

HaiPower Operation manual

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1. Software introduction

HaiPower software is used for the company's photovoltaic device products distribution network Settings and data monitoring software. Users can bind and use the PV inverter device through the software. Creating a plant management device. View the data parameters, monitor the energy output and working status of the device.

1.1 Scan the code to download the application

You can download the corresponding mobile version of HaiPower through the QR code below.



1.2 Google Store download

1. Open the Google Play Store (Figure 1.2.1)。
2. In the top search bar, enter "HaiPower" for a software search (Figure 1.2.2)。
3. Find the software and click Install to install the software (Figure 1.2.3)。
4. After installation, you can click the Open button or return to your mobile desktop to open the HaiPower app (Figure 1.2.4, Figure 1.2.5)



Figure 1.2.1

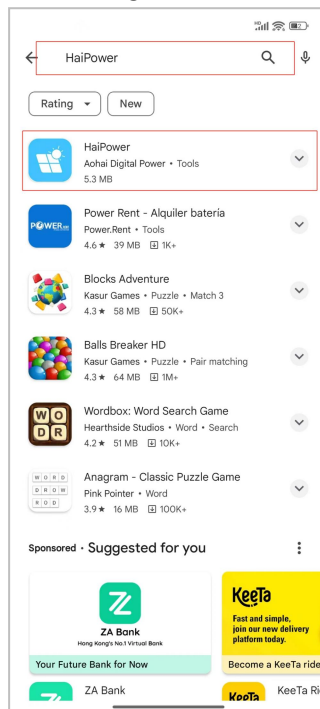


Figure 1.2.2

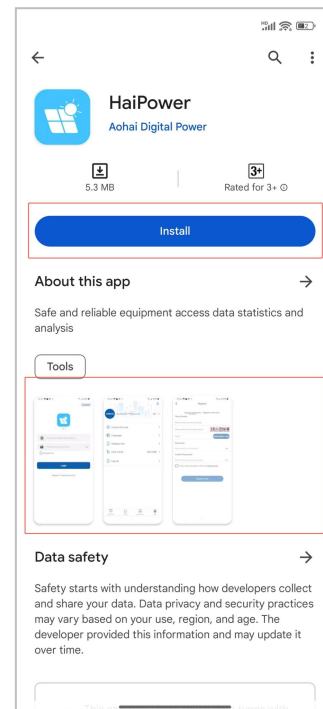


Figure 1.2.3

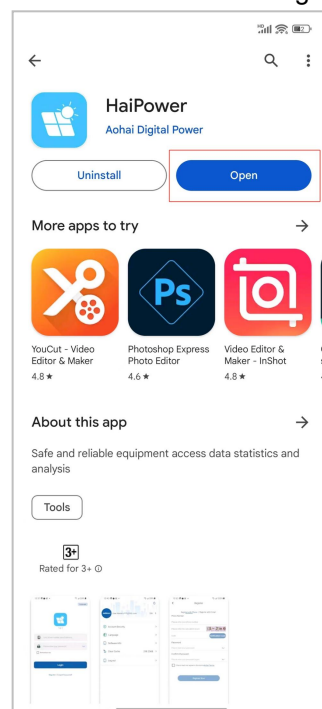


Figure 1.2.4

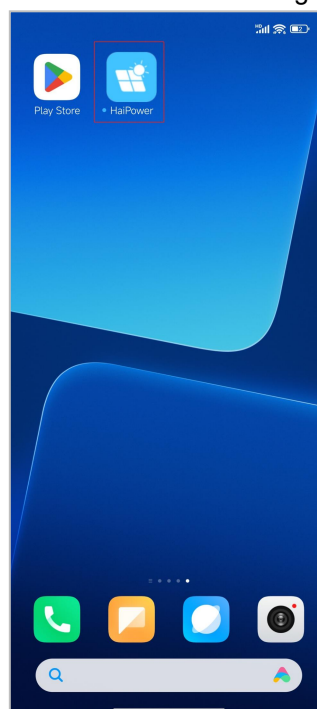


Figure 1.2.5

1.3 Huawei Store download

1. Open AppGallery (Figure 1.3.1).
2. Enter "HaiPower" in the top search box and click the install button to enter the download (Figure 1.3.2, Figure 1.3.3) .
3. Install the software to the mobile phone as prompted (Figure 1.3.4) .
4. After installation, click the Open button or return to the mobile desktop to open the HaiPower application (Figure 1.3.5, Figure 1.3.6) .

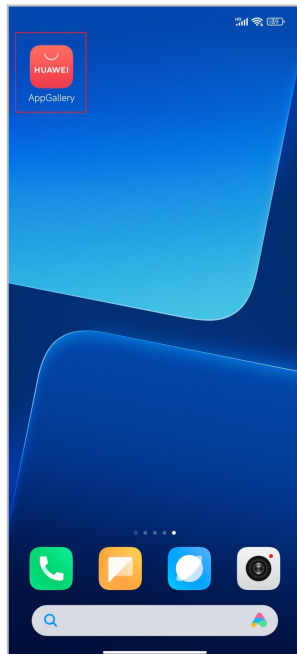


Figure 1.3.1

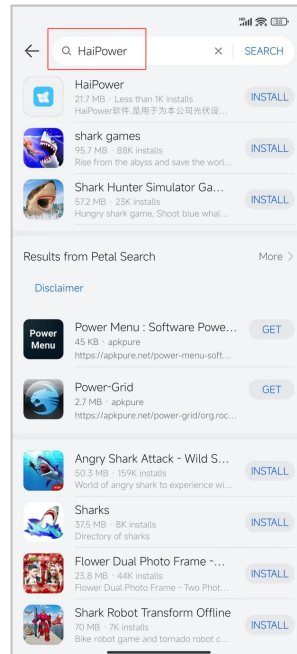


Figure 1.3.2

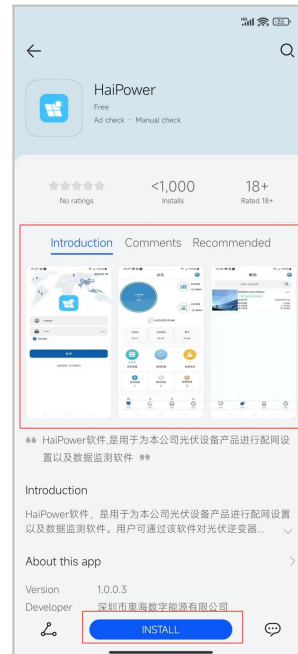


Figure 1.3.3

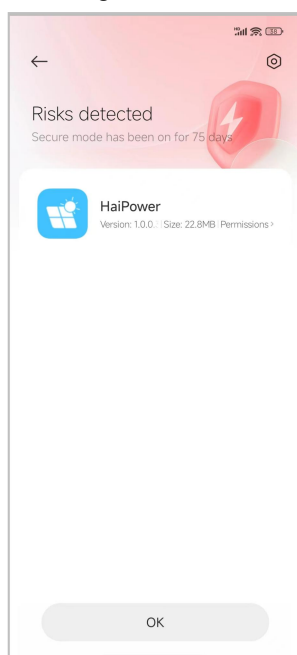


Figure 1.3.4

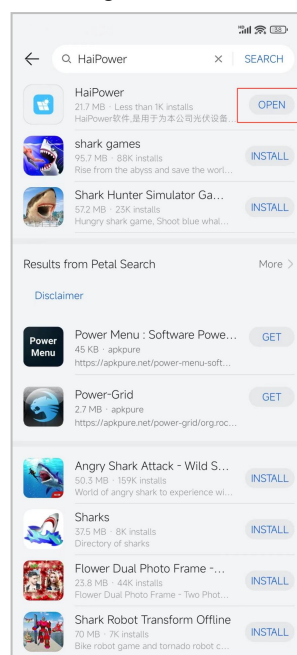


Figure 1.3.5

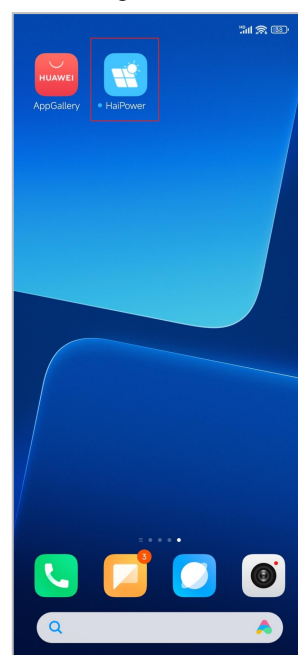


Figure 1.3.6

1.4 Apple Store download

1. Open the App Store (Figure 1.4.1) .
2. Click the search button at the bottom right.
3. Enter "HaiPower" in the top search box and click the download button (Figure 1.4.2) ,to display the download status (Figure 1.4.3) .
4. After downloading and installing, click Open (Figure 1.4.4) or return to the mobile desktop to open HaiPower application (Figure 1.4.5) 。

