

# Elekeeper App

## User manual

<b>Document Version</b>	V2.0
<b>Release Date</b>	January 8, 2024

## Overview

This document describes the common procedures for Elekeeper App.

## Audience

This document is applicable to Elekeeper plant distributor, installer, and owner users.

## Revision History

Date	Document Version	Revision Description
November 1, 2022	V1.0	First release
December 16, 2022	V1.1	Updated screenshots
April 23, 2023	V1.2	Updated new version of UI screenshots
January 8, 2024	V2.0	Updated the new brand Elekeeper and new functions

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# 1 Introduction to Elekeeper

Elekeeper is an intelligent energy management system that integrates energy production, battery, charging, and consumption. It supports real-time monitoring of energy production, battery, charging, consumption, and device operating data and provides functions such as AI saving, safety diagnosis, energy dispatching, and intelligent service.

## 2 Downloading and Installing the App

### 2.1 Mobile Phone and Network Requirements

Mobile phone operating system requirements: Android 5.0, iOS 11.0, or higher  
To ensure stability of App functions, it is strongly recommended to use a mobile phone with Android 8.0, iOS 13.0, or higher while the mobile phone supports connection to the Internet.

### 2.2 Installation Methods

#### Method 1: Downloading and installation through the application market

Android users: Search, download, and install Elekeeper through the application market.

iPhone users: Search, download, and install Elekeeper through the application market.

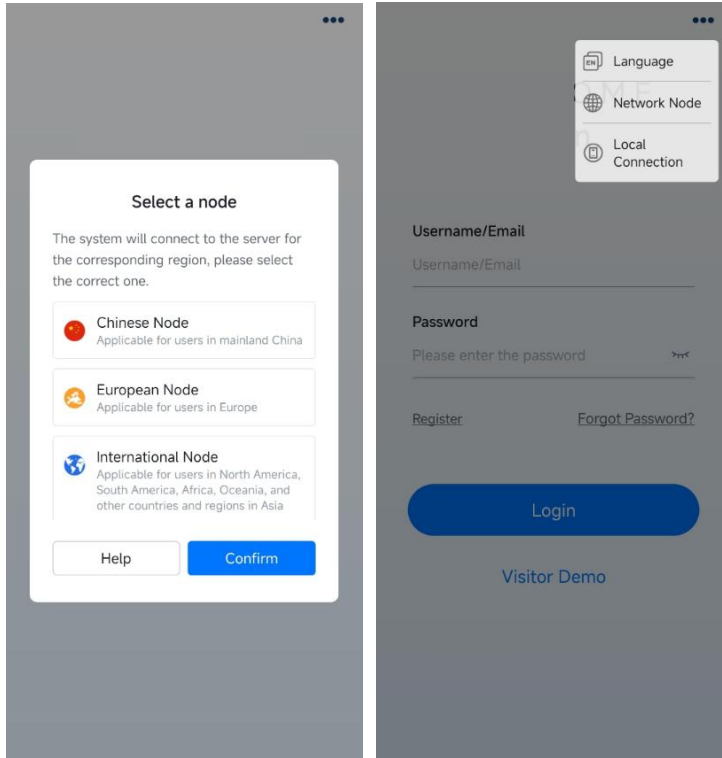
#### Method 2: Downloading and installation by scanning the QR code

Android	iPhone
	

### 3 Selecting a Network Node

Network nodes include Chinese node, European node, and international node (except Europe and China).

After you open the App, the system automatically locates the corresponding network node according to the mobile phone IP address. You can perform switchover through Network Node in 'more items' at top right corner of the login page.



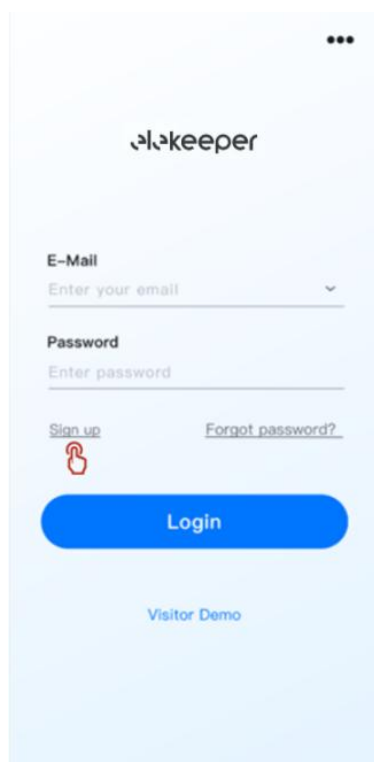
### 4 Obtaining Account and Password

#### 4.1 Owner User

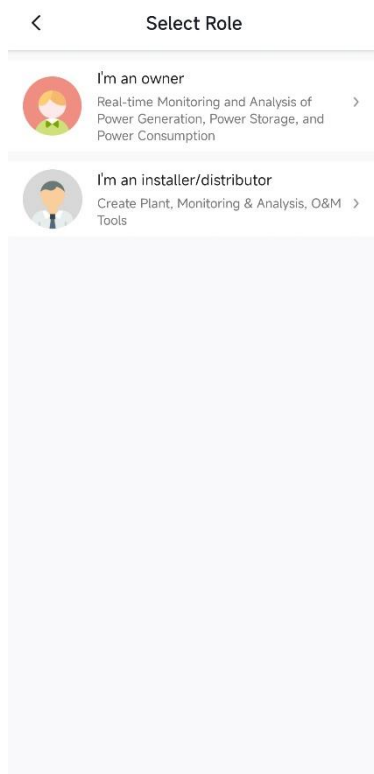
You are recommended to contact an installer who will register an account for you (You need to provide a username, email, or mobile phone number). Your password will be emailed to owner after successful registration. You can also choose to register an account by yourself.

**The procedures are as follows:**

- ① Click Sign up.



② Click I'm an owner.



③ Enter registration information.

The screenshot shows a mobile application registration screen titled "Register". At the top left is a back arrow. The form contains the following fields and options:

- Role Type:** A dropdown menu with "Owner" selected.
- Username:** A text input field with the placeholder "Please enter".
- Country/Region:** A dropdown menu with "Please select" and a right arrow.
- Time Zone:** A dropdown menu with "Please select" and a right arrow.
- Email:** A text input field with the placeholder "Please enter a valid Email".
- Password:** A text input field with the placeholder "Please enter" and a right arrow.
- Agreements:** Three checkboxes:
  - Agree 《User Registration Agreement》
  - Agree 《Owner Privacy Policy》
  - Agree to receive email notifications 《New Products, Events, Information》 Information on new product release, events, or news
- Confirm Registration:** A prominent blue button at the bottom.

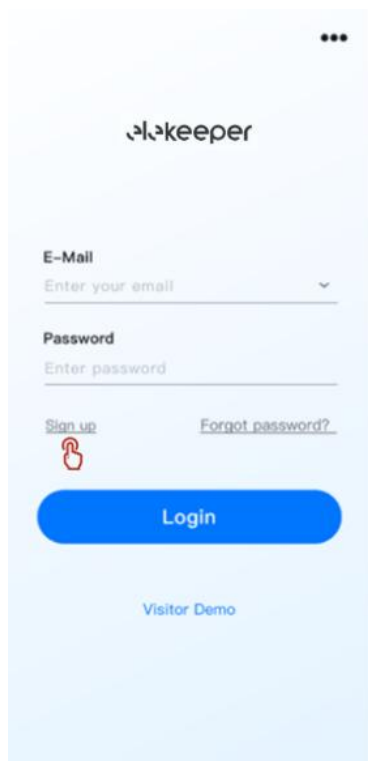
## 4.2 Distributor/Installer User

If your company has registered an account, contact your company's administrator who will register a subaccount in the system. Otherwise, click Sign up to register an account by yourself.

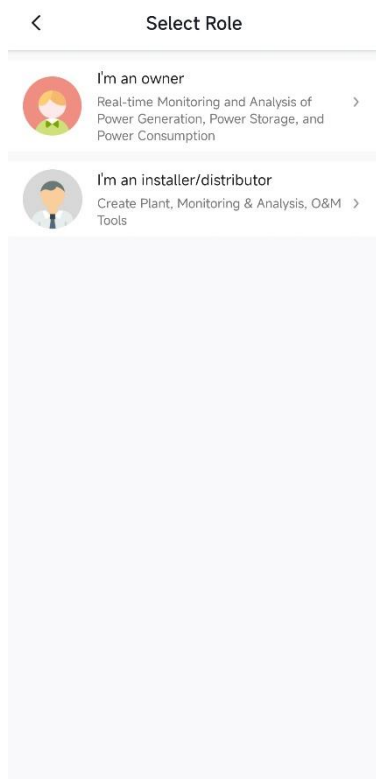
**The procedures are as follows:**



① Click Sign up.



② Click I'm an installer/distributor.



### ③ Enter registration information.

< Register

Note: If your company has registered an account in the system, you do not need to register. Please ask your administrator to add one in the system.

Role Type  
Please select >

Username  
Please enter

Country/Region  
Please select >

Time Zone  
Please select >

Email ⓘ  
Please enter a valid Email

Password ⓘ  
Please enter

Agree 《User Registration Agreement》

Agree 《Enterprise and other third-party privacy policies》

Agree to receive email notifications 《New Products, Events, Information》 Information on new product release, events, or news

Confirm Registration

## 5 Logging in to and Logging Out of the App

### Log in to the App.

...

Elekeeper

E-Mail  
Enter your email

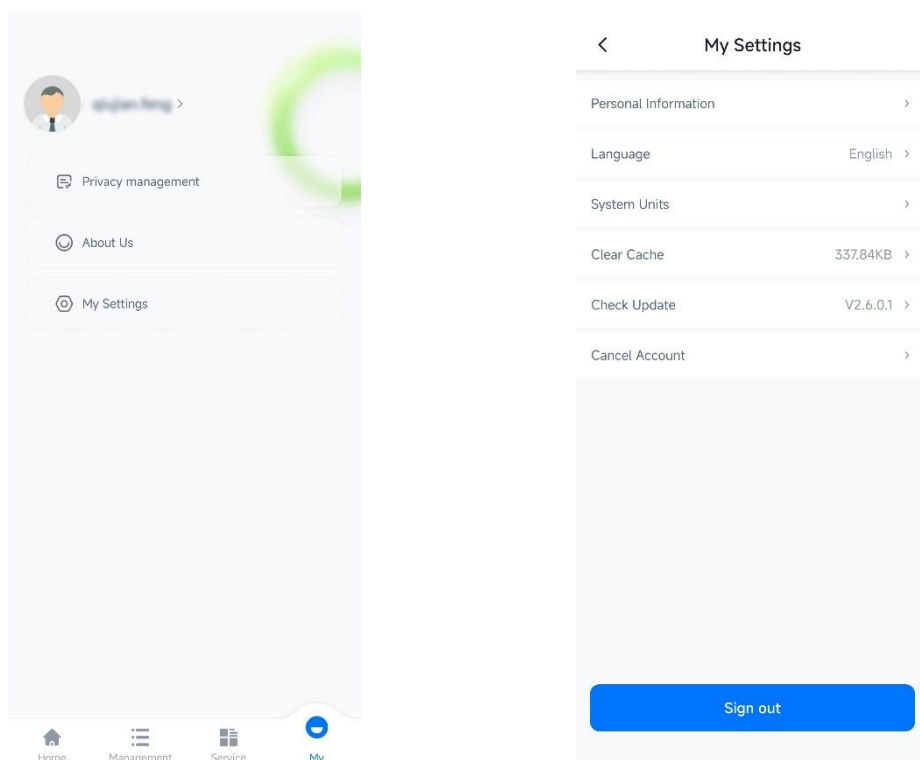
Password  
Enter password

[Sign up](#) [Forgot password?](#)

Login

[Visitor Demo](#)

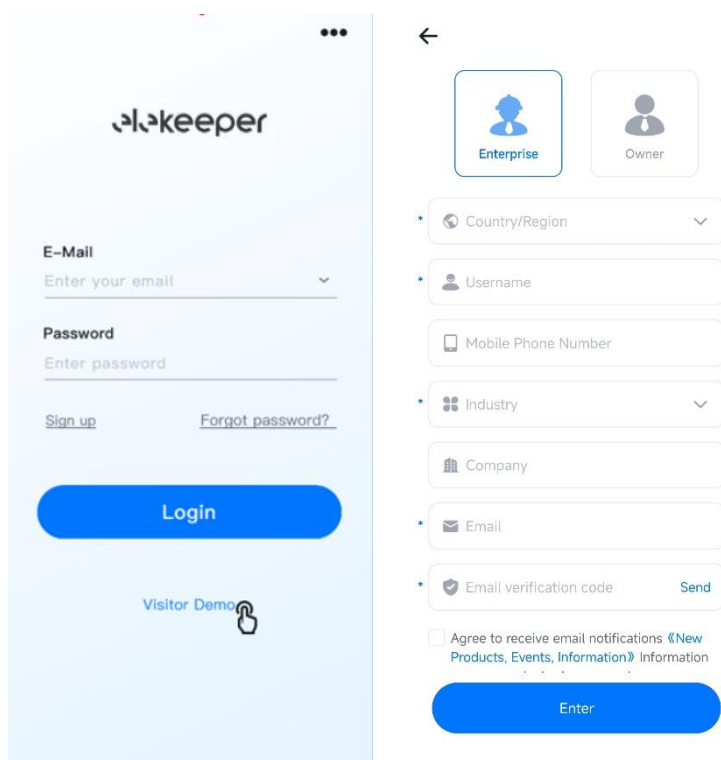
## Log out of the App.



On 'My page', click My Settings and Sign out.

## 6 I'm a Visitor

A visitor user can click 'Visitor Demo' on the login page. After selecting a role that you want to experience (Enterprise is a distributor or installer; owner is an end user), enter the demo system to experience it.

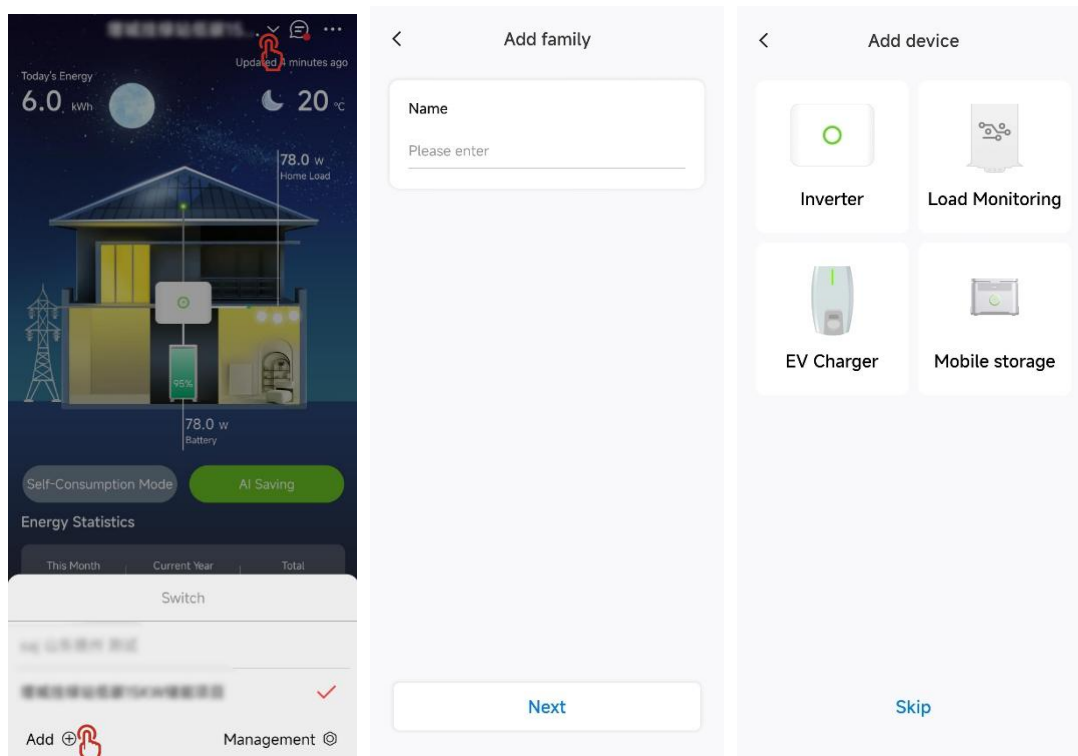


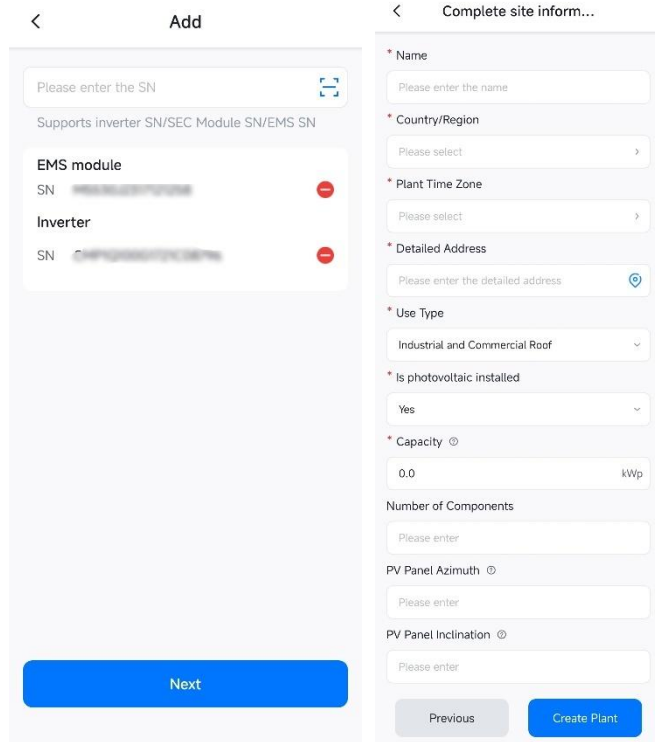
## 7 I'm an Owner

An owner user can monitor operating status of the plant and achieve plant/device management, energy management, analysis reports, and after-sales services through Elekeeper App.

### 7.1 Creating a Plant

On Home page, click plant switching button at the top. Click Add in the plant list. Enter plant (family) name. Select a device type to be added, enter or scan device SN, and click +. Enter information such as plant capacity, plant type, country/region, plant time zone, and detailed address. Create a plant.



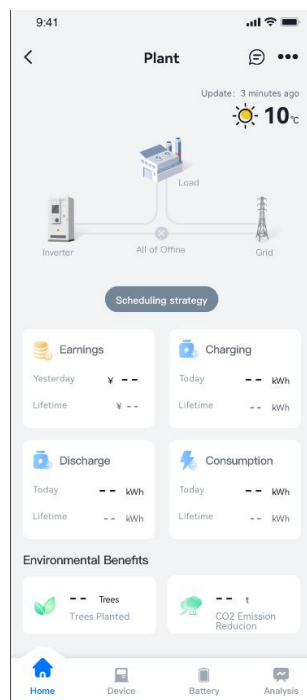


## 7.2 Energy Management

On the Home page, you can query the overview of the plant including real-time operating status, energy flow direction, energy production, battery, charging, consumption statistics, earnings, and environmental benefits. App also supports setting device working mode and AI Saving function.



Family battery scenario



Industrial and commercial battery scenario

**Basic plant information:** Today's generated energy, device working state, energy production, battery, charging, and consumption powers, and energy flow chart of plant.

**Device working mode:** App supports setting the UPS, self-consumption mode, time-of-use mode, back-up mode, and TOU mode.

**Self-consumption mode:** Power generated by PV plant is first supplied to load. Remaining power is used to charge the battery and then sold to the grid.

**Time-of-use mode:** Set charging and discharging of the battery according to rate difference during peak and valley periods of local power grid.

**Back-up mode:** Preferentially keep battery in fully charged state. Discharge battery only when mains supply is abnormal.

**AI saving function:** Enable/Disable this function and set geographic location and rate (fixed, time-of-use, and dynamic) of the plant.

(Notes: 1. The system will use power generation forecast and load forecast data to make a simulated calculation according to rate to automatically generate a series of battery charging and discharging strategy instructions with the aim of minimum electricity cost.2. The system will automatically set inverter according to strategy instructions to achieve the objective of minimum electricity cost.3. After Scheduling strategy function is enabled, it indicates you agree the system controls your inverter. If you don't want the system to control your inverter, disable this function.)

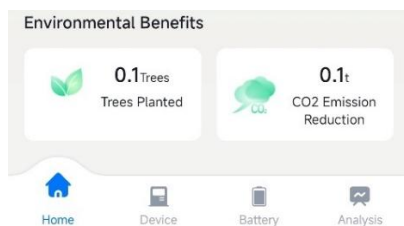
**Energy statistics:** This month's/Current year's/Total energy generated.

**Consumption statistics:** This month's/Current year's/Total consumption.

**Outage protection:** App supports enabling/disabling battery back-up mode. After this function is enabled, you can set outage time in advance. The system will fully charge the battery in advance before outage so battery can be used by the load after outage.



**Environmental benefits:** Environmental benefits are equivalent to Trees Planted and CO2 Emission Reduction.



## 7.2.1 Plant Switchover and Editing

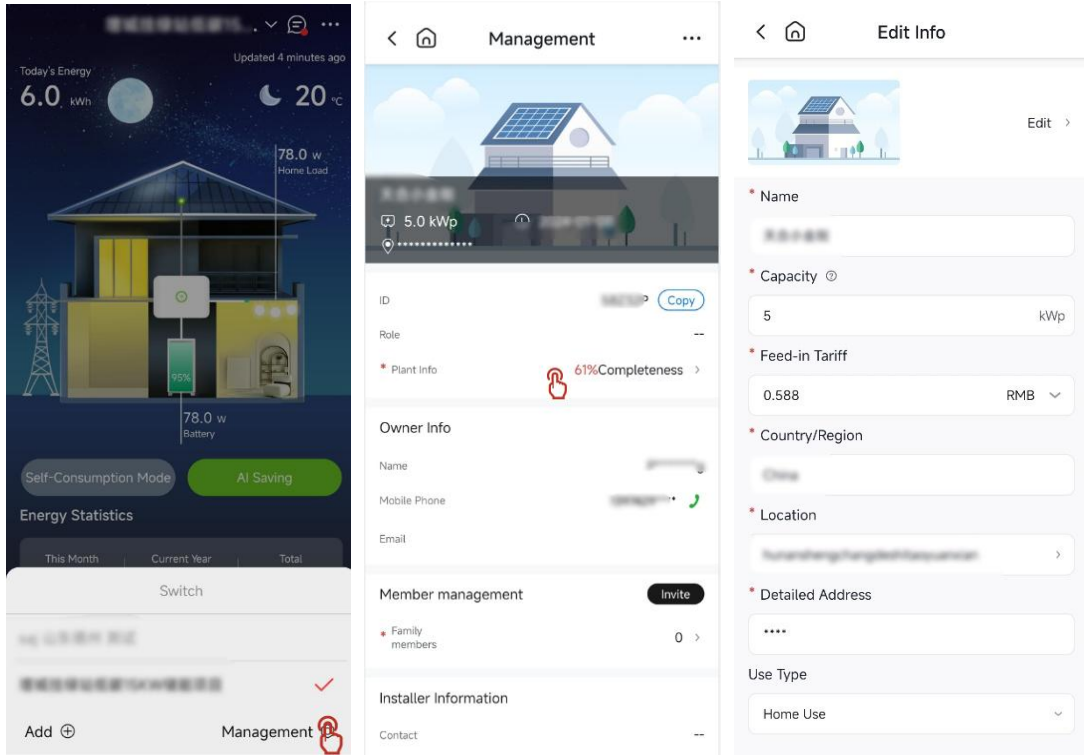
**Plant switchover:** If an owner user installs and adds multiple plants, click drop-down arrow at the top to unfold the "plant list" for plant switchover.



