iEasy+ APP USER MANUAL

Preface

• Objective

· This document mainly introduces the common operations of iEasy+ App;

· Please read this manual carefully to familiarize yourself with the product functionalities. If the settings are wrong, it may affect the use of the device;

· The documentation will be updated from time to time, and the latest version of the information can be obtained;

• Eligibility

This document is intended for professionals who are familiar with local regulations, standards, and electrical systems, and who are professionally trained and familiar with this product;

• App Introduction

iEasy+ App is an application that integrates functions such as device configuration, Bluetooth parameter configuration, remote control and device monitoring.

· Device Configuration;

· Bluetooth Parameter Configuration;

· Remote Control of Equipment;

· Device Real-Time Monitoring, etc.;

• Download and Install the App

· Mobile system requirements: Android 5.0 and above, IOS 14.0 and above.

· Search for iEasy+ in Google Play (Android) or App Store (IOS) to download and install it.

1 Registration & Login

✓Both Installers and Homeowners can register in iEasy+ App.

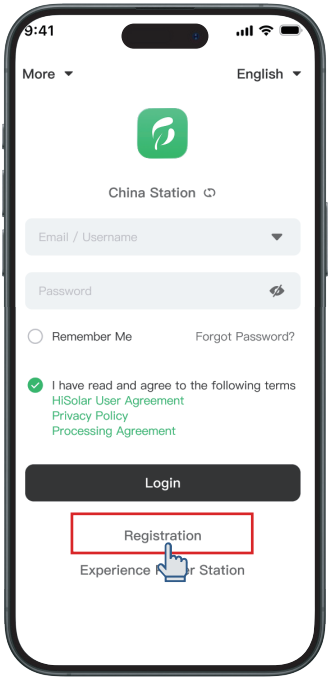
✓Installer Registration:

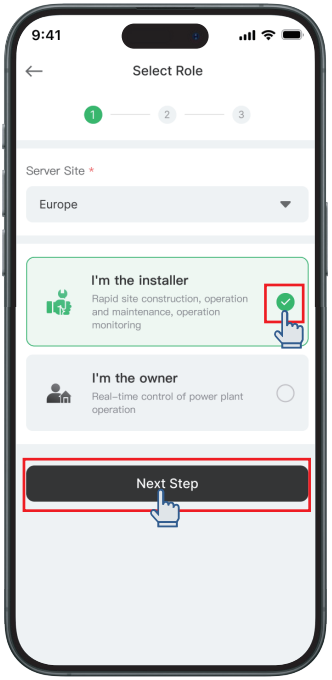
Step 1: When the user installs the app for the first time and launches it, the interface will navigate to the login homepage;

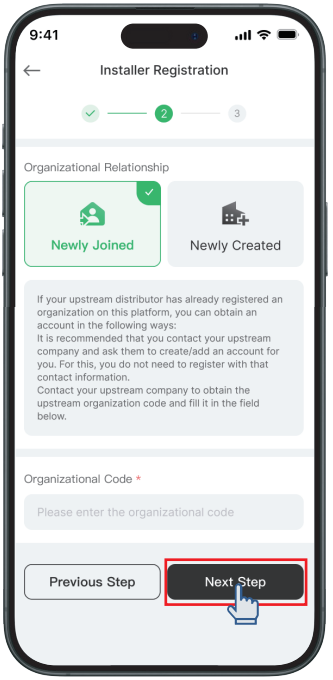
Step 2: Select the service station to be registered and the user role to be registered;

Step 3: When the user selects the installer role, the interface switches to the installer registration page;

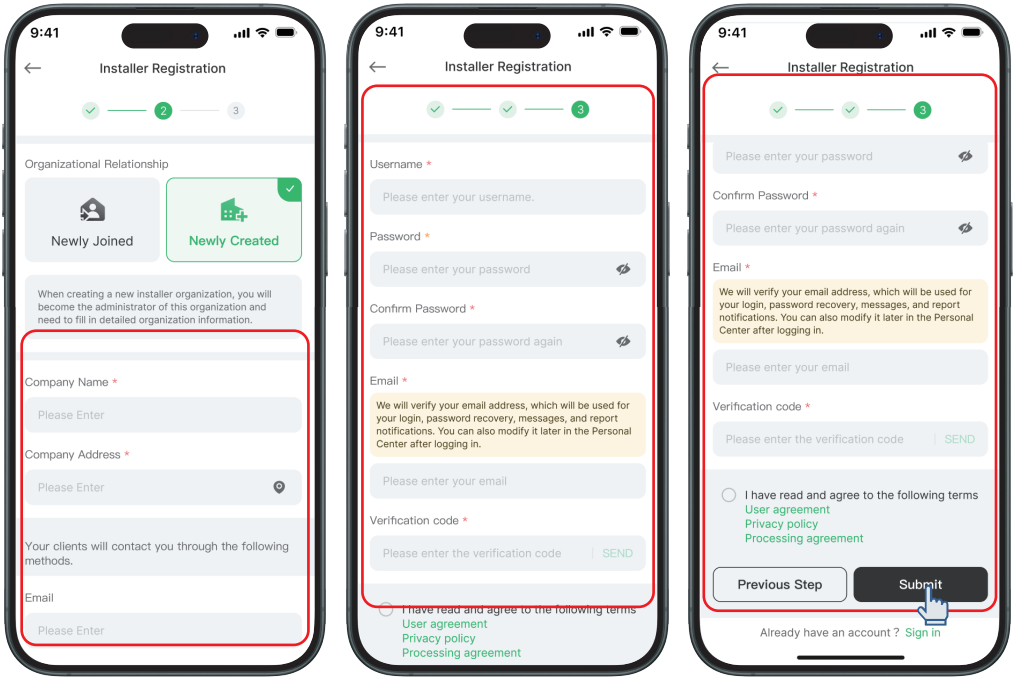
Step 4: On the installer registration page, users can choose the organizational relationship, which includes: Newly Joined and Newly Created;







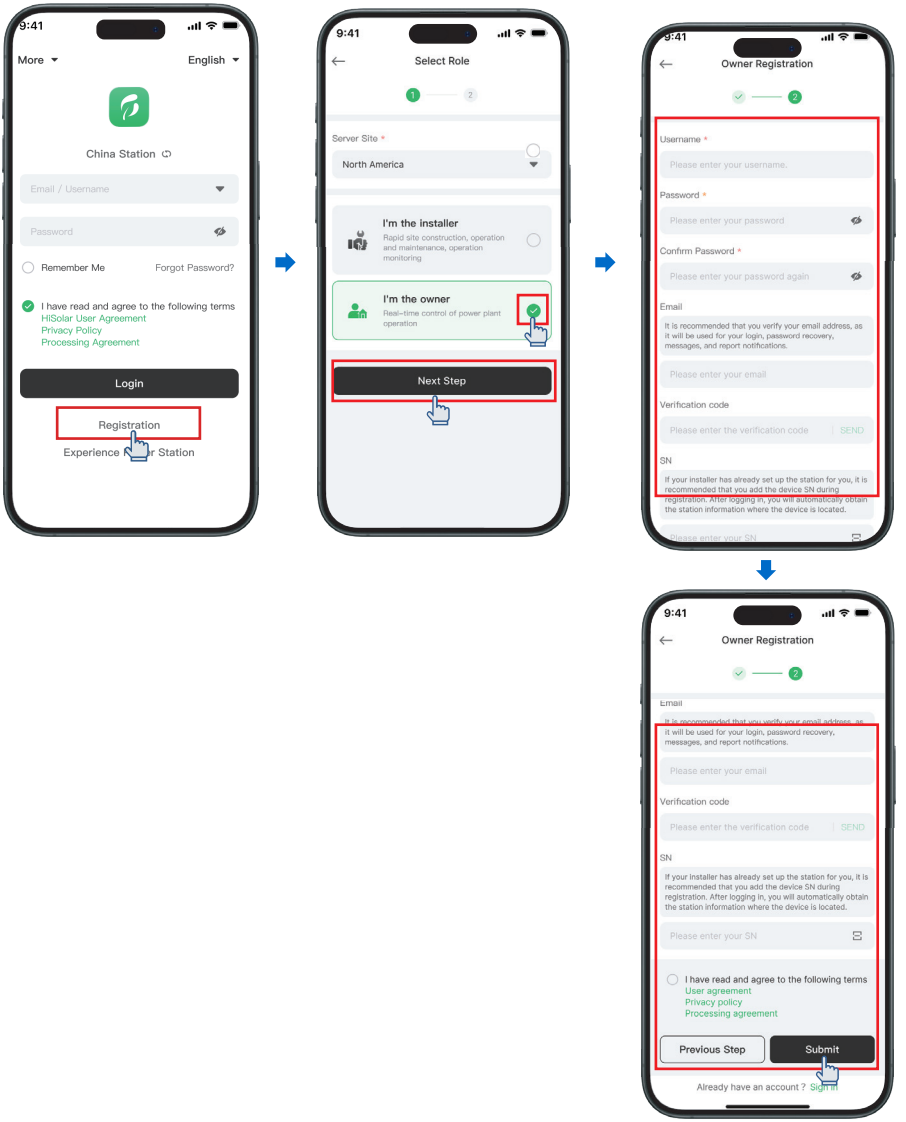
Step 5: After the user completes filling in the registration information and the information is successfully verified, they check the relevant registration agreement to complete the registration.



✓Owner Registration:

Step 1: The user selects "I am the owner," and the interface navigates to the owner registration information filling page.

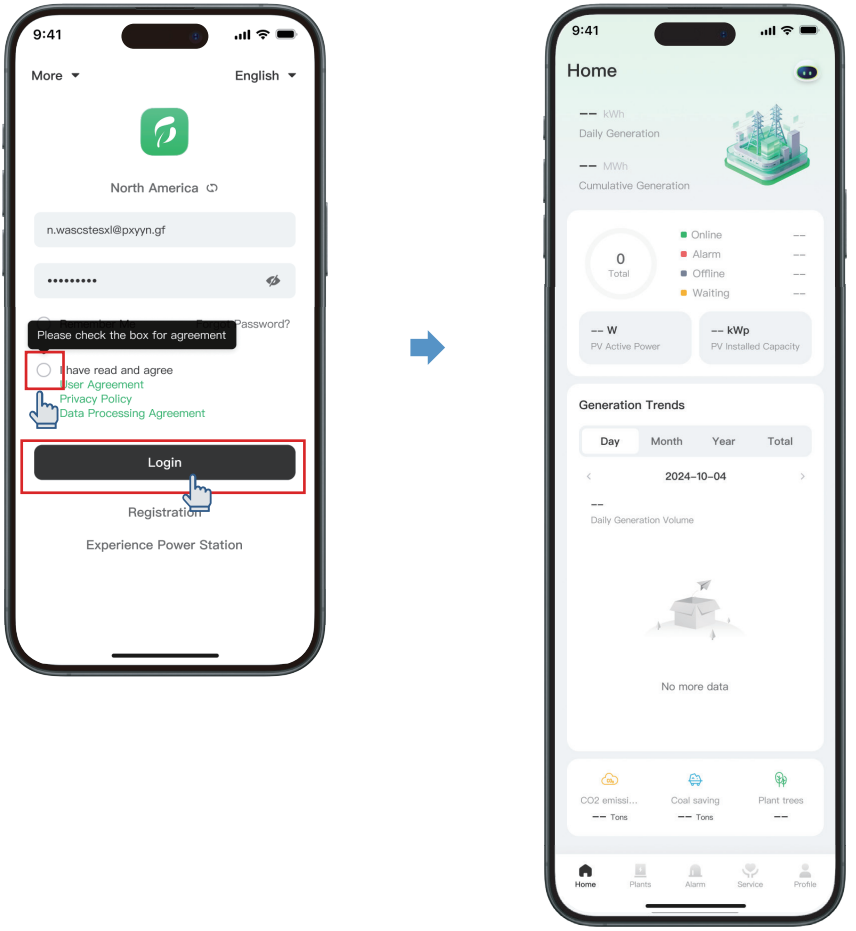
Step 2: After completing the required information and passing the verification, the user checks the relevant agreement to successfully complete the owner registration.



✓User login:

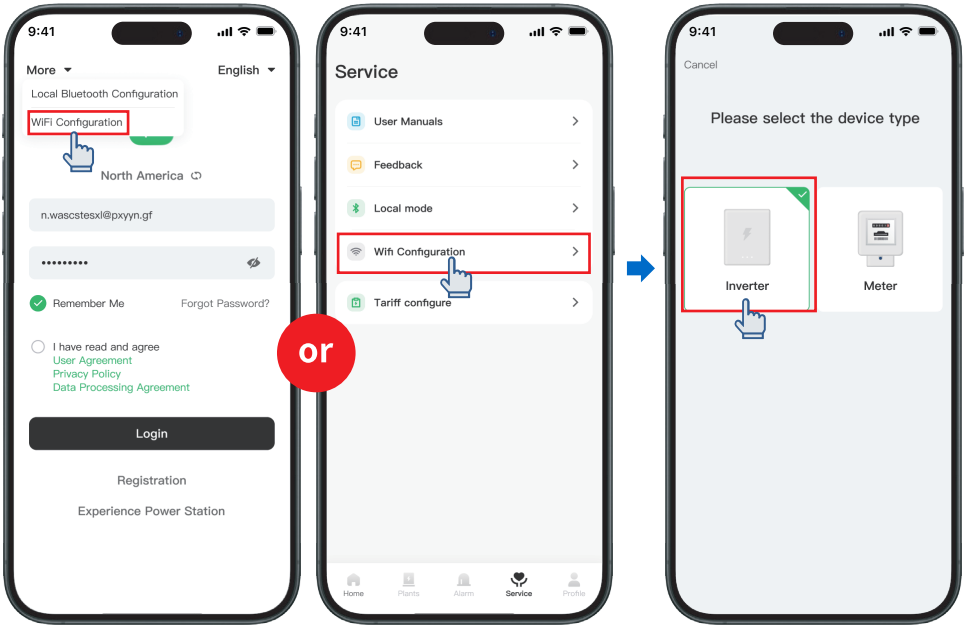
Step 1: When the user registration is completed, you can enter the account and password on the login page, check the relevant agreement description, click the login button, and the login is successful;

Step 2: Once the login is complete, go to the app's home page.



2 Device Configuration

• Wifi Configuration(Device means: Inverter)

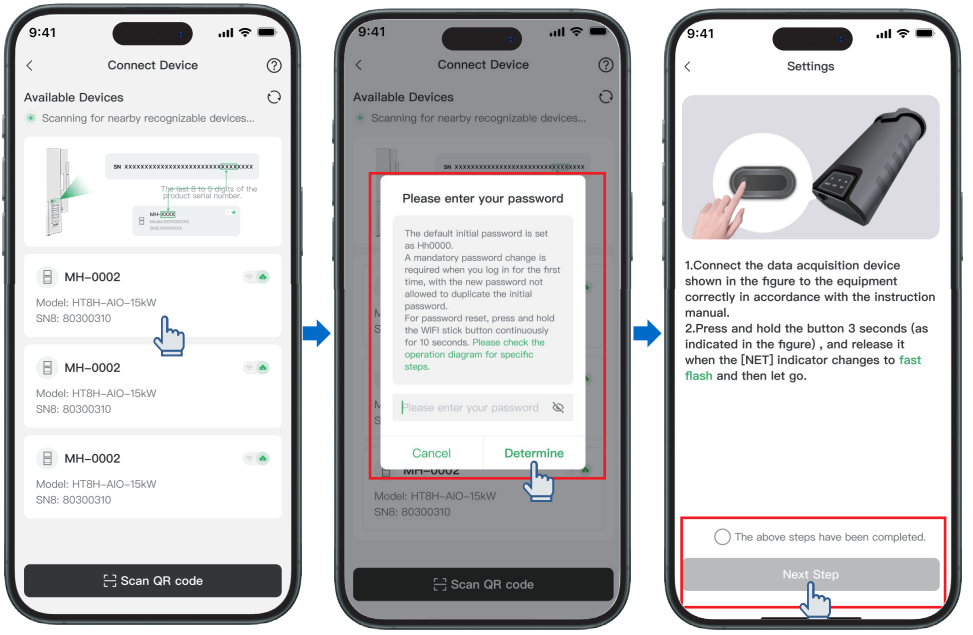


Step 1: Enter WiFi Configuration

(Entry 1: If not logged in, launch the iEasy+ App, and click "More - WiFi Configuration" in the top left corner of the login page.

Entry 2: If already logged in with an account, click "Service - WiFi Configuration" in the bottom tab bar of the App.)

Step 2: Select Device Type: Inverter.