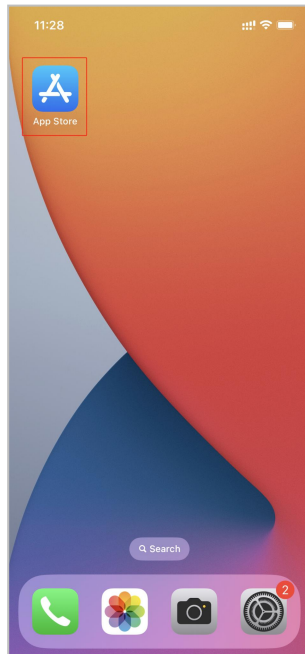


Figure 1.4.1

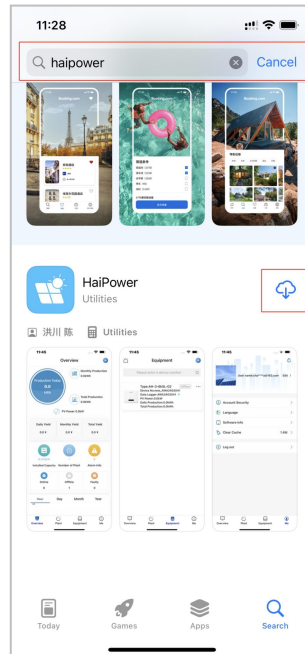


Figure 1.4.2

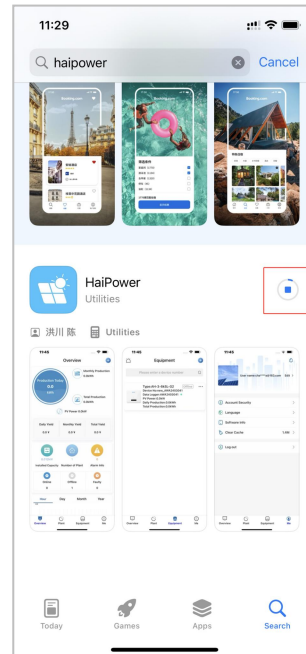


Figure 1.4.3

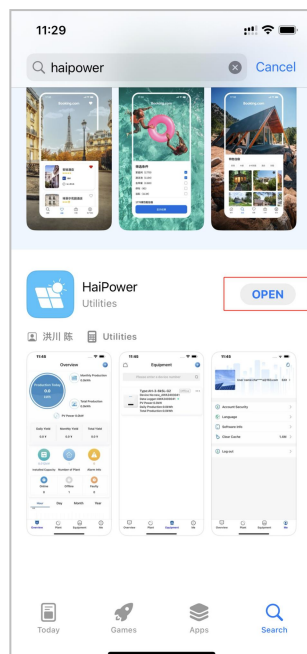


Figure 1.4.4

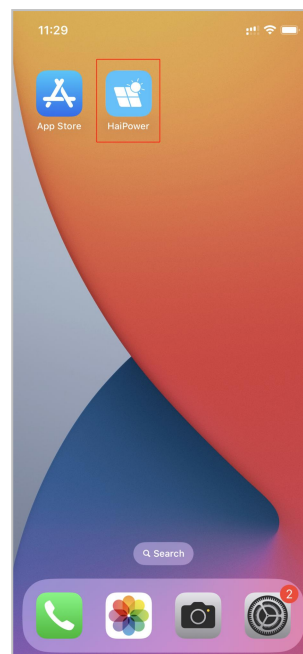


Figure 1.4.5

2.Account management

2.1 Register

When using HaiPower for the first time, after opening the software, you can click "Register " (Figure 2.1.1) to register your account.

The account can be registered by mobile phone number or email number (Figure 2.1.2). Enter related information as prompted to register successfully.

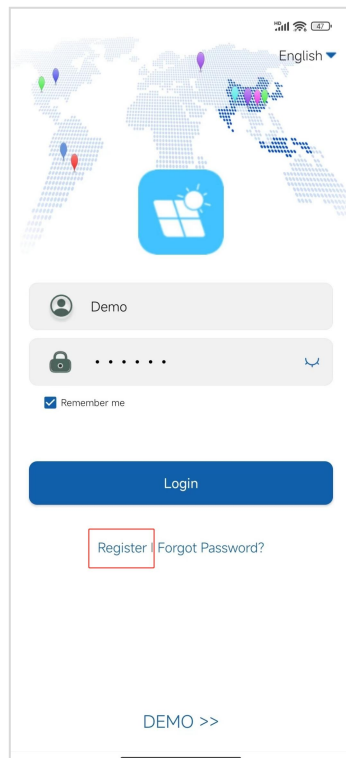


Figure 2.1.1

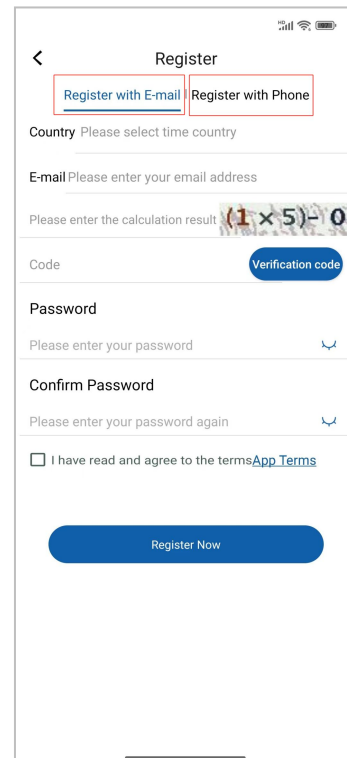


Figure 2.1.2

2.2 Retrieve password

If you forget the account password after creating an account, you can click the "Forgot password" option in the page (Figure 2.2.1) to enter the password recovery interface. You can reset the new password by verifying your mobile phone number or email address (Figure 2.2.2), and enter relevant information as prompted (Figure 2.2.3) to update the account password.