In "plant list", click Management and select a plant to query plant, owner, installer, and device information. Click Plant Info Completeness to edit basic plant information.

Click ... at top right corner of Management page to "delete" a plant.(You must enter account and password to confirm identity).

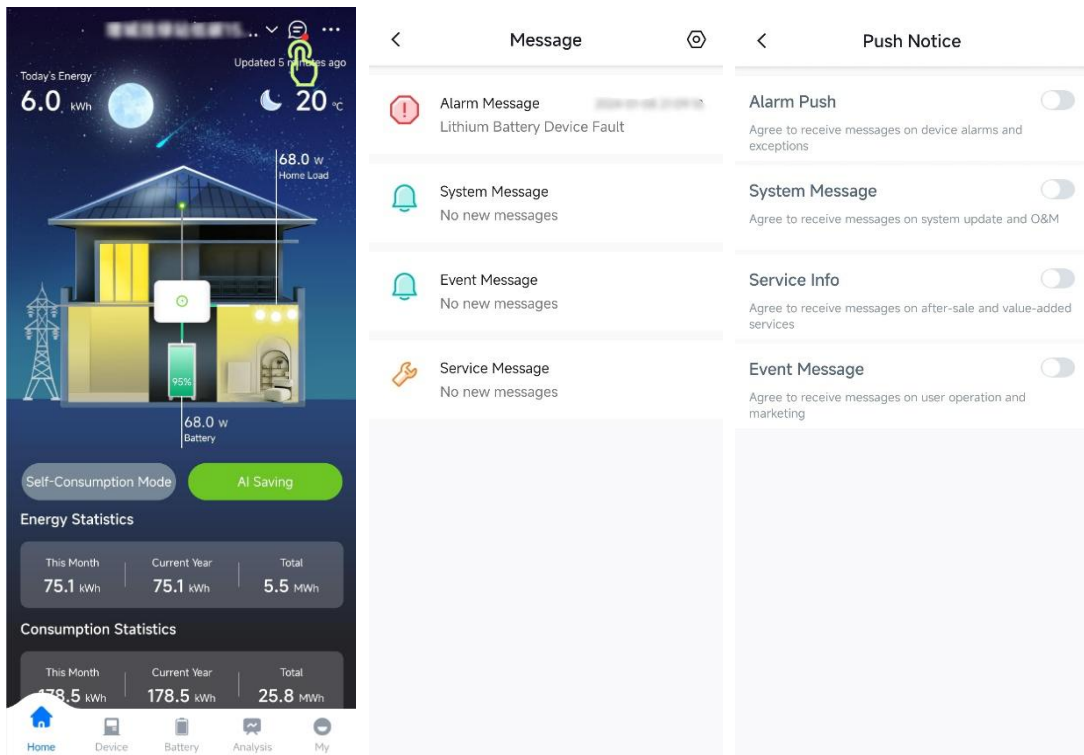
You can also quickly enter plant management page by clicking ... at top right corner of the Home page > Management.



### 7.2.2 Message

Click Message at top bar of Home page to query alarm, system, event, and service messages, as shown in the figure.

Click Setting button at top right corner of Message to set enabling/disabling the message push function.

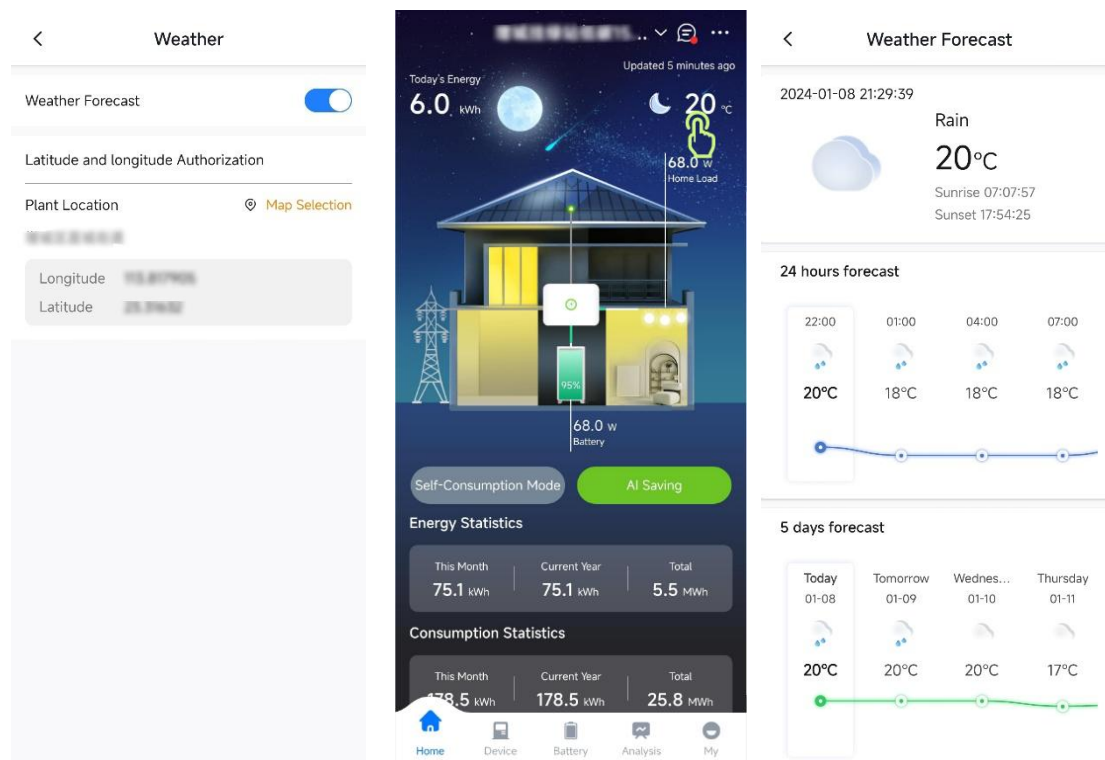




### 7.2.3 Weather

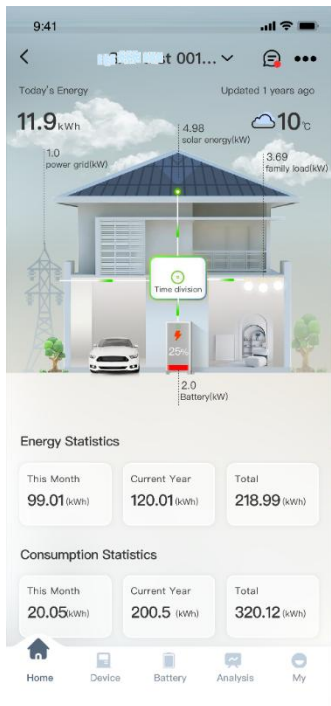
Click “...” at top right corner of Home page > Weather to set whether to enable the Weather Forecast function and query the authorized location of longitude and latitude of the plant.

After Weather Forecast function is enabled, the App supports real-time update of weather. At the same time, click the weather icon on page to go to Weather Forecast detail page.



For the energy flow chart on Home page, App supports automatic switchover of dynamic effects of weather according to real-time weather.

The following are screenshots of weather effects on a sunny day, cloudy day, rainy day, and at night.



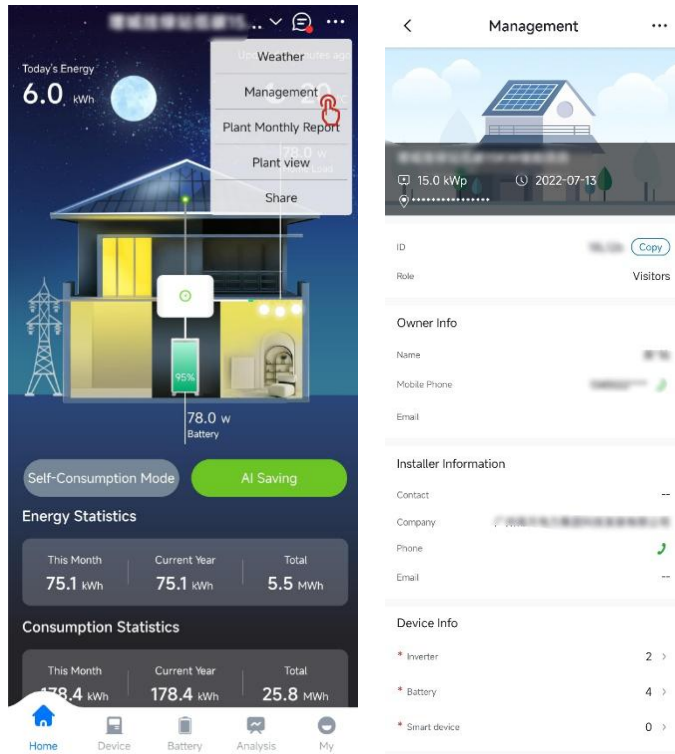
### 7.2.4 Management

Click “...” at top right corner of Home page > Management to query information about overview, owner, installer, and device of selected plant.

Click the Plant Info Completeness field to edit basic plant information.

Select a specific device in 'Device Info' field to query detailed information about this device.

Click “...” at top right corner to "delete" a plant. (You must enter account and password to confirm identity).



### 7.2.5 Visitors Management

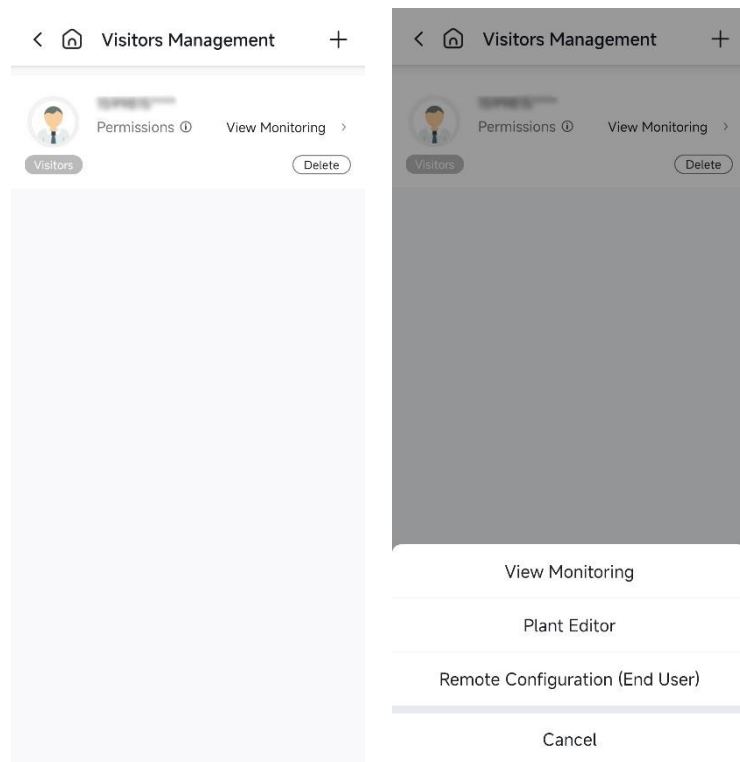
Click “...” at top right corner of Home page > Visitors Management. Enter user account/mobile phone number/email to add a plant visitor.

Visitors Permissions: (optional)

**View Monitoring:** Only supports viewing plant monitoring details.

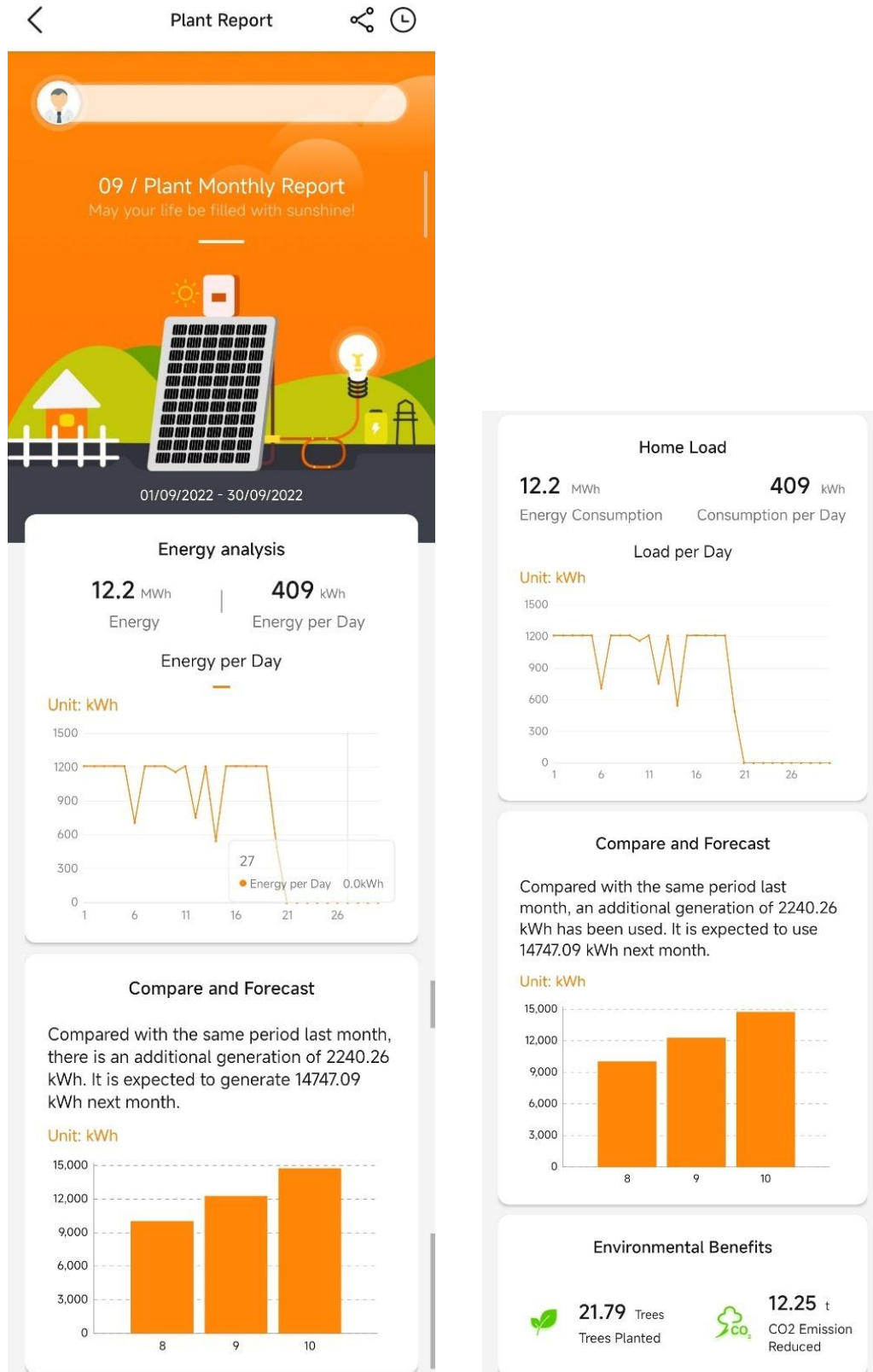
**Plant Editor:** You can view and modify a plant.


**Remote Configuration (End User):** You can view and modify a plant. You can also perform a remote connection to view data.




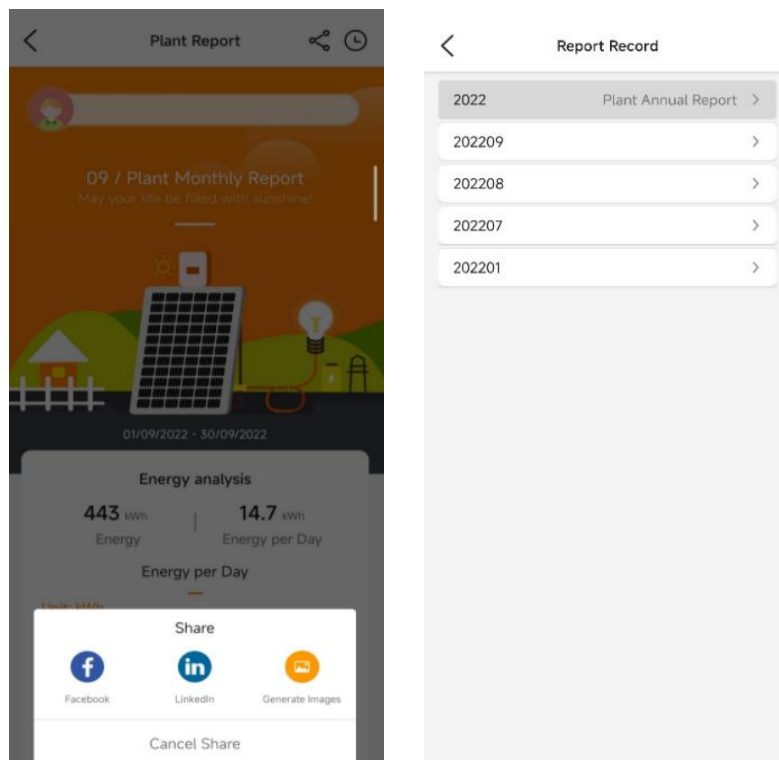
### 7.2.6 Plant Monthly Report

Click “ ... ” at top right corner of Home page > Plant Monthly Report to view a plant monthly report, including energy analysis, energy comparison and forecast analysis, load analysis, load comparison and forecast analysis, and other analyses.



Click  at top right corner of Plant Monthly Report page to share a monthly report.

Click  at top right corner of Plant Monthly Report page to query more annual and monthly reports.



### 7.2.7 Plant View

Click “ ... ” at top right corner of Home page > Plant View to view the PV connection and layout, and real-time electrical parameter data (power, current, and voltage) of the plant.



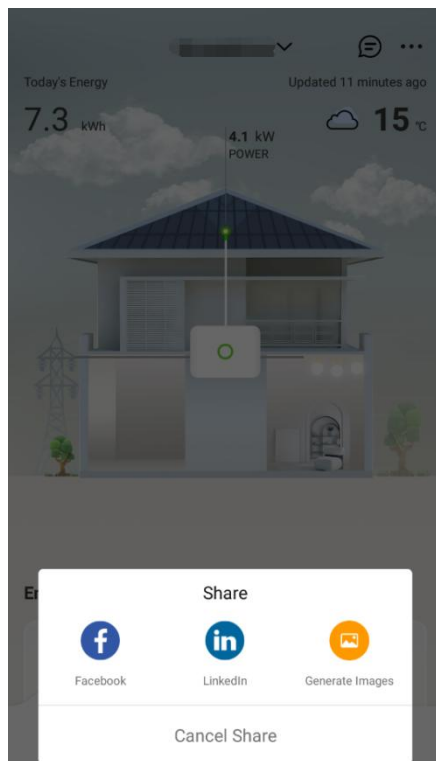
### 7.2.8 Plant Map

Click “...” at top right corner of Home page > Plant Map to view geographical location of the plant.



### 7.2.9 Share

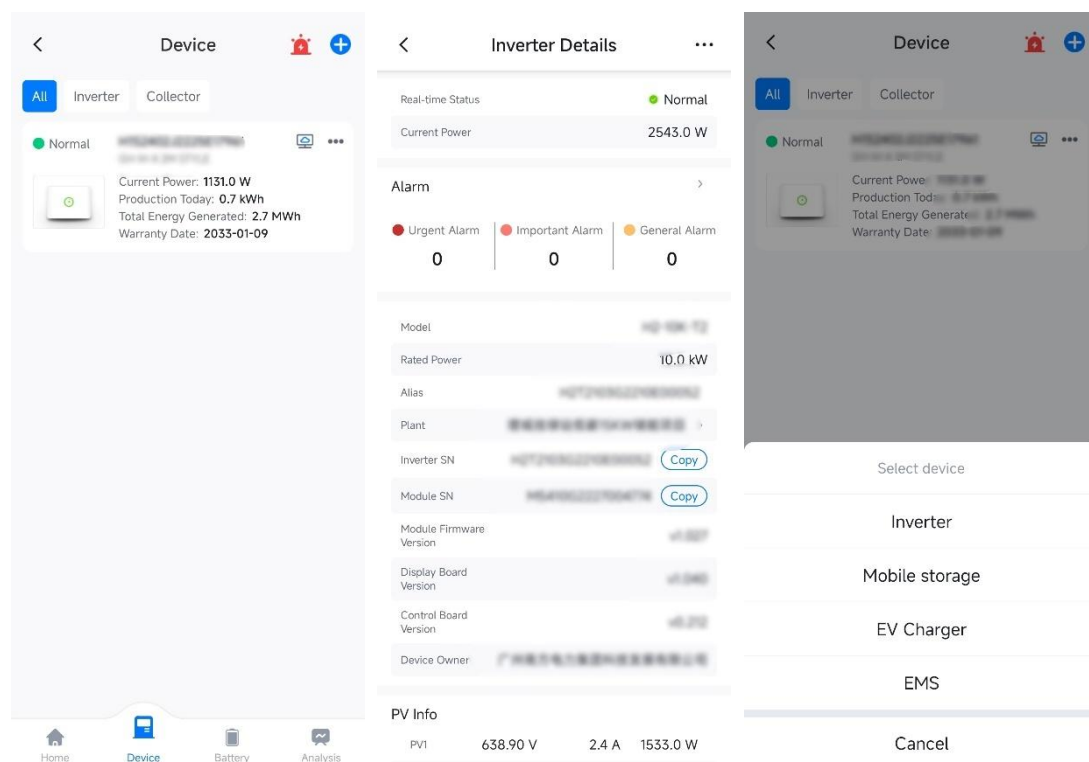
Click “ ... ” at top right corner of Home page > 'Share' to share energy production, battery, charging, and consumption information of the plant to platforms such as Facebook and LinkedIn.