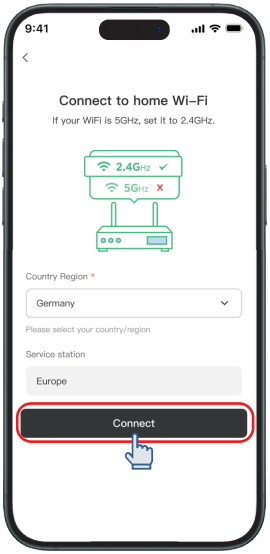


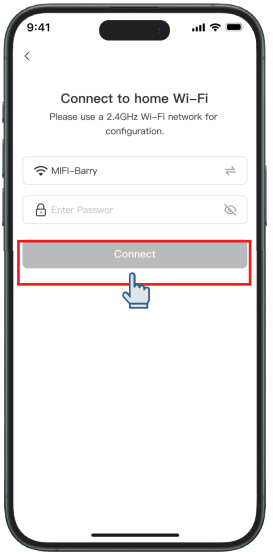
Step 3: The interface navigates to the device connection page, where the user can view nearby identifiable Inverter devices.

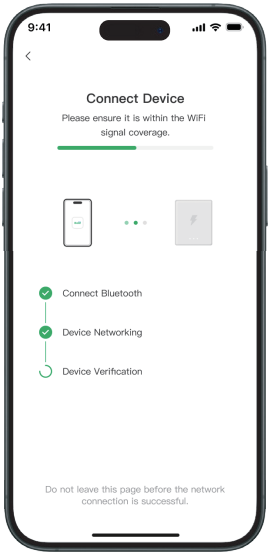
Step 4: Identify the Inverter device by its SN serial number and click the device.

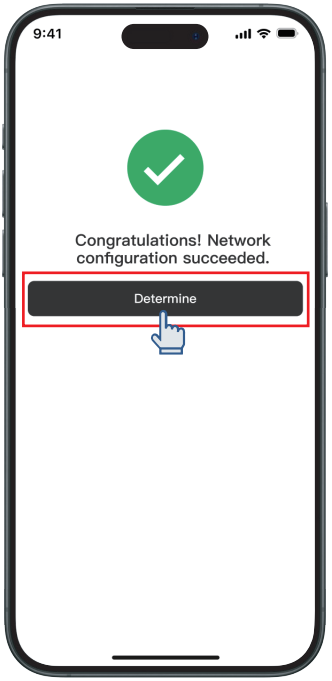
Step 5: After clicking the device, the user connection password interface pops up (default connection password: Hh0000). If the user enters the correct password, they proceed to the next interface. Clicking "Cancel" will cancel the connection.

Step 6: Press and hold the button shown in the image for more than 3 seconds. Release it after seeing the indicator light flash rapidly, check the "Above operations completed" button, and click "Next Step."









Step 7: After selecting the country or time zone, the user chooses a WiFi name and manually enters the WiFi password to connect to the home wireless network. Click "Connect" to proceed to the device connection step. Do not leave the current page until the network connection is successful.

Step 8: After the connection is successful, the interface prompts that the network configuration is successful.

3 Parameter Configuration Function

• Frequently Asked Questions (FAQ):

1) Unable to install the App

Possible Causes:

· The mobile phone operating system version is outdated;

· The mobile phone setting is blocking the installation of packages.

Solutions:

· Upgrade the mobile phone operating system;

· In the "Settings" > "Security" of the machine, check "Allow the installation of apps from unknown sources".

2) Communication failure & Failure to obtain data during operation & Bluetooth connection to the device is interrupted

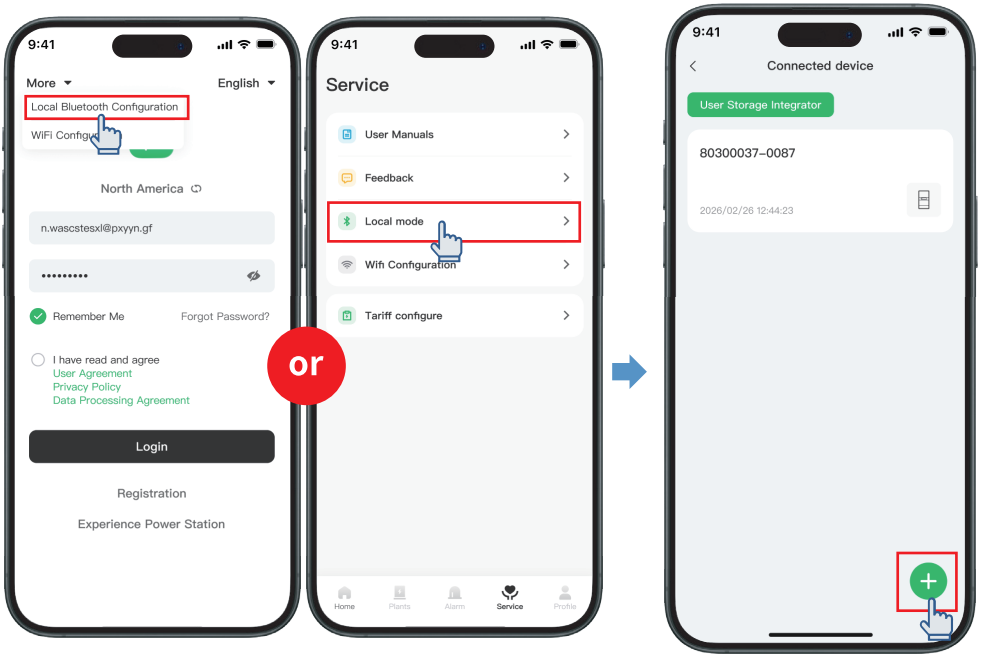
Possible Causes:

· The communication distance between the phone and the device is out of range.

Solutions:

· Hold your phone close to the device and reconnect it.

3.1 Local Bluetooth Configuration

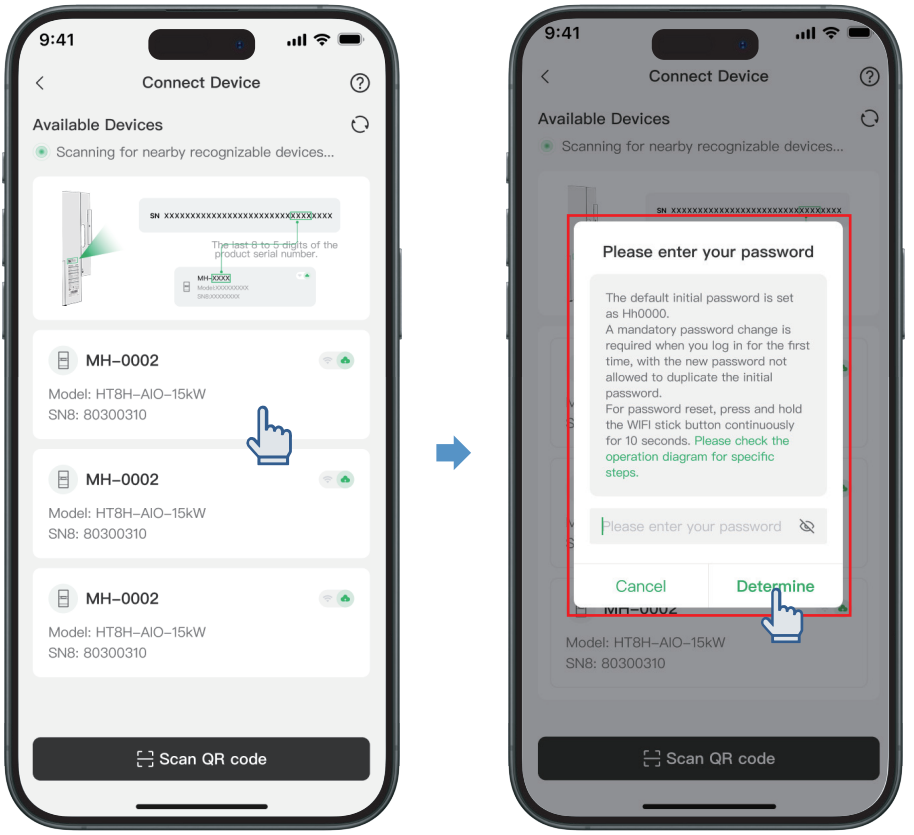


Step 1: Enter Bluetooth Configuration

(Entry 1: If not logged in, launch the iEasy+ App, and click "More - Local Bluetooth configuration" in the top left corner of the login page.

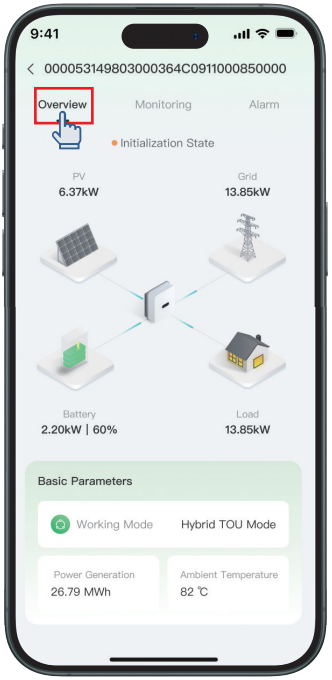
Entry 2: If already logged in with an account, click "Service - Local Mode" in the bottom tab bar of the App.)

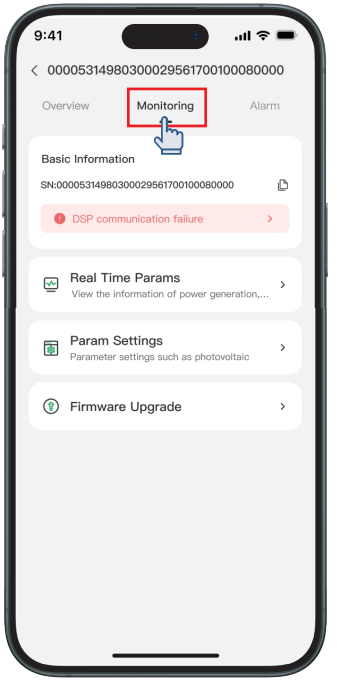
Step 2: Click the "+" button on the interface to enter the Bluetooth direct connection interface.



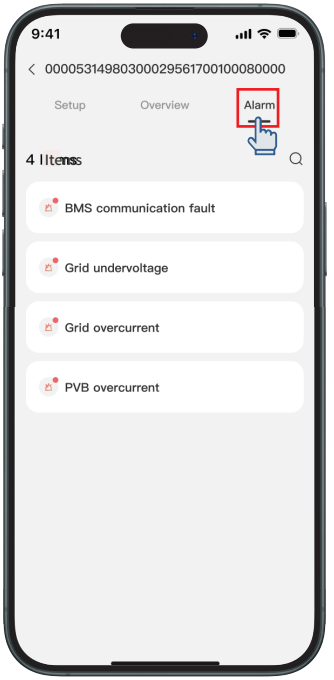
Step 3: Click the device to bring up the user connection password interface (default connection password: Hh0000). If the user enters the correct password, proceed to the next interface. If the user clicks "Cancel," the connection will be canceled.

3.2 Viewing System Data on the App





After entering the device details page, users can view system data, alarms and other information in the device details page;
1) On the overview interface, you can view the energy flow diagram and view the energy flow of the device;
2) The monitoring interface shows real-time parameters, full parameter setting entrances, internal debugging parameter entrances, etc.;
3) You can view detailed device alarm data in the data list displayed in the Alarm tab.
4)The user enters the setting interface, and the interface parameters are read-only and cannot be modified by operation settings.
The content that can be viewed only includes:
Contains information for viewing inverter settings after commissioning including:
· Country Grid Code/Region settings
· Power quality response modes settings
· Grid Protection settingsInverter firmware version
Contains information for commissioning inverter including:
· Selecting Australia Region A/B/C for grid protection settings and power quality response modes settings
· Adjusting grid protection settings and power quality response mode setpoints

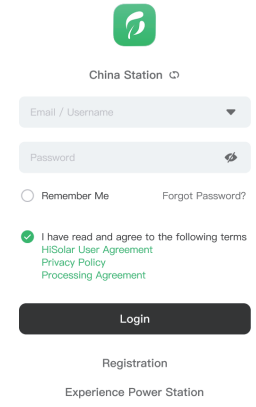


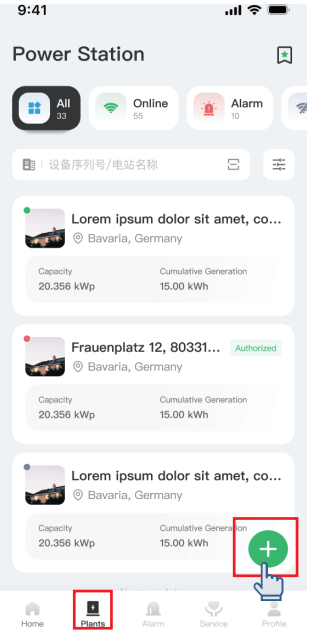
4 Create a Plant

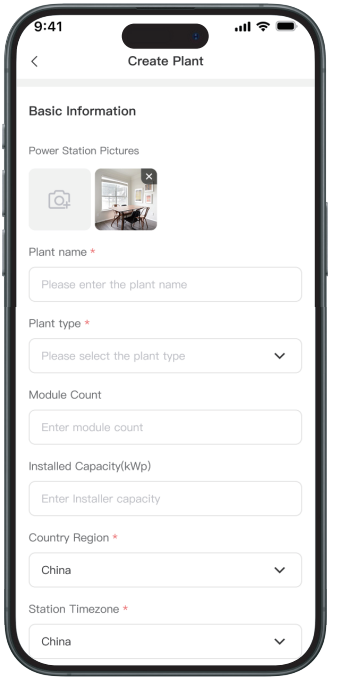
Step 1: The user enters the username and password and logs into the system;

Step 2: On the Plant List page, users can click the "+" button in the bottom-right corner;

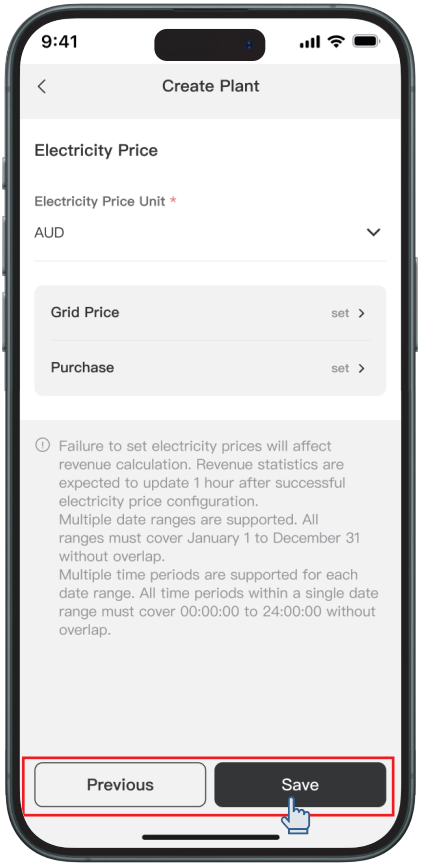
Step 3: On the Create Plant page, the user inputs the relevant field information and can configure the power station's electricity price information. After passing validation, the user clicks the save button;

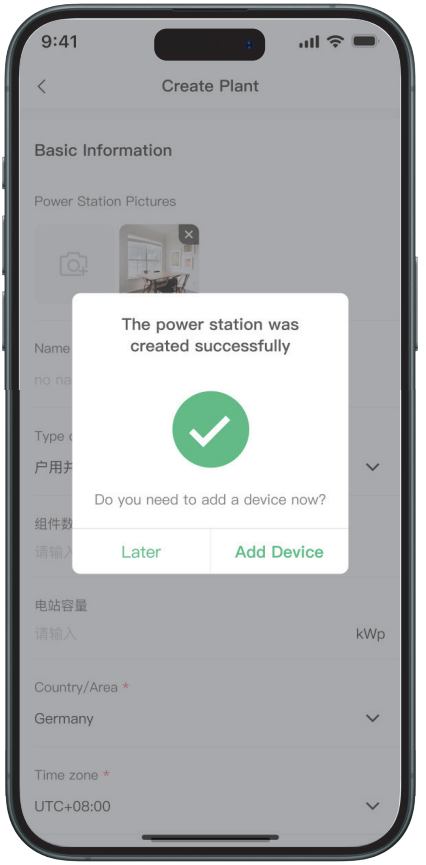




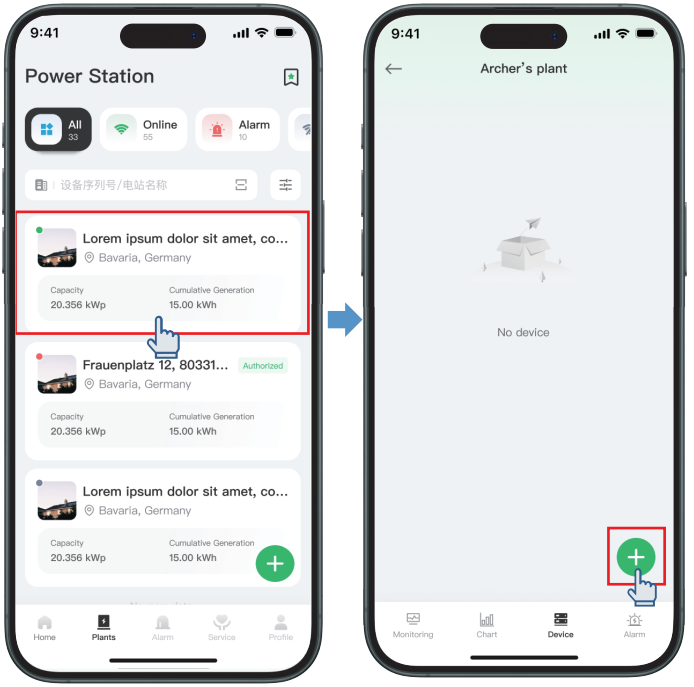


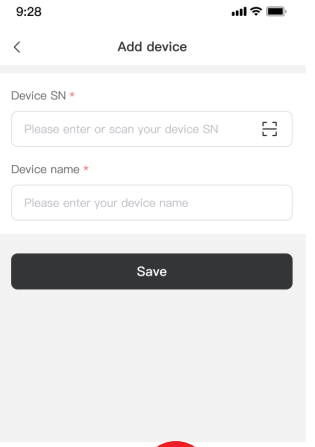
Step 4: After completing the form, the interface prompts that the power station has been successfully created. The user can choose to add devices immediately or add them later.