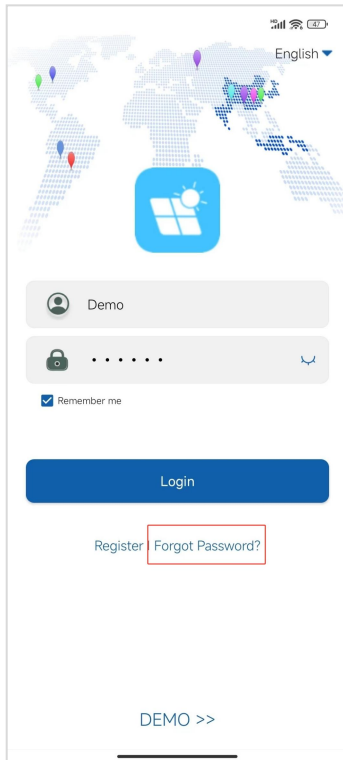


Figure 2.2.1

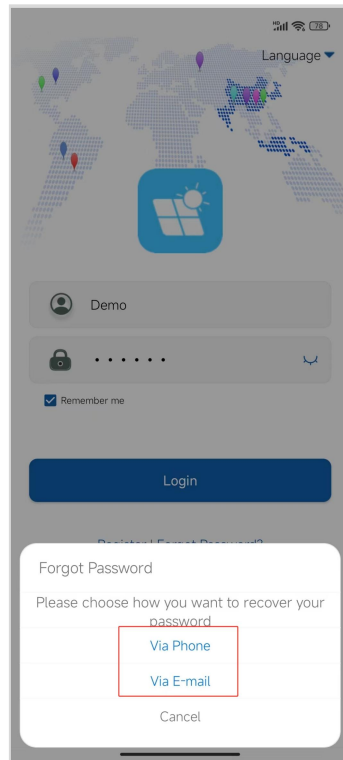


Figure 2.2.2

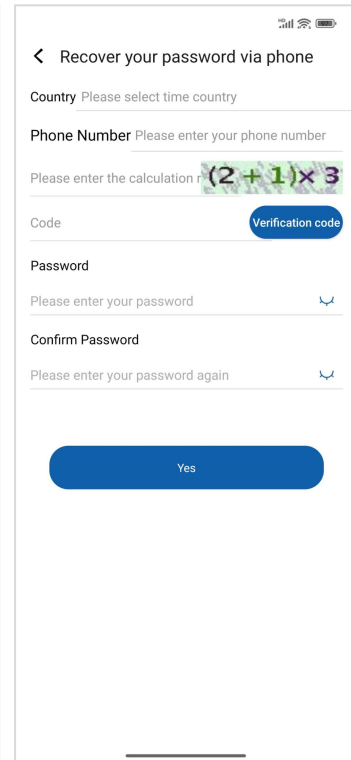


Figure 2.2.3

2.3 Language setting

The current system has multiple language versions to choose from, English, Chinese and other languages. You can click the "Language" button on the login page (Figure 2.3.1) to display multiple language options. You can select and set the current APP language according to your needs.

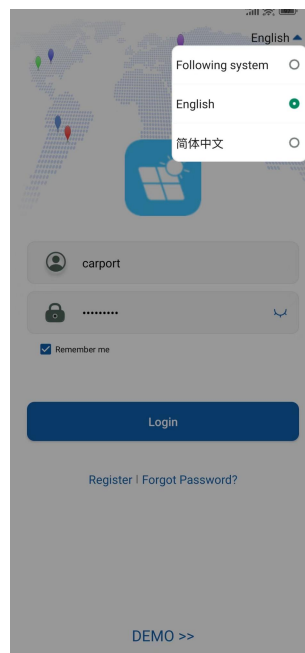


Figure 2.3.1

2.4 Login system

After the account registration is completed, you can enter the account and password on the login interface (Figure 2.4.1) to log in to the APP. You can check the "Remember password" function and open HaiPower again to log in directly without having to enter the account information again.

You can click "DEMO>>" at the bottom of the screen to directly access the sample power station (Figure 2.4.2), and you can view the content of the sample power station without registering a login account. It is easy for customers to understand the functions of HaiPower.

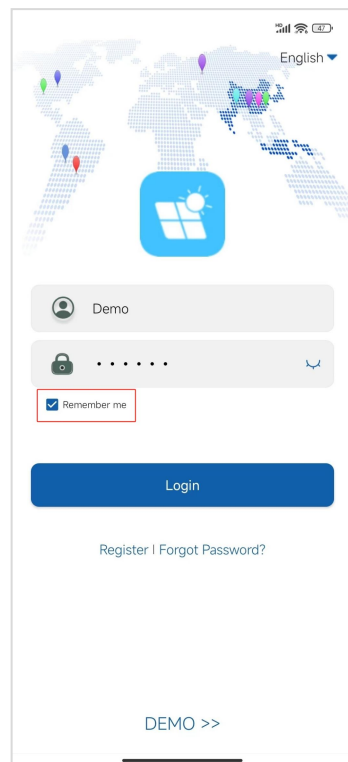


Figure 2.4.1

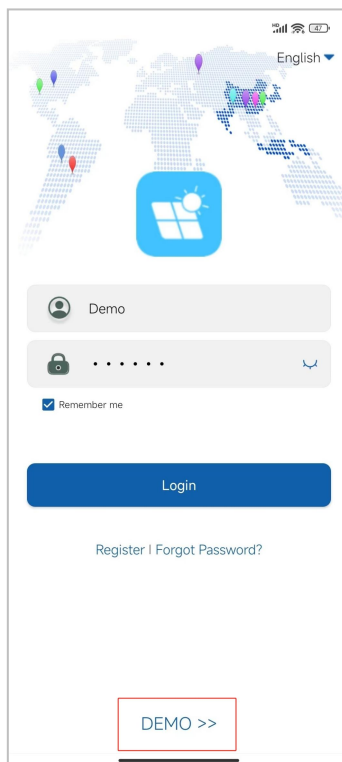


Figure 2.4.2

3.Bind device

If HaiPower is used for the first time, there is no device in the account. You need to manually add the device. Devices used in HaiPower need to be managed by the plants. Therefore, devices need to be associated with the plant. Therefore, the following two situations may occur when devices are added:

1. If no plant is established, connect the device through the distribution network, and add the device directly. The system automatically creates a plant.
2. A plant has been created, connect the device to the power distribution network, and bind the device to the plant.

You can add a device by referring to method 3.1 or 3.2 in this document based on the actual situation.

3.1 Add devices to generate plant

When entering HaiPower for the first time, you can click "⊕", on the upper right and choose to use Bluetooth network distribution function. Add a device to your account.

1. Select Bluetooth networking mode (Figure 3.1.1)。

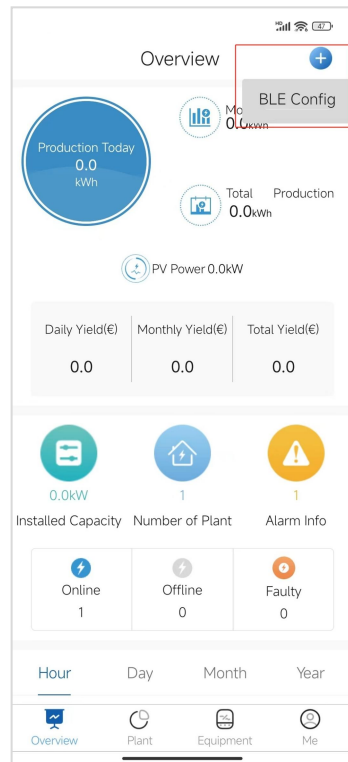


Figure 3.1.1

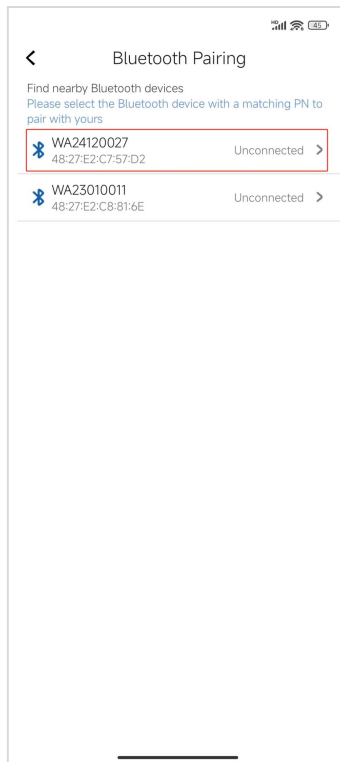


Figure 3.1.2

2. HaiPower will automatically search for nearby Bluetooth devices (Figure 3.1.2), find the SN corresponding to your device, and click on it to set up the distribution network.
3. After entering the configuration interface (Figure 3.1.3), manually enter the WIFI name or click "📶" to pop up the WIFI list for selection (Figure 3.1.4), enter the WIFI password, and click "Start Config" to connect the device to the selected network.