### 7.3 Device

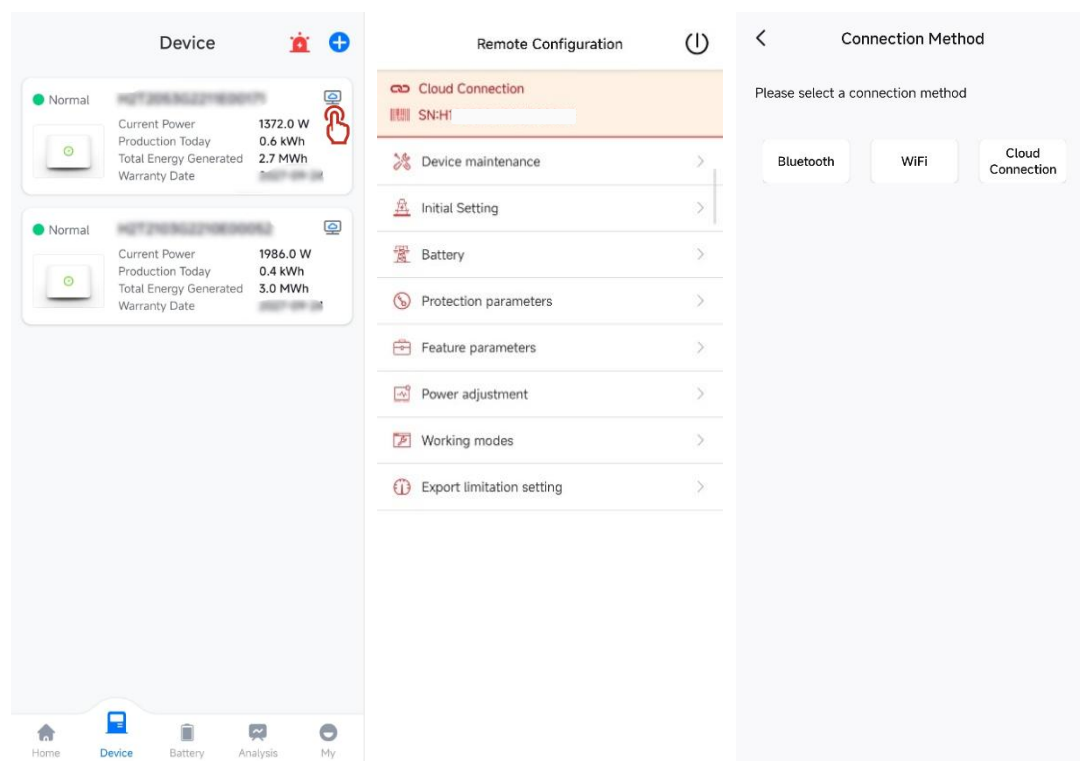
On Device page, you can add, delete, query, and edit device information and query device alarm messages.





### 7.3.1 Remote Setting

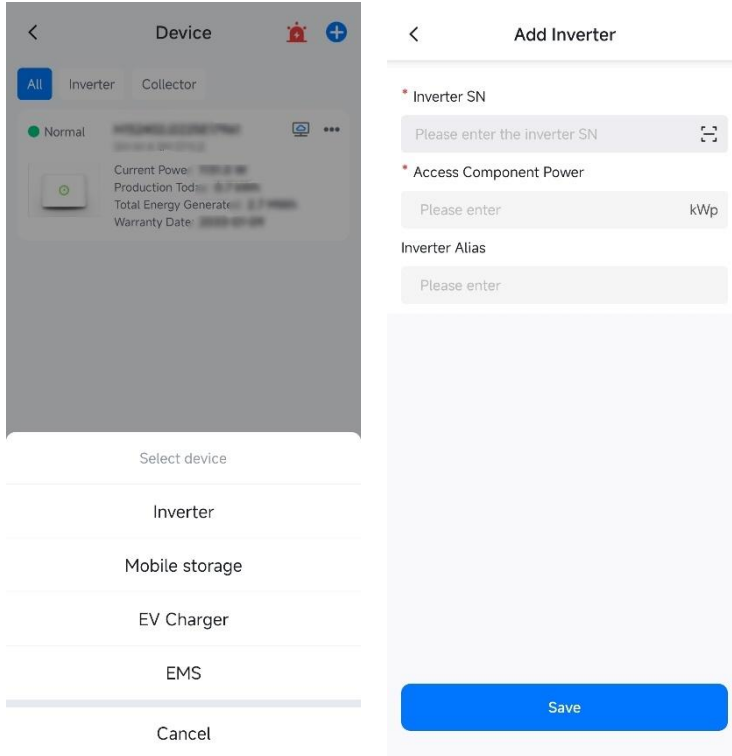
Click  on Device page to quickly connect to the device to perform remote setting/operation and maintenance. (Alternatively, enter device SN under My page → Remote Configuration → Cloud Connection to do above).



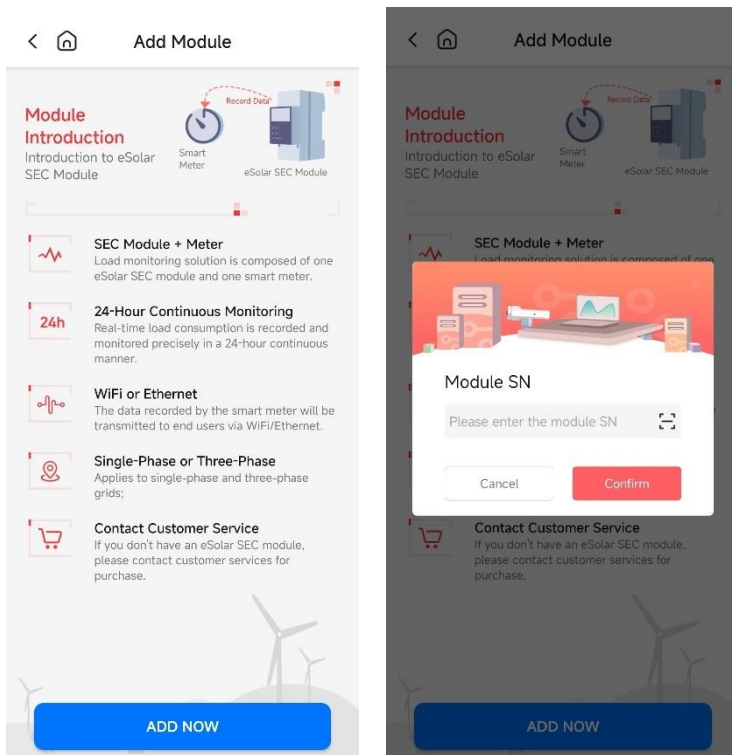
### 7.3.2 Adding a Device

Click + at top right corner of Device page. Select a device type to be added. Enter and scan device SN, or search a device via Bluetooth.

Select Inverter type. Enter or scan inverter SN, and enter access component power and inverter alias. Click Save.

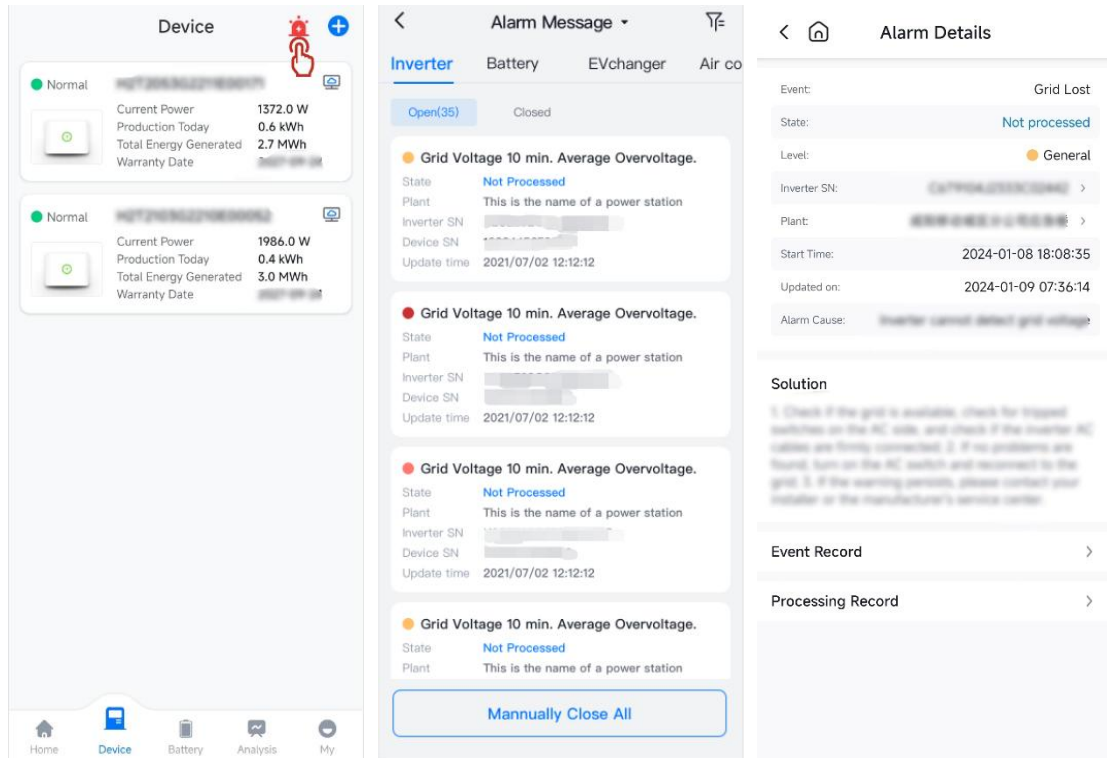


Choose to add a "communication module" device. Click ADD NOW. Enter or scan the SN. Click Confirm.



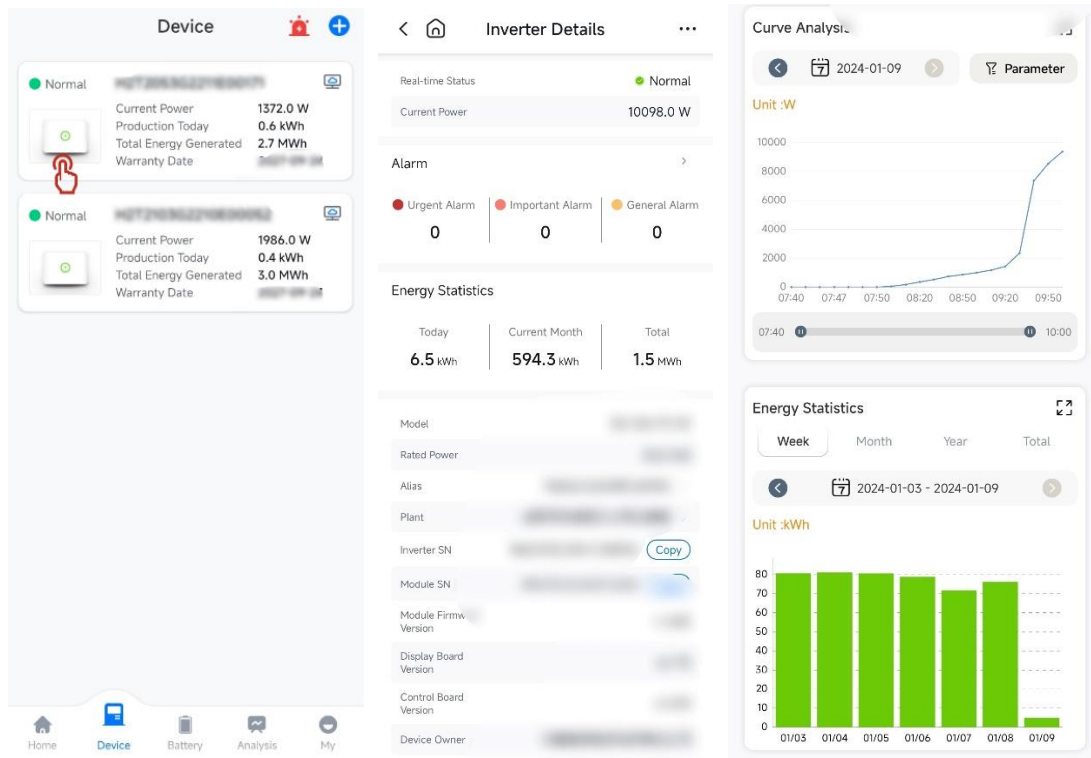
### 7.3.3 Device Alarm

Click alarm prompt icon at top right corner of Device page to query a device alarm message including alarm state, level, time, and solution.

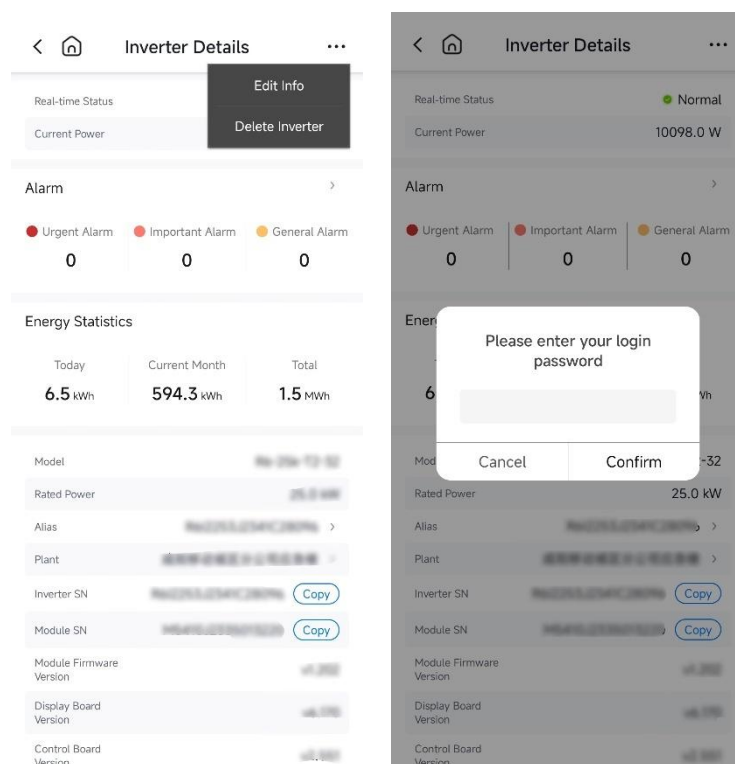


### 7.3.4 Device Details

On Device page, select a device from device list to query details of this device, including real-time status, current power, energy statistics, and device parameters.

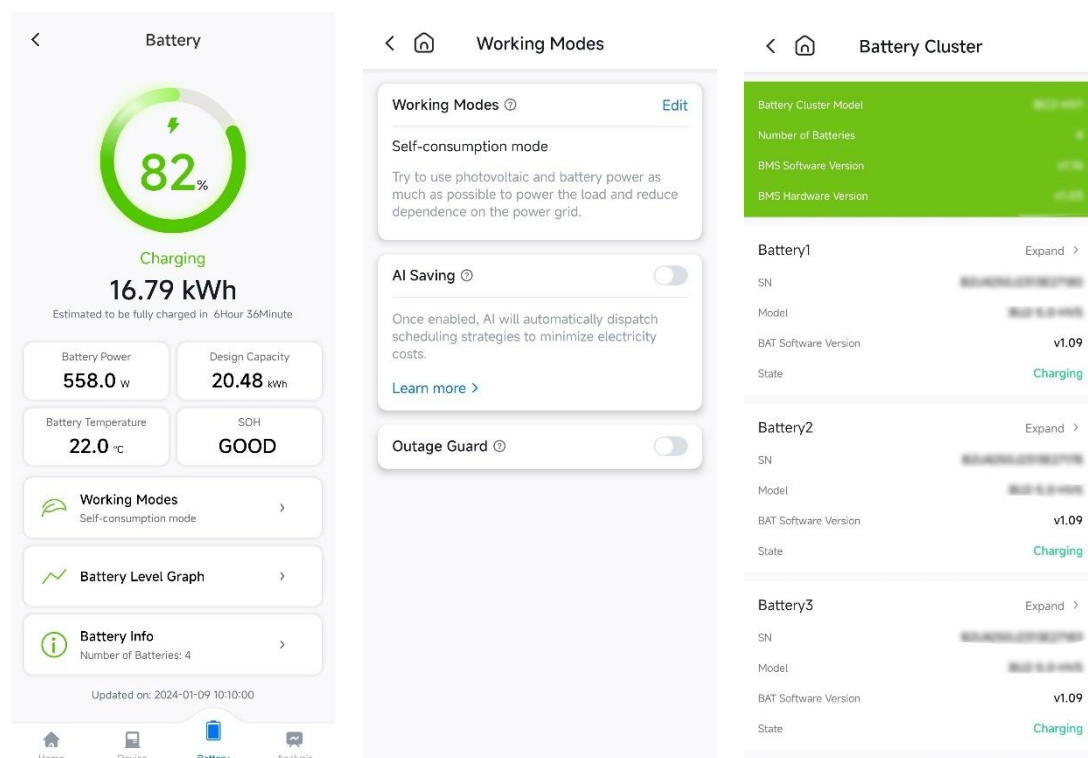


Click “ ... ” at top right corner of Device Details page to edit and modify device information or delete device (You must enter login password to confirm identity).

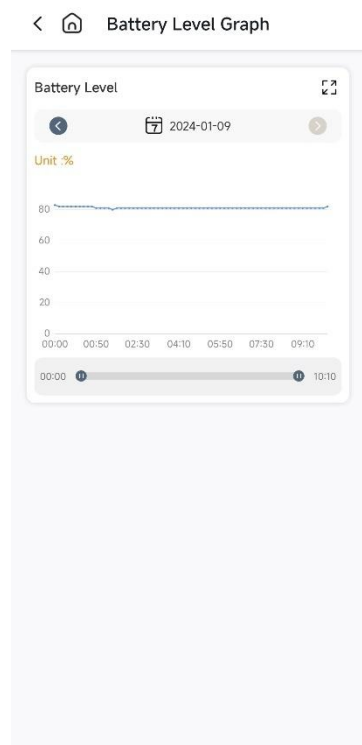


## 7.4 Battery

On Battery page, you can query information about remaining capacity, power, and temperature of battery, set device working mode, and query battery SOC analysis and battery details (battery cluster, battery SN, model, software version, and state).



**Battery analysis:** You can view battery SOC trend.

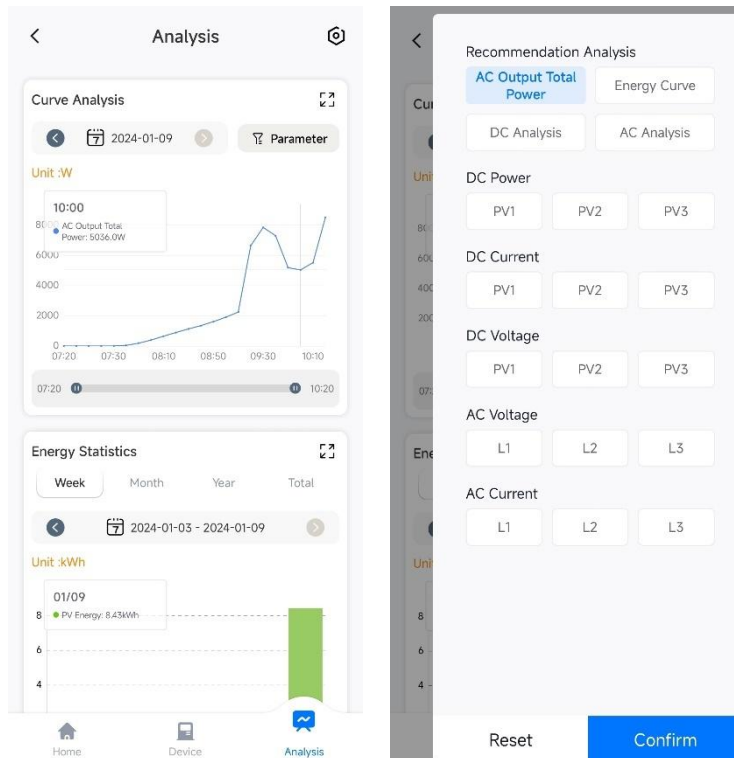


## 7.5 Analysis

On the Analysis page, an owner user can query total/yearly/monthly/weekly/daily generated energy, consumption, import energy and export energy, as well as visual charts such as energy comparison charts. All visual charts support full-screen preview and sharing functions.

### 7.5.1 Chart Analysis for Grid-connected Plants

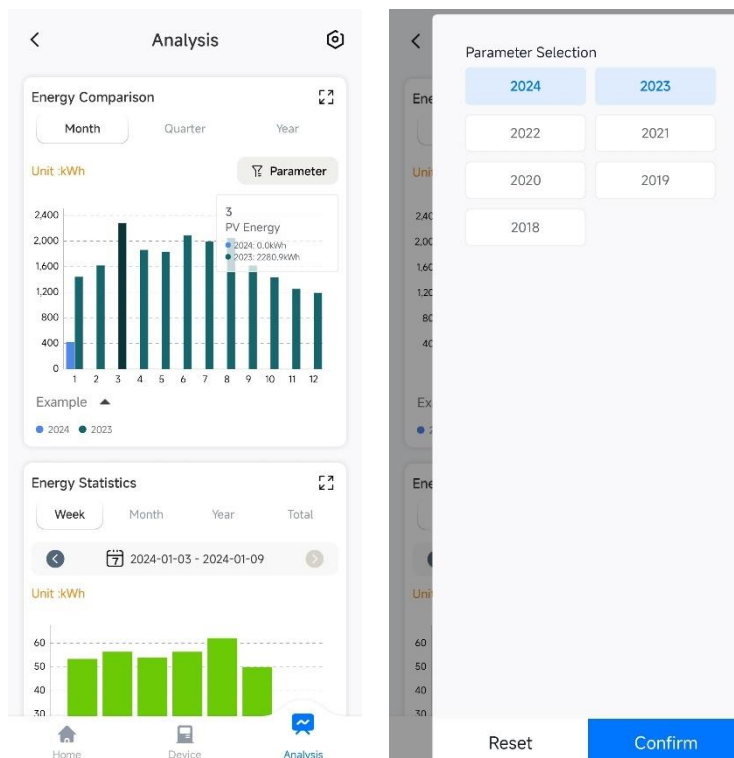
**Curve analysis:** The X-axis is time and Y-axis is user-defined parameter. Click Parameter to define multi-dimensional analysis parameters: AC output total power, energy curve, DC power, DC current, and DC voltage. User-defined analysis date is supported.



**Energy statistics:** In curve analysis, select "Energy curve" parameter as the Y-axis to query generated energy curve graph.

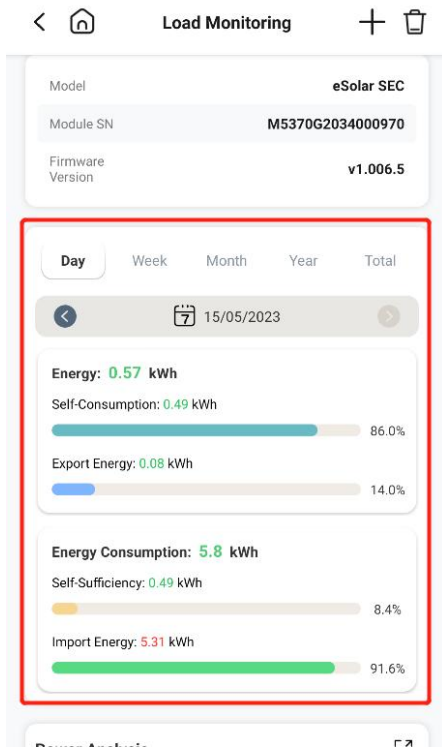


**Energy comparison:** The X-axis is time and Y-axis is generated energy. You can select year/quarter/month. Year-on-year/quarter-on-quarter/month-on-month comparison analysis and user-defined analysis time are supported.