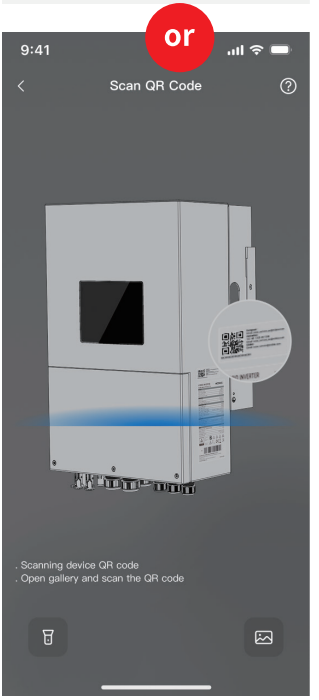




5 Adding Devices



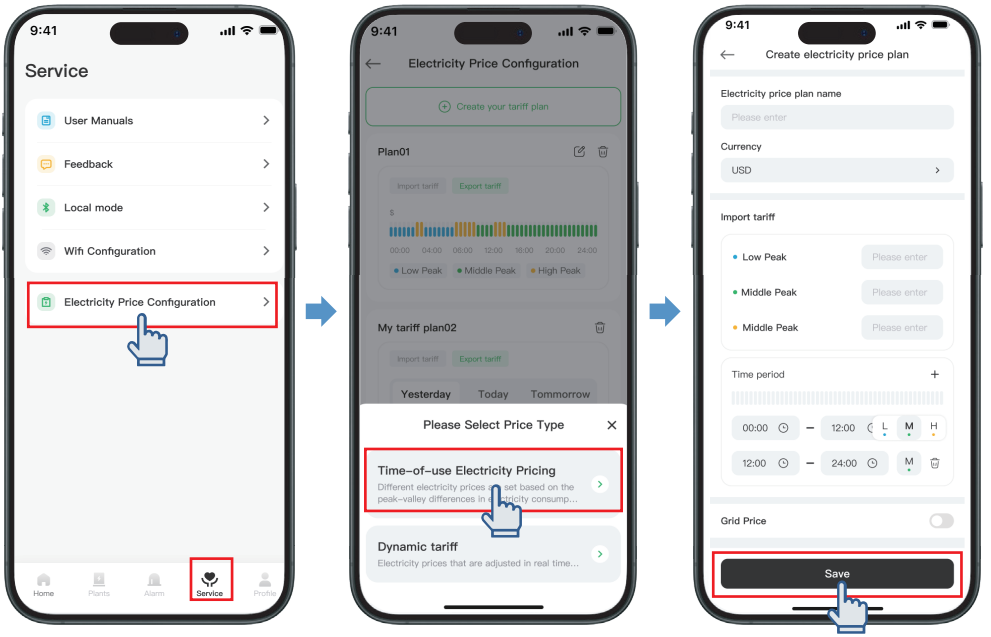




Step 1: Select your plant from the list, click Add Device at the lower right corner of the screen;

Step 2: Input device SN manually or scan device SN, and other device information, and click Add. The device will be visible in the device list once it is added successfully to the plant.

6 Electricity Price Configuration

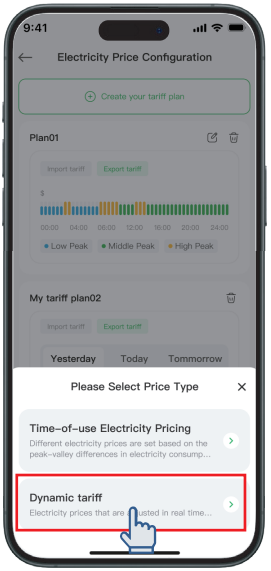


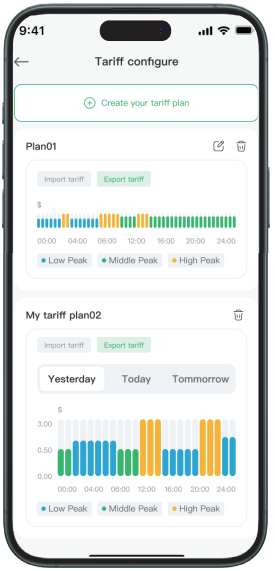
Step 1: The user clicks the Services tab to enter the Services interface;

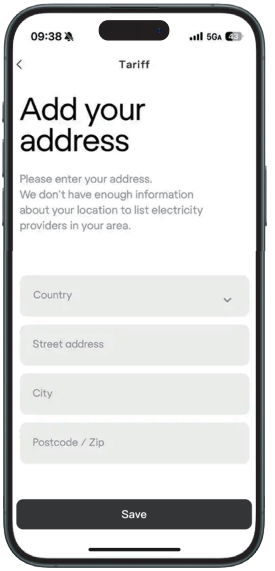
Step 2: Click the Electricity Price Configuration function entry to enter the electricity price configuration feature;

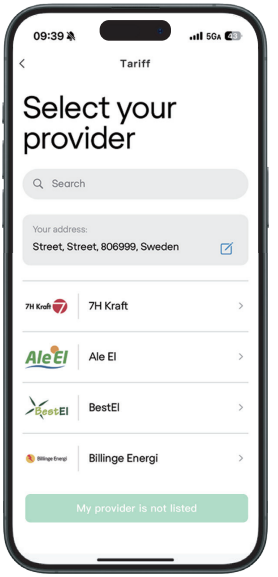
Step 3: On the electricity price configuration interface, the user can click the Create Electricity Price Plan button to create either a “Time-of-Use Electricity Pricing” or a “Dynamic pricing” type;

Step 4: The user clicks the Time-of-Use Electricity Pricing type to enter the time-of-use tariff creation interface. The user inputs the tariff plan name, currency, purchase electricity prices (off-peak, mid-peak, peak), selects the time period, with the feed-in tariff defaulted to off, then clicks the Save button to complete the tariff plan creation;

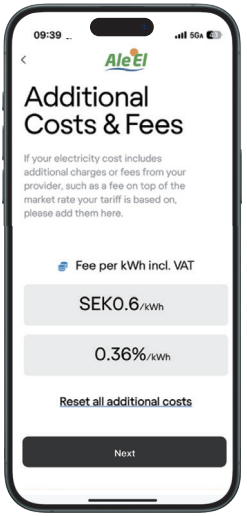


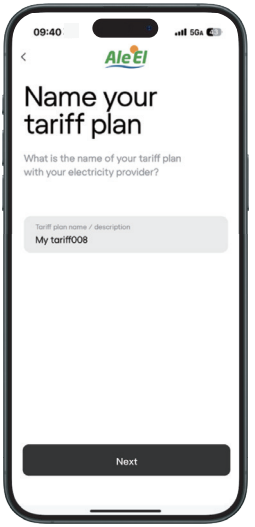


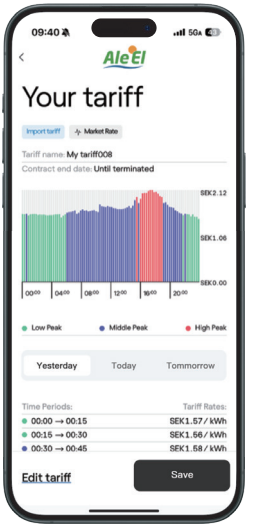


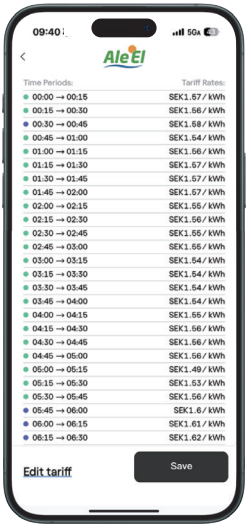


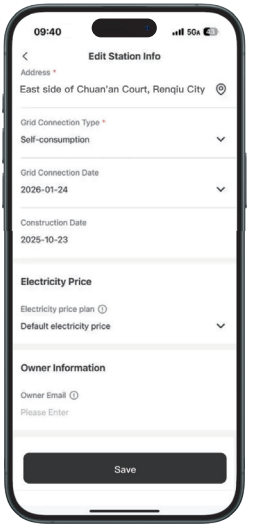
Step 5: The user clicks the Dynamic Tariff type to enter the dynamic tariff creation interface. The user inputs the tariff content and clicks the Save button to complete the tariff plan creation;







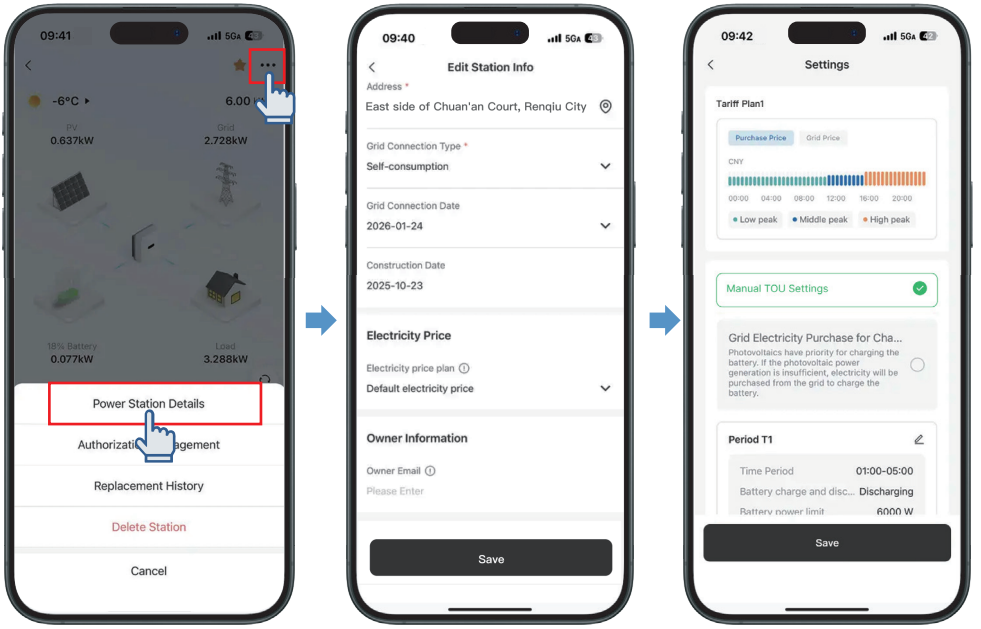




Step 6: In the electricity price configuration list, tariff plans support editing and deleting operations;

Step 7: In the power station details, users can select and configure the tariff plan

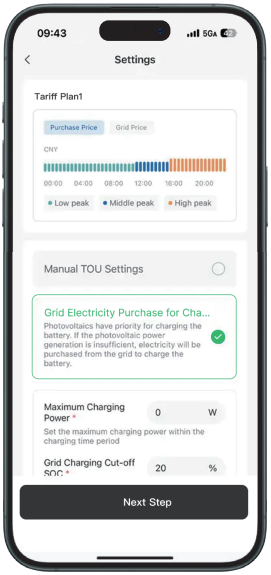
7 Electricity Price Linkage

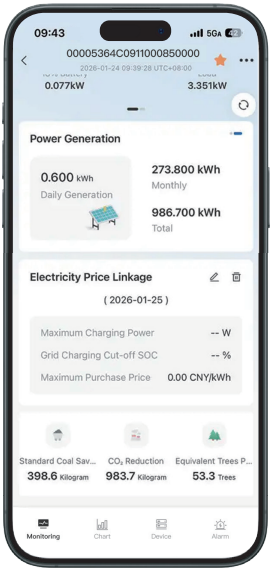


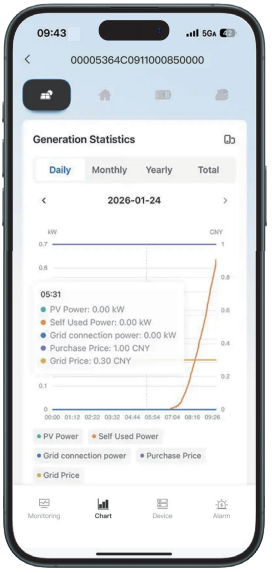
Step 1: The user clicks the "..." button at the top right corner of the single power station page, selects “Power Station Details" to enter the station details interface, then clicks the edit button at the top right corner and chooses "Configure Electricity Price";

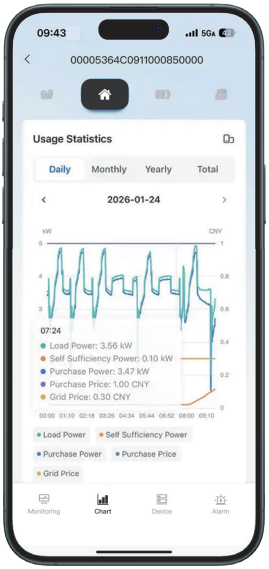
Step 2: After selecting the electricity price, when the user enters the single power station interface, the electricity price linkage section will be displayed;

Step 3: The electricity price linkage section supports user settings for: Manual TOU (Time-of-Use) Settings and Grid Electricity Purchase for Charging mode;









Step 4: Users can set manual TOU parameters based on the electricity price, defining time periods T1 to T6;

Step 5: Based on the electricity price (if the price is dynamic, it supports setting electricity price management mode), users can configure grid electricity purchase charging settings, including: maximum charging power, grid charging cutoff SOC, and maximum purchase electricity price;

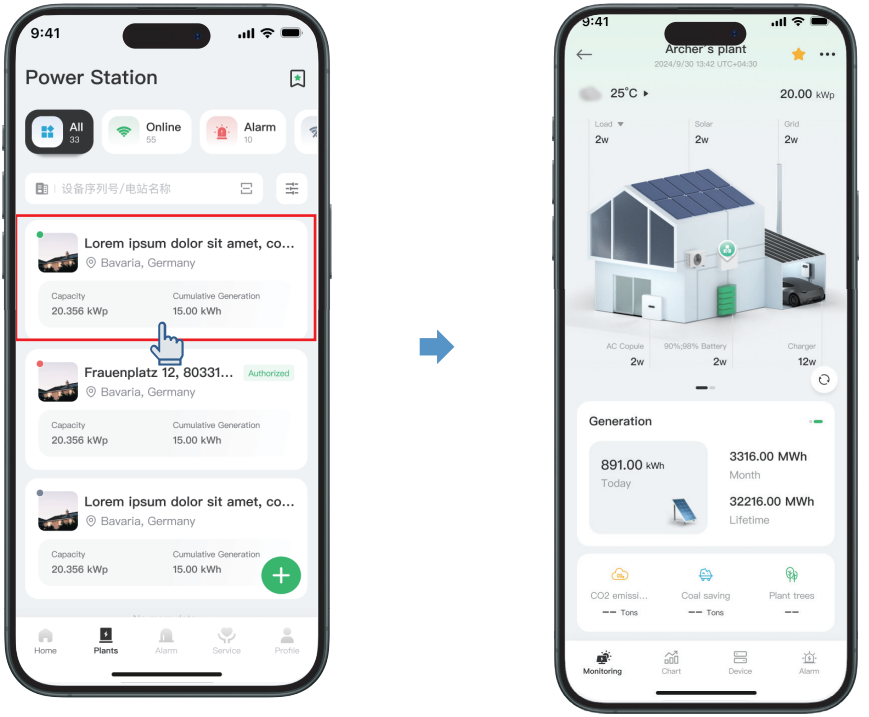
Step 6: After completing the settings, the interface will generate a charge-discharge strategy plan. Once applied by the user, the system will operate and execute according to the electricity price linkage mode;

Step 7: The electricity price linkage section supports modification and deletion operations;

Step 8: After the electricity price is set, the purchase electricity price curve will be displayed in the single power station interface's chart section (generation statistics, electricity usage statistics), allowing users to monitor electricity price information in real time.

