communication module serial number". Return to the App, and the screen displays successful connection to the WLAN. Tap "NEXT".

8. If there is no latest equipment upgrade package, skip to step 12. If a latest equipment upgrade package is available, the following prompt window pops up.



9. Tap "UPDATE NOW" to download the latest upgrade package.

10. Automatic device upgrade after download.

11. After successful upgrade, the screen will show the version numbers before and after the upgrade as well as the upgrade time. Tap "NEXT".

12. If initialization setting is not performed on the inverter, you will set the initialization protection parameters according to actual needs. After finishing the setting, tap "NEXT".

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

13. The screen displays that the inverter is successfully configured. Tap "NEXT".


14. The screen prompts that the mobile phone is connected to the Internet. Connect the mobile phone to the local network, or enable the "Mobile data".

15. Return to the App, and the screen displays successful connection to the Internet. Tap "NEXT".

16. The screen displays the inverter device added in step 5. Tap "Add more" and repeat step 5 to step 17, to add more inverters. Tap "NEXT".

17. Configure the plant. Tap "NEXT" to fill in the plant information.

Parameter	Description	End user	Distributor/installer
Plant name*	Name of the plant, device serial number (default)	√	√
Plant time zone*	Time zone of the plant	√	√
Country (region)*	Country (region) where the plant is located at	√	√

Plant address*	<p>Location of the plant, which can be added in two manners.</p> <p>Manual input: enter the plant location manually.</p> <p>Automatic obtaining: tap the icon  to automatically obtain current location or search for plant location, and tap “Confirm”.</p>	√	√
Postal code	Zip code of the place where the plant is located at	√	√
Battery type**	Type of the battery including lithium battery and lead-acid battery	√	√
Battery capacity**	Capacity of the battery	√	√
Grid-connection date	Time at which the plant starts feed-in operation	√	√

Note: * Indicates fields that must be filled in.

** is only applicable to energy storage inverters.

18.(Optionally) Configure tariff. Tap “NEXT” to fill in the tariff information. The electricity price can be set to a specific value or Time-of-Use tariff.

Feed-in price: the price of selling power to the grid.

Consumption tariff: the price of purchasing power from the grid.

- Set electricity price

a.Select a price unit.

b.Enter the feed-in price and consumption tariff according to actual conditions, and tap “NEXT”.

- 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 “NEXT”.

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.

19. Distributor/installer creates new a plant and fills in the end user's e-mail address. The first time you fill in the end user's e-mail address, the system will create an account for the end user and send a email to the end user. The Distributor/installer creates plants for the end user and can manage the plants by default.

If the plant type select "RESIDENTIAL", the end user's e-mail address is required. If the plant type select "COMMERCIAL", the end user's e-mail address is optional.

The end user creates a new plant and fills the distributor/installer code (optional). Fill in the distributor/installer code, so that the distributor/installer can view and manage the plant.

The distributor/installer code must be filled in if the parameter "country (region)" is set to Brazil.

20. Tap “NEXT” to wait for the inverter to connect to the iSolarCloud.

21. After the inverter is connected to the iSolarCloud, tap “COMPLETE”. Return to the App home screen on which information of the newly created plant will be displayed.

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.

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	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.
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
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	Including information such as CO2 emission reduction, equivalent trees

and Emissions Reduction	planted, and save standard coal
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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 device name, and you will enter “General information” screen by default. Switch the tabs “Active Fault”, “Fault History”, “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	Display information such as power generation, phase voltage, phase current, and power factor.
Existing fault	Display fault lists including fault, alarm, prompt, and advice.
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.

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”.

6. (Optionally) repeat step 4 and step 5, to add the cleaning strategy 2 to cleaning strategy 4.
7. 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.

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 on all of the multiple inverters.

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.

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 at. Otherwise, the inverter may report errors.

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

Configuration


Configuration

This section describes plant configuration, device configuration, device replacement, and tariff configuration.

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	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	×	√

Owner's email*	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	√	√
Plant address*	Location of the plant, which can be added in two 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	√	√
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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 newly added communication device will be displayed on the device configuration screen.

- 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”.