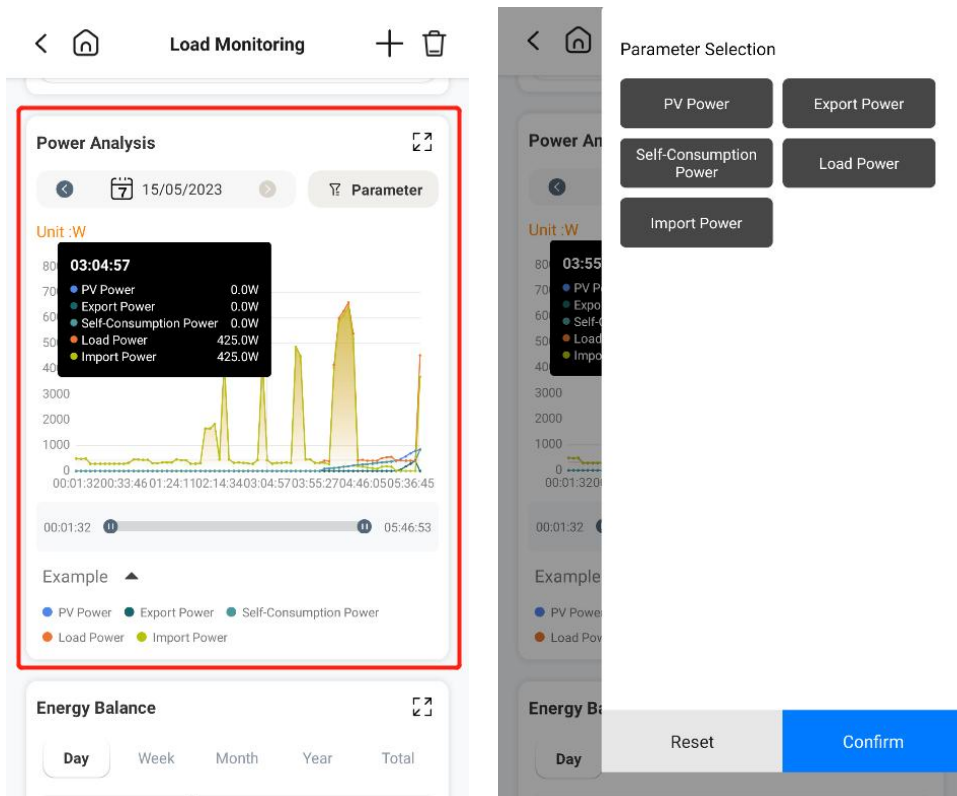


### 7.5.2 Load Monitoring Chart Analysis

**Self-consumption/Self-sufficiency:** Statistics of total/yearly/monthly/weekly/daily generated energy/export energy and consumption/import energy can be generated.

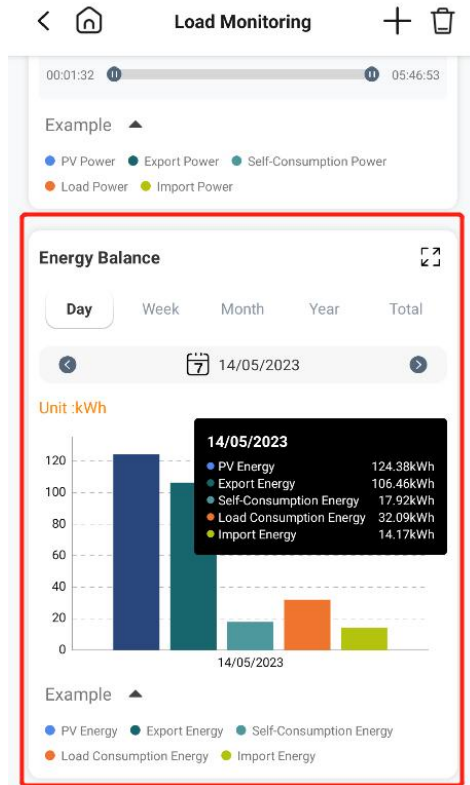


**Power analysis:** The X-axis is time and Y-axis is power. Click Parameter to select PV power, export power, self-consumption power, load power, and import power. User-defined analysis time is supported.



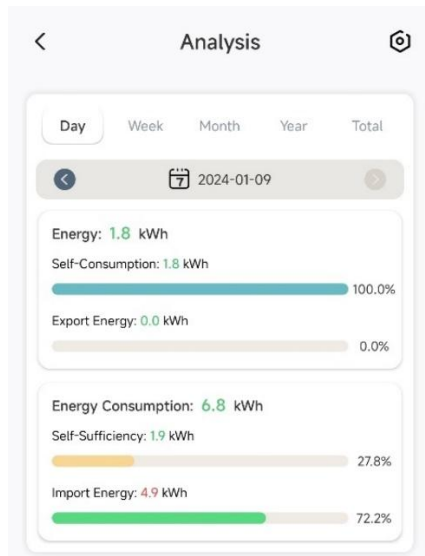


**Energy balance:** The X-axis is time and Y-axis is energy. Energy includes PV energy, export energy, self-consumption energy, load consumption energy, and import energy. A histogram is used for comparative analysis. User-defined analysis time granularity (total/year/month/week/day) is supported.

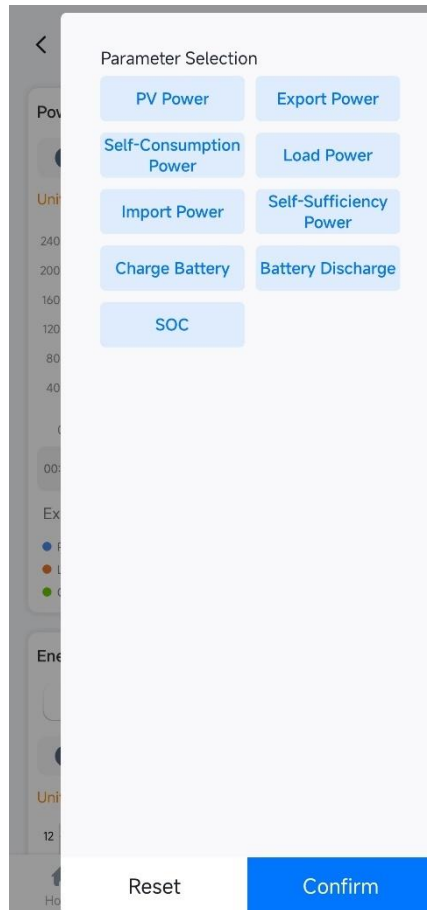
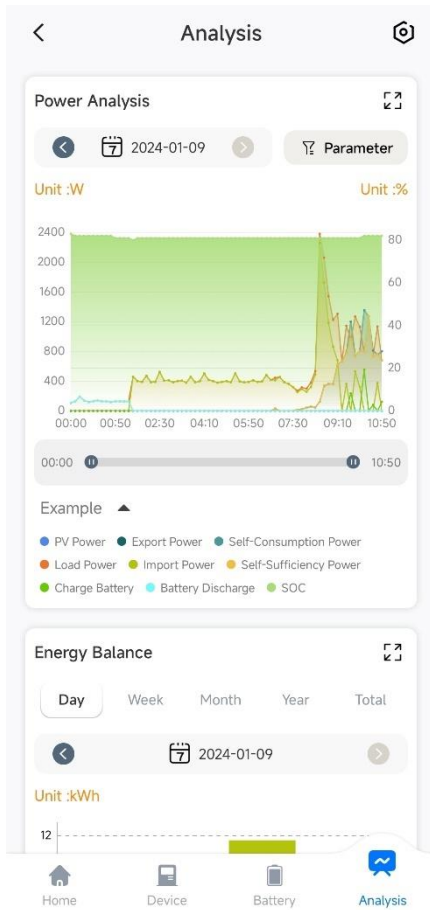


### 7.5.3 Chart Analysis for Energy Storage/AC-coupled Plants

**Self-consumption/Self-sufficiency:** Statistics of total/yearly/monthly/weekly/daily generated energy/export energy and consumption/import energy can be generated.



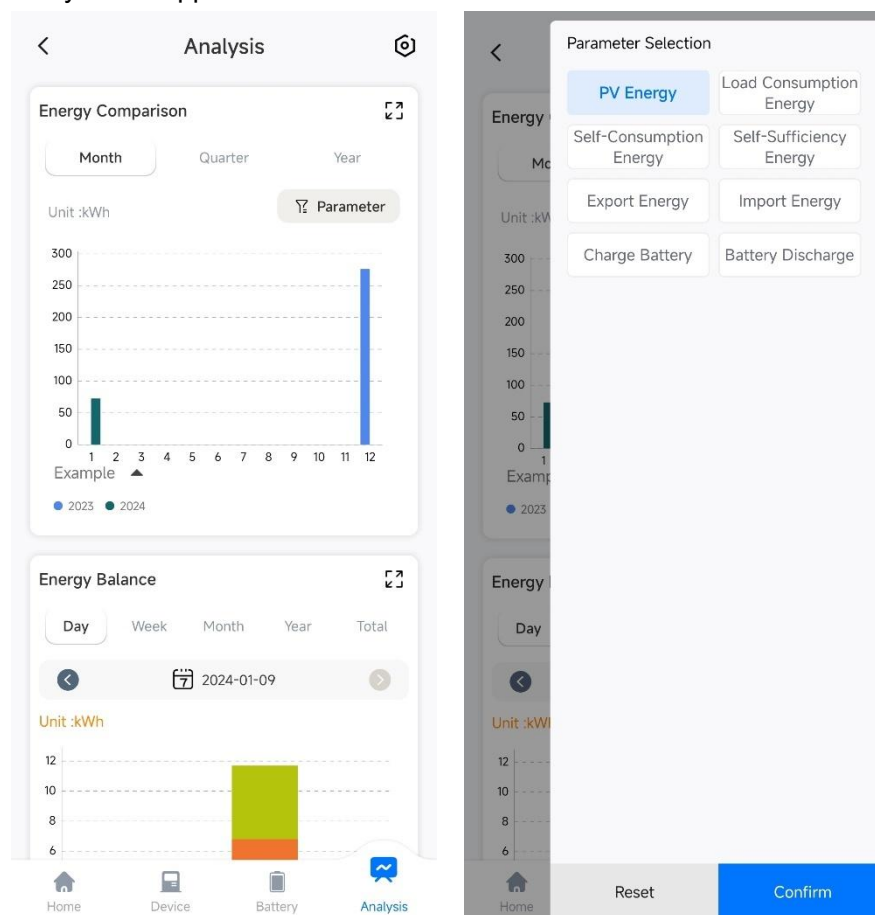
**Power analysis:** The X-axis is time and Y-axis is power. Click Parameter to select PV power, export power, self-consumption power, load power, and import power. User-defined analysis time is supported.




**Energy balance:** The X-axis is time and Y-axis is energy. Energy includes PV energy, export energy, self-consumption energy, load consumption energy, and import energy. A histogram is used for comparative analysis. User-defined analysis time granularity (total/year/month/week/day) is supported.

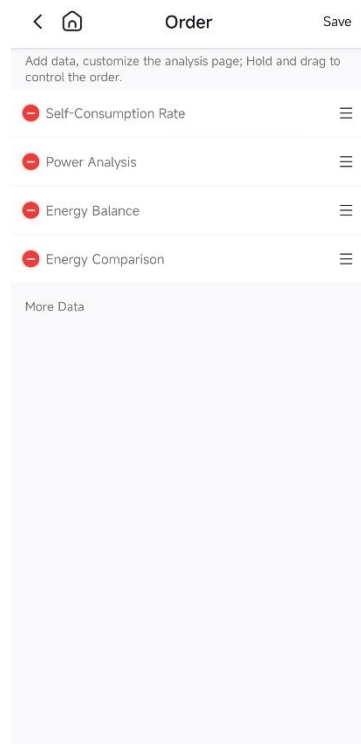


**Energy comparison:** The X-axis is time and Y-axis is energy. You can select year/quarter/month. Year-on-year/quarter-on-quarter/month-on-month comparison analysis is supported.




Click  at top right corner of Analysis page to customize analysis charts of the page and their order, including self-consumption rate, energy comparison, energy balance, and power analysis.

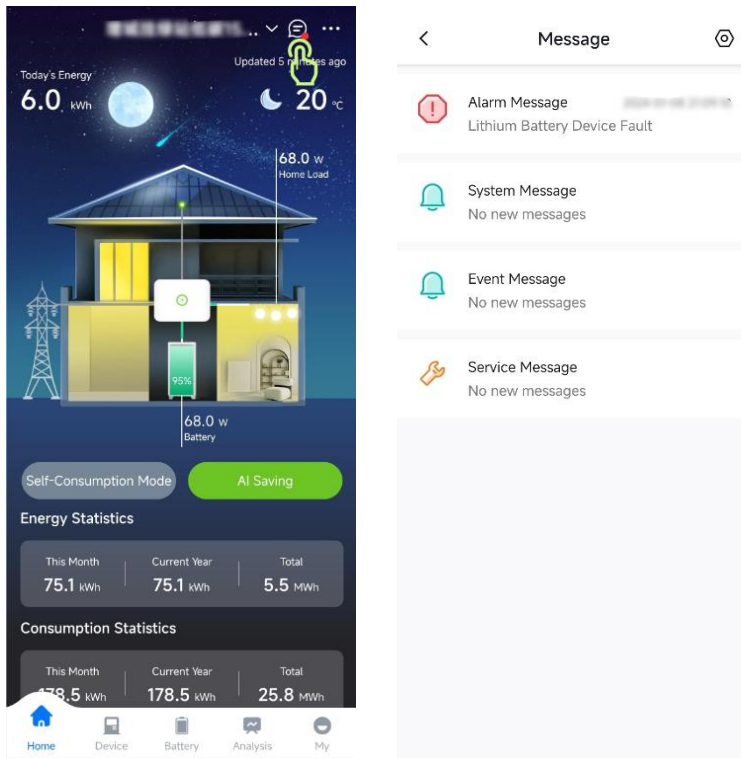
## Elekeeper App user manual



## 7.6 Message Management

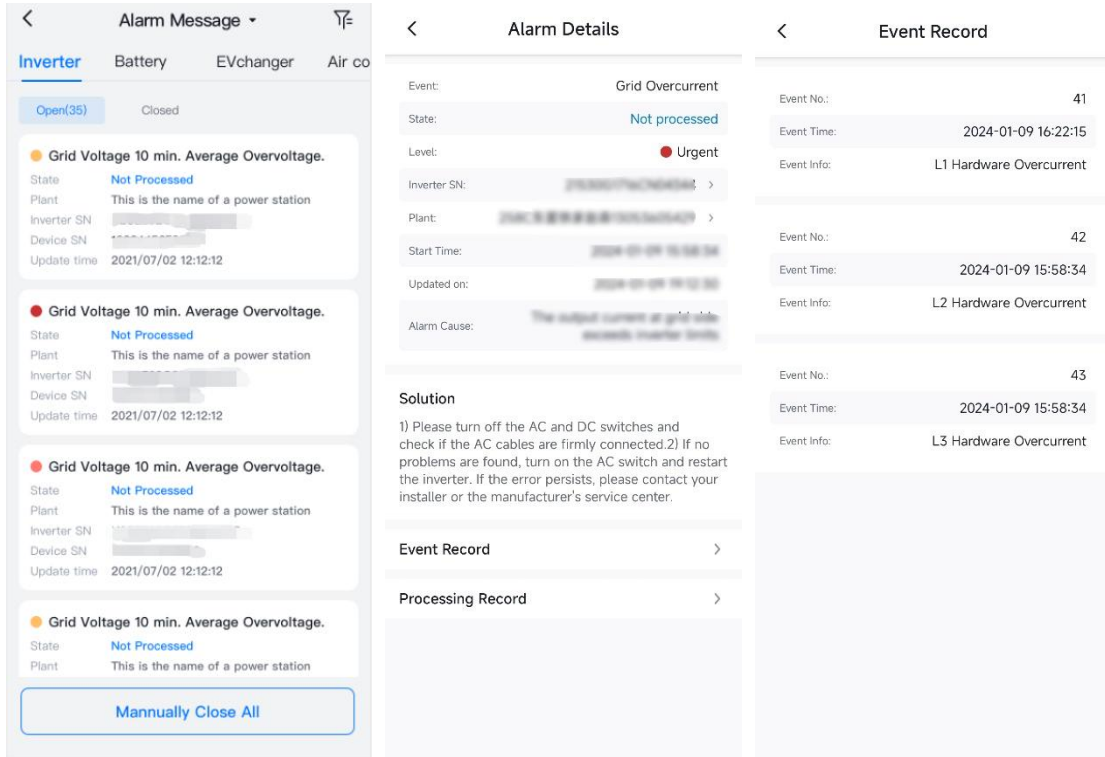
Click  at top right corner of Home page to enter Message page.

On Message page, an owner user can query message push, including alarm, system, service, and event messages. Click Setting button at top right corner of Message to set enabling/disabling the message push function.



### 7.6.1 Alarm Messages

Alarm message list includes alarm messages that are to be processed, and have been processed and closed. Open an alarm event, and you can view information about the alarm level, object, time, cause, solution, event record, and processing record.

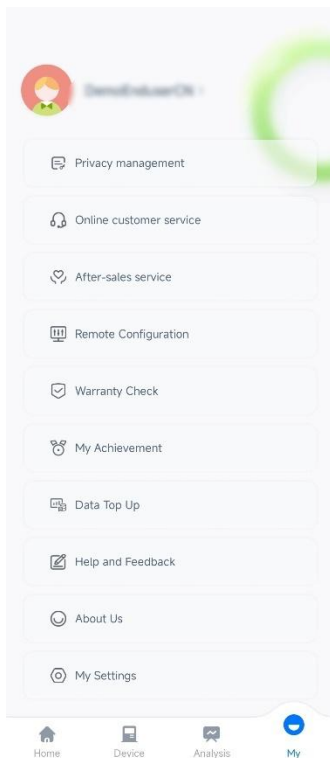


### 7.6.2 Other Messages

Include system, service, and event messages.

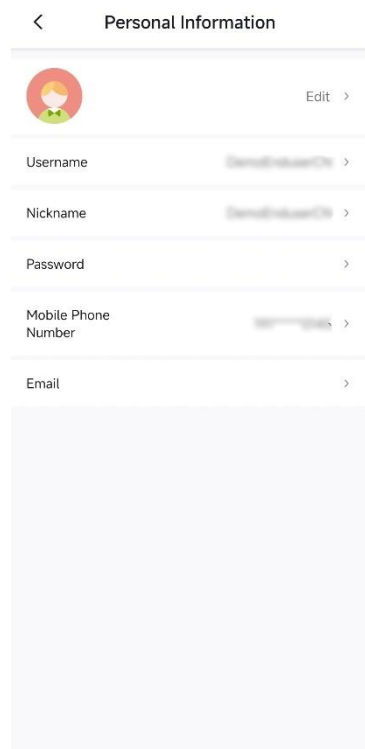
## 7.7 My Management

On My page, an owner user can edit personal information and use functions such as online customer service, remote configuration, warranty check, data top up, privacy management, and personal preference.



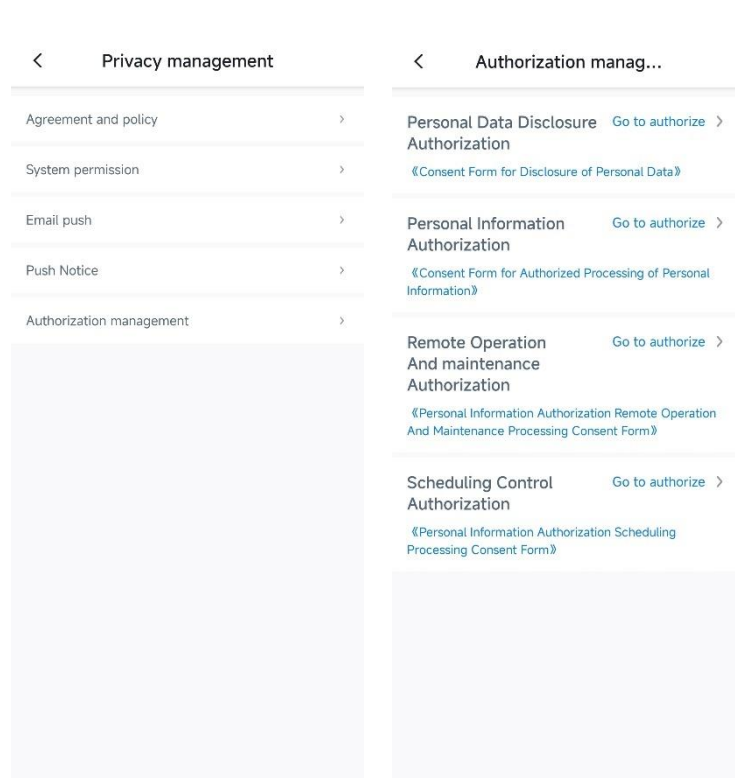
### 7.7.1 Personal Information

On My page, click Personal Information or your profile photo to edit profile photo, username, nickname, password, bound email, country/region, time zone, and other information.(Note: Username can be modified only once a year.)



### 7.7.2 Privacy Management

On My page, click Privacy management to view agreement and policy documents and set system permission (location, camera, and Bluetooth), email push permission (whether to push relevant information to your email), message push permission, and authorization management.

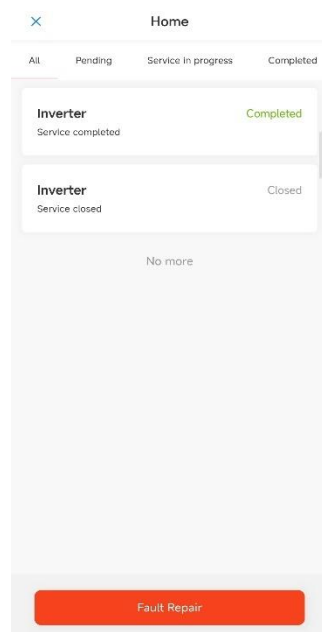


### 7.7.3 Online Customer Service

On My page, click Online customer service to consult an intelligent/manual customer service person.

### 7.7.4 After-sales Service

On My page, click After-sales service to query information about after-sales service. For details, see Elekeeper Intelligent Service User Manual.