8 Single Power Station Page

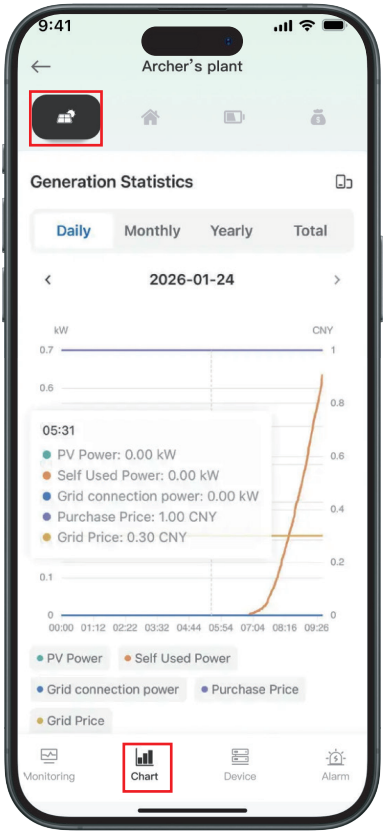
8.1 Single Power Station Page - Overview

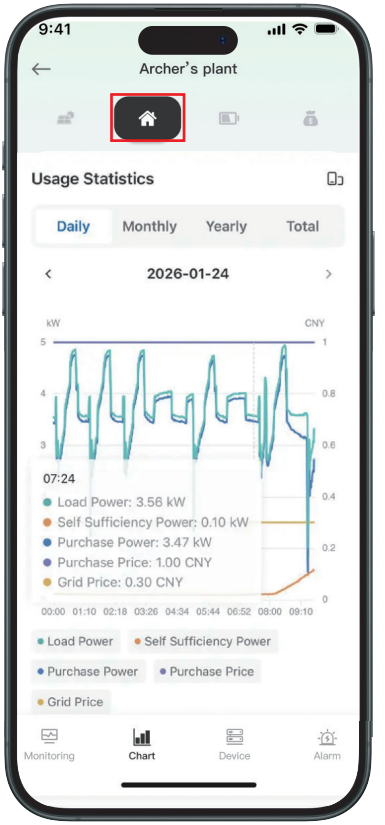


Users click on the list of plants to enter the interface of a single plant; On the single-plant interface, users can view the energy for energy storage scenarios volume flow diagram, power generation, environmental contribution index; Among them, the energy flow diagram can view the energy flow of PV, battery, power grid, and load;

8.2 Statistical Analysis of the Single Plant Page - Curve

On the single plant page, users can click the Curve Analysis tab to view power generation statistics, electricity consumption statistics, power storage statistics, revenue statistics, etc., as shown in the following figure:





· Power Generation Statistics:

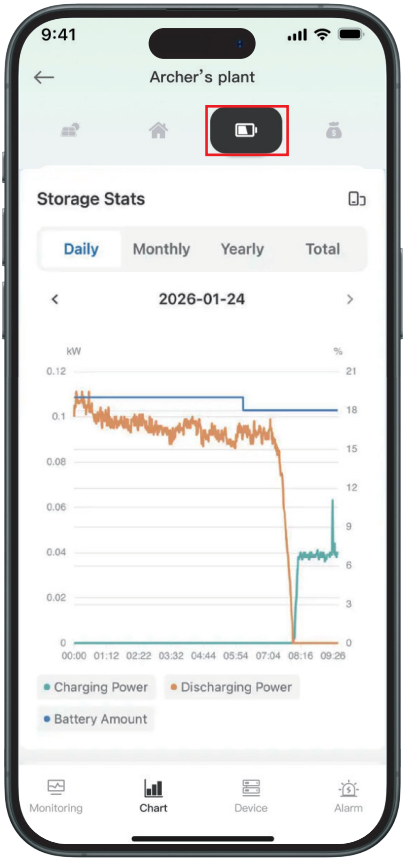
Daily dimension: photovoltaic power generation power, self-consumption power, power grid sales power;

Monthly/yearly/total dimensions: photovoltaic power generation, self-generated and self-consumed electricity, and electricity sold by the grid;

· Electricity Consumption Statistics:

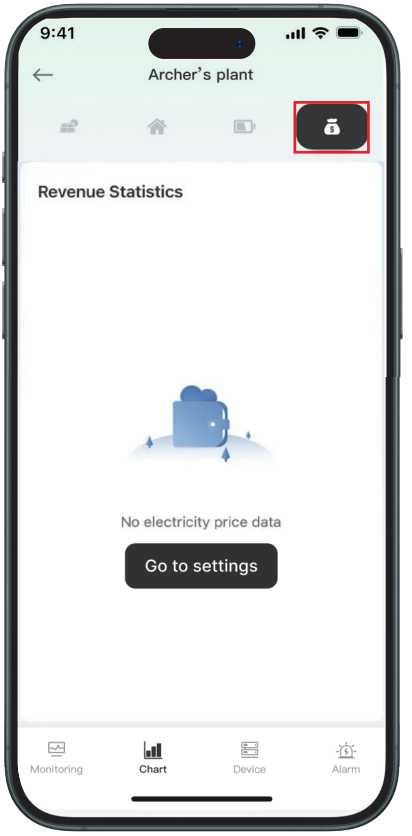
Daily dimension: load power consumption, self-sufficiency power, grid power purchase power;

Monthly/yearly/total dimensions: load electricity consumption, self-sufficient electricity consumption, and power grid power purchase;



· **Electricity Storage Statistics:**

Daily dimension: battery power, charging power, discharge power; Month/Year/Total dimensions: Charging capacity, discharging capacity;

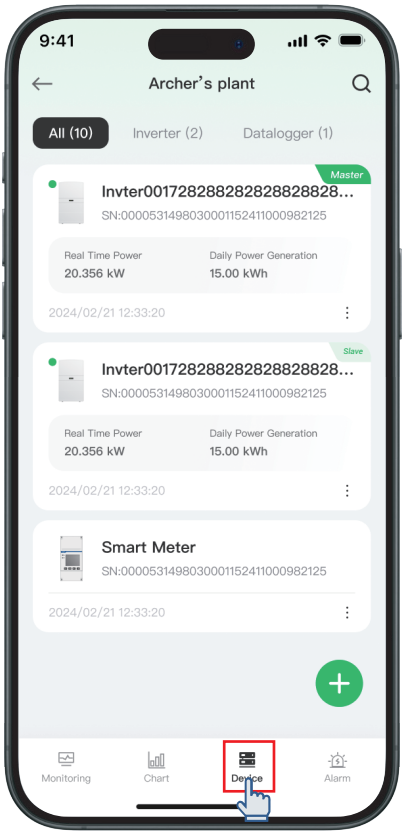


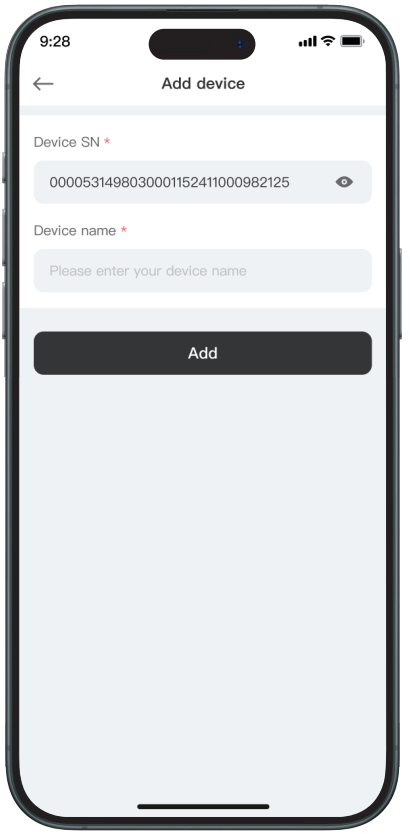
· **Earnings Statistics:**

Day/Month/Year/Total dimensions: self-consumption income, electricity sales income.

8.3 Single Plant Page - List of Devices

On the single plant page, users can click the device list tab to view the devices bound to the plant. The interface provides an entrance to add a device, supports device search, and clicks on the device list to enter the device details interface:

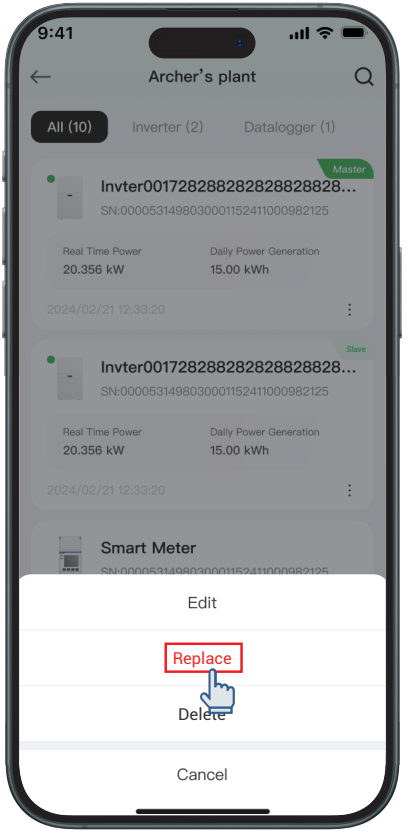




8.4 Single Plant Page - Equipment Replacement

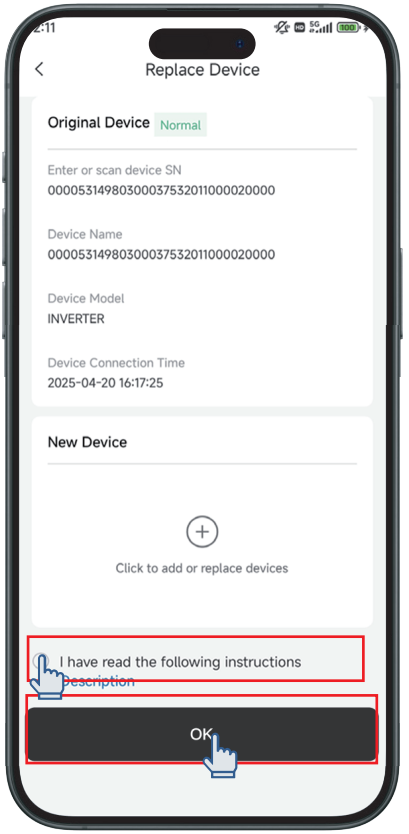
Operating instructions for equipment replacement (equipment means: inverter):

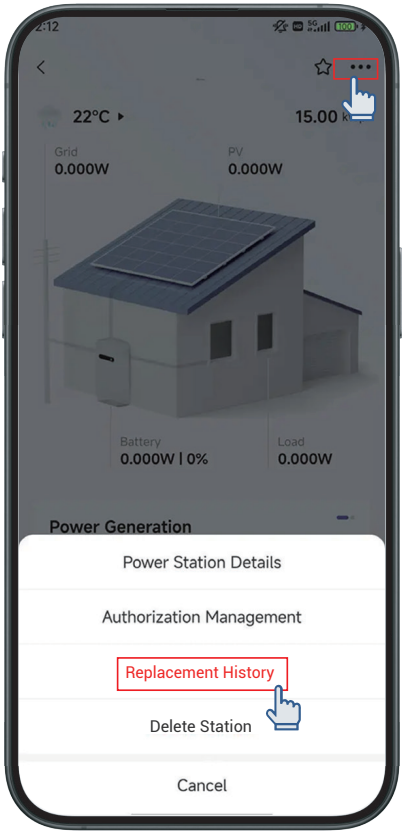
1. The replaced inverter will not be able to be added to the plant again;
2. Please carry out the replacement operation of the same type of equipment, otherwise the replacement will fail;
3. After equipment replacement, the new equipment will not inherit the data of the original equipment, and the cumulative power generation of the plant will still include the power generation of the original equipment;
4. You can click the 'Replacement History' button in the device management interface to view the device replacement history;



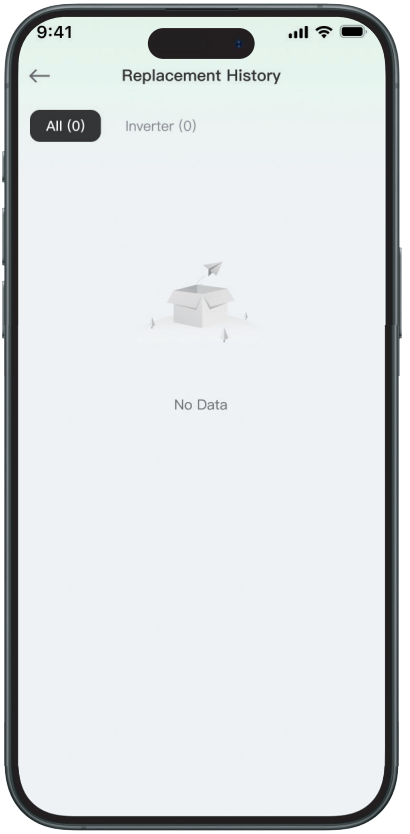
1) Users can click on the Replacement operation in the Single Plant Page - Device List;

2) After clicking Replacement, the interface enters the Replacement device interface, in the Replacement device interface, it displays the original device information, supports the user to add the replacement device, and requires the user to tick the device Replacement operation instructions to complete the Replacement operation;





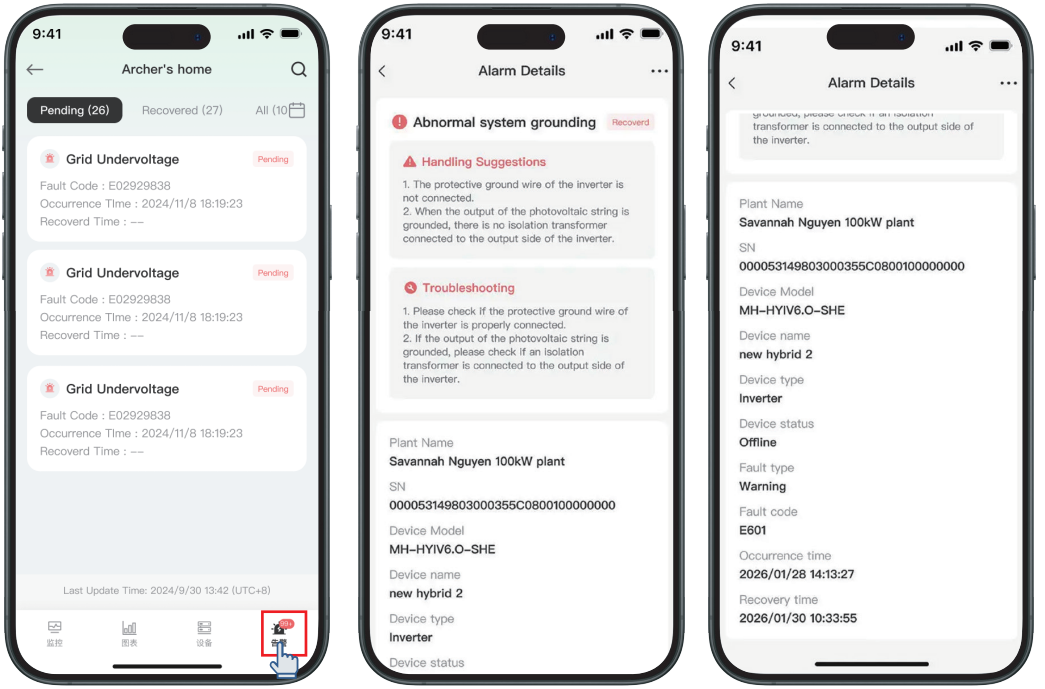
3) On the single plant page, by clicking on the button in the upper right corner, the user can click on the Replace History drop-down item;



4) Click Replacement History to view the device replacement history. In the device history interface, you can view the original device & new device information and replacement time and other information;