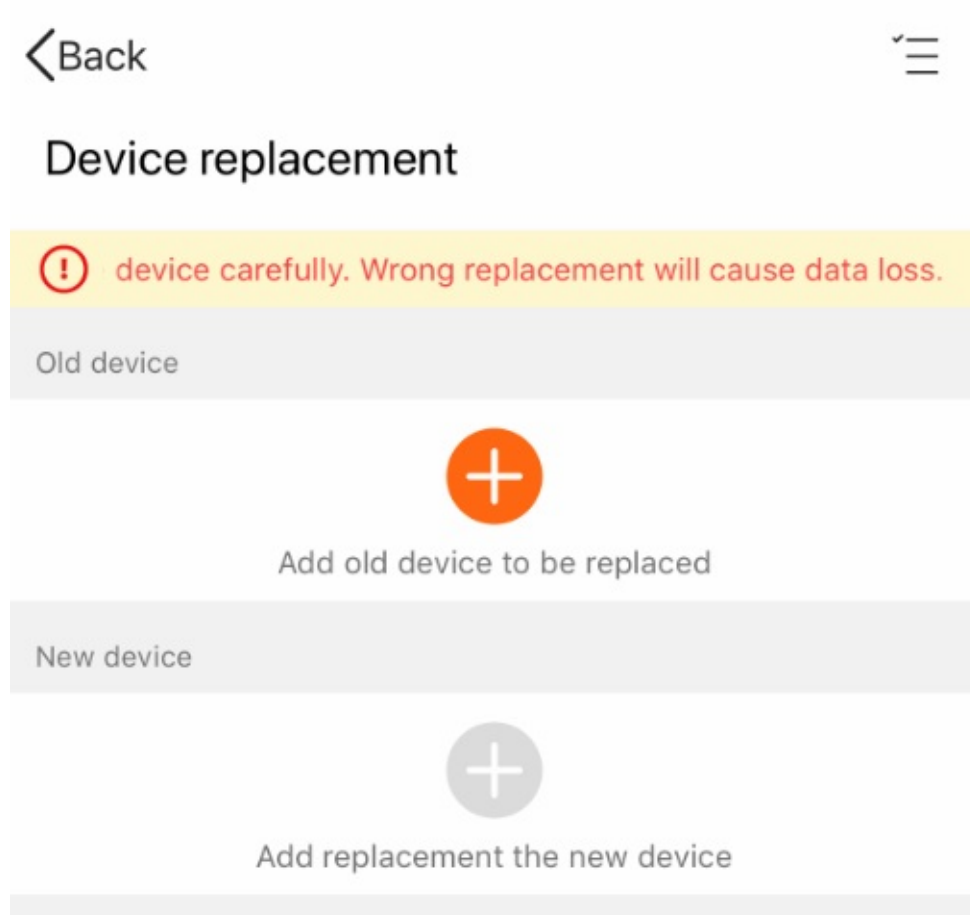
Device replacement


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 generation of the replaced device will be used as a compensation value of the new inverter.

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. elect 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.

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 screen, where the screen displays the fault list whose types are “Fault” and “Alarm” by default.
2. Enter fault name and select fault state, plant name, and fault type, to view corresponding fault list.
3. Tap the fault name to view detailed fault information.

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 “Confirm” 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.


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 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 “Confirm” 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.

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

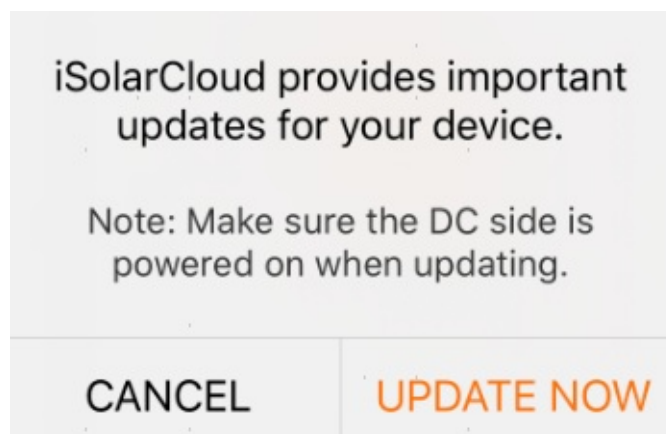
- The AC side of the inverter is energized.
- The WLAN function of the mobile phone is enabled.
- The mobile phone is within the coverage of the wireless signal of the WiFi module.

Procedure

- 1.Enable the WLAN function of the mobile phone, connect the phone to the WLAN network named in the form "SG-WiFi module serial number" (the serial number is on the side of the WiFi module).
- 2.Return to the login screen after a successful connection, tap "Local Access", and select "WLAN" on the next screen.
- 3.User name is "User" by default. Enter login password and tap "Login".

The initial password is "pw1111" which should be changed for the consideration of account security.

- 4.If there is no latest equipment upgrade package, skip to step 10. If a latest equipment 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 "Mobile data".
- 6.Return to the App, and the screen displays successful connection to the Internet. Tap "NEXT" to download the latest upgrade package.

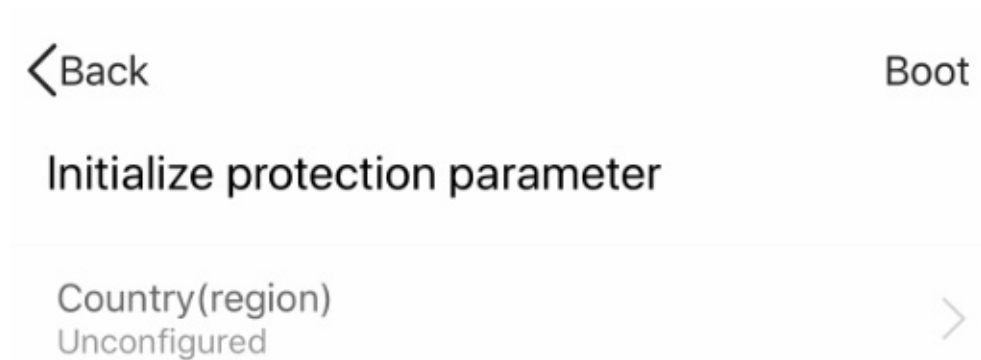
7. After download, tap “NEXT” to prompt the phone to reconnect to the inverter WLAN.

8. Return to the App, and the screen displays successful connection to the inverter. Tap “NEXT” to update device.

9. After successful upgrade, the screen will show the version numbers before and after the upgrade as well as the upgrade time. Tap “COMPLETE”.

If the communication equipment is upgraded, after successful upgrade, check and confirm that the phone is connected to the inverter WLAN.