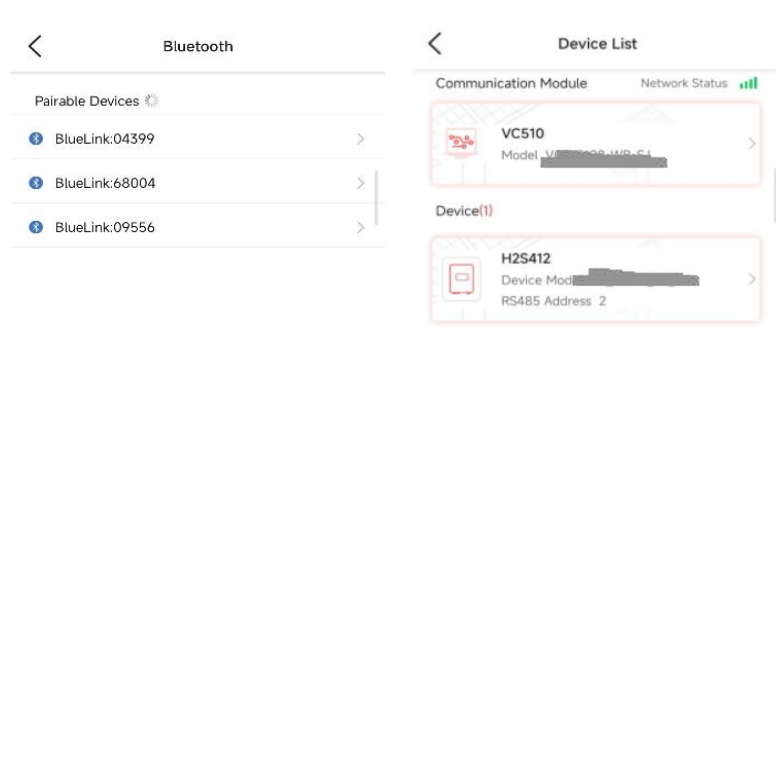


### 7.7.5 Remote Configuration

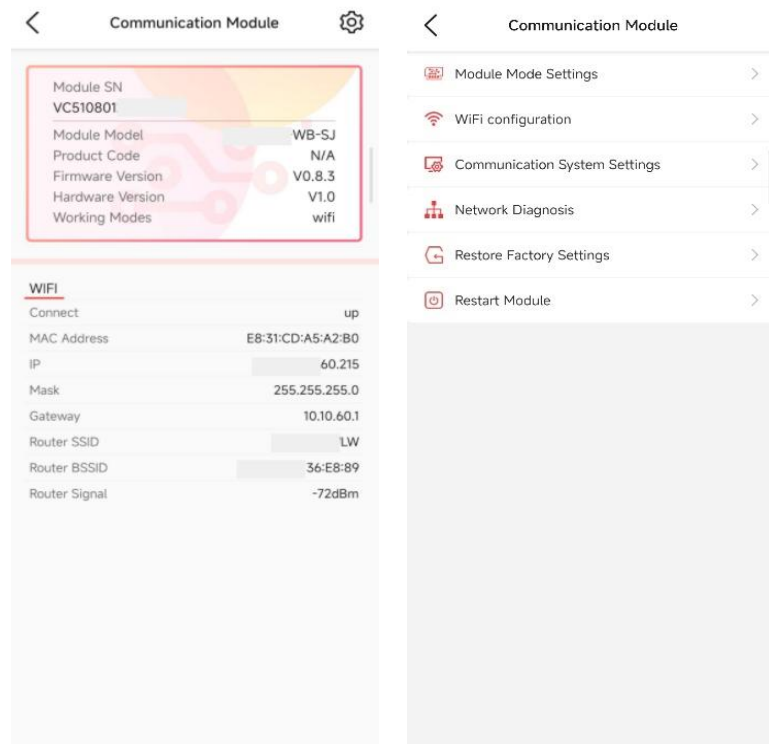
On My page, click Remote Configuration to perform remote configuration. Bluetooth, WiFi, and cloud connection methods are supported.



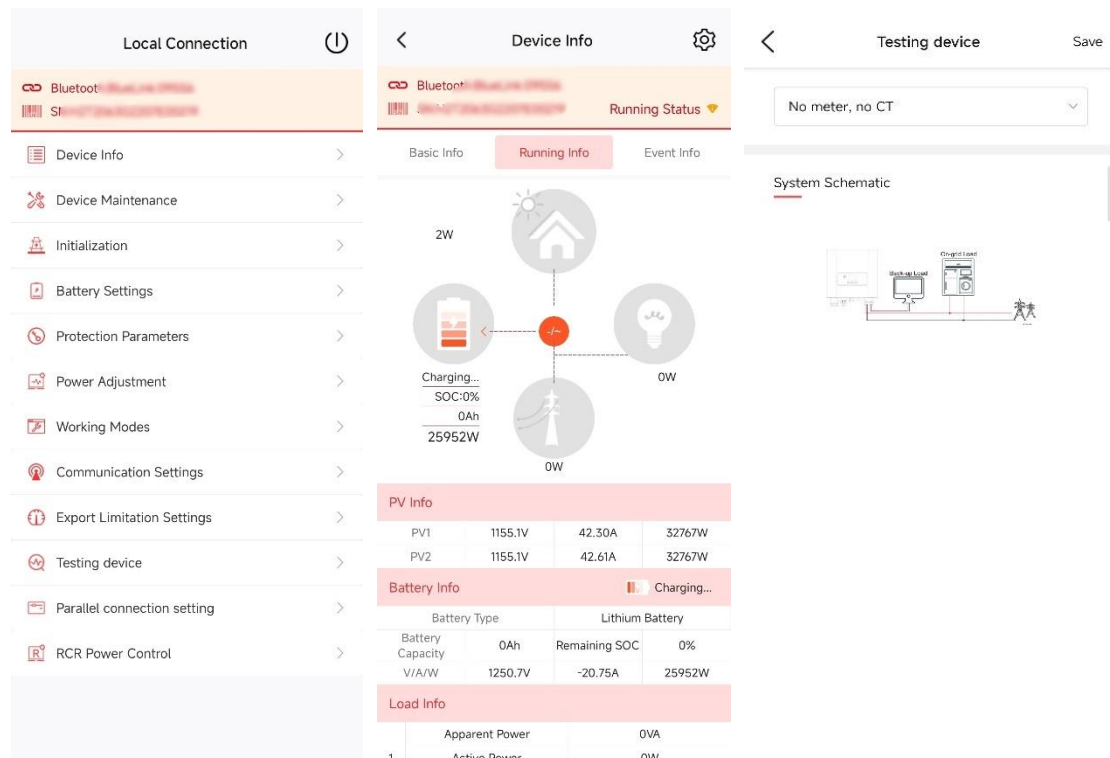
**Bluetooth:** (Note: Please turn on inverter and mobile phone Bluetooth and ensure communication module connection is normal.)  
Select a pairable device via Bluetooth. Select the corresponding module to perform related settings.



Communication module settings: (Module mode settings, WiFi configuration, communication system settings, and network diagnosis)

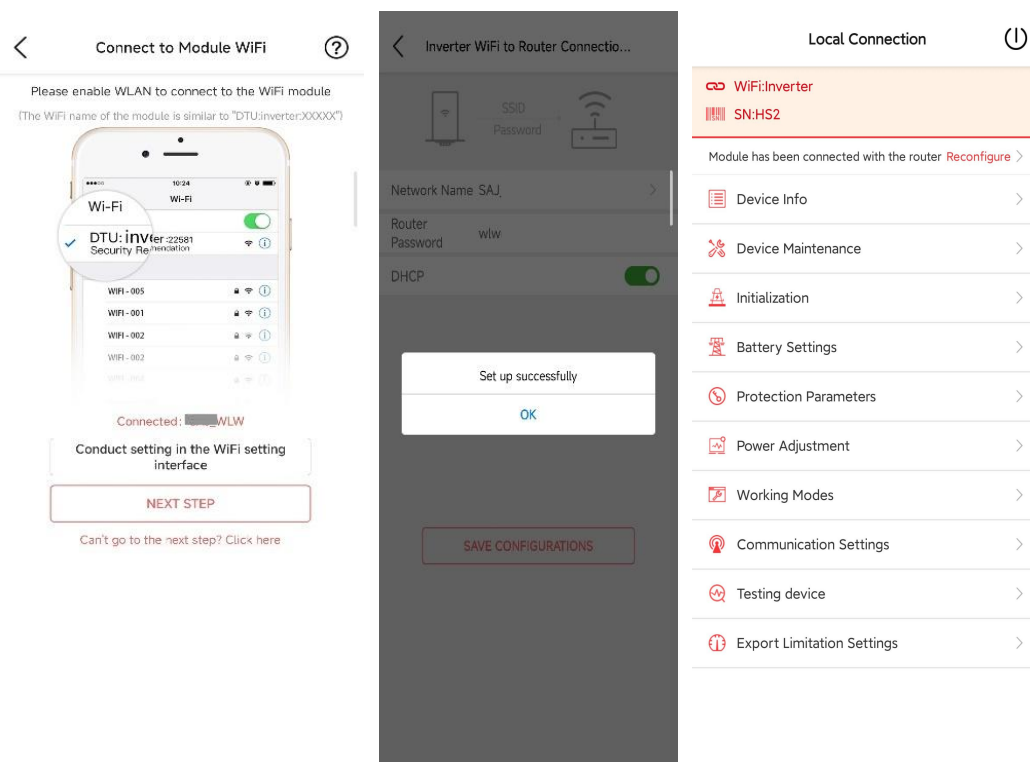


Inverter settings: (Device info, testing device, counter-current prevention settings, parallel connection settings, and debugging entry)

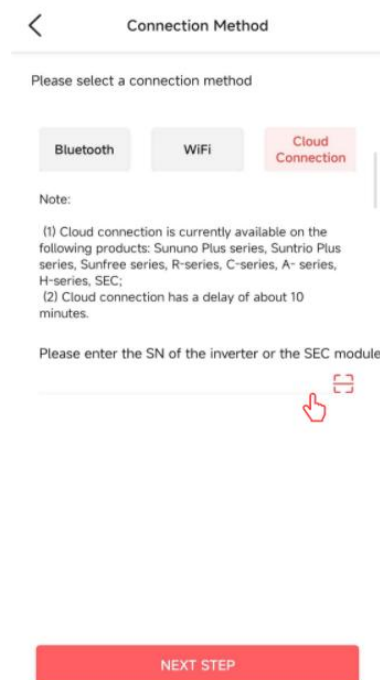


**WiFi:** (Please turn on inverter and mobile phone WiFi and ensure communication module connection is normal.)

Module WiFi name is generally "DTU:inverter: XXXXX". After setting and connection are successful, you can configure device information and perform battery and communication settings.



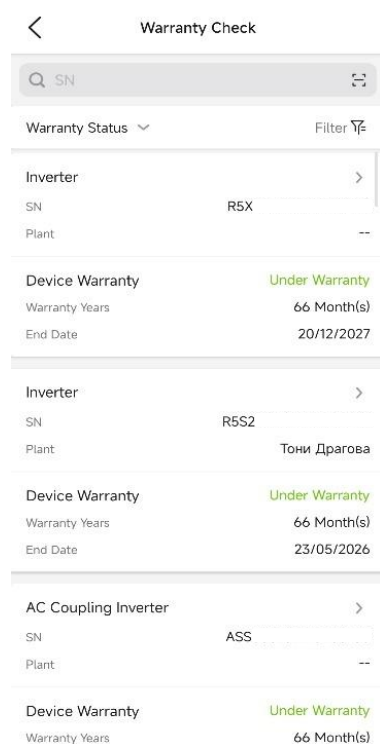
**Cloud connection:** Note: Currently, supported models include Sununo Plus series, SuntrioPlus series, Sunfree series, R series, C series, A series, H series, and SEC. Enter or scan inverter/SEC module SN.



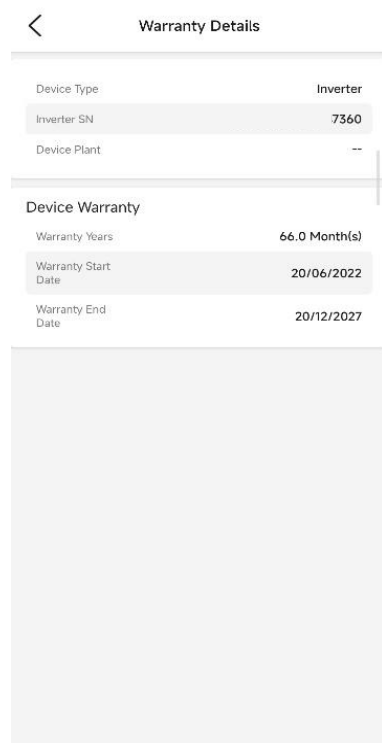
### 7.7.6 Warranty Check

On My page, click Warranty Check and enter or scan device SN to query information about device warranty.

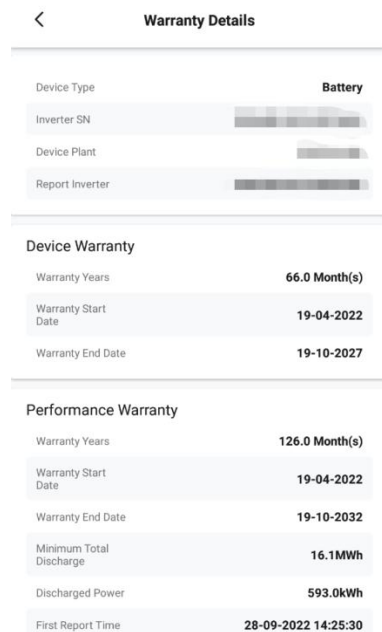
Device warranty list:



### Inverter warranty details:

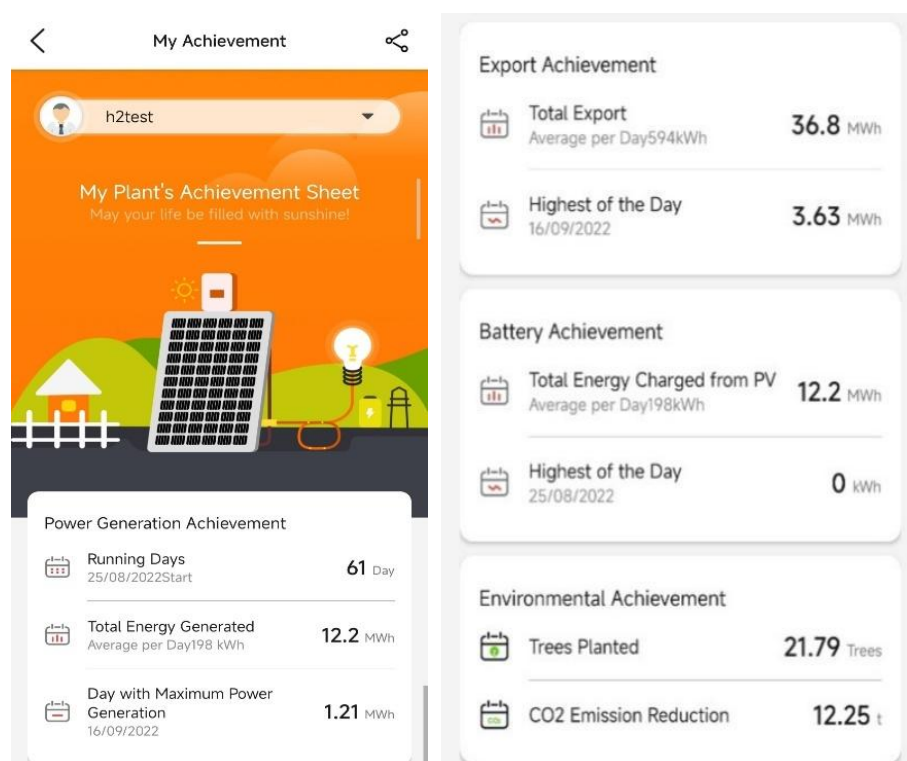


### Battery warranty details:



### 7.7.7 My Achievement

On My page, click My Achievement to query plant's achievement sheet including power generation achievement, export achievement, battery achievement, and environmental achievement. Achievement sheet can be shared to Facebook and LinkedIn.

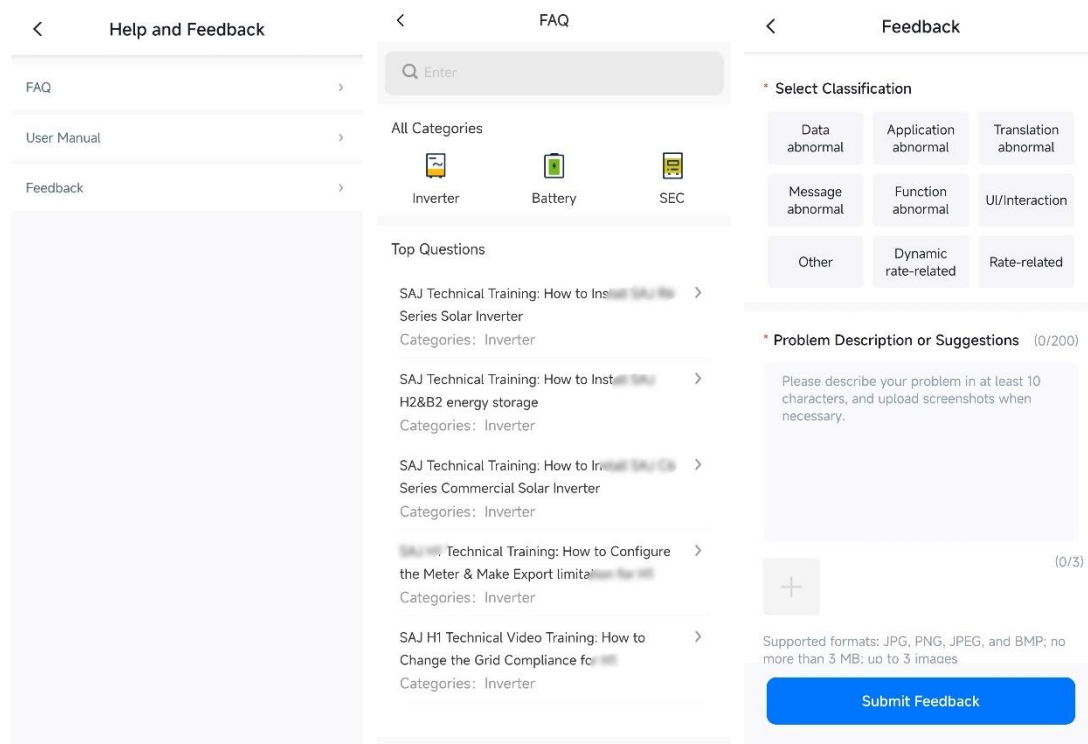


### 7.7.8 Data Top Up

On My page, click Data Top Up to perform data top-up on IoT card.

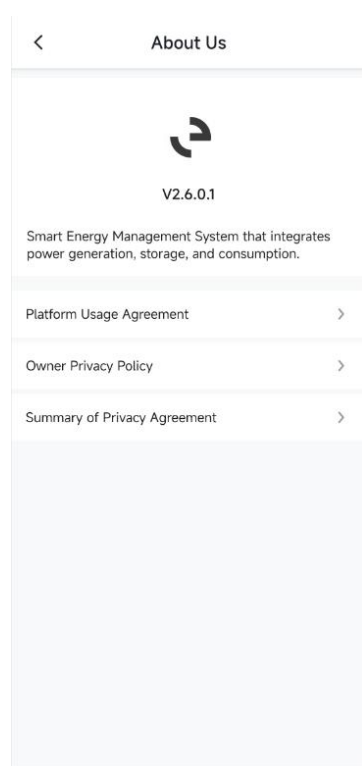
### 7.7.9 Help and Feedback

On My page, click Help and Feedback to query FAQs and user manual and provide Feedback.



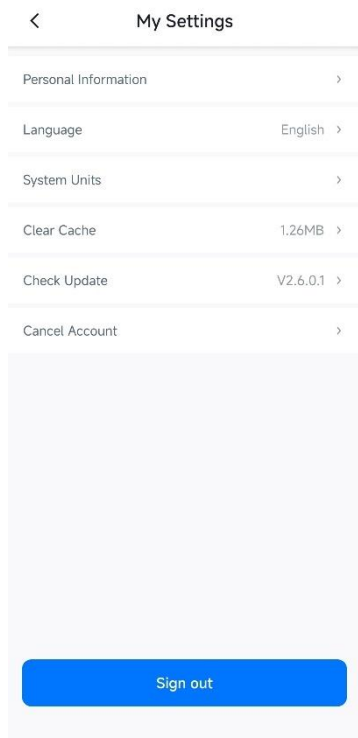
### 7.7.10 About Us

On My page, click About Us to query system version, platform usage agreement, privacy agreement, and other information.



### 7.7.11 My Settings

On My page, click My Settings to set personal preferences including language, system unit, and message push, and perform operations such as clearing a cache, checking an update, and canceling an account.



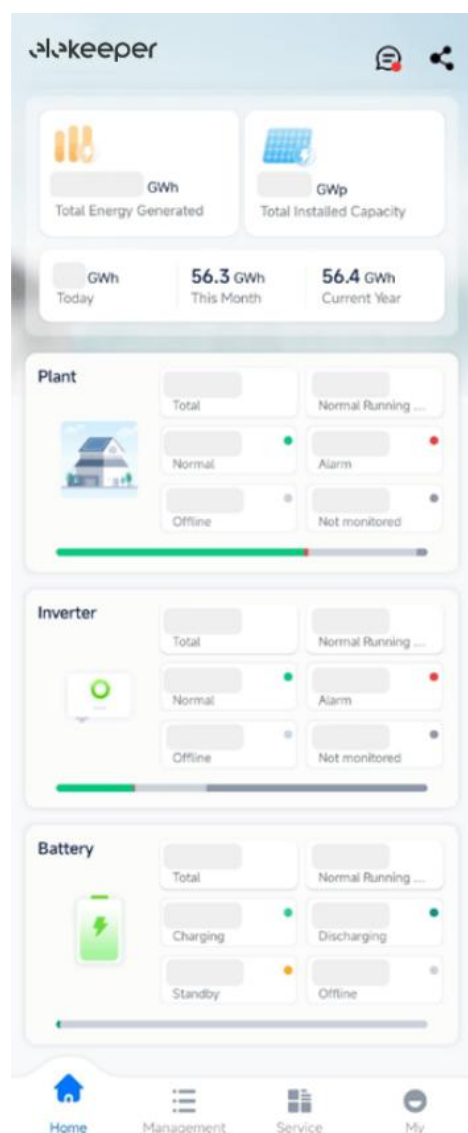


## 8 I'm a Distributor/Installer

A distributor/installer user can make statistics of plant/device operation information and perform device management, message management, service management, and remote operation and maintenance through Elekeeper App.

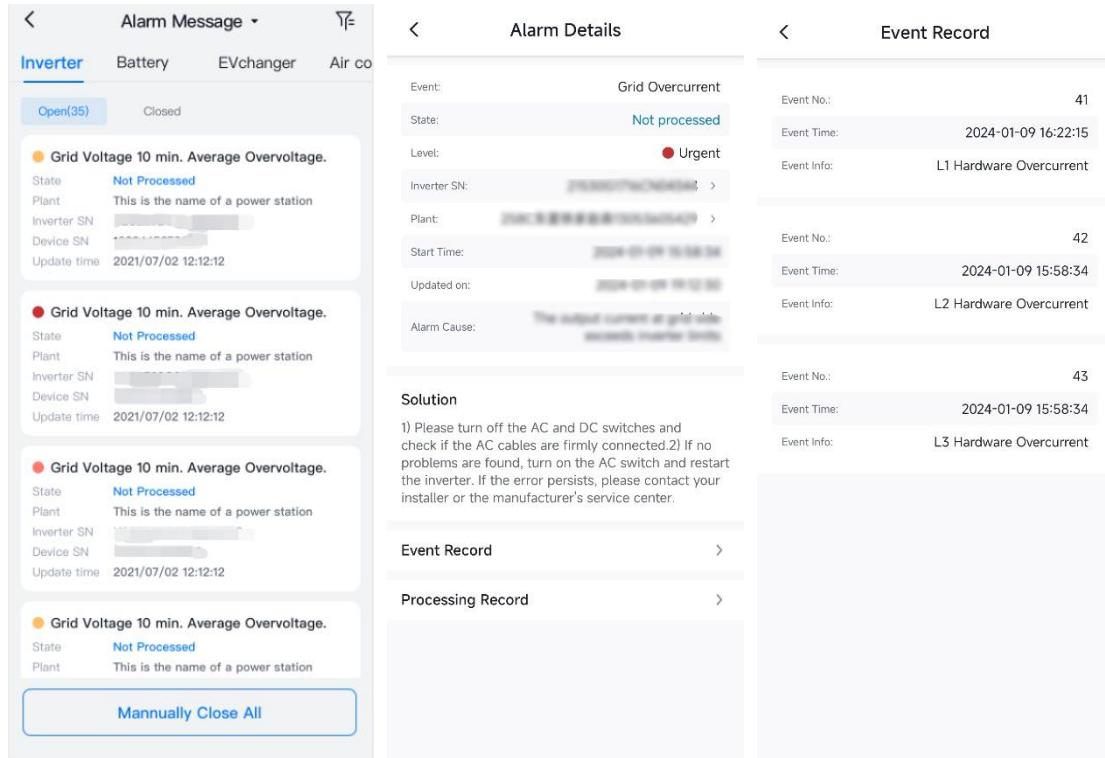
### 8.1 Overview of Statistics

On Overview page, a distributor/installer user can query total energy generated, total installed capacity, daily/monthly/yearly energy generated, and operating status of various devices. Click to enter device detail page.