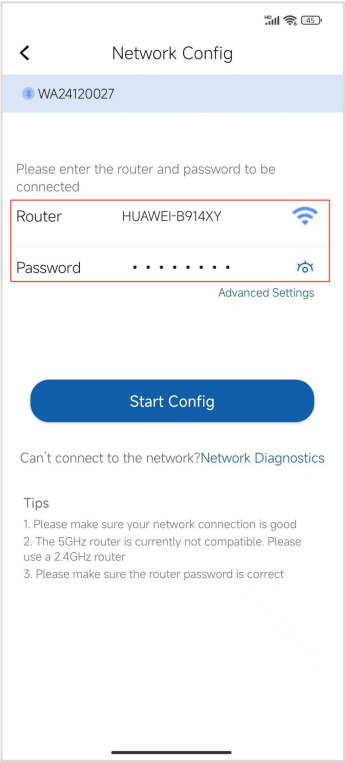


Figure 3.1.3

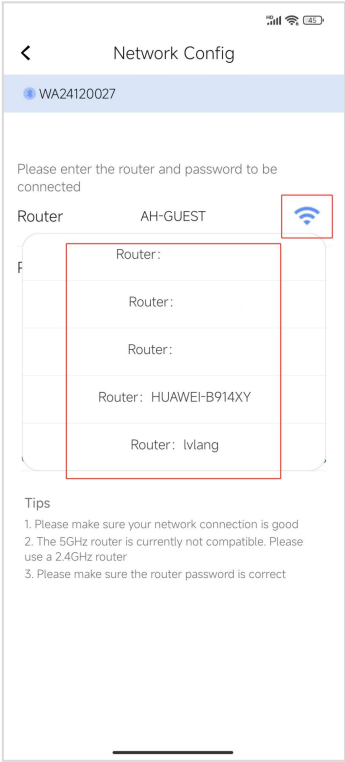


Figure 3.1.4

4. If there are special Settings, you can click the advanced Settings option (Figure 3.1.5) , to customize the advanced Settings and fill in the corresponding parameters (Figure 3.1.6) .

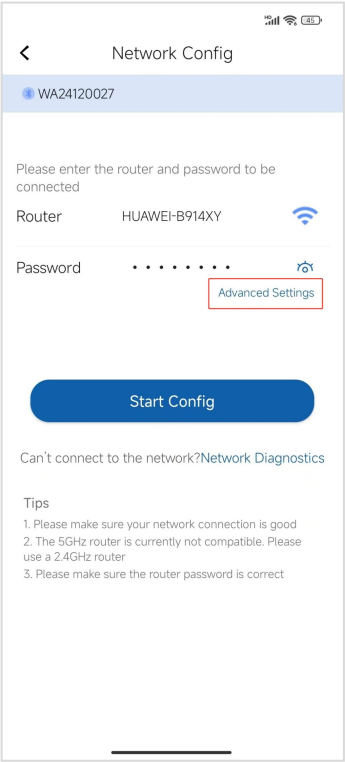


Figure 3.1.5

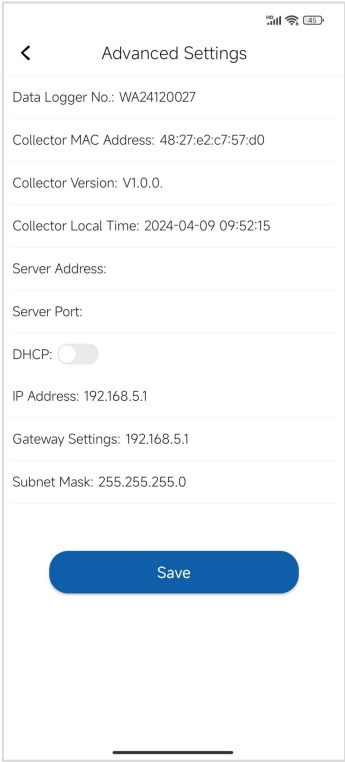


Figure 3.1.6

5. After the distribution network is successful, click the Add button (Figure 3.1.7) , After the device is added, the plant will be automatically generated.

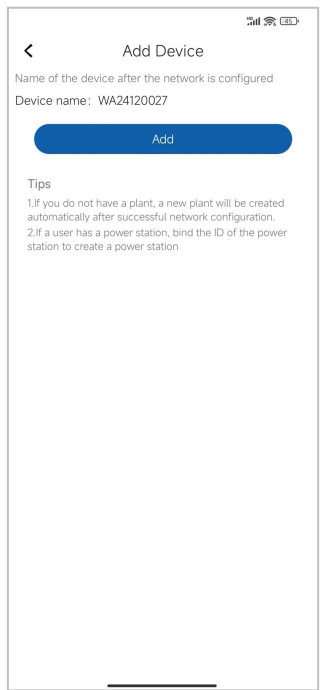


Figure 3.1.7

6. After the system is added, you can view the automatically created plant information on the plant list page. Click“ ... ”, and select Edit (Figure 3.1.8), to modify the automatically created plant information (Figure 3.1.9) 。

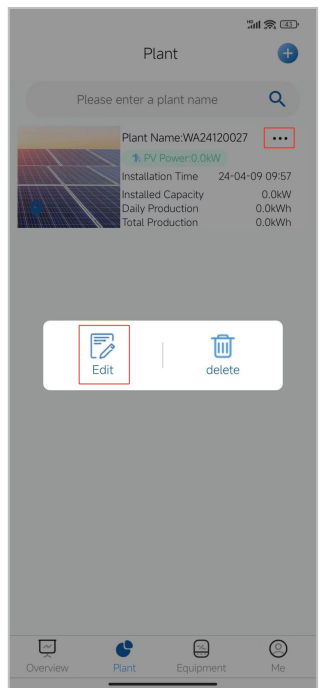


Figure 3.1.8

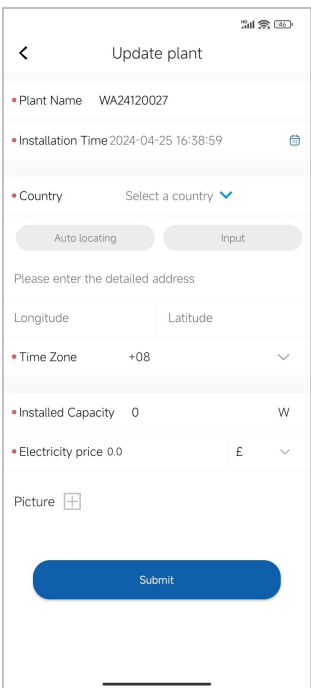


Figure 3.1.9

3.2 Create a plant and add devices

To access HaiPower for the first time, go to the plant management page, add the plant, and then bind the device distribution network.

1. Click “+” at the top right of the plant page (Figure 3.2.1), the page for Creating a new plant will pop up (Figure 3.2.2), and add a new plant to the account after saving.

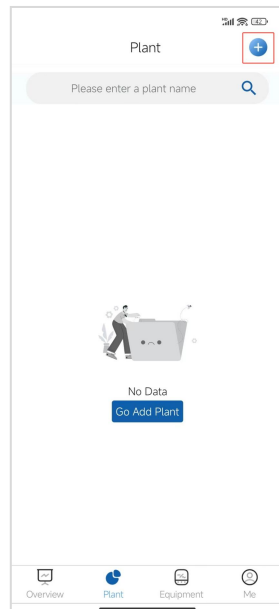


Figure 3.2.1

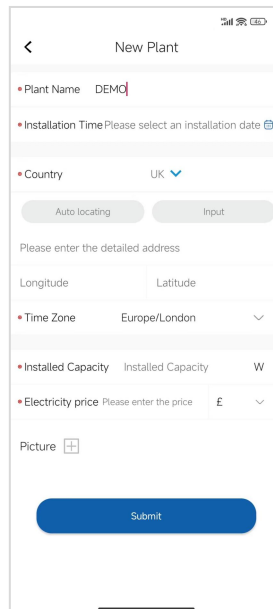


Figure 3.2.2

2. Click the created plant (Figure 3.2.3), and click “+” on the upper right of the plant page (Figure 3.2.4), you can choose to add devices or Bluetooth distribution network to add devices.