10. If initialization setting is not performed on the inverter, you will enter the quick setting screen of initialization protection parameter after successful login. After finishing the quick setting, tap “Boot” in the upper right corner of the quick setting screen. The App delivers the start instruction, and the inverter starts and operates.



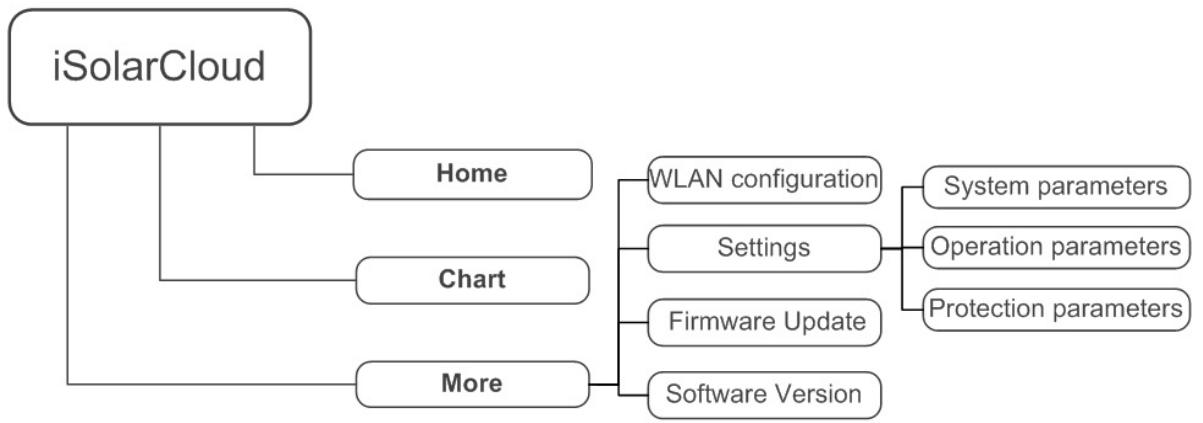
The parameter "country (region)" must be set to the country (region) where the inverter is installed at. Otherwise, the inverter may report errors.

11. You will enter the App home screen after finishing the initialization setting.

Function Overview

Function Overview

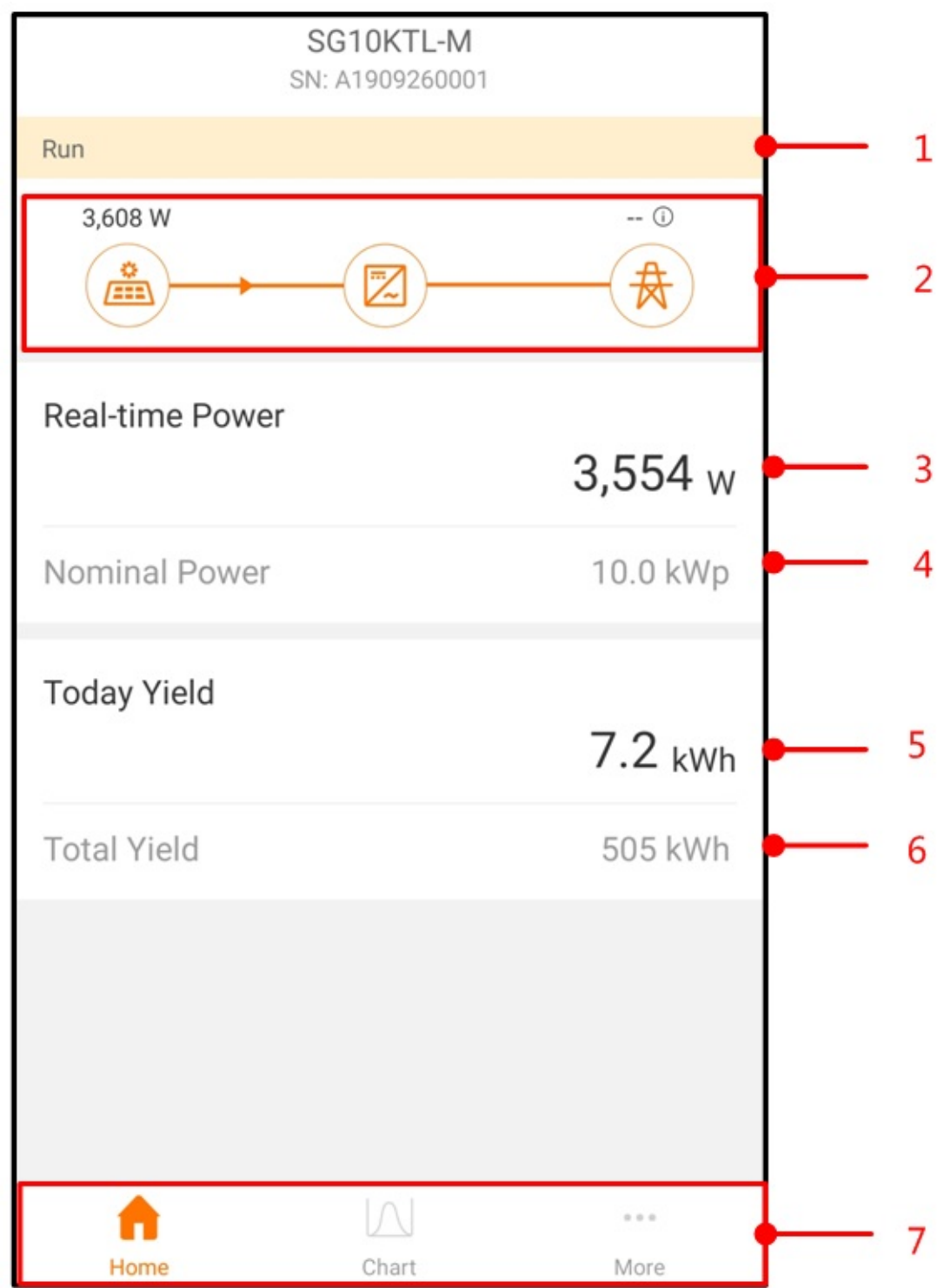
You can view inverter real-time power and power generation, to start/stop the inverter, and to upgrade firmware, etc.