## 8.2 Message Management

On Alarm page, a distributor/installer user can view any alarm message, event record, processing record, recommended solution, and other information. Alarm messages are filtered in terms of to-be-processed, processed, closed, and urgent/important/general messages.

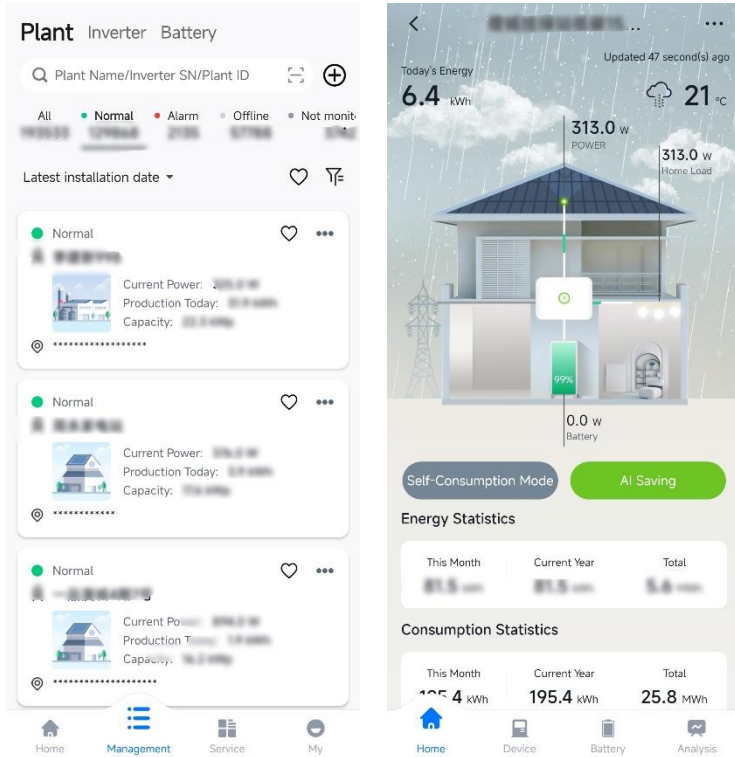


## 8.3 Integrated Management

On Management page, a distributor/installer user can manage plants, inverters, batteries and other devices.

### 8.3.1 Plant Management

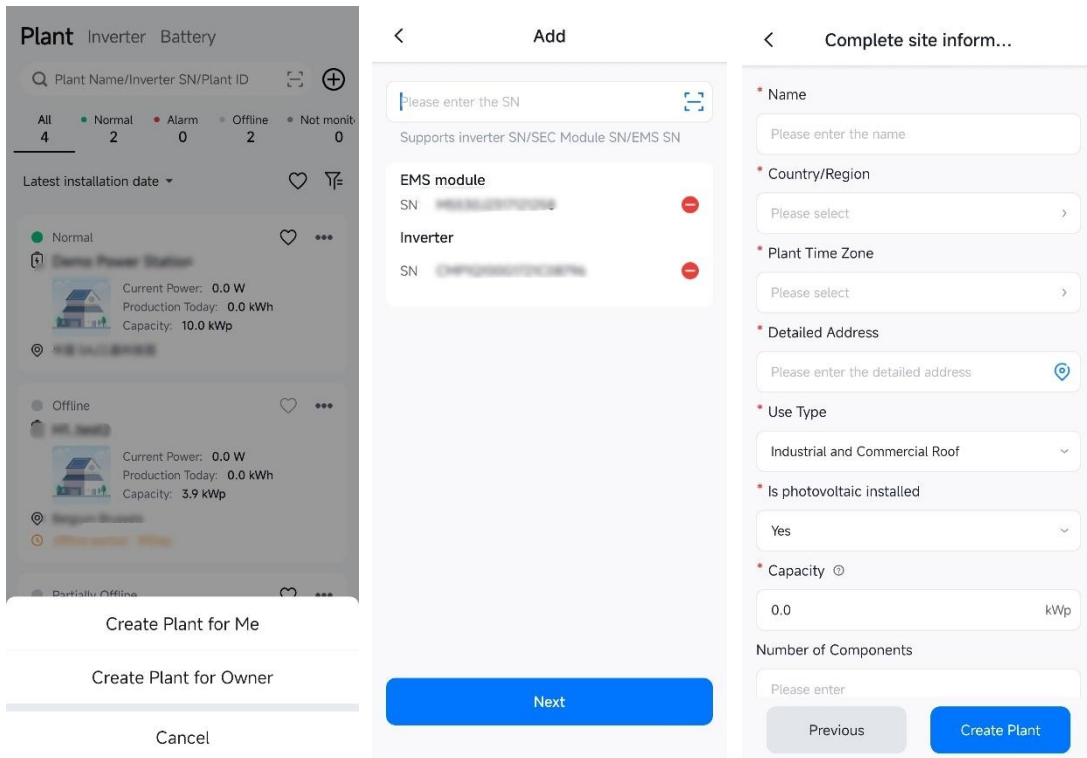
On Management page, click the icon at top left corner to switch between device types. Select Plant device to query information about overview, alarm, and power generation overview of all managed plants. Click a specific plant to view details such as generated energy, consumption, and environmental benefits of this plant.(Options in TAB field at bottom of the page are consistent with those of owner user).



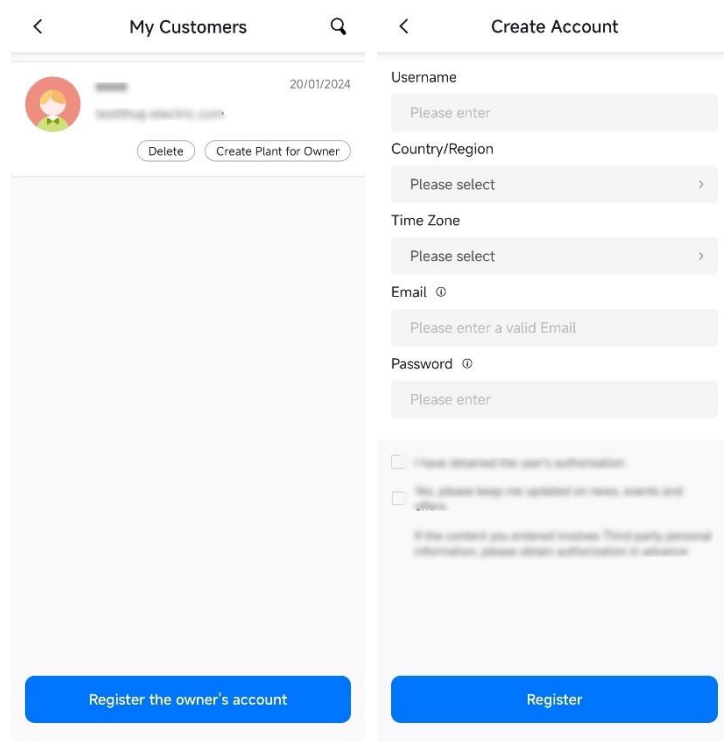
### 8.3.1 Creating a Plant

Click + at top right corner. App supports creating a plant for me (I am the owner of the plant. After being created, the plant can be transferred to others) and creating a plant for the owner (Create an account and plant for the owner).

Creating a plant for me: Select Create Plant for Me. → Enter device SN to add a device. → Enter plant information. Finish creating a plant.

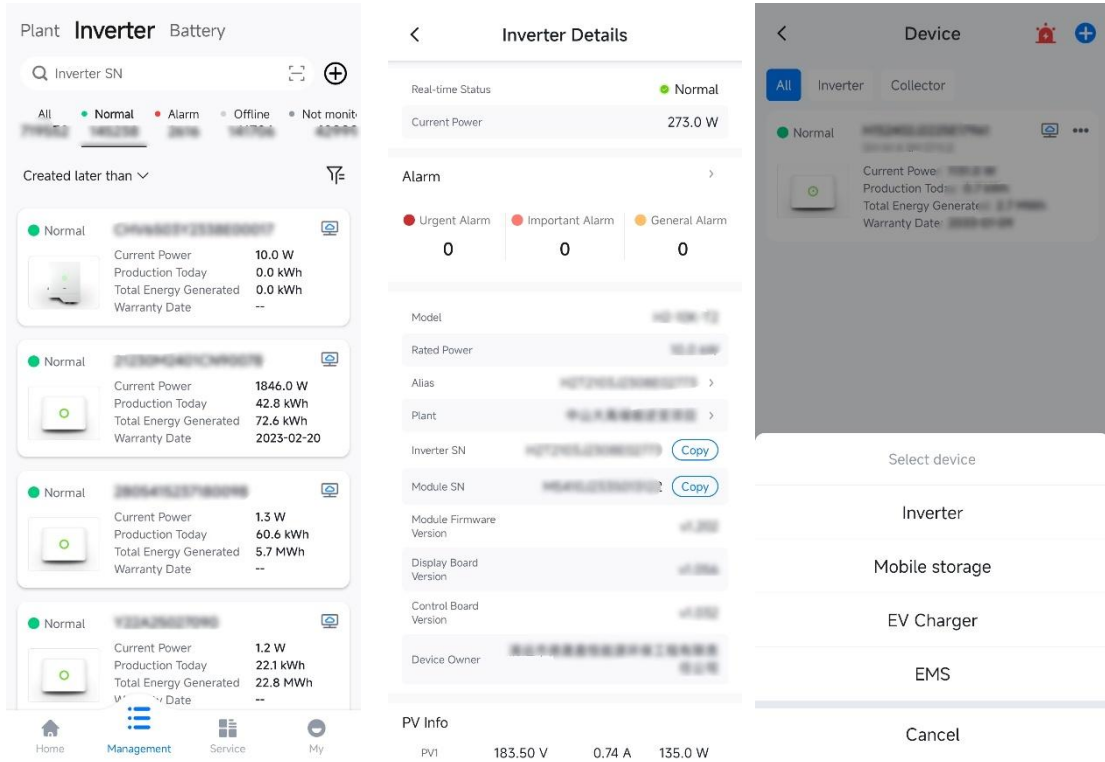


Creating a plant for owner: Select Create Plant for Owner. → Select your customer or create a new plant for customer. → Enter plant information. → Enter device SN to bind a device. → Finish creating a plant for owner.



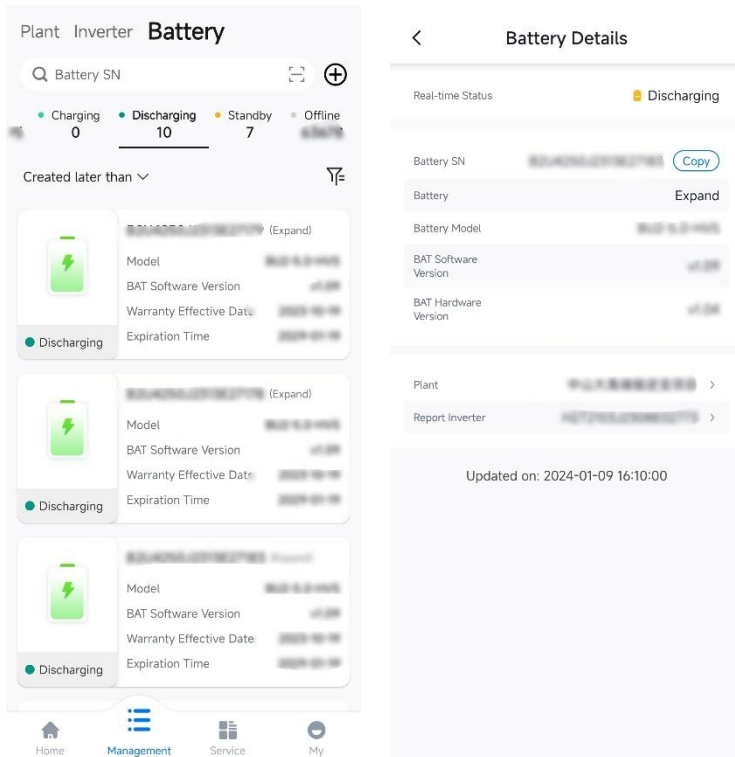
### 8.3.2 Inverter Management

Select Inverter device to query information about overview, alarm, and power generation overview of bound inverters. Click a specific inverter to view details such as real-time status, power, generated energy, and device information of this inverter. On plant-device list, click + at top right corner to add a device.



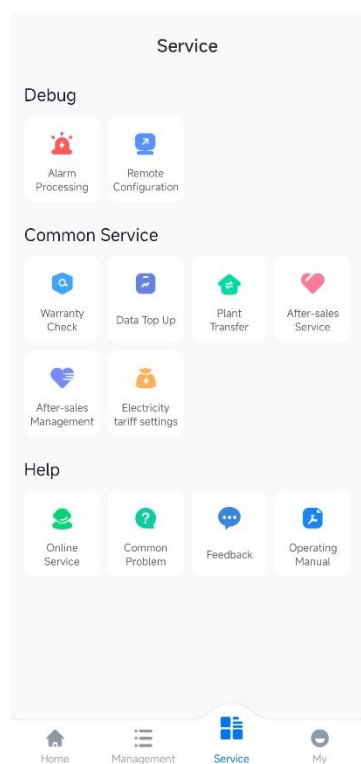
### 8.3.3 Battery Management

Select Battery device to query information about charging and discharging status and battery model of all bound batteries. Click a specific battery to view details such as real-time status, health, and battery model parameters of this battery.



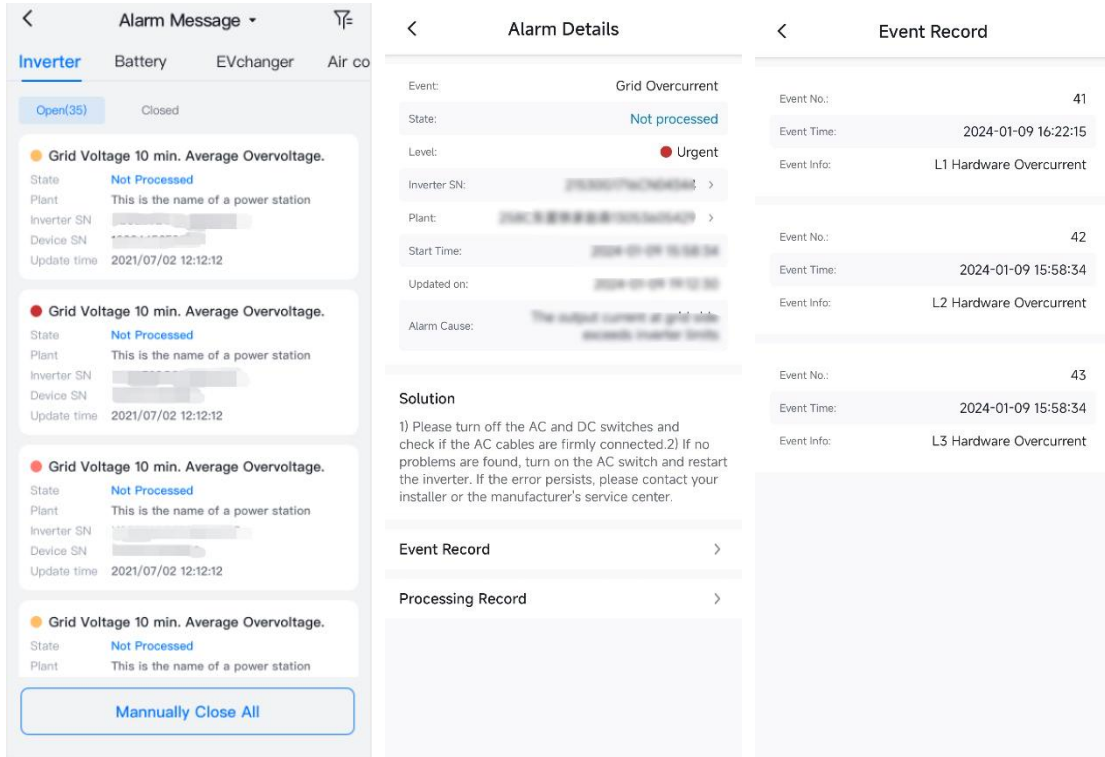
## 8.4 Service

On Service page, a distributor/installer user can perform functions such as alarm processing, remote configuration, warranty check, plant transfer, battery health analysis, after-sales service, and after-sales management.



### 8.4.1 Alarm Management

On Service page, click Alarm Processing to query information about alarm message, event record, processing record, and solution of all devices. Alarm messages are filtered in terms of to-be-processed, processed, closed, and urgent/important/general messages.



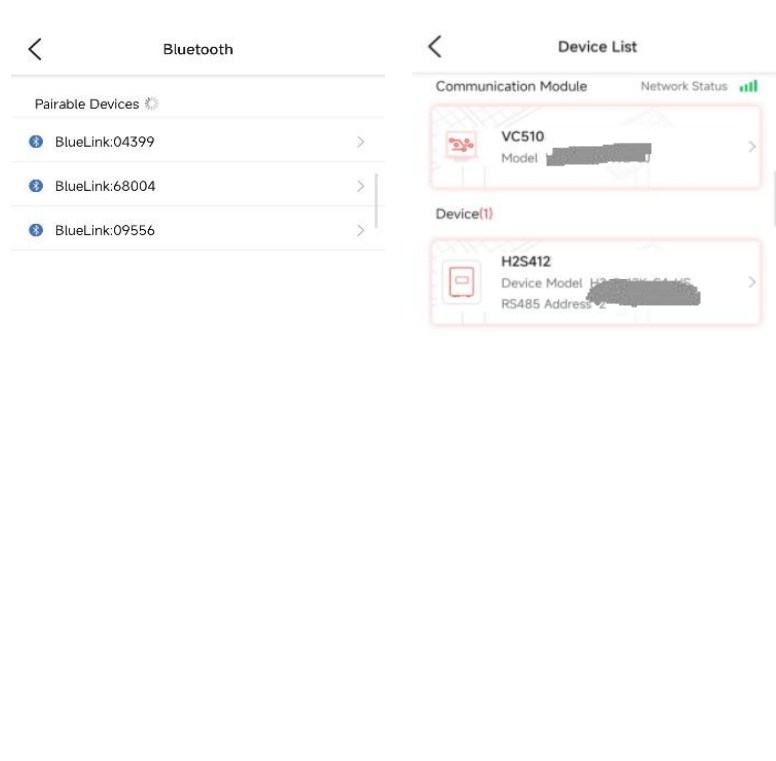
### 8.4.2 Remote Configuration

On Service page, click Remote Configuration to perform remote configuration. Bluetooth, WiFi, and cloud connection methods are supported.

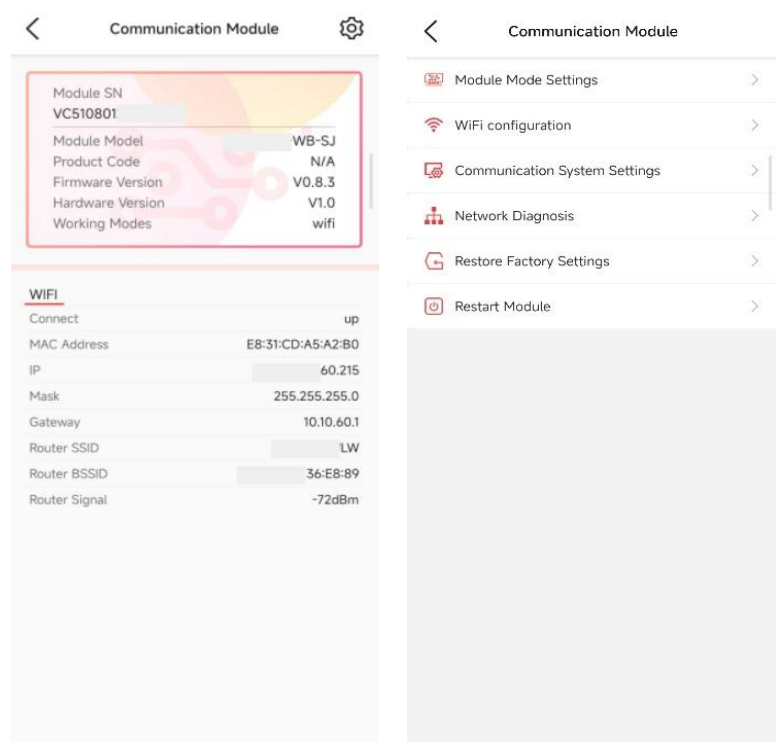


**Bluetooth:** (Note: Please turn on inverter and mobile phone Bluetooth and ensure communication module connection is normal.)

Select a pairable device via Bluetooth. Select the corresponding module to perform related settings.