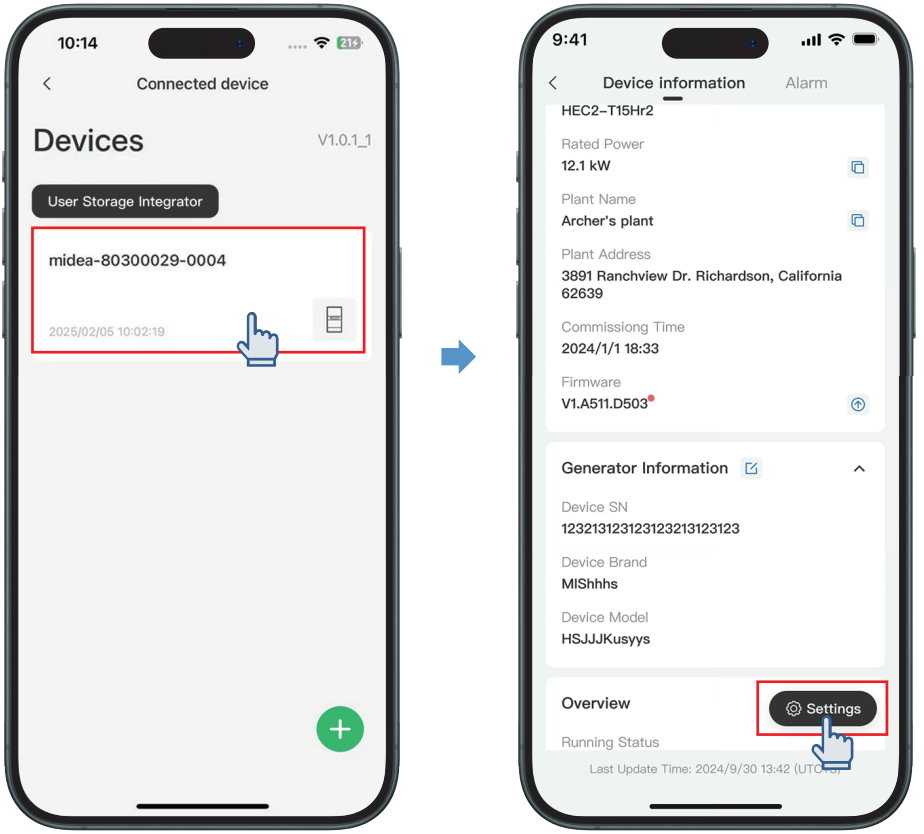
8.5 Single Plant Page - Alarm List

On the single plant page, users can click the Alarm tab to view the alarm data of the devices in the plant, and provide alarm search and alarm filtering functions in the alarm list:



NOTE:The inverter is equipped with a ground fault alarm function. Once a ground fault occurs, the system will issue an alarm to take corrective measures; the alarm will notify the user through push notifications and messages; before the fault is resolved, the alarm will be displayed in the active fault list.

9 Device Remote Control



1) The user clicks on the device list, and the interface jumps to the device details interface;

2) In the device list interface, users can click the settings button, and the interface jumps to the settings interface;

3) You can view detailed device alarm data in the data list displayed in the Alarm tab.

4) The user enters the setting interface, and the interface parameters are read-only and cannot be modified by operation settings.

The content that can be viewed only includes:

Contains information for viewing inverter settings after commissioning including:

• Country Grid Code/Region settings

• Power quality response modes settings

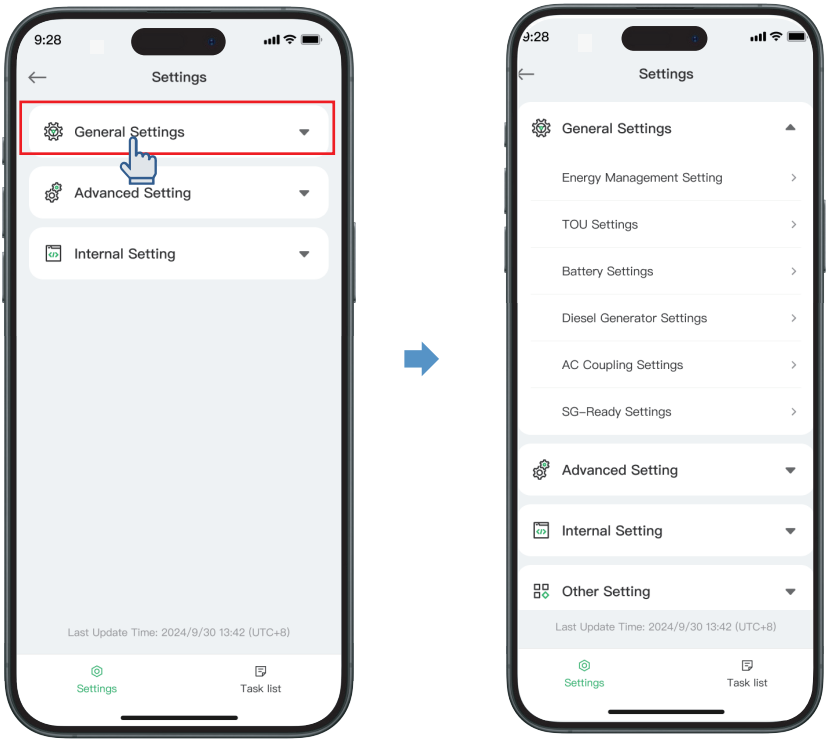
• Grid Protection settingsInverter firmware version

The following settings are protected by the password and only installers can obtain the password and change these settings.

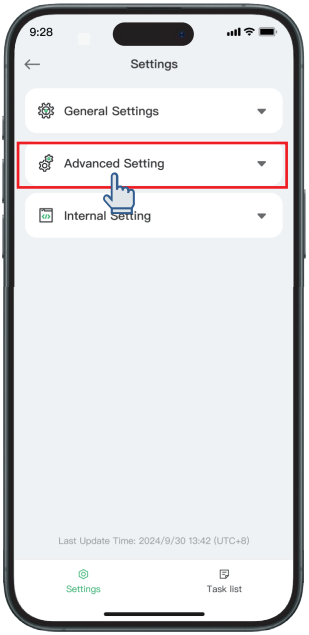
Contains information for commissioning inverter including:

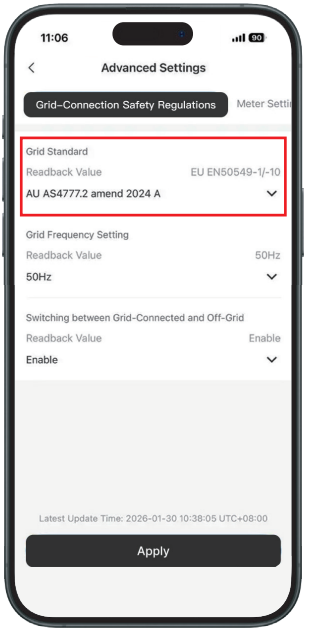
• Selecting Australia Region A/B/C for grid protection settings and power quality response modes settings.

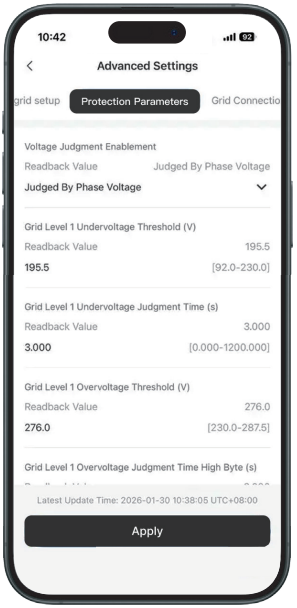
• Adjusting grid protection settings and power quality response mode setpoints.

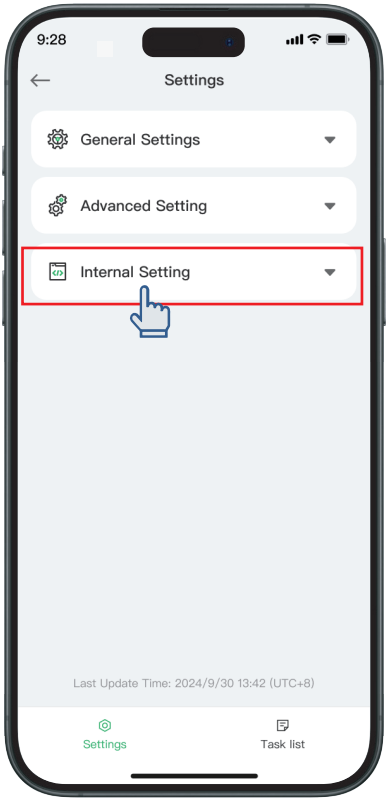


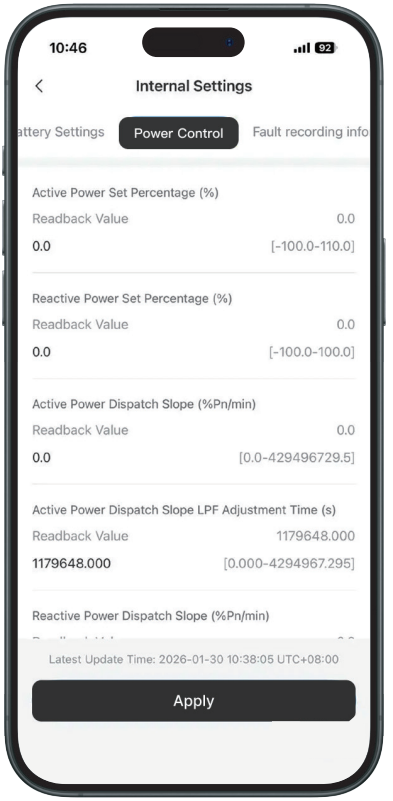
The following operation is the APP settings page forgrid protection settings and power quality response settings.








9:28
Settings
General Settings
Advanced Setting
Internal Setting
Last Update Time: 2024/9/30 13:42 (UTC+8)
Settings
Task list


10:46
92
Internal Settings
attery Settings
Power Control
Fault recording info
Active Power Set Percentage (%)
Readback Value
0.0
0.0
[-100.0-110.0]
Reactive Power Set Percentage (%)
Readback Value
0.0
0.0
[-100.0-100.0]
Active Power Dispatch Slope (%Pn/min)
Readback Value
0.0
0.0
[0.0-429496729.5]
Active Power Dispatch Slope LPF Adjustment Time (s)
Readback Value
1179648.000
1179648.000
[0.000-4294967.295]
Reactive Power Dispatch Slope (%Pn/min)
Latest Update Time: 2026-01-30 10:38:05 UTC+08:00
Apply

9.1 General Settings

✓ Energy Management Setting

1) Device Details -> Settings -> General Settings;

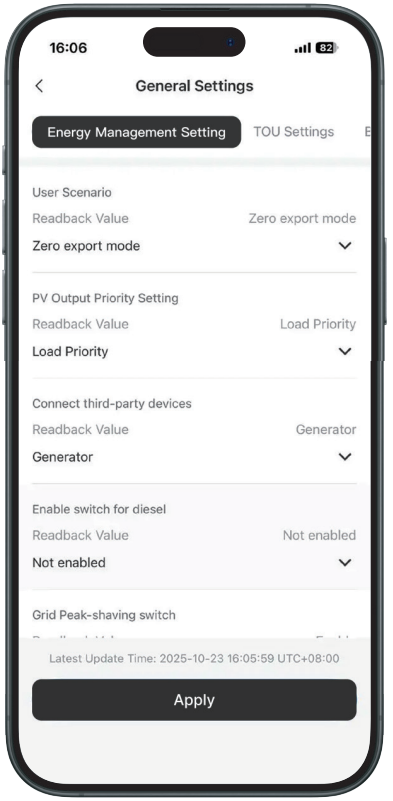
NOTE: In Energy Management Setting, there are two user scenarios: Zero export mode, Feed-in priority.

a: Zero export mode

In the Zero export mode, an external current transformer or electric meter needs to be connected on the grid side, and the Hybrid inverter will not sell power to the grid by default, meaning the current from the Hybrid inverter cannot flow into the grid (anti-reverse). If you want the inverter to feed power to the grid, you need to enable the feed-in enable switch.

Characteristics of the Zero export mode:

1. PV can only sell power to the grid after the user enables the feed-in enable switch;
2. The energy from the battery cannot be sold to the grid unless the battery voltage is higher than the float voltage;
3. PV output priority settings can be configured as battery priority or load priority.

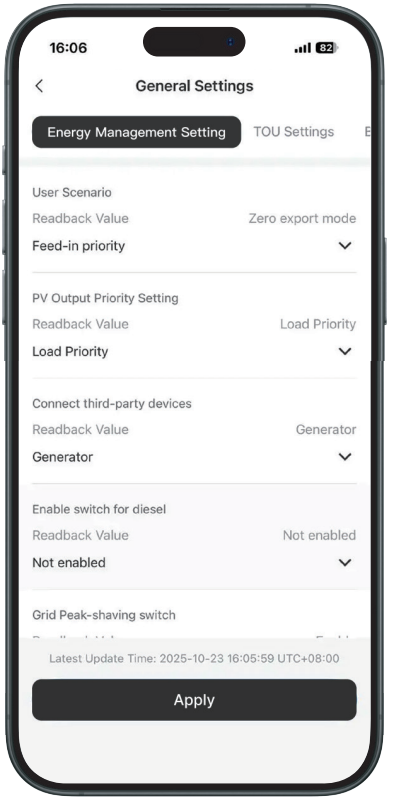


b: Feed-in priority

The Feed-in priority allows Hybrid inverters to use the energy generated by solar PV panels to power loads and charge batteries, with excess energy flowing to the grid. If the charge-discharge period (TOU) is enabled, battery energy can also be sold to the grid.

Characteristics of the Feed-in priority:

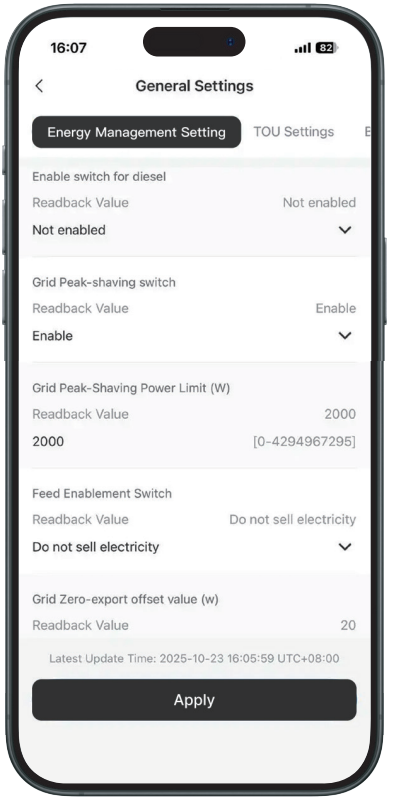
1. By default, PV energy can be sold to the grid, and PV sales cannot be turned off;
2. When TOU is enabled, the energy of the battery is allowed to be sold to the grid;
3. The energy of PV is given priority to meet the load use, not the battery.



· Peak Sharing Function

Grid Peak Sharing refers to a strategy to reduce the load on the grid and reduce household electricity costs by reducing direct electricity withdrawal from the grid during peak periods through energy storage systems.

Users can check Grid Peak Shaving and set the corresponding power value of 2000W. At this time, the power drawn from the grid is limited to 2000W, and the battery, PV, and grid energy are jointly used to meet the power demand of the load (if Grid Peak Shaving is not turned on, the battery may be in a charging state), if it still cannot meet the load demand, it will take more than 2kW of power from the grid to ensure that the load demand works normally.