Home


Home

You will enter the home screen after login.



Function description of home screen

No.	Name	Description
1	Inverter state	Present operation state of the inverter
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 modules
5	Today yield	Today power yield of the inverter
6	Total yield	Accumulative power yield of the inverter
7	Navigation bar	Including menus of “Home”, “Chart”, 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

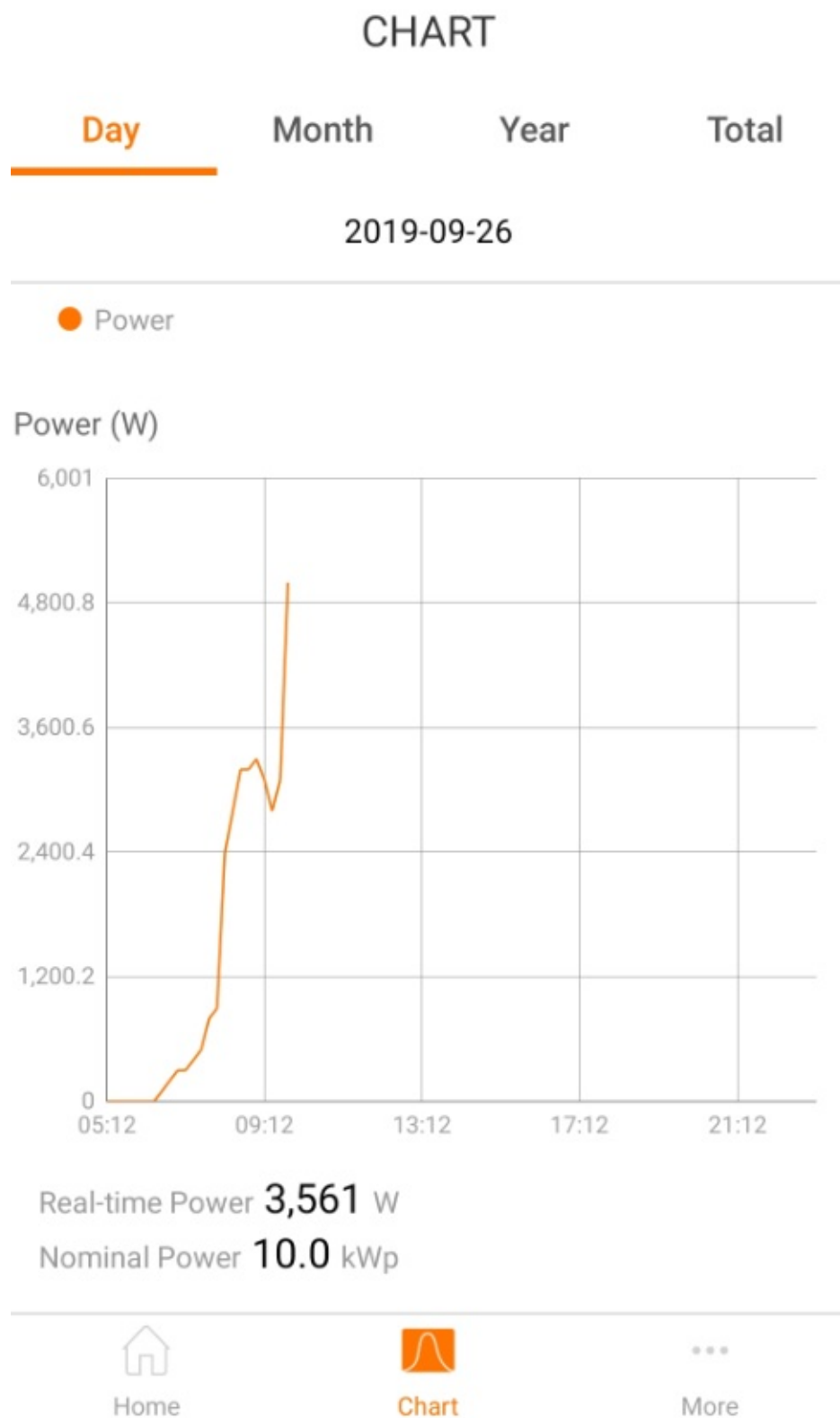
Chart

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.