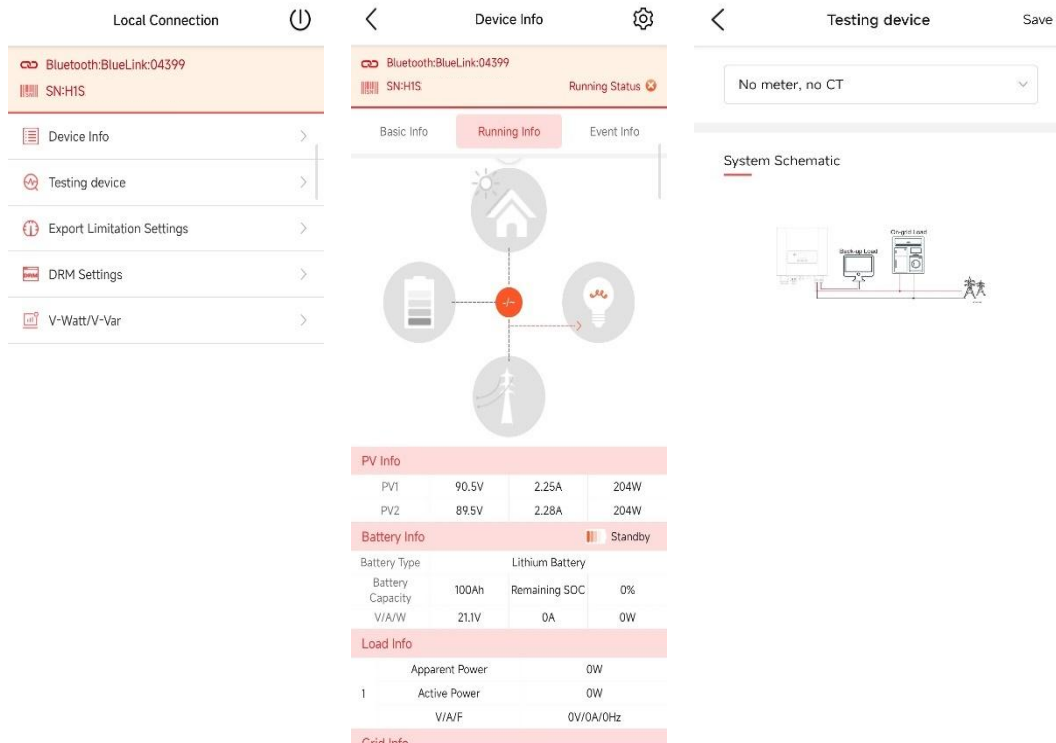


Communication module settings: (Module mode settings, WiFi configuration, communication system settings, and network diagnosis)



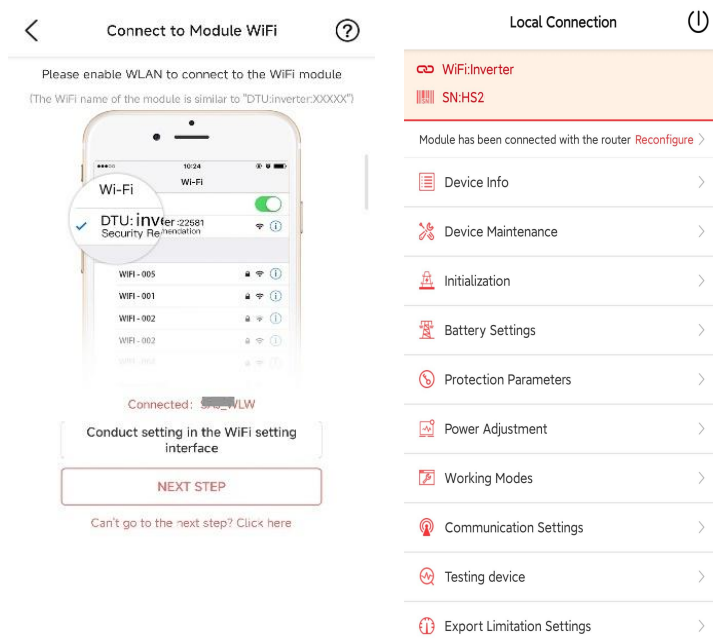


Inverter settings: (Device info, testing device, counter-current prevention settings, parallel connection settings, and debugging entry)

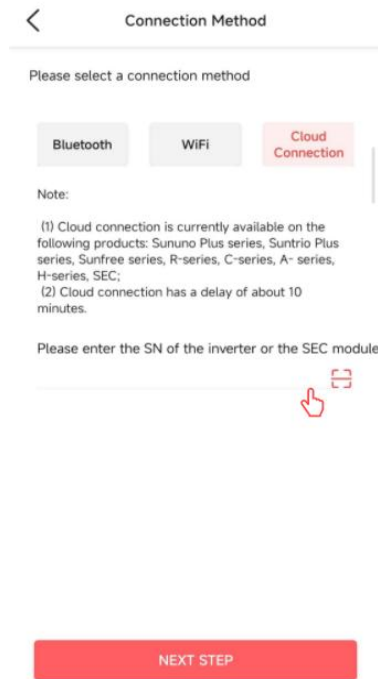


**WiFi:** (Please turn on inverter and mobile phone WiFi and ensure communication module connection is normal.)

Module WiFi name is generally "DTU:inverter: XXXXX". After setting and connection are successful, you can configure device information and perform battery and communication settings.



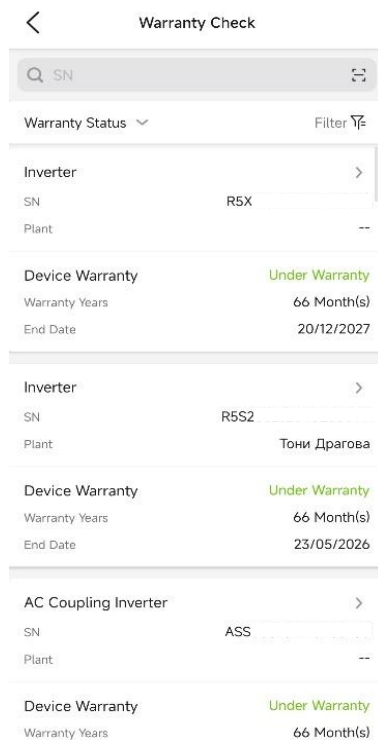
**Cloud connection:** Note: Currently, supported models include Sununo Plus series, SuntrioPlus series, Sunfree series, R series, C series, A series, H series, and SEC. Enter or scan inverter/SEC module SN.



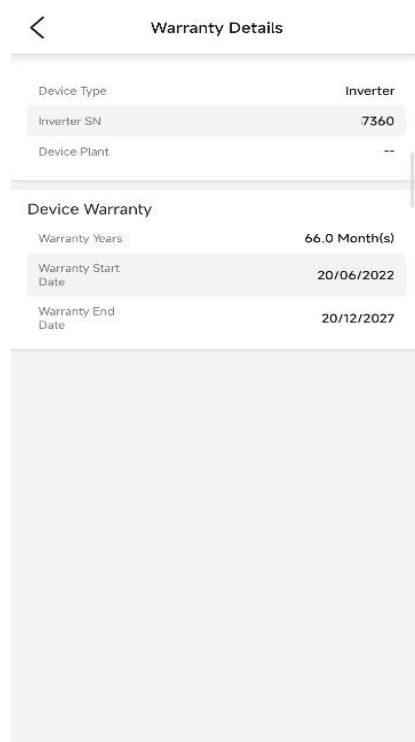
### 8.4.3 Warranty Check

On Service page, click Warranty Check and enter or scan device SN to query information about device warranty.

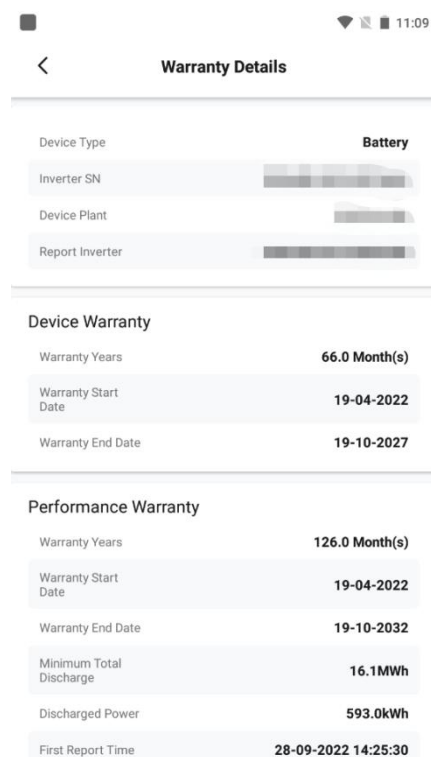
Device warranty list:



### Inverter warranty details:



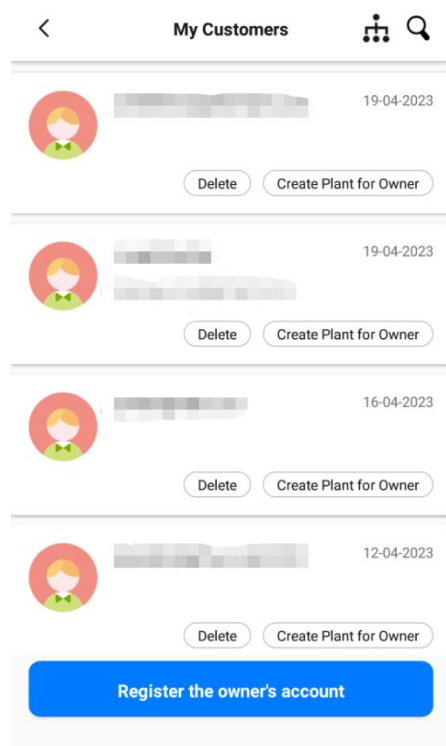
### Battery warranty details:



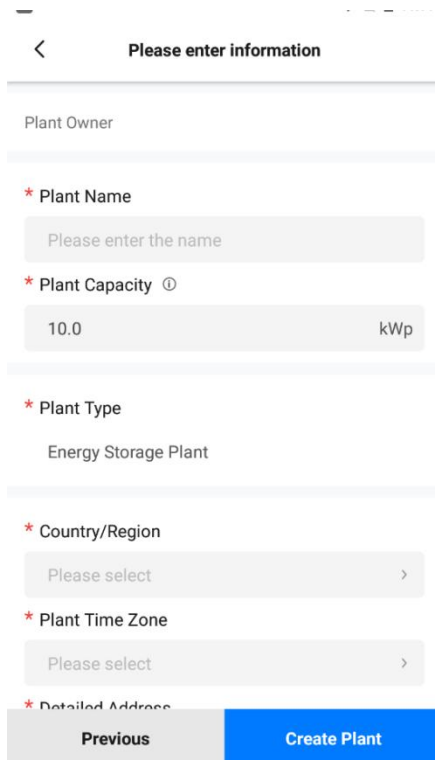
### 8.4.4 My Customers

On Service page, click My Customers to query customer information.

List of my customers:



App supports creating a plant for an owner user. Click Create Plant for Owner. Enter SN. Enter plant name, plant type, and other information. Click Create Plant.



Click Create Account and enter username, country/region, and other information to register an owner account.

The screenshot shows the 'Create Account' screen. At the top, there is a back arrow and the title 'Create Account'. Below the title, there are five input fields: 'Username' (placeholder: 'Please enter'), 'Country/Region' (placeholder: 'Please select'), 'Time Zone' (placeholder: 'Please select'), 'Email' (placeholder: 'Please enter a valid Email'), and 'Password' (placeholder: 'Please enter'). Below these fields are two checkboxes: 'I have obtained the user's authorization' and 'Yes, please keep me updated on news, events and offers.' At the bottom, there is a prominent blue 'Register' button.

### 8.4.5 Plant Transfer

On Service page, click Plant Transfer. You can select Transfer Plant Only or Transfer Ownership of Plant and Affiliated Equipment to transfer a plant.

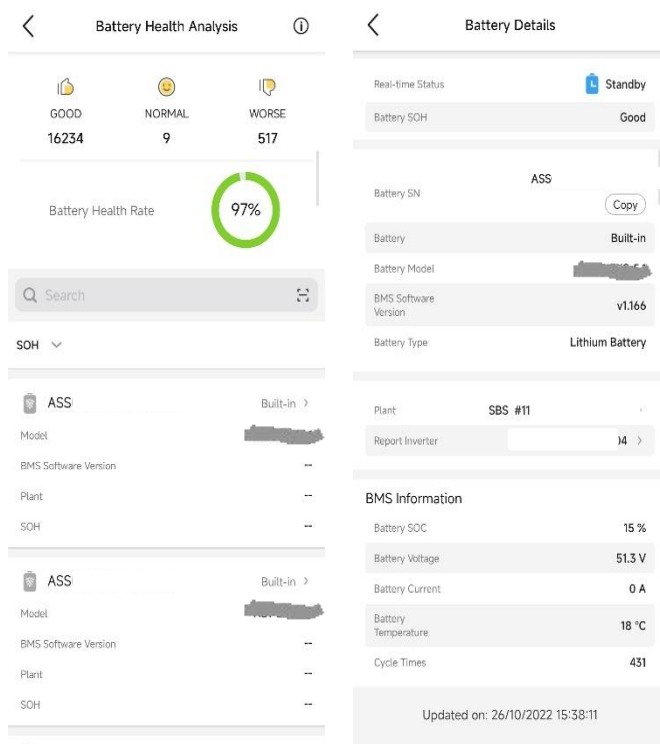
The first screenshot shows the 'Plant Transfer' screen with two options: 'Transfer Plant Only' and 'Transfer Ownership of Plant and Affiliated Equipment'. The second and third screenshots show the 'Step 1. Select the plant(s) to be transferred' screen. This screen has a title bar, a status bar indicating 'Plants to be transferred have been selected', a search bar with the text 'Please select or search for the plant to be transferred', and a 'Next Step' button at the bottom.

### 8.4.6 Battery SOH

On Service page, click Battery SOH to query and analyze details such as battery SOH and battery model parameter.

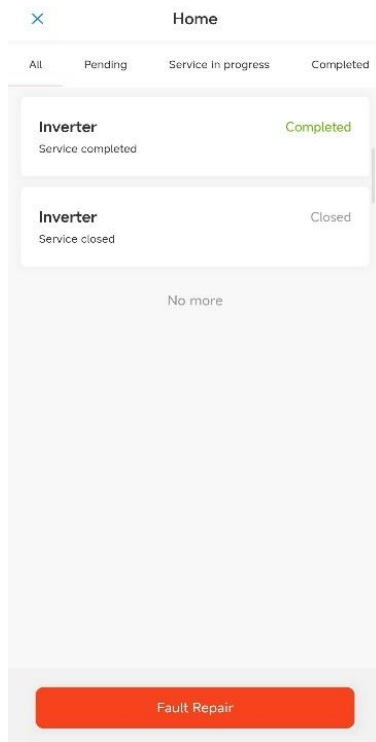
Description of battery SOH calculation formula:

Good:  $SOH \geq 80\%$ ; normal:  $60\% < SOH < 80\%$ ; loss:  $SOH < 60\%$



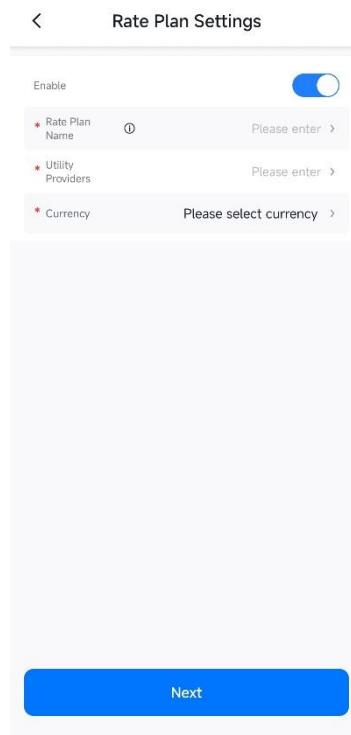
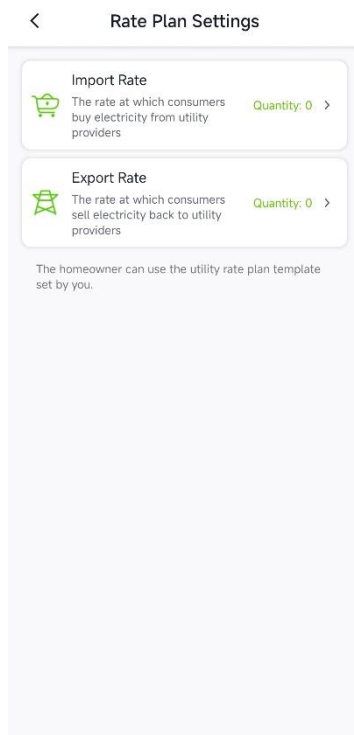
### 8.4.7 After-sales Service

On Service page, click After-sales Service to query information about after-sales service. For details, see Elekeeper Intelligent Service User Manual.



### 8.4.8 Rate Plan Settings

On Service page, click Rate Plan Settings to set import rate and export rate. Rate plan settings include enabling/disabling, rate plan name, utility providers, currency, and unit rate.

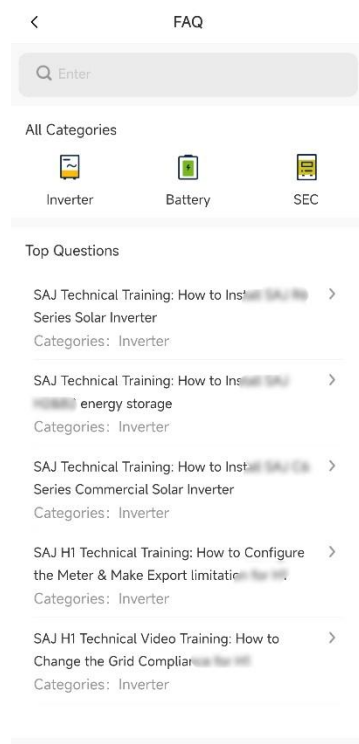


### 8.4.9 Online Customer Service

On Service page, click Online Customer Service to consult an intelligent/manual customer service person.

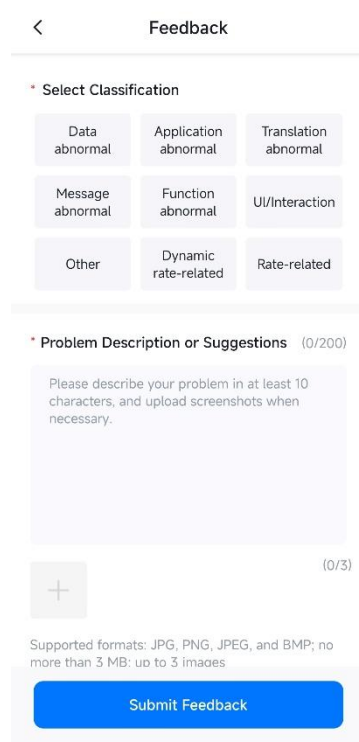
### 8.4.10 Common Problem

On Service page, click Common Problem to search a solution to any FAQ.



### 8.4.11 Feedback

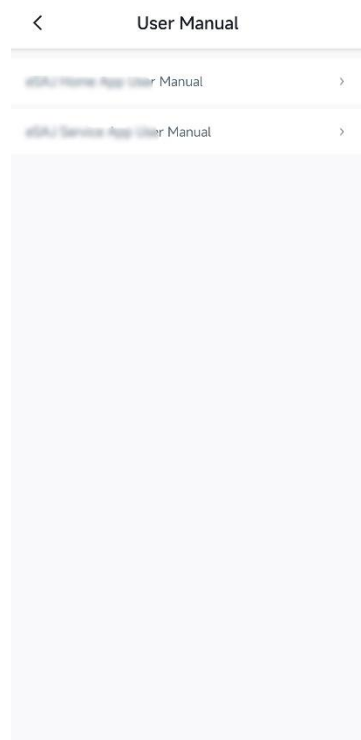
On Service page, click Feedback to provide Feedback.





### 8.4.12 Operating Manual

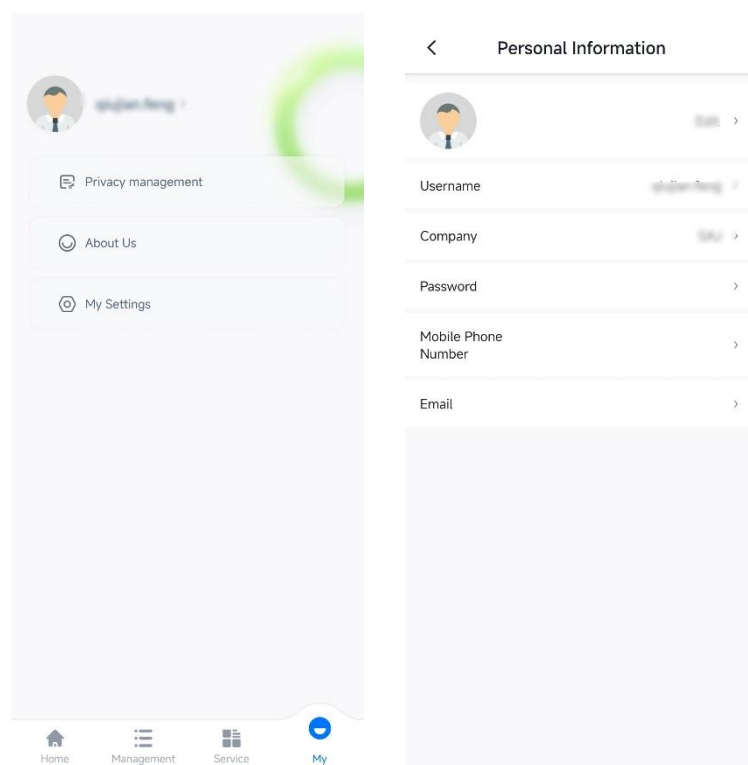
On Service page, click Operating Manual to query App user operating manual.



## 8.5 My Management

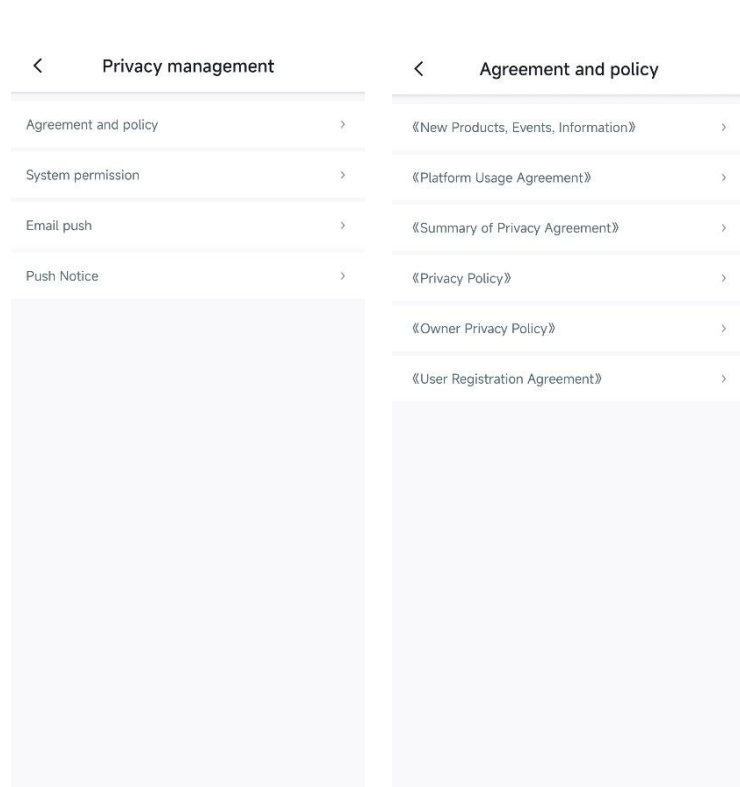
### 8.5.1 Personal Information

On My page, click Personal Information and your profile photo to edit profile photo, username, nickname, password, bound email, country/region, time zone, and other information. (Note: Username can be modified only once a year.)