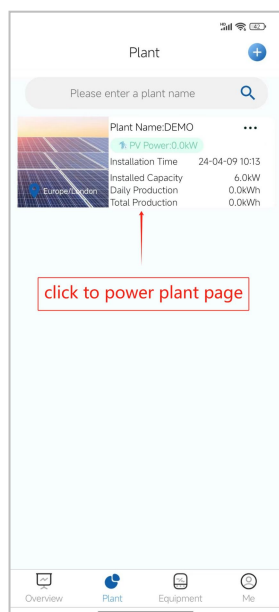


Figure 3.2.3

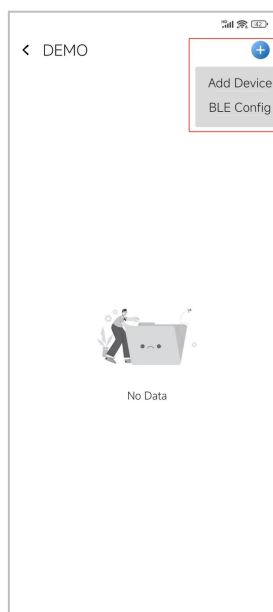


Figure 3.2.4

3.2.1 Add devices via Bluetooth networking

1. After selecting Bluetooth distribution network, HaiPower will automatically search for nearby Bluetooth devices (Figure 3.2.5) , find the SN corresponding to your device, and click on it to set the distribution network.

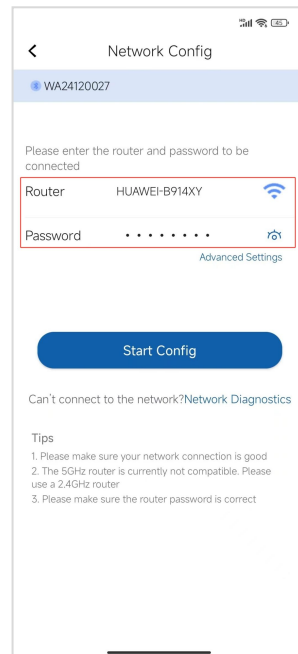


Figure 3.2.5

2. After entering the configuration interface (Figure 3.2.6) , manually enter the name of WIFI or click "📶" to pop up the WIFI list for selection (Figure 3.2.7) , enter the WIFI password, and click" Set "to connect the device to the selected network.

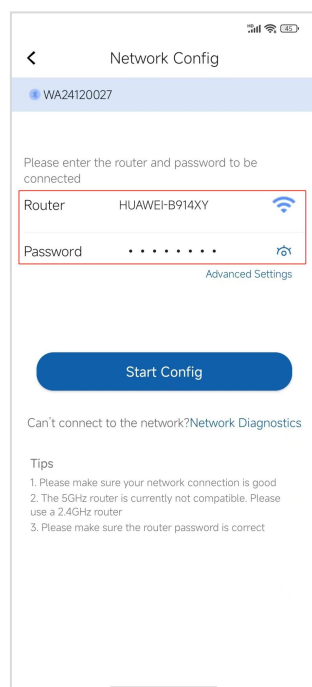


Figure 3.2.6

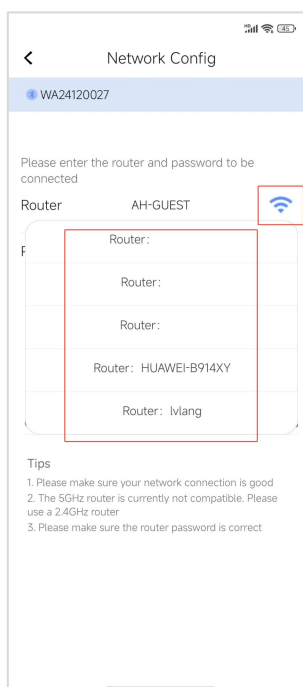


Figure 3.2.7

3. If there are special Settings, you can click the advanced Settings option (Figure 3.2.8) , to customize the advanced Settings and fill in the corresponding parameters (Figure 3.2.9) 。

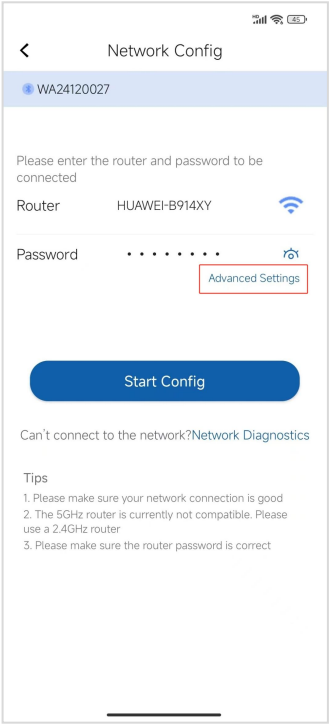


Figure 3.2.8

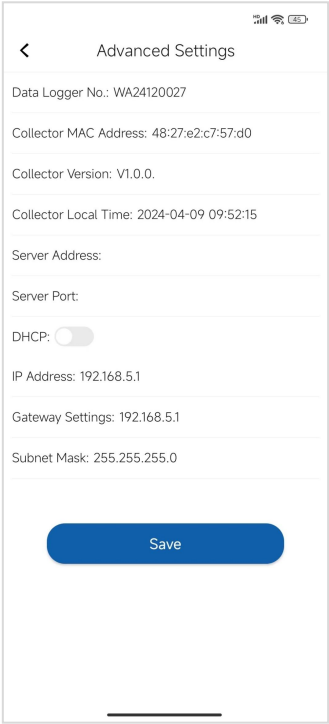


Figure 3.2.9

4. After the power grid is configured successfully, the drop-down list of the created plant name is displayed. Select the device that is configured successfully from the drop-down list and assign it to the corresponding plant (Figure 3.2.10) .

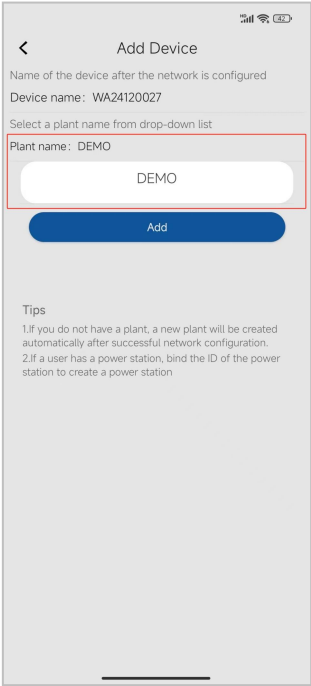


Figure 3.2.10

3.2.2 Add a device by SN

Click Add Device and enter the collector SN (**Figure 3.2.11**) to add the device to the power station. If the device is successfully connected to the network, the online status is displayed. Otherwise, the device is displayed as offline. The device can be used only after it is connected to the Bluetooth network.(For details, see this document [3.2.1 Add devices via Bluetooth networking.](#))

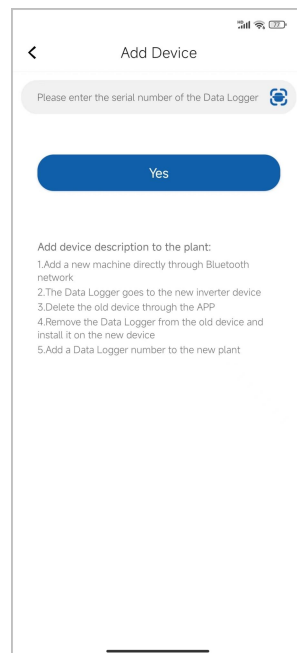


Figure 3.2.11

4.Software

4.1 Data overview

The login is successful, and the device has been bound. You can view the total data page of the home page (Figure 4.1.1, Figure 4.1.2), which displays the summary data information of all plants under this account, such as: daily power generation, total power generation, photovoltaic power, photovoltaic income, installed capacity, device operating status, social contribution and other information.