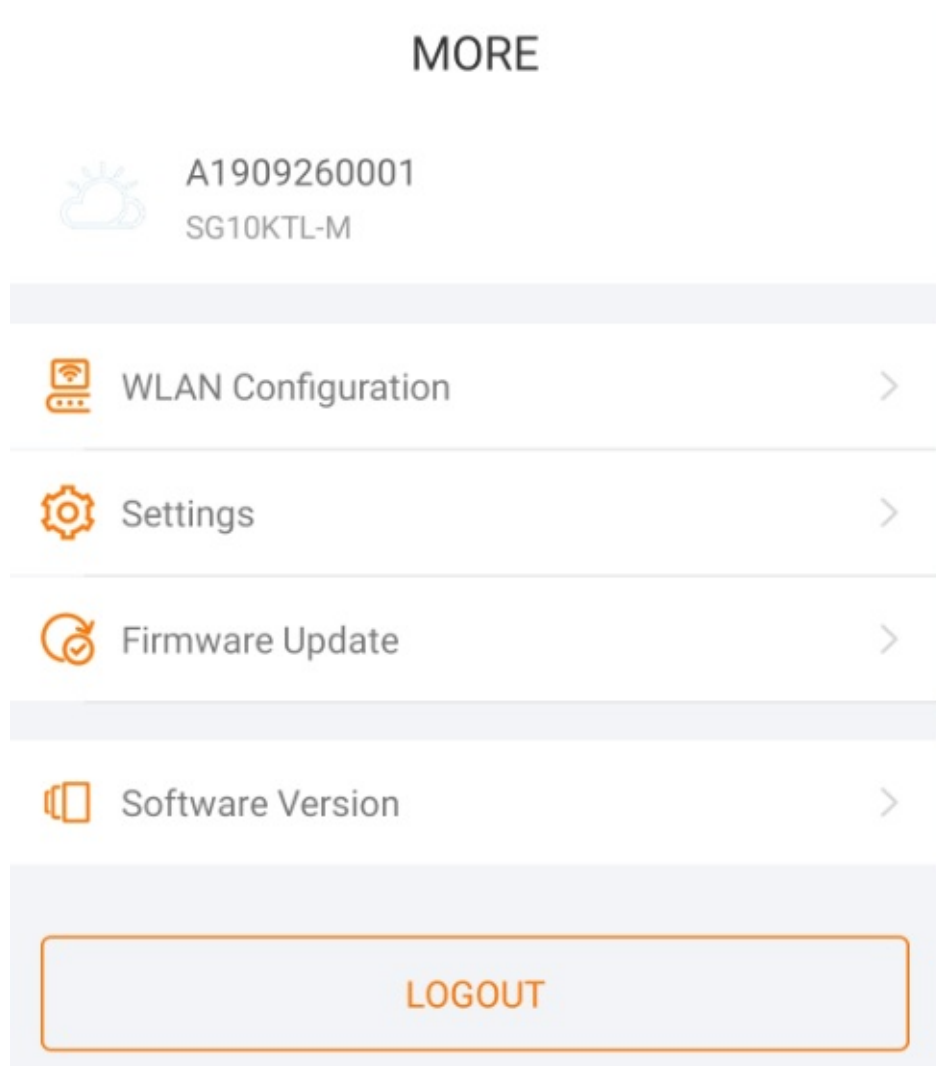


2. Swipe the screen left to view monthly power generation histogram, annual power generation histogram, and total power generation histogram.

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

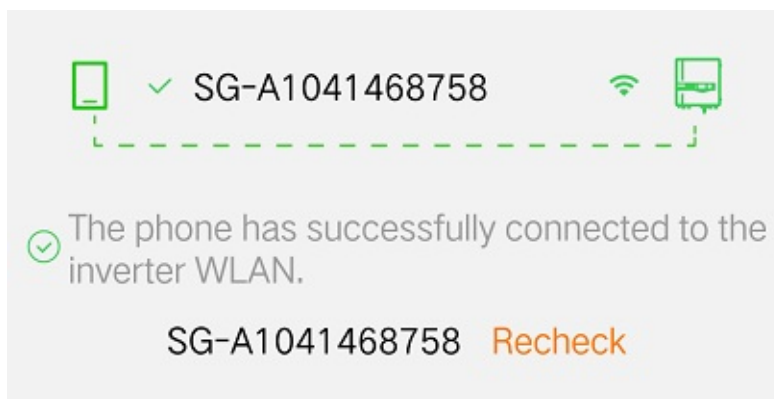
- You have already got the account and password from the distributor/installer or SUNGROW.
- The inverter has been connected with the WiFi wireless communication module researched by SUNGROW.
- You have got the WLAN name and password of the home network.

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>>

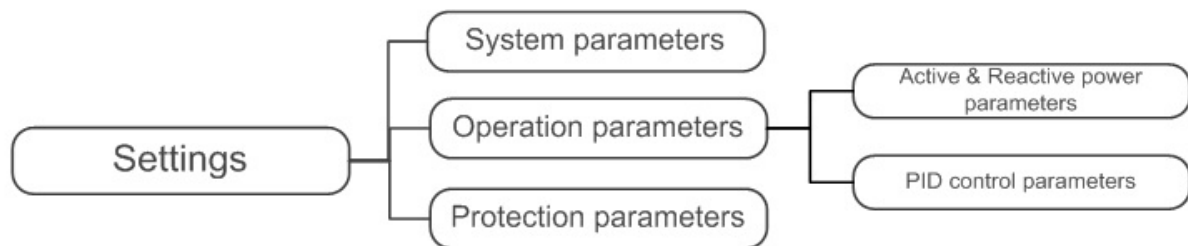
Alternatively, you can tap the icon  in the upper right corner on the login screen and select WLAN

configuration to configure the WLAN.

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

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 are any questions, contact SUNGROW.

Firmware Update



This section describes how to upgrade inverter firmware.

Prerequisite

The user has the permission of upgrading firmware.