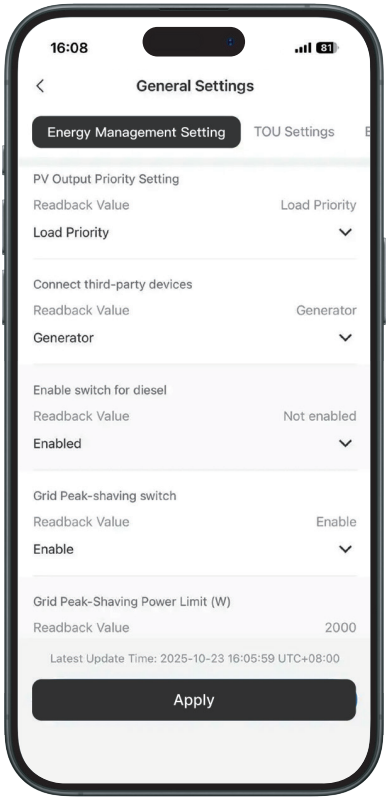


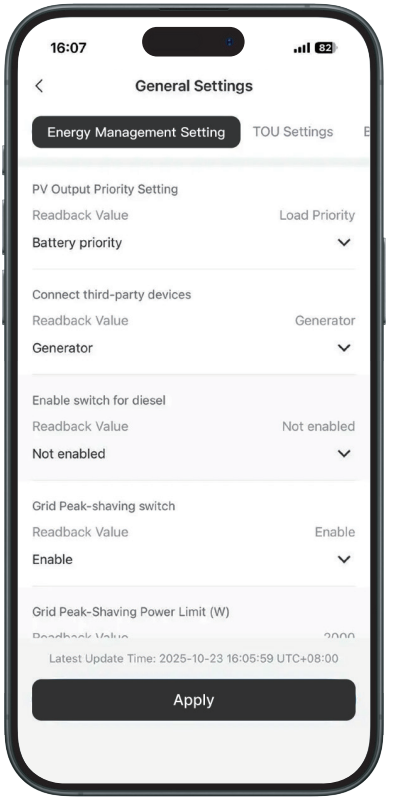
· **PV output priority setting - Load Priority/Battery Priority**

Load Priority: PV power generation energy is first used to power the load and then to charge the battery. If PV generation is insufficient, the grid will replenish the energy for the battery and load.

Load priority is used Under specific working conditions, the energy of PV is given to the load as much as possible, not to the battery, and the energy of the grid is used as little as possible.

Battery Priority: Photovoltaic power generation energy is first used to charge batteries and then to power loads. If PV generation is insufficient, the grid will replenish the energy for the battery and load.





· **Generator Mode Function**

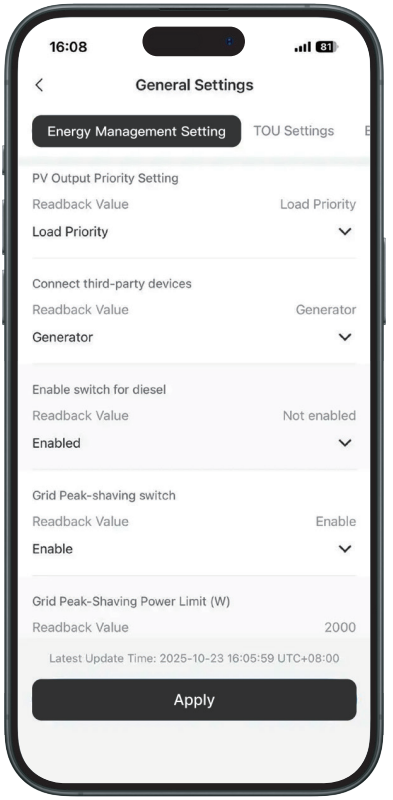
Usage scenarios: In the event of a power outage, the hybrid inverter supports connecting the output of the generator to the grid port to power the household load and charge the battery.

Settings:

1. Access to third-party equipment to select generators;
2. Set the starting battery SOC/voltage and stop SOC/voltage of the generator, check the generator enable signal, set the maximum power of the generator, and set the generator running time;
3. Connect the output of the generator to the grid port, when the battery SOC is lower than the starting SOC, the generator allows the inverter to start power generation.

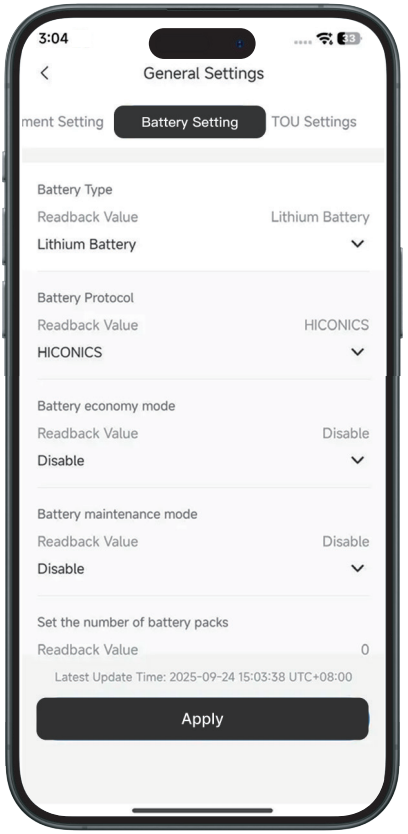
NOTE:

1. Batteries and PV cannot be sold to generators;
2. The generator does not support TOU charging and discharging period parameters;
3. The generator supports turning on the PeakSharing function to limit the generator power.



✓ Battery Settings

1) Device Details -> Settings -> General Settings;



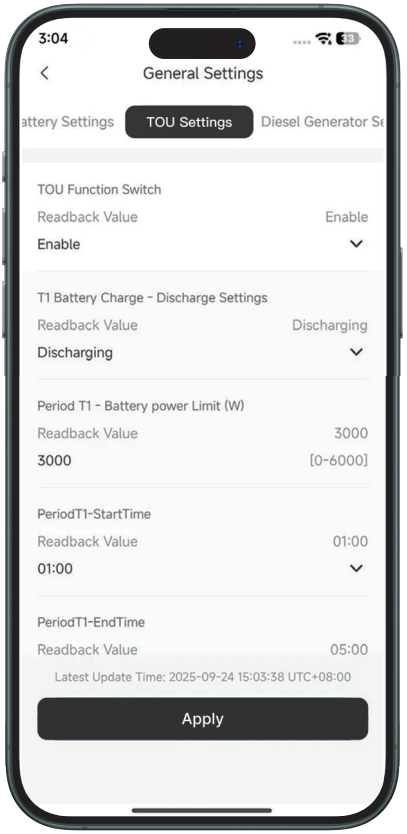
NO.	Parameter Name	Descriptions
1	Battery Type	Select the Type of Battery to Connect: Lithium Battery; Lead-acid Battery; No Battery
2	Battery SOC to Stop Equipment Operation	SOC Threshold to Stop Battery Discharge in Lithium Battery Mode
3	Battery SOC to Resume Equipment Operation	SOC Threshold to Resume Battery Discharge in Lithium Battery Mode
4	Battery SOC for Low Battery Warning	SOC Threshold for Low Battery Warning in Lithium Battery Mode
5	Battery Protocol	Set Lithium Battery BMS Protocol
6	Battery economic mode	Setting for Enabling Battery Economic Mode
7	Battery maintenance mode	Setting for Enabling Battery Maintenance Mode
8	Set the number of battery packs	Setting for Battery Pack Quantity
9	Device Shutdown Battery Voltage	When in Lead Acid Battery Mode, set the voltage threshold for stopping battery discharge
10	Device Resume Battery Voltage	When in Lead Acid Battery Mode, set the voltage threshold for resuming battery discharge
11	Device Low Power Alarm Voltage	Setting the Low Battery Voltage Threshold in Lead Acid Battery Mode
12	Battery Float Charge Voltage Setting	Setting the Battery Float Charge Voltage
13	Battery Capacity Configuration	Setting the Battery Capacity
14	Constant Voltage Charge Voltage	Setting the Constant Voltage Charge Voltage in Lead Acid Battery Mode
15	Equalization Charge Voltage	Setting the Constant Voltage Equalization Charge Voltage in Lead Acid Battery Mode
16	Equalization Charge Days Setting	Frequency of Equalization Charging in Lead Acid Battery Mode
17	Equalization Charge Time Setting	Duration of Each Equalization Charge in Lead Acid Battery Mode
18	Voltage Compensation Value	When in Lead Acid Battery Mode,Setting of the Compensation Coefficient for Voltage Impact by Temperature

NO.	Parameter Name	Descriptions
19	Battery Cable Impedance	Setting of Cable Impedance When in Lead Acid Battery Mode
20	Grid Allows Charging of Battery	Setting for Whether the Grid Allows Charging of Battery
21	Maximum Charge Current from Grid to Battery	Setting for Maximum Charge Power from Grid to Battery
22	Battery Communication Line Breakage Protection Switch	Setting for Whether to Allow Protection in Case of Battery Communication Line Breakage When in Lithium Battery Mode
23	Battery Discharge Current Limit	Setting for Maximum Discharge Current of Battery
24	Battery Charging Current Limit	Setting for Maximum Charging Current of Battery
25	Battery Parallel Configuration	Setting for whether a battery is connected to two PCS battery ports (only for Three Phase Hybrid Inverter), 0 for No, 1 for Yes
26	Battery Pack Activation Switch	Setting for Whether to Allow Battery Pack Activation (only for Three Phase Hybrid Inverter with two battery paths, corresponding to Battery 1)
27	Battery 2 Activation Switch	Setting for Whether to Allow Battery Pack Activation (only for Three Phase Hybrid Inverter with two battery paths, corresponding to Battery 2)

✓ TOU Settings

TOUs are used to set when to charge the battery using the grid or generator, and when the battery is discharged to power the load.

1) Device Details -> Settings -> General Settings;



NOTE:

Time: You need to set the 00:00-24:00 time period;

Power: The maximum charge/discharge power allowed by the battery (charging power is limited during charging and discharge power is limited during discharge).

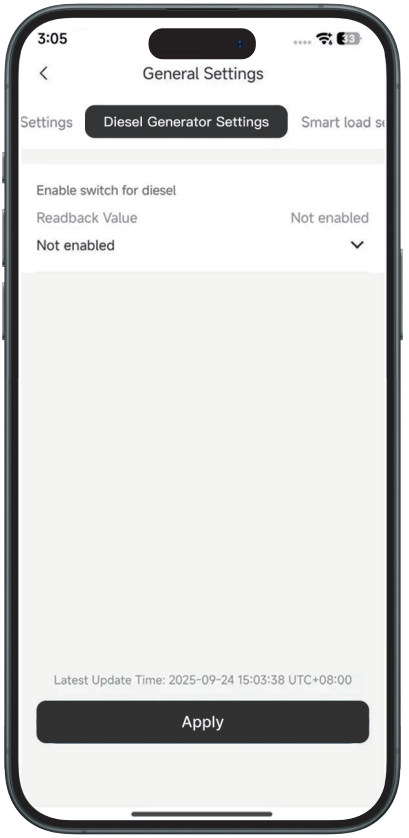
If you check the TOU in the power sales priority mode, the battery energy can be sold to the grid. Check the TOU in anti-reverse current mode, and the energy of the battery cannot be sold to the grid.

The battery will only be discharged after the TOU is checked (TOU Enable). Otherwise, the battery will not discharge even if the battery SOC or voltage is fully charged.

TOU is only effective in battery mode.

✓ Diesel Generator Settings

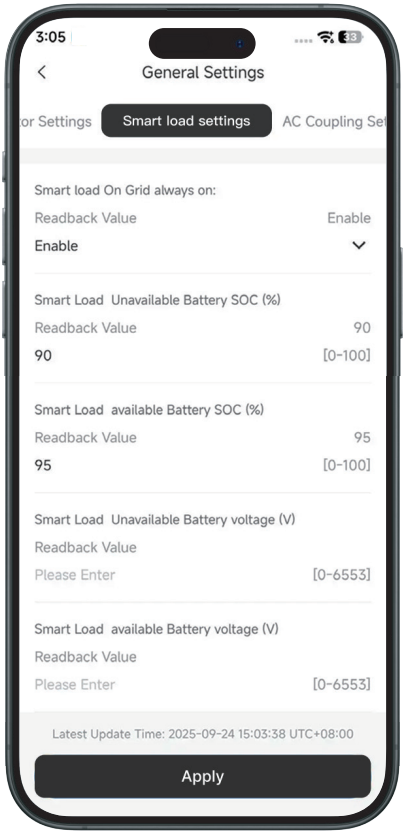
1) Device Details -> Settings -> General Settings;



NO.	Parameter Name	Descriptions
1	Enable switch for diesel	Setting to allow or disallow generator activation
2	Diesel Generator Battery Charging Current Limit	Setting for maximum charging power of the generator to the battery
3	Diesel Generator Cooling Time	Setting for the cooling time required after the generator has run overtime
4	Rated Power of Diesel Generator	Setting for the rated power of the generator (overloading is not allowed)
5	Minimum SOC for Automatic Start of Diesel Generator	When in Lithium Battery Mode, the generator is allowed to start automatically if the SOC falls below this setting
6	Stop Diesel Generator at Maximum SOC	In Lithium Battery Mode, when in Automatic Mode, the generator will be turned off when the SOC exceeds this value
7	Minimum Battery Voltage for Automatic Diesel Generator Start	In Lead Acid Battery Mode, when in Automatic Mode, the generator is allowed to start when the voltage drops below this value
8	Maximum Stop Voltage for Diesel Generator	In Lead Acid Battery Mode, when in Automatic Mode, the generator will be turned off when the voltage exceeds this value
9	Maximum Single Run Duration for Diesel Generator	Setting for the maximum duration of each generator operation when started
10	Diesel Generator Start and Stop Notification Command	Forced Manual Start of Generator

✓ Smart load settings

1) Device Details -> Settings -> General Settings;



NO.	Parameter Name	Descriptions
1	Smart load On Grid always on	PCS Grid Operation. When disabled, the smart load can only be switched on if the voltage/SOC conditions are met; when enabled, the smart load operates continuously
2	Smart Load Unavailable Battery SOC(%)	In Lithium Battery Mode, if the SOC falls below this level, the smart load is switched off
3	Smart Load available Battery SOC(%)	In Lithium Battery Mode, if the SOC rises above this level, the smart load is switched on
4	Smart Load Unavailable Battery Voltage	In Lead Acid Battery Mode, if the voltage falls below this level, the smart load is switched off
5	Smart Load Available Battery Voltage	In Lead Acid Battery Mode, if the voltage exceeds this value, the smart load is activated

✓ AC Coupling Settings

AC coupling in residential energy storage systems is a technical solution for connecting photovoltaic inverters or smart loads through the AC side.

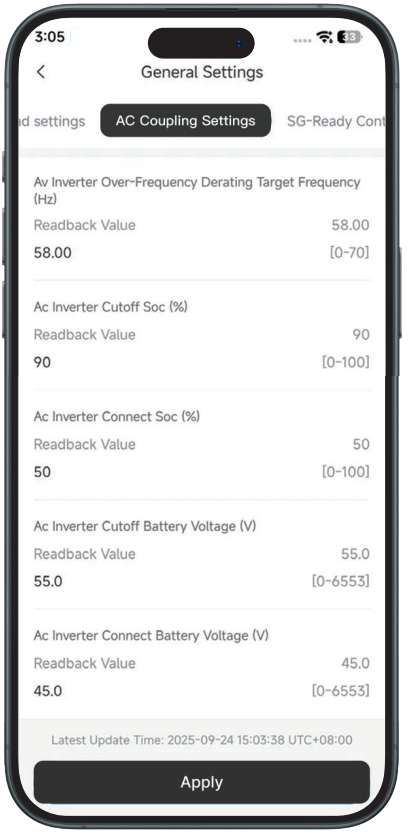
1) Device Details -> Settings -> General Settings;

AC Couple Scenarios and Functions:

1. Connect the PV Inverter to the Backup port, and when the system is off-grid, the energy of the PV Inverter can be used to carry the load and charge the battery. When the system is connected to the grid, the PV inverter can also feed power to the grid;

2. When off-grid, when the battery SOC is lower than the AC Couple and the SOC starts, the connected photovoltaic inverter will start and inject energy into the hybrid inverter, and when the battery SOC is higher than the AC Couple and stop the SOC, the PV inverter will stop injecting energy into the hybrid inverter;

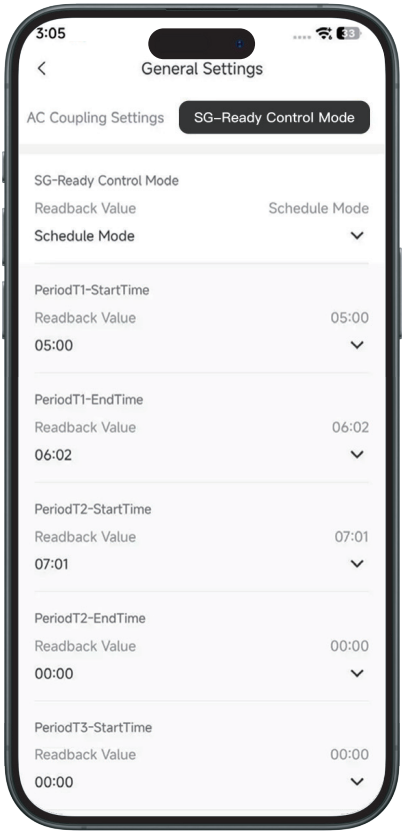
3. When connected to the grid, the energy of the photovoltaic inverter is prioritized to carry and charge the battery, and the excess energy is sold to the grid, at this time the photovoltaic inverter will not actively stop working, unless the system is transferred to off-grid mode, start and stop according to the battery SOC, or cancel the AC Couple mode on the display screen or APP.