You can view the power details of the photovoltaic device according to the search time of hour/day/month/year, and visually display and compare the data in the form of a bar chart, so that users can better understand the work effectiveness of the device.

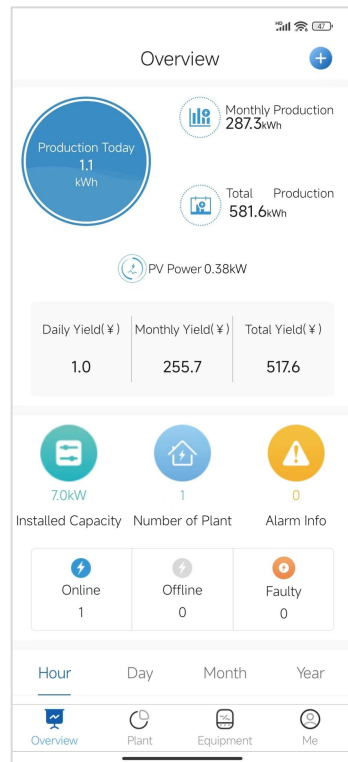


Figure 4.1.1

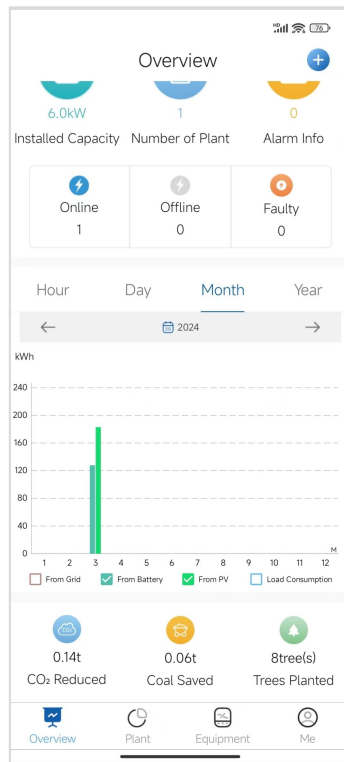


Figure 4.1.2

4.2 Plant management

Click the plant button on the bottom menu bar to enter the plant list page, which displays the basic information of each plant, and users can quickly preview the information of photovoltaic power generation, installed capacity, and electricity generation on the day. The operation of the plant can be realized in this page, and the plant can be managed in a unified way.

4.2.1 New Plant

By clicking on the top right of the page "+" (Figure 4.2.1), The New plant page will pop up, fill in the relevant information according to the prompts on the page (Figure 4.2.2), and after saving, you can add a new plant to the account.



Figure 4.2.1

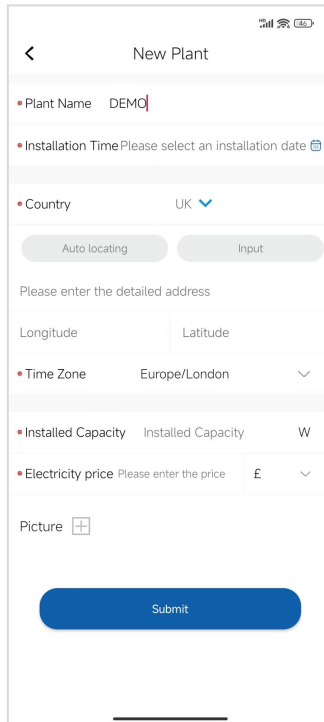


Figure 4.2.2

4.2.2 Modify Plant

Click on the top right of the power plant list item "..." Button, pop-up prompt to select modify or delete (Figure 4.2.3), modify the plant information according to the corresponding operation.

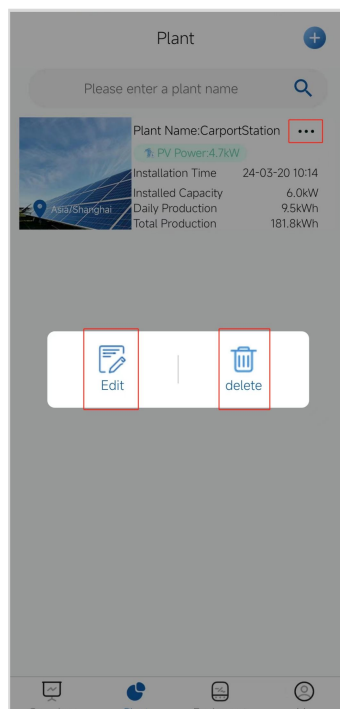


Figure 4.2.3

4.2.3 Plant details

Select and click an item in the plant list (Figure 4.2.4), you can enter the detailed page of the plant, you can observe and monitor the device under the plant.



Figure 4.2.4

1. Click on the top right of the power plant page “+” (Figure 4.2.5) , You can choose to add a new device (Figure 4.2.6) or add a device with Bluetooth network (Add Method View this document [3.2 Create a plant and add devices](#)).

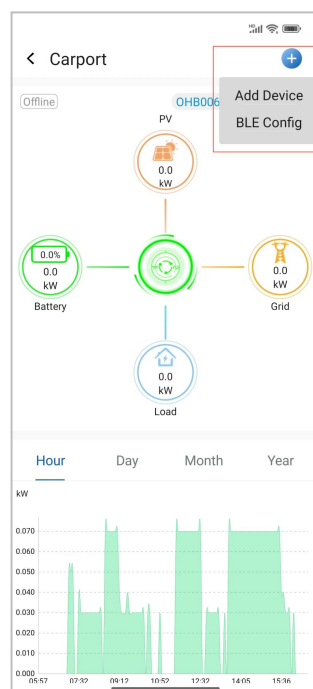


Figure 4.2.5

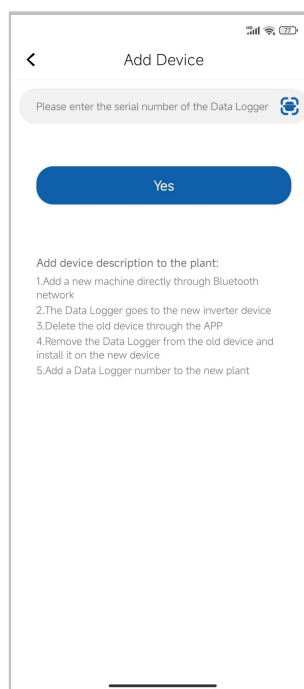


Figure 4.2.6

2. Select the device in the upper right corner (Figure 4.2.7). On this page, you can switch the photovoltaic device information for viewing.

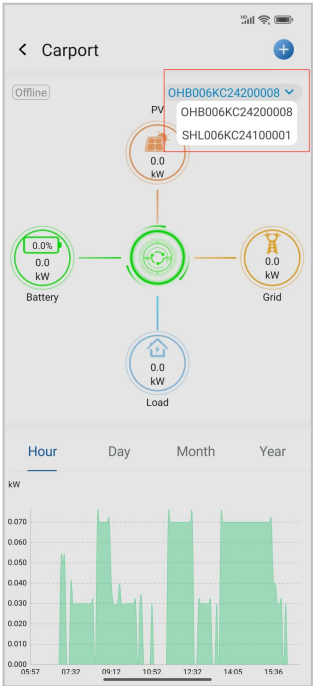


Figure 4.2.7

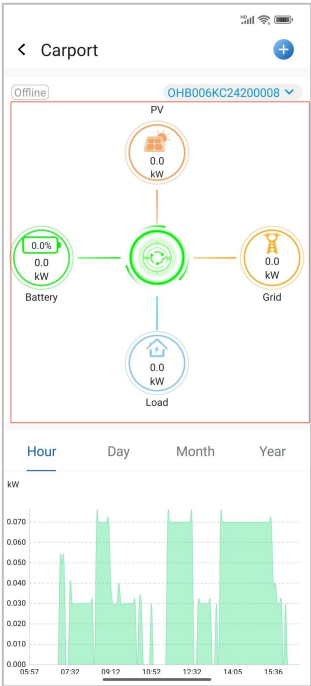


Figure 4.2.8

3. On the details page of the plant, you can view the power flow diagram of the photovoltaic device (Figure 4.2.8). You can observe the specific working status of the inverter through the flow diagram, including photovoltaic power, load consumption, battery power, grid power, charging or discharging power, feed into the grid or grid power.