Procedure

1. Obtain firmware upgrade package.

- Tap the icon  in the upper right corner of the login screen and select "Firmware download", to enter the "File list" tab by default. Select the desired upgrade package (.zip). Tap the icon . The downloaded package can be found in the "Downloaded" tab.

2. Log into the iSolarCloud App. Specifically, refer to "Login".
3. Tap "More" on the navigation bar and select "Firmware Update" to enter the corresponding interface.
4. Select the desired upgrade package and tap "Confirm" on the pop-up dialog box.
5. Wait for package uploading, after which the upgrade ends.

With the WiFi wireless communication module upgraded from unencrypted version to encrypted version, when creating power plants or configuring WLAN, the password required is the S/N of the communication module.

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 side of the inverter is energized.
- The mobile phone is within 5m away from the inverter and there are no obstructions in between.
- The Bluetooth function of the mobile phone is enabled.
- The mobile phone has had access to network

Procedure

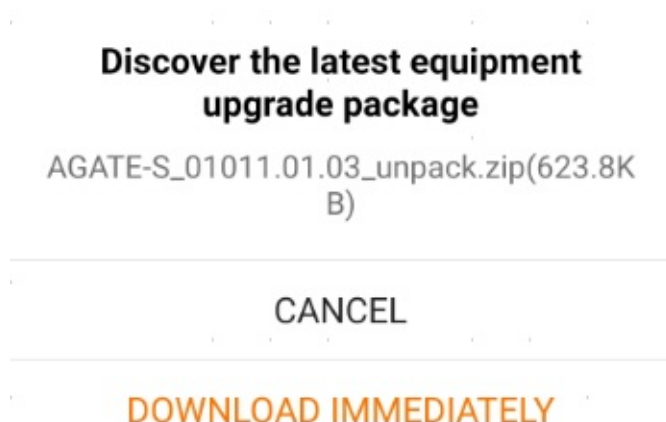
1.Open the App, tap “Local Access”, and select “Bluetooth” on the next screen, after which the Bluetooth search screen automatically pops up.

2.Select the to-be-connected inverter according to the serial number on the nameplate on the side of the inverter. Alternatively, tap the icon  to scan the QR code on the side of the inverter to establish Bluetooth connection.

3.User name is “user” by default. Enter the login password and tap “Login”.

The initial password is "pw1111" which should be changed for the consideration of account security.

4.If there is no latest equipment upgrade package, skip to step 8. If a latest equipment upgrade package is available, the following prompt window pops up.



5.Tap “DOWNLOAD IMMEDIATELY” to download the latest upgrade package. After download, tap “UPGRADE IMMEDIATELY” to access the firmware upgrade interface.

6.If upgrade fails, a corresponding prompt window will pop up. Tap “CONFIRM” to continue the upgrade. After successful upgrade, the interface will show the version numbers before and after the upgrade as well as the upgrade time. Tap “COMPLETE”, and then “CLOSE” on the pop-up prompt window.

7.Repeat step 2 and step 3.

8.If initialization setting is not performed on the inverter, you will enter the quick setting screen of initialization protection parameter after successful login. After finishing the quick setting, tap “Boot” in the upper right corner of the quick setting screen. The App delivers the start instruction, and the inverter starts and operates.



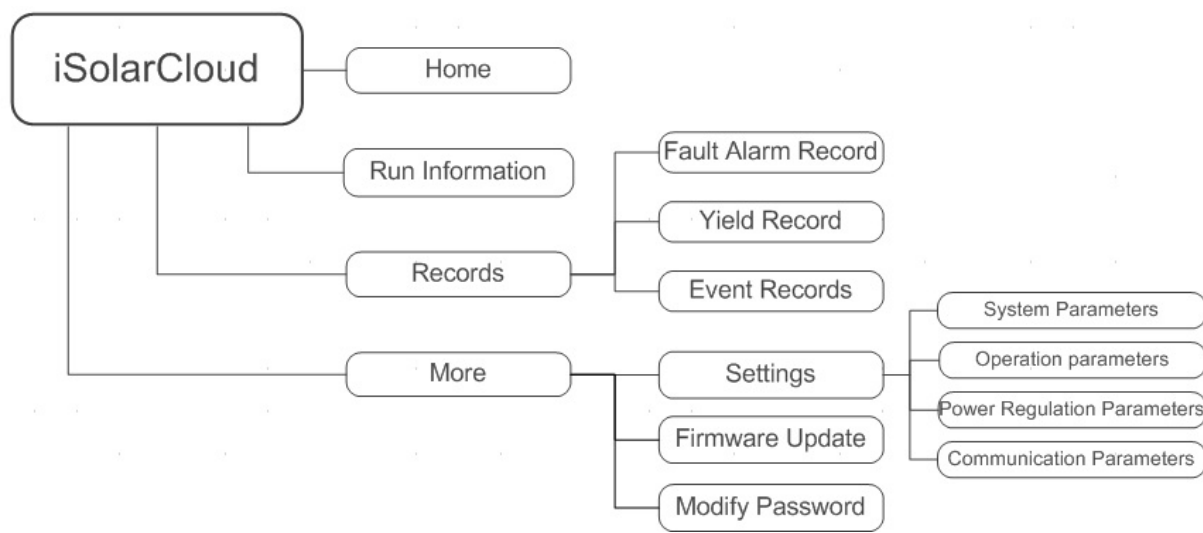
The parameter "Country (region)" must be set to the country (region) where the inverter is installed at. Otherwise, the inverter may report errors.