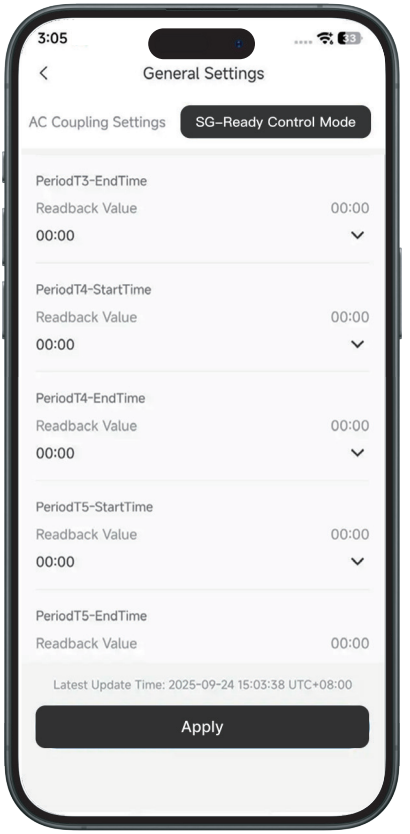


NO.	Parameter Name	Descriptions
1	Av Inverter Over-Frequency Derating Target Frequency	When selecting AC photovoltaic connection, set the maximum off-grid frequency
2	Ac Inverter Cutoff Soc (%)	In Lithium Battery Mode, if the SOC exceeds this value, set the maximum off-grid output frequency
3	Ac Inverter Connect SOC (%)	In Lithium Battery Mode, if the SOC is below this value, set the off-grid output rated frequency
4	Ac Inverter Cutoff Battery Voltage	In Lead Acid Battery Mode, if the voltage exceeds this value, set the maximum off-grid output frequency
5	Ac Inverter Connect Battery Voltage	When in lead acid battery mode, the off-grid output rated frequency is lower than this SOC

✓ SG-Ready Control Mode

1) Device Details -> Settings -> General Settings;





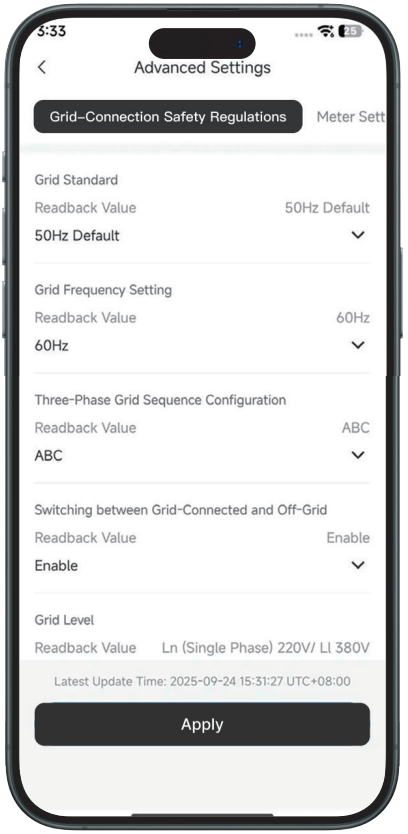
NO.	Parameter Name	Descriptions
1	SG-Ready Control Mode	Disable: Do not enable this function Smart Mode: Operate according to the smart mode parameters Schedule Mode: Enter different modes at different times based on the set time periods
2	Smart mode cooling time	After switching the heat pump mode, it must operate for a certain time based on the current mode before switching to another mode
3	Smart mode Low SOC	When the battery reaches or is below this SOC, the heat pump must be in economic mode

NO.	Parameter Name	Descriptions
4	Smart Mode High SOC	After the battery reaches or exceeds this SOC, t he heat pump can switch from Economic Mode to Encouraged Electricity Use Mode
5	Smart Mode Low Voltage	After the battery reaches or falls below this voltage, the heat pump must be in Economic Mode
6	Smart Mode High Voltage	After the battery reaches or exceeds this voltage, the heat pump can switch from Economic Mode to Encouraged Electricity Use Mode
7	Mode Switching Grid Power Threshold	After the grid reaches a certain power level, whether the heat pump mode can switch (Economic Mode -> Encouraged Electricity Use Mode) for judgment and use
8	Mode Switching Power Consumption Threshold	After drawing power from the grid to a certain level, determine whether to switch the heat pump mode (Encouraged Electricity Use Mode -> Economic Mode) for use
9	Period T1 - Start Time Period T1 - End Time Period T1 - Mode Setting Period T2 - Start Time Period T2 - End Time Period T2 - Mode Setting Period T3 - Start Time Period T3 - End Time Period T3 - Mode Setting Period T4 - Start Time Period T4 - End Time Period T4 - Mode Setting Period T5 - Start Time Period T5 - End Time Period T5 - Mode Setting Period T6 - Start Time Period T6 - End Time Period T6 - Mode Setting	Schedule Mode Parameters, enter different control modes based on settings for different time periods
10	Date Configuration	The time slot configuration above, on which days of the week to enable; If not enabled on the current day, the default configuration for the day does not take effect, and the heat pump defaults to Economic Mode

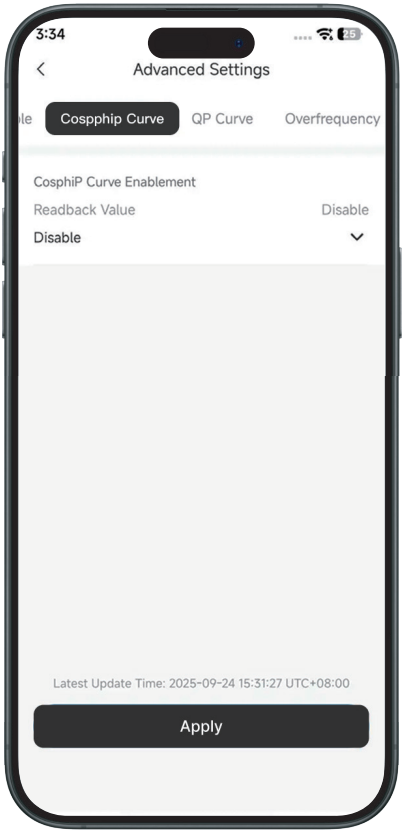
9.2 Advanced Settings

✓ Grid-Connection Safety Regulations

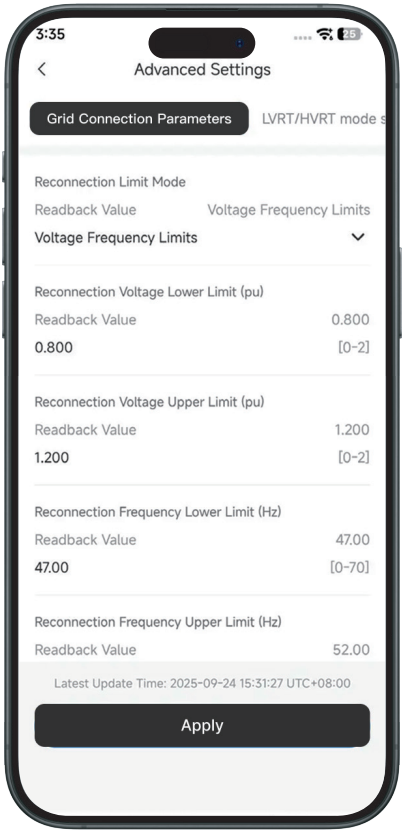
1) Device Details -> Settings -> Advanced Settings;



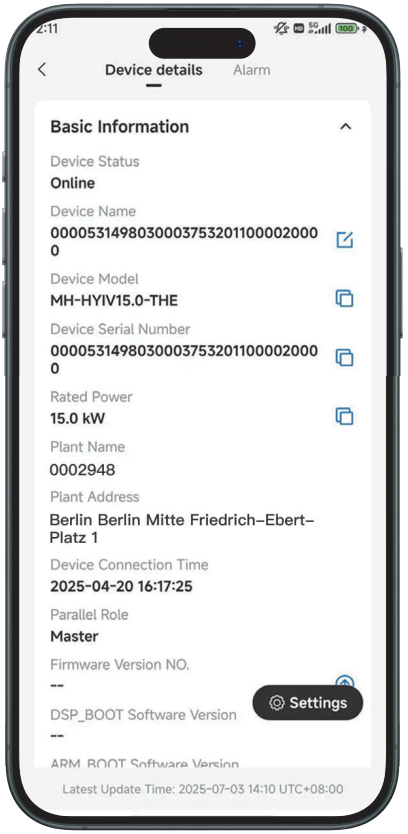
✓ Cosphip Curve



✓ Grid Connection Parameters



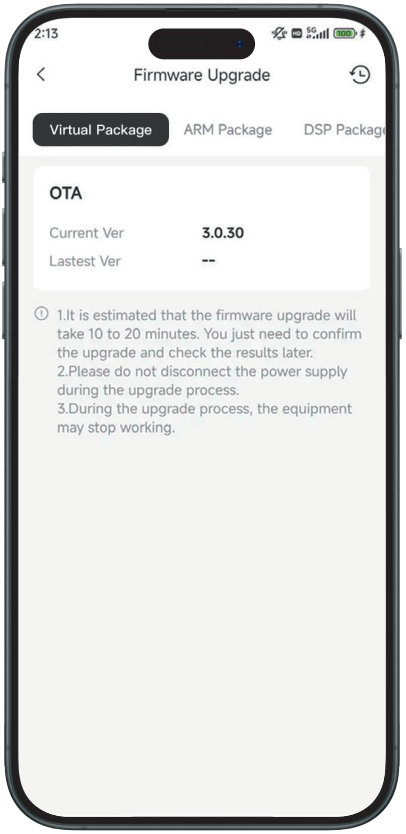
10 OTA Functions

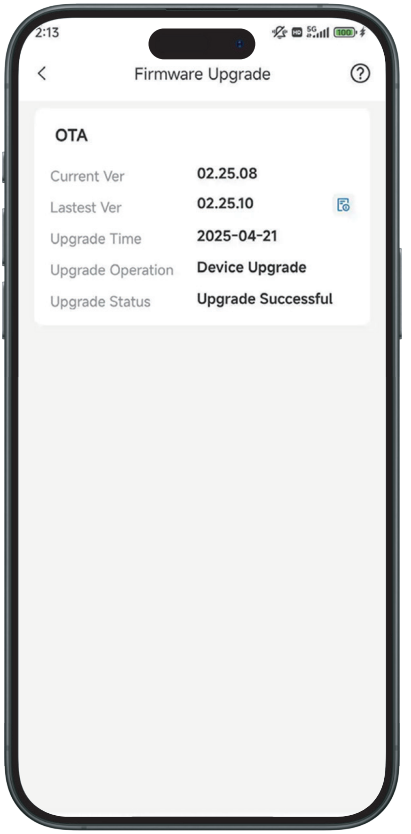


1) In the Device Details screen, click and then enter the Firmware Upgrade Management page;

Regardless of whether there is upgradeable firmware or not, you can enter the Firmware Upgrade management page after clicking on it;

When there is firmware that can be updated, a red dot indicates this in the Firmware Version field.



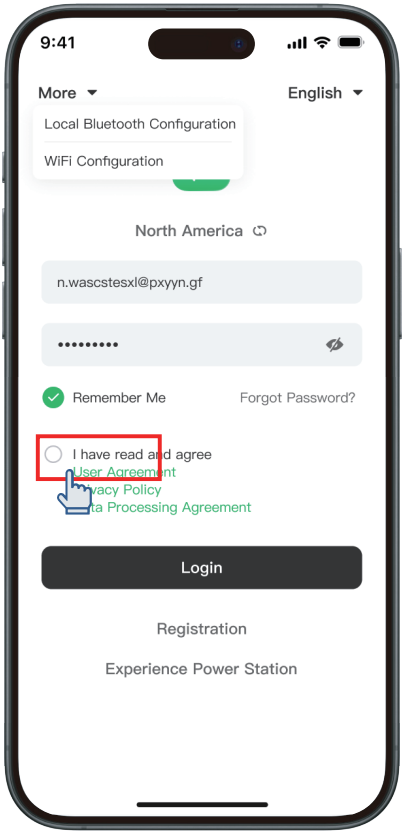


2) In the Firmware Upgrade interface, users can view the version information of OTA, ARM, DSP and BMS;

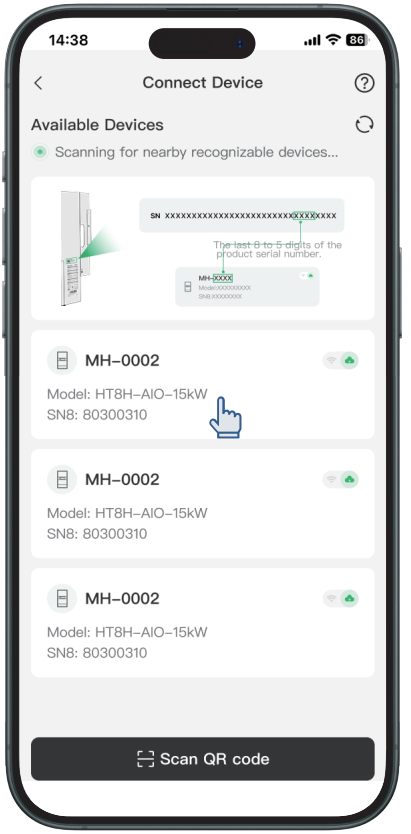
3) If a new version is available, users can click the Upgrade button to perform a version upgrade operation;

4) Click to view the Firmware Version Update Record;

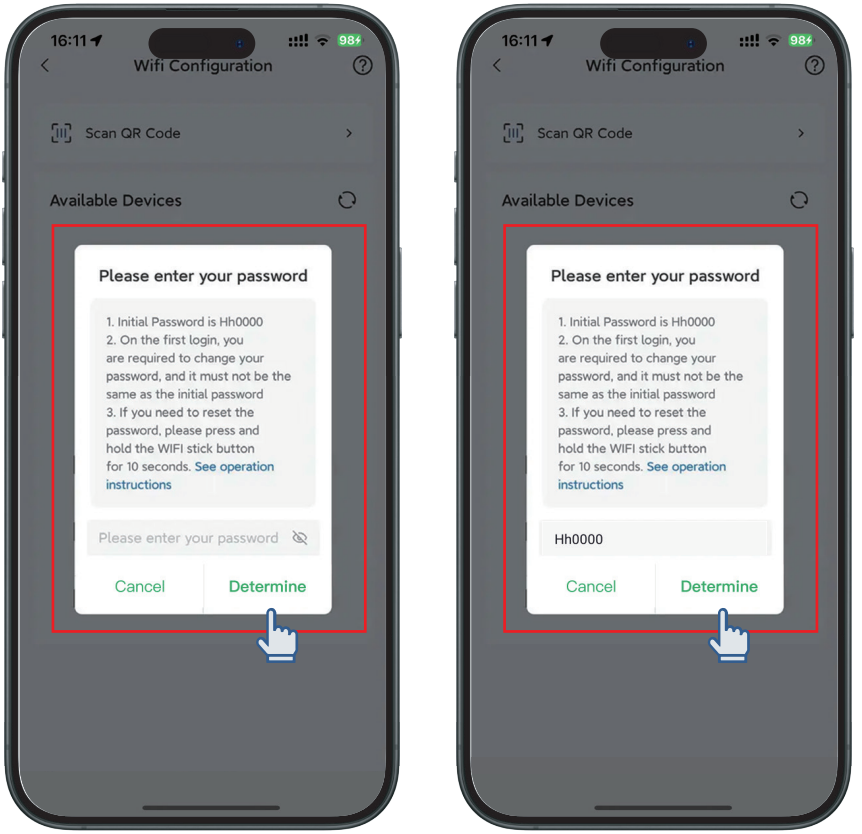
11 Italian self-test (if required)



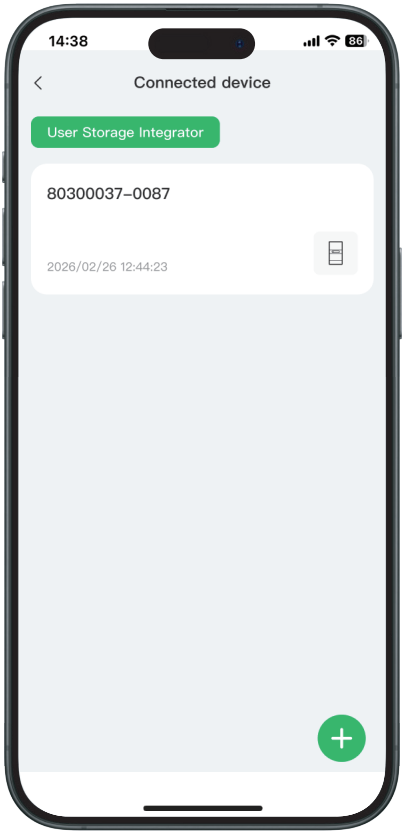
1) The user opens the iEasy+ App and clicks on the Wifi Configuration button;