4. The power consumption of the plant can be observed in detail, and the electricity profile provided by the photovoltaic device can be intuitively reflected in the form of bar chart and data proportion (Figure 4.2.9).

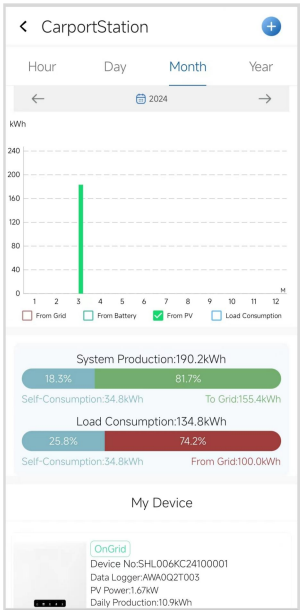


Figure 4.2.9

5. Device list Displays all the device under the plant (Figure 4.2.10), and quickly views

the operating power and status of the current device.

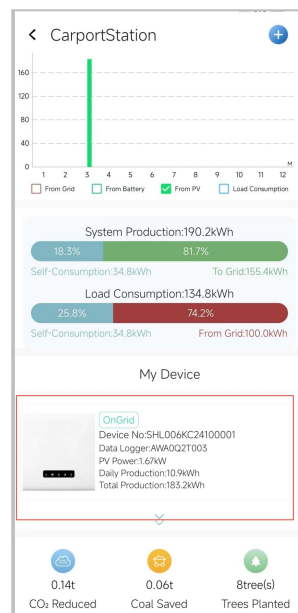


Figure 4.2.10

4.3 Devices List

Click the device button on the menu bar at the bottom to enter the PV device list page, which displays information about all PV devices under this account. You can use this page to manage devices in a unified manner and view the working status and energy yield of devices.

4.3.1 Add Device

Click on the top right of the device page “+” (Figure 4.3.1) , Bluetooth network can be selected to add devices (Add Method View this document [3.Bind device](#))



Figure 4.3.1

4.3.2 Delete Devices

Click on the top right of the device list item "..." Button, pop-up prompts to select whether to delete the device (Figure 4.3.2).

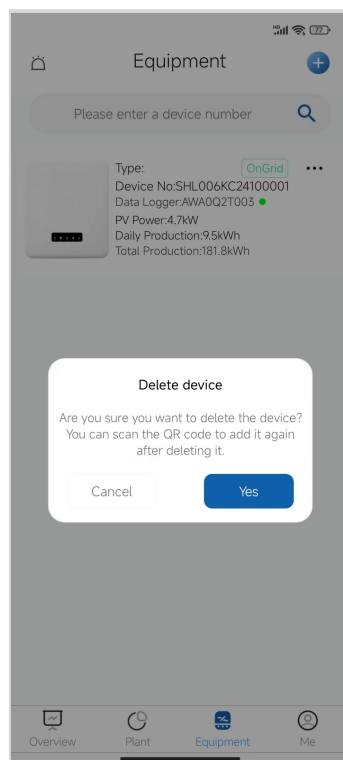


Figure 4.3.2

4.3.3 Fault List

Click " " at the top left of the device page (Figure 4.3.3) to view the fault list of the device. The fault list is divided into unprocessed, All, and processed pages (Figure 4.3.4, Figure 4.3.5), and you can view all fault information. If the fault has been resolved, you can manually update the record status by clicking " " in the list of unhandled faults.



Figure 4.3.3

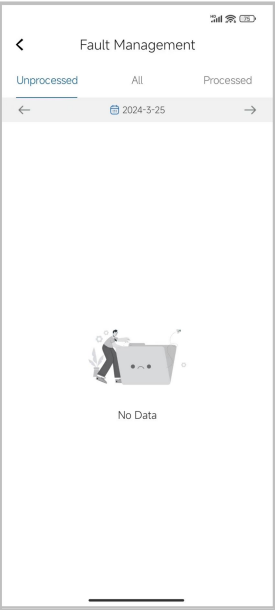


Figure 4.3.4



Figure 4.3.5

4.3.4 Device Info

Click an item in the device list, you can enter the detailed page of the corresponding device, you can view the basic information about the device.

1. Real-time information (Figure 4.3.6). Real-time monitoring and display of device photovoltaic information, ESP information, power grid information, inverter information.
2. Battery data (Figure 4.3.7). Displays information such as battery voltage, battery current, and SOC.
3. Basic information (Figure 4.3.8). The M3 version, DSP version, and device type are displayed.

Real-time Info			
PV Info			
	Voltage (V)	Current (A)	Power (W)
PV1	303.2	0.4	137.4
PV2	303.2	0.0	0.0
Grid Info			
Grid Frequency(Hz)			49.99
	Voltage (V)	Current (A)	Power (W)
L1	236.7	-1.8	240.0
L2	0.0	0.0	0.0
L3	0.0	0.0	0.0
Inverter Info			
PF			1.0
	Voltage (V)	Current (A)	Active/Reactive Power W/Var
L1	236.7	1.6	283.0/0.0

Figure 4.3.6

Battery Data	
Battery Info	
Battery Type	Li-ion Battery
SOC	100.0%
SOH	100.0%
Battery Voltage	53.7V
Battery Current	0.0A
Max Charge Current	0.0A
Max Discharge Current	104.2A
Battery Temperature	31.9℃
Rated Capacity	128.0Ah
Battery Status	Standby

Figure 4.3.7

Basic Info	
Device Basic Info	
Device No	SHL006KC24100001
Collector No	AWA0Q2T003
Status	OnGrid
Device Type	
System Time	2024-03-25 13:58:58
Firmware version	BA1.0
M3 Version	AAaa11
DSP Version	BAaa1413
Mode	S07M00B01T00F17E01P003C
Total Work Time	418h21min
Error Code (Master/Slave)	0/0
Alert Code (Master/Slave)	500/0

Figure 4.3.8

4. 3. 5 Set Parameters

The last item of device details is the device parameter setting field. On the device parameter page, users can set the charge and discharge, system, battery, and safety parameters of the device according to their own requirements.

1. General Settings as switching on and off (Figure 4.3.9), and setting the charging and discharging state of the photovoltaic equipment (Figure 4.3.10) you can set the fast charging and discharging function to work in a variety of modes: load priority, battery priority, power grid priority. You can also customize the time period to set according to your needs. According to the time period setting, in the specified time to load priority, battery priority, grid priority and other working modes. Achieve personalized setting of charge and discharge function.