9.You will enter the App home screen after finishing the initialization setting.

Function Overview

Function Overview

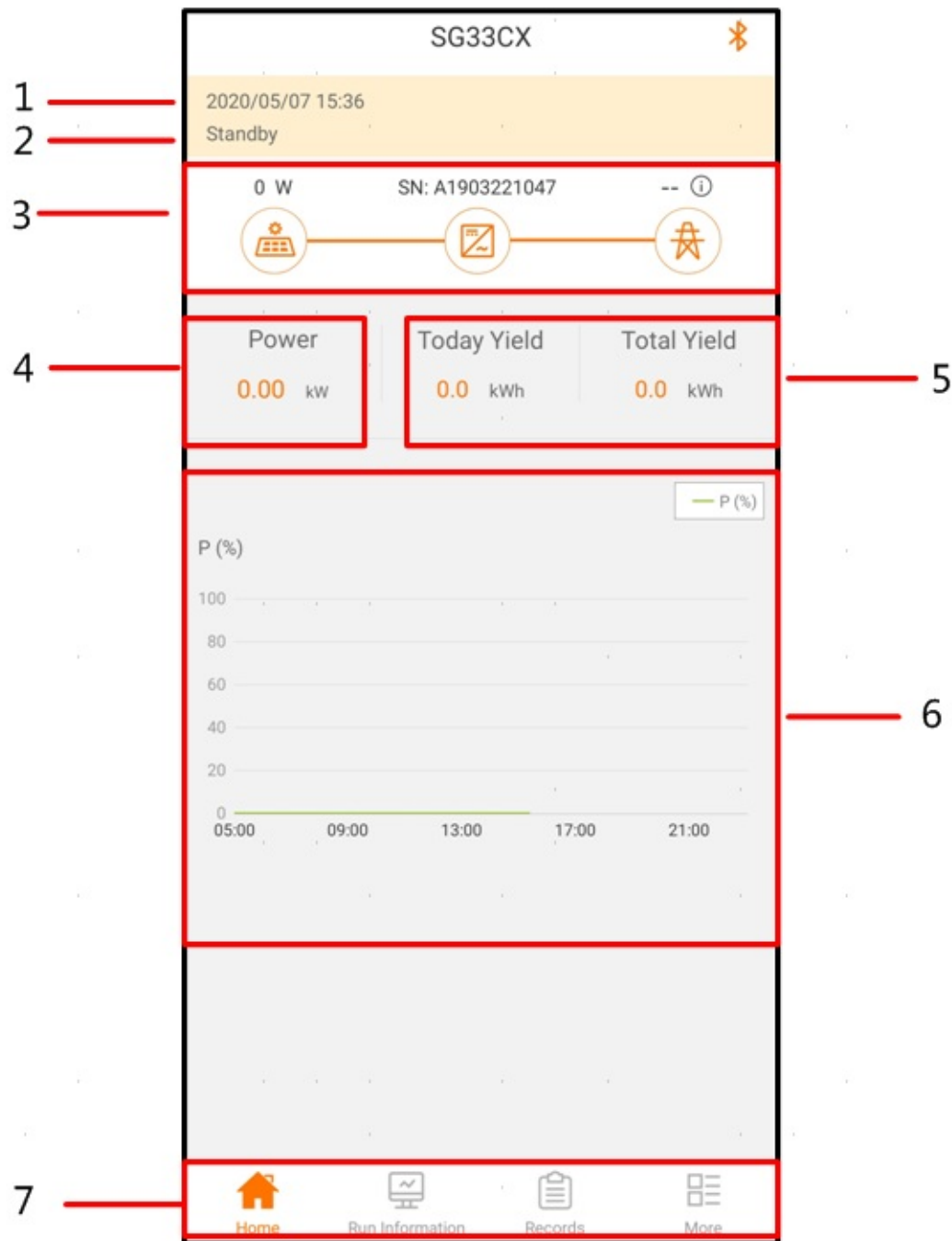
You can view inverter running state and power generation, to start/stop the inverter, and to change password, etc.



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”