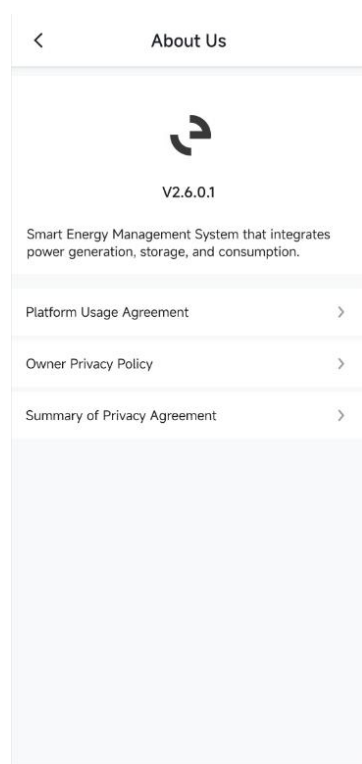
### 8.5.2 Privacy Management

On My page, click Privacy management to view agreement and policy documents and set system permission (location, camera, and Bluetooth), email push permission (whether to push relevant information to your email), message push permission, and authorization management.



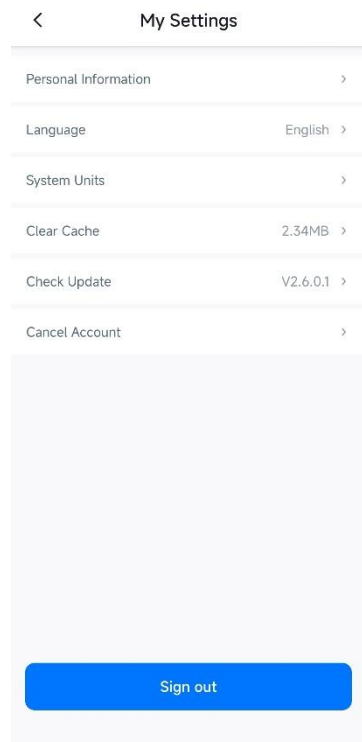
### 8.5.3 About Us

On My page, click About Us to query system version, platform usage agreement, privacy agreement, and other information.



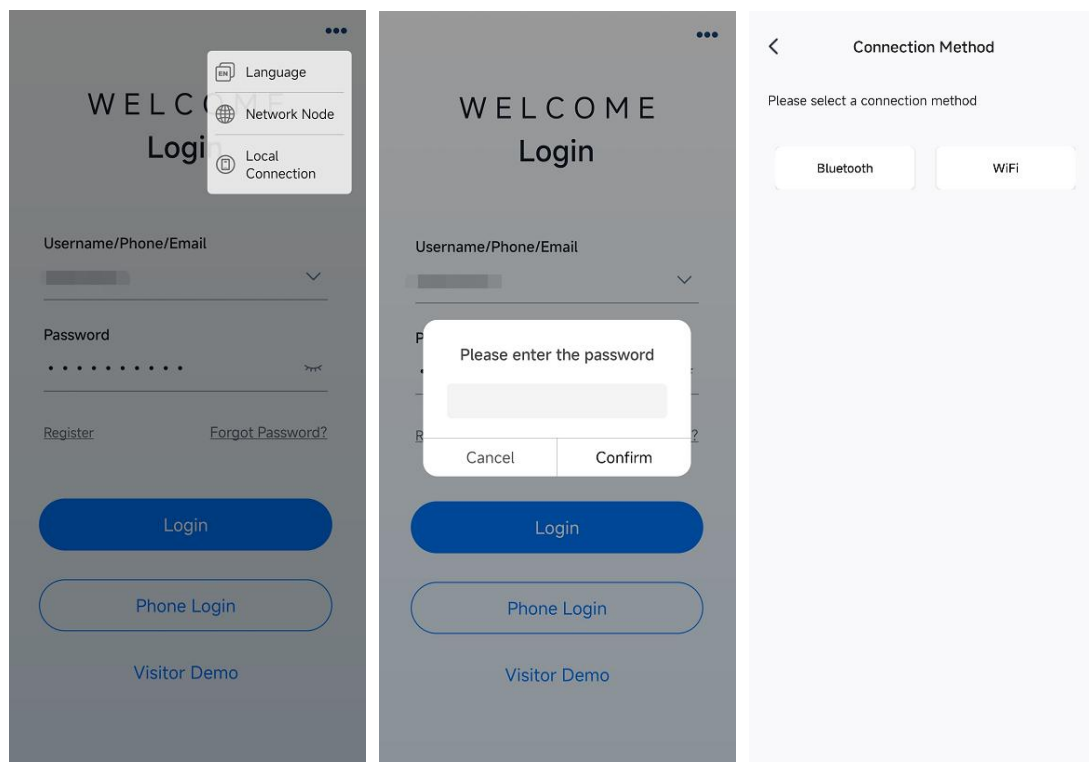
### 8.5.4 My Settings

On My page, click My Settings to set personal preferences including language, system unit, and message push and perform operations such as clearing a cache, checking an update, and canceling an account.



## 9 Local Debugging

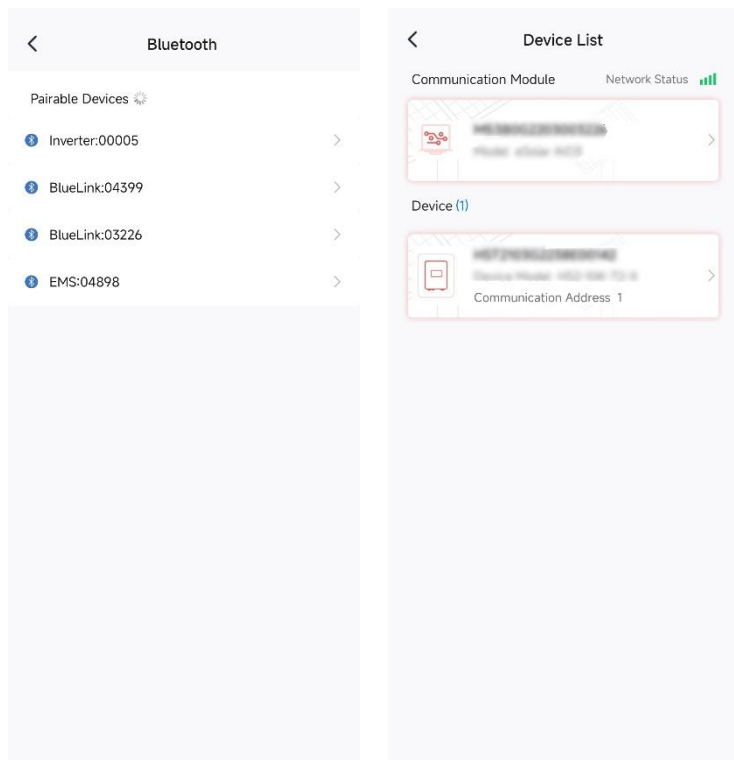
Click “ ... ” at top right corner of Login page. Select Local Connection. Enter password 123456 to perform local debugging without any network. Debugging via Bluetooth and hotspot is supported.



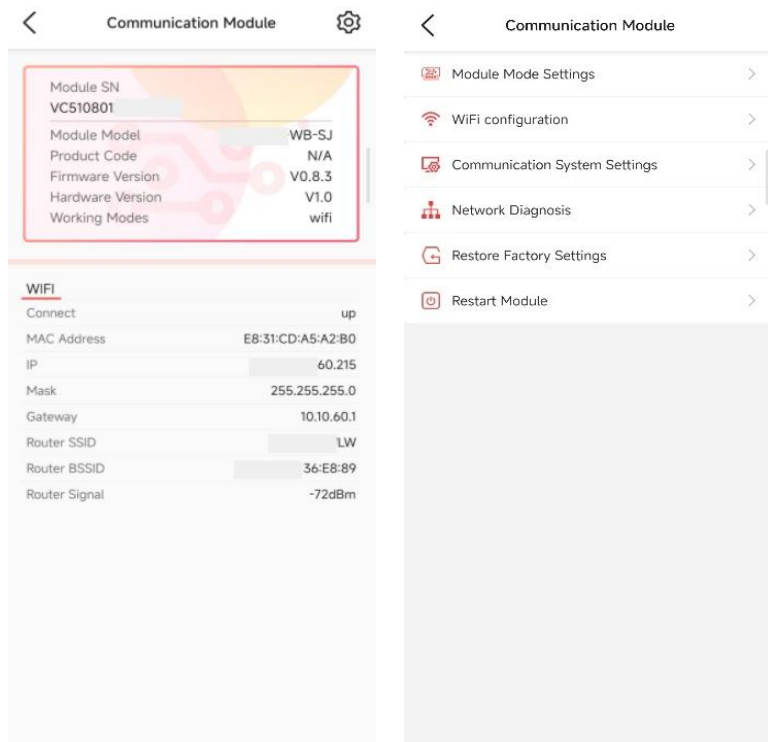
### 9.1 Debugging via Bluetooth

Note: Please turn on inverter and mobile phone Bluetooth and ensure communication module connection is normal.

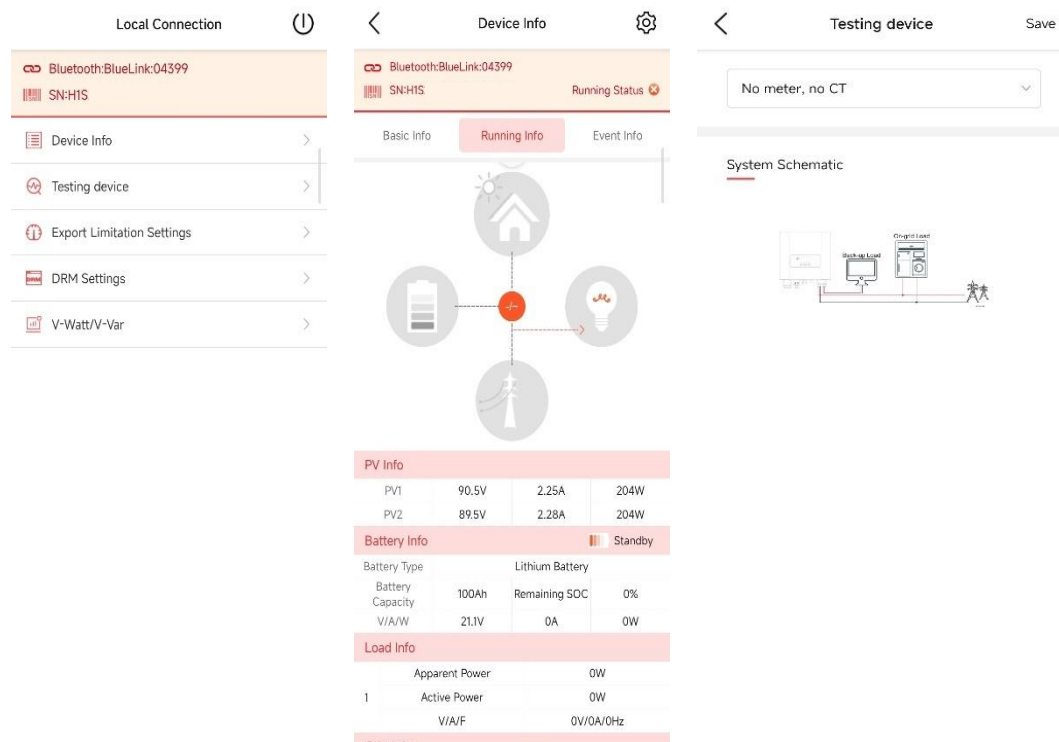
Select a pairable device via Bluetooth. Select the corresponding module to perform related settings.



Communication module settings: (Module mode settings, WiFi configuration, communication system settings, and network diagnosis)



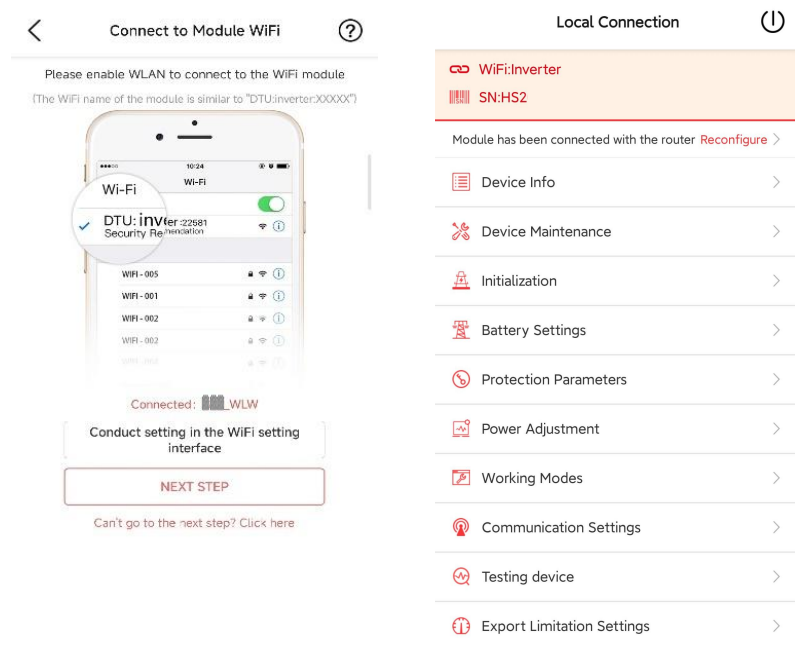
Inverter settings: (Device info, testing device, counter-current prevention settings, parallel connection settings, and debugging entry)



## 9.2 Debugging via Hotspot

(Note: Please turn on inverter and mobile phone WiFi and ensure communication module connection is normal.)

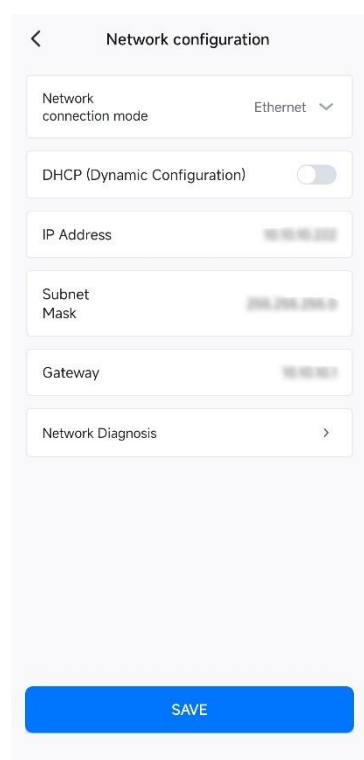
Module WiFi name is generally "DTU:inverter:XXXXX". After setting and connection are successful, you can configure device information and perform battery and communication settings.



### 9.3 EMS and eManager Debugging via Bluetooth

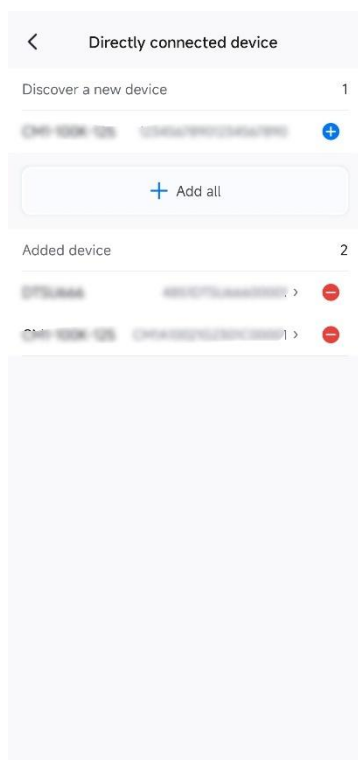
On Service page (for distributor/installer role) or on My page (for terminal owner role), choose Remote Configuration > Bluetooth. Choose EMS or eManager to perform initialization settings or parameter debugging.

- ① Perform network configuration including connection mode (Ethernet, 4G, and WiFi), DHCP and IP address.

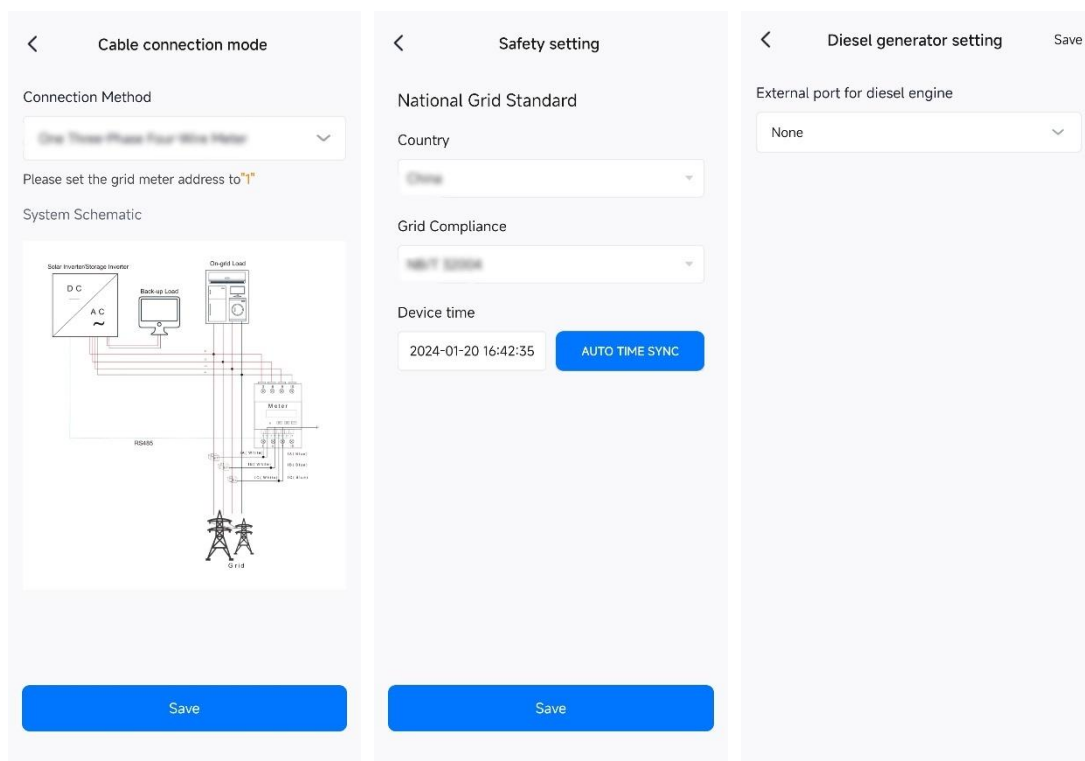




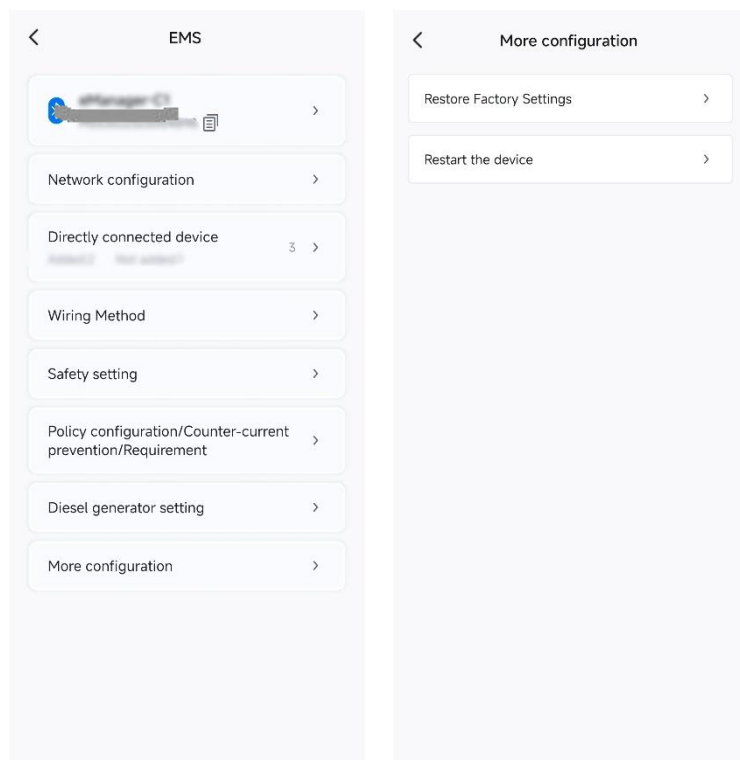
② Add a device.



③ Set cable connection mode, device counter-current prevention, safety, and other parameters.



After being set, network configuration, wiring method, safety setting, policy configuration, and other parameters in the EMS parameter setting list are sent in batch to each connected device through a module broadcast to implement the batch setting function. The Directly connected device list is used for parameter settings of a device. The More configuration list is used for module settings such as restoring factory settings and restarting device.



## 10 Reference Information

### 10.1 Weather Parameters

Parameter	Unit	Meaning
Temperature	°C / °F	Ambient temperature value in geographic location of the plant.
Sunrise time	HH:MM:SS	Time when circle center of the sun rises over eastern horizon.
Sunset time	HH:MM:SS	Time when circle center of the sun sets below western horizon.
Weather data	-	Specific state of atmosphere in a short period of time, such as sunny, cloudy, overcast, shower, thundershower, light rain, moderate rain, heavy rain, rainstorm, snow shower, and haze.

### 10.2 Environmental Benefit Parameters

Parameter	Unit	Meaning	Calculation Formula
Trees Planted	pc	Photovoltaic power generation under this plant is equivalent to CO <sub>2</sub> emission absorbed by planted new trees.	$1.773 * \text{Total energy generated} / 1000$
CO <sub>2</sub> emission reduction	t	Photovoltaic power generation under this plant is equivalent to CO <sub>2</sub> emission from fossil fuel.	$\text{Carbon dioxide factor} * \text{Total energy generated} / 1000$

### 10.3 Energy Parameters

Parameter	Unit	Meaning
Plant capacity	kWp	Total capacity of PV array actually installed in the plant.
PV power	kW	Total power of PV array.
PV energy	kWh	Total energy generated by PV array within the statistic period.
Inverter energy	kWh	PV plant output.
Total energy generated	kWh	Total power generation output of plant within the statistic period.
Consumption	kWh	Total load consumption within the statistic period.
Export energy	kWh	Energy fed by plant into the power grid within the statistic period.
Import energy	kWh	Energy imported from the power grid within the statistic period.
Self-consumption	kWh	Energy generated by PV plant for local use and not fed

energy		into the power grid.Consists of consumption (load consumption) and stored energy (battery charging).Note: Battery charging and discharging may cause an error.
Self-sufficiency energy	kWh	Energy from PV system consumed by load.Consists of consumption (load consumption) and stored energy (battery discharging).Note: Battery charging and discharging may cause an error.
Self-sufficiency rate	%	Proportion of energy generated by PV plant for local use and not fed into the power grid to energy imported from the power grid.
Load power	kW	Load consumed power.
Battery charging and discharging power	kW	Battery charging and discharging power.
PV earning	-	PV power generation earning.Consists of export earning and saving. A rate plan must be set.

## 10.4 Battery Parameters

Parameter	Unit	Meaning
Battery power	Wh	Battery input or output power within unit time.
Design capacity	kWh	Battery discharge capacity under certain conditions (discharging rate, temperature, and cut-off voltage).
Battery SOC	%	State of charge, used to reflect remaining capacity of battery.
Battery voltage	V	Potential difference caused by chemical reaction of positive and negative pole materials of battery.
Battery current	A	Current provided by battery during normal operation.
Battery temperature	°C	Battery surface temperature.
Number of cycles	Cycle	When battery finishes a complete charging and discharging process, number of cycles increases by 1.
Battery health rate	%	Degree of battery health life span.