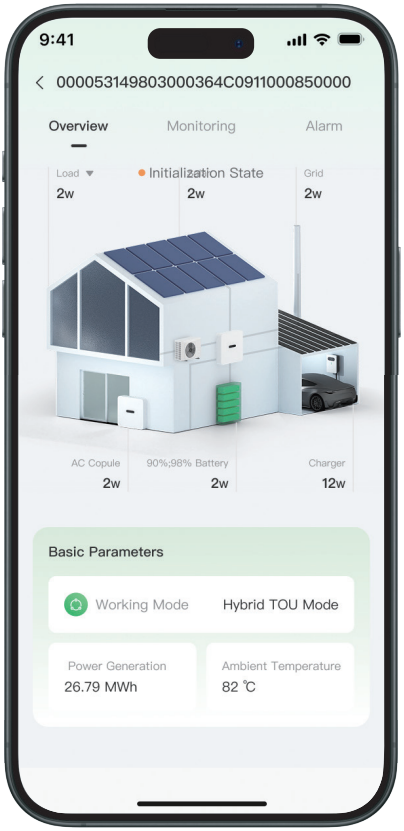
2) On the device connection screen, click the device;



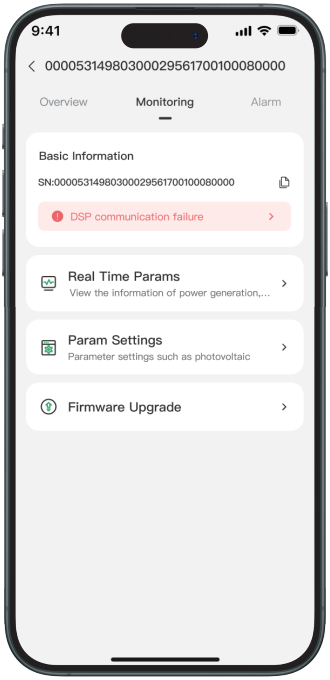
3) Enter the connection password: Hh0000 and click Connect;

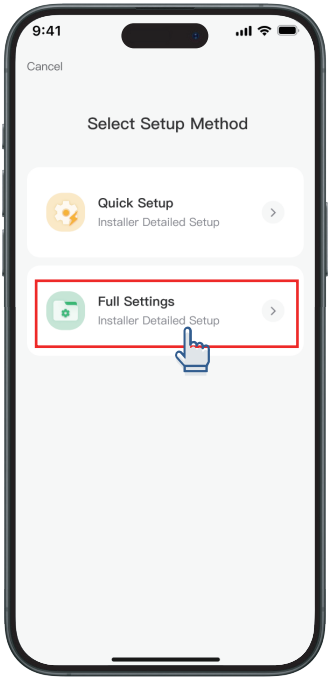


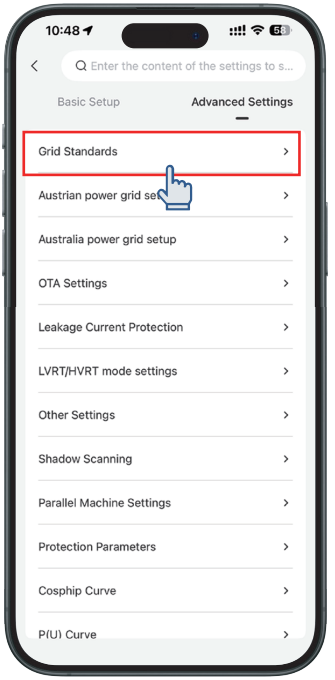
4) After successful connection, enter the device list interface and click Device List;



5) The user enters the device monitoring interface and clicks the Monitoring Tab;



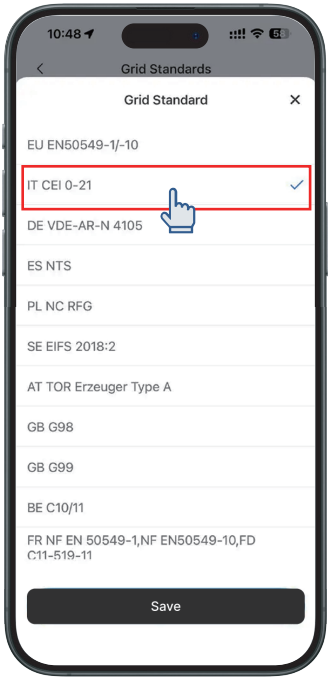


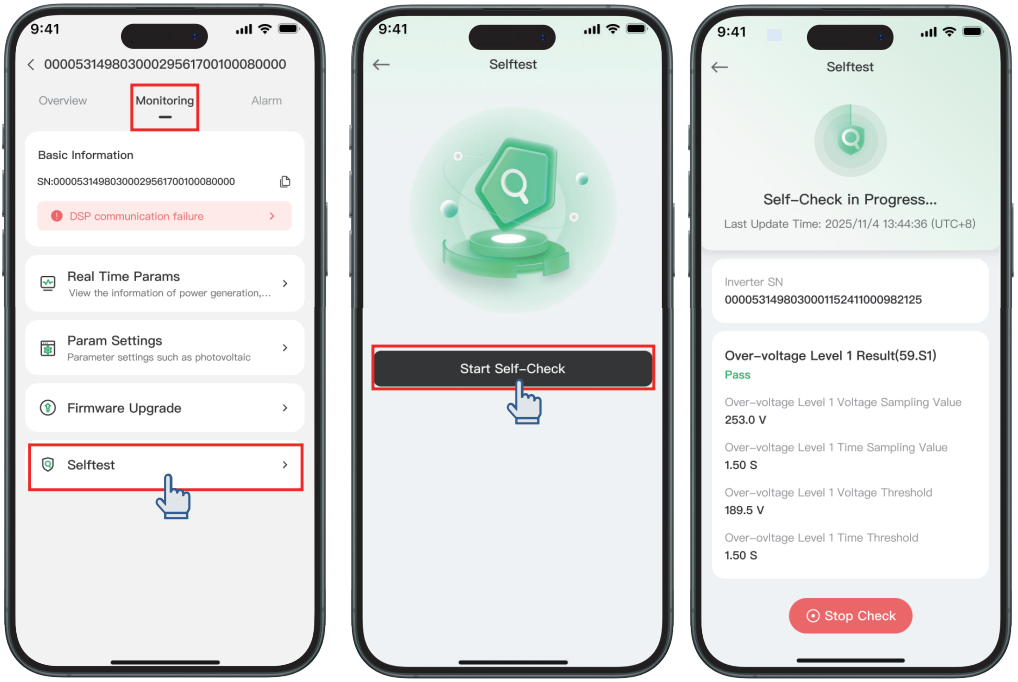


6) In the Monitoring Parameters screen, click on the Parameter Setting entry;

7) Enter the parameter setting interface and click the Full Settings button;

8) Under the Advanced Settings Tab, click the Grid Standadrs, for the grid protocol, select CEI-021

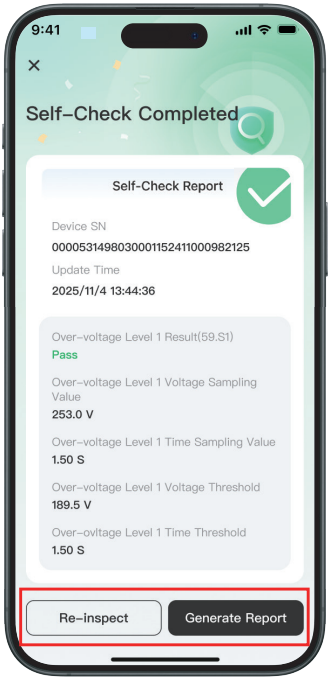


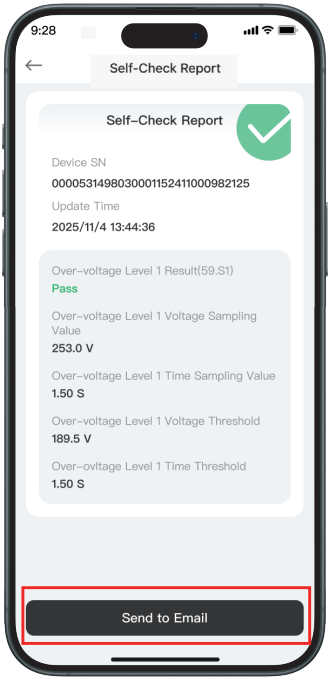


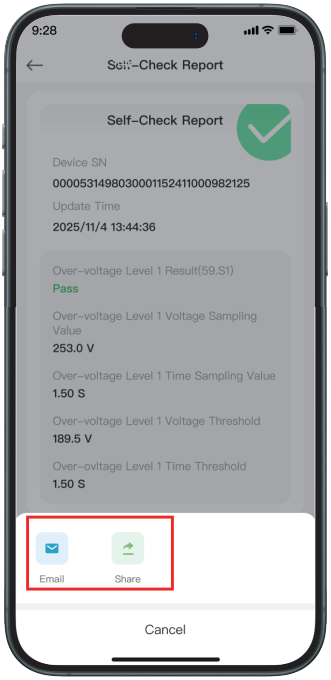
9) On the Monitoring tab interface, the Italy self-test entry is displayed;

10) Click the Selftest button to enter the Italy self-test screen, where the self-test results and related inspection items are displayed;

11) The Italy self-test can generate a self-test report, which users can share or send via email.



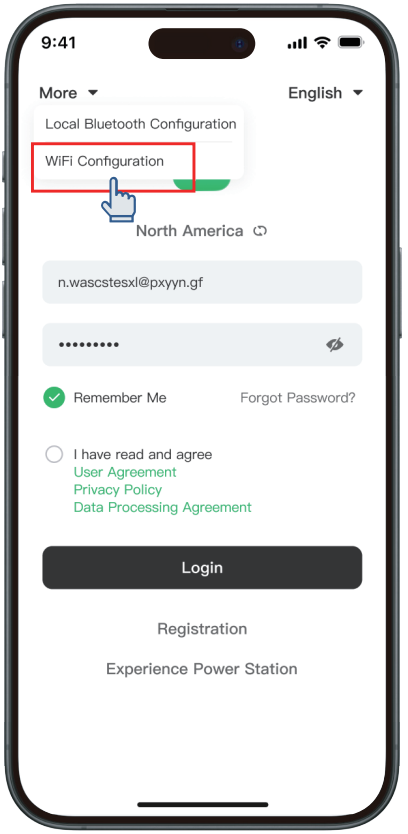


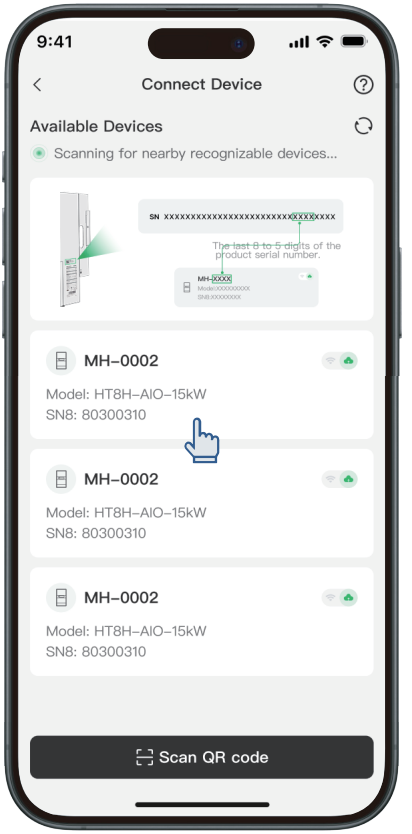


12 Quick Settings

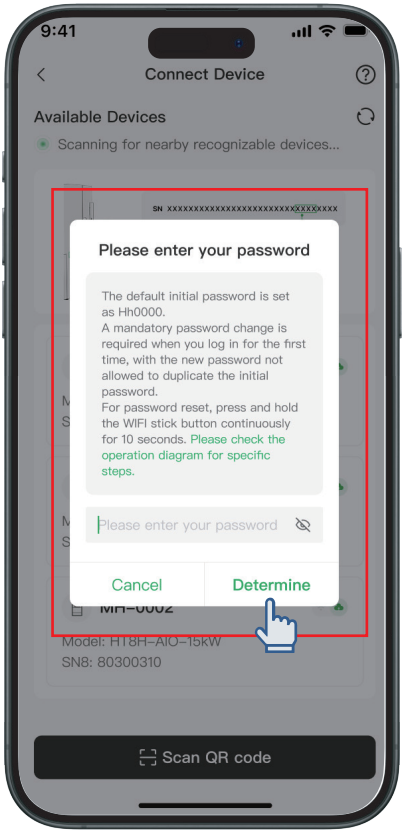
Step 1: The user opens the iEasy+ app and clicks on the WiFi configuration button;

Step 2: On the WiFi configuration interface, click the device;



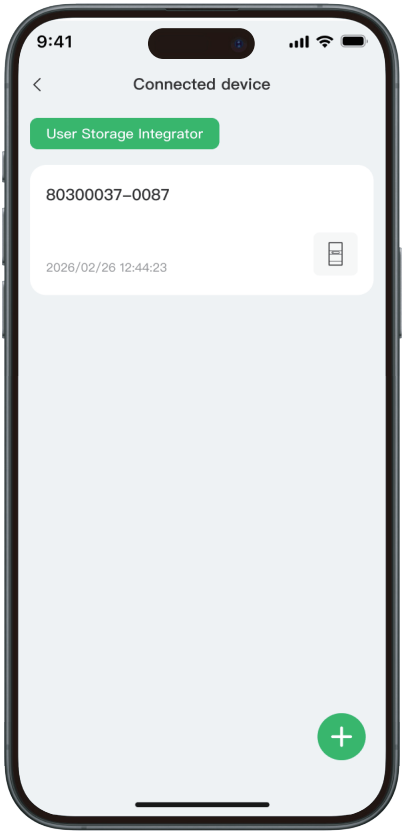


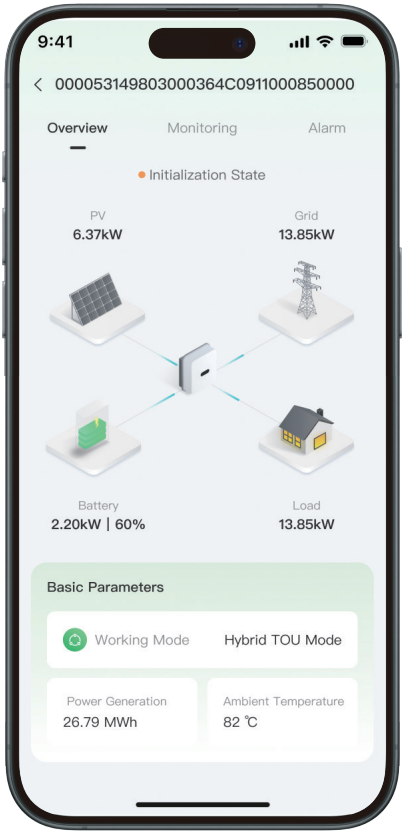
Step 3: Enter the connection password: Hh0000, click on Determine;



Step 4: After successful connection, enter the device list interface and click on the device list;

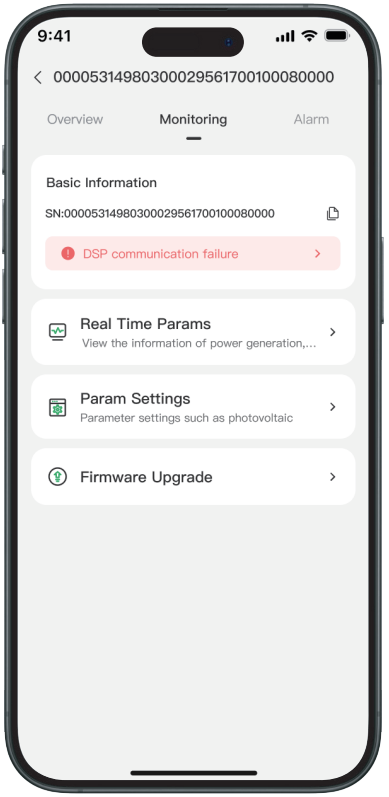
Step 5: The user enters the device monitoring interface and clicks on the monitoring tab;