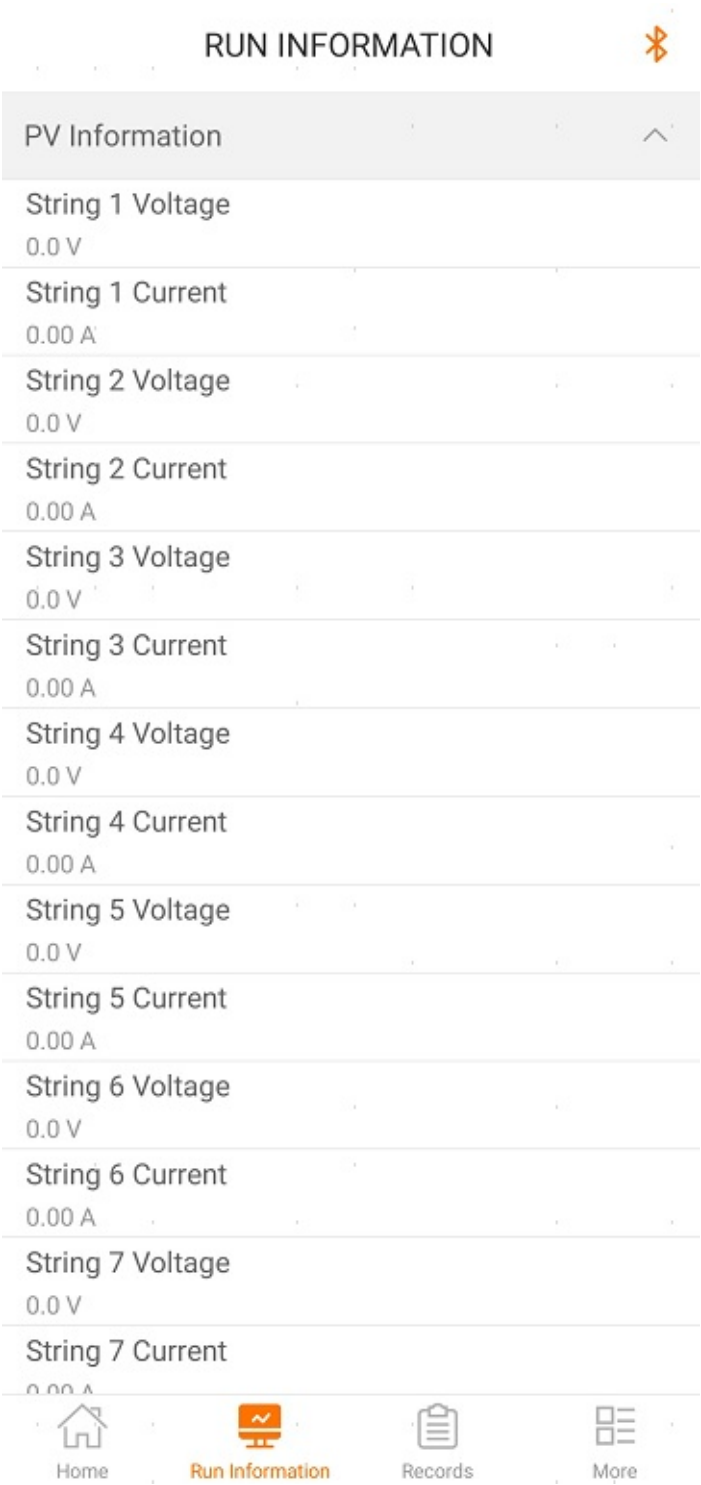


If the inverter runs abnormally, the fault icon  appears in the lower right corner of the inverter icon on the power load chart. Users can tap the icon to view detailed fault information and corrective measures.

Run Information

Run Information

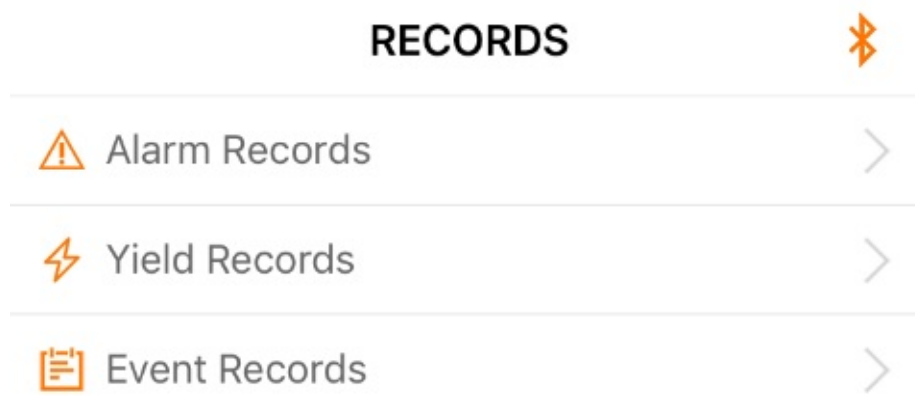
Tap “Run Information” on the navigation bar to enter the running information screen. Running information includes PV information, inverter information, input, output, and more.




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.

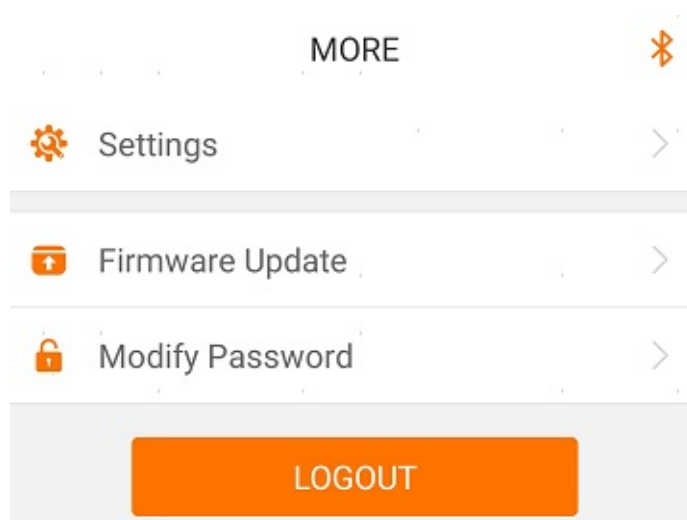
Viewing event record

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 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 firmware upgrade package.

- Tap the icon  in the upper right corner of the login screen and select “Firmware download”, to enter the “File list” tab by default. Select the desired upgrade package (.zip). Tap the icon . The downloaded package can be found in the “Downloaded” tab.

2. Log into the iSolarCloud App. Specifically, refer to “Login”.

3. Tap “More” on the navigation bar and select “Firmware Update” to enter the corresponding interface.

4. Select the desired upgrade package and tap “Confirm” on the pop-up dialog box.

5. Wait for package uploading, after which the upgrade ends.

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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