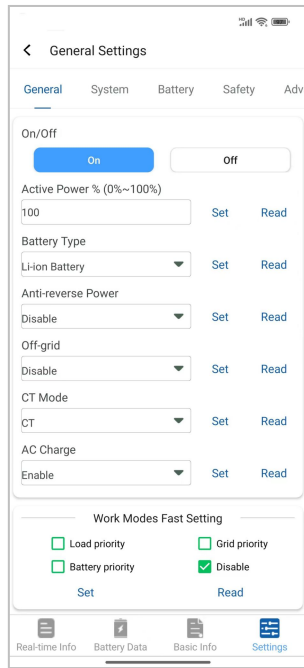


Figure 4.3.9

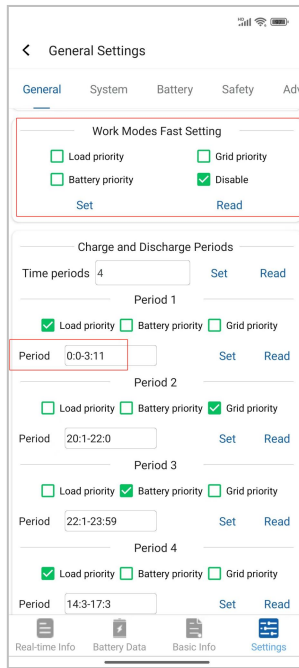


Figure 4.3.10

2. System Settings (Figure 4.3.11). You can set all parameters of the device system on this page.
3. Battery Settings (Figure 4.3.12). All parameters of the battery device can be set on this page.
4. Safety parameter setting (Figure 4.3.13). You can set the safety parameters on this page.

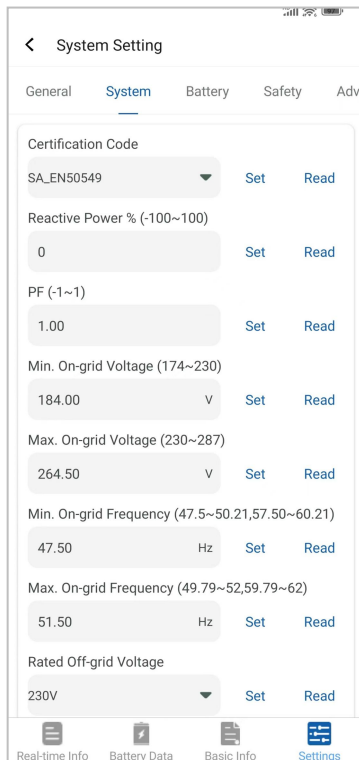


Figure 4.3.11

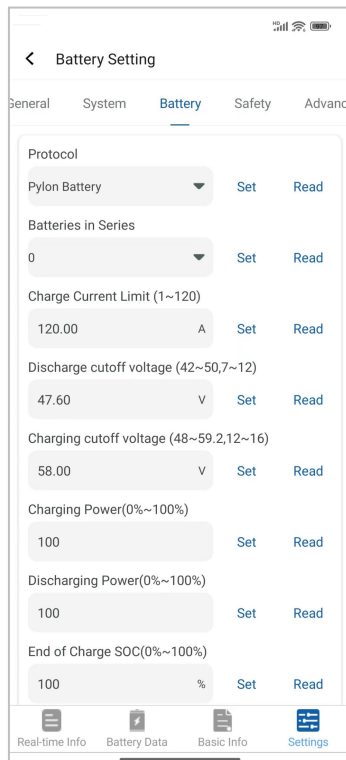


Figure 4.3.12



Figure 4.3.13

5. Advanced Settings (Figure 4.3.14). The advanced Settings screen allows you to flexibly search for or set device parameters.

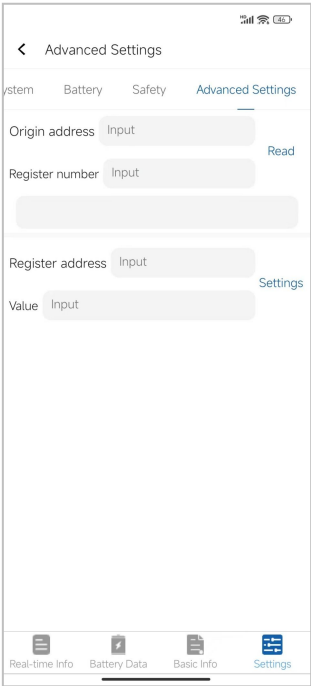


Figure 4.3.14

4.4 User Info

Click the user button on the bottom menu bar to enter the user information page (Figure 4.4.1). On this page, users can manage account information and HaiPower basic Settings.

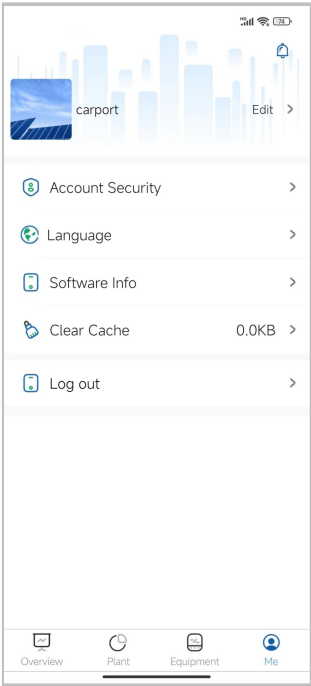


Figure 4.4.1

1. User account information (Figure 4.4.2).
2. User account security, account password and other information can be modified (Figure 4.4.3).
3. Language Settings. Users can modify the language Settings of HaiPower program from this field.
4. Software version information, you can check the APP version information on this page (Figure 4.4.4).
5. Clear software cache data.

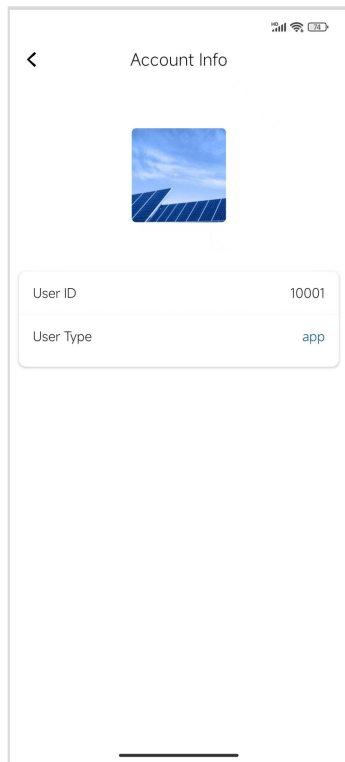


Figure 4.4.2

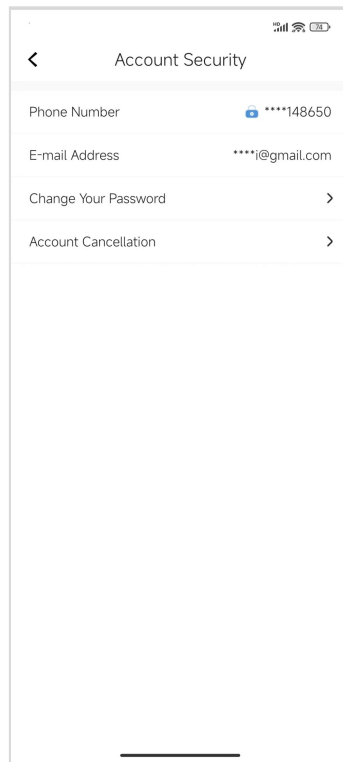


Figure 4.4.3

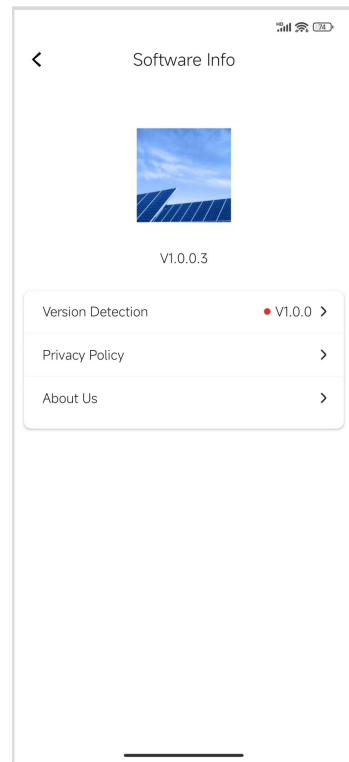


Figure 4.4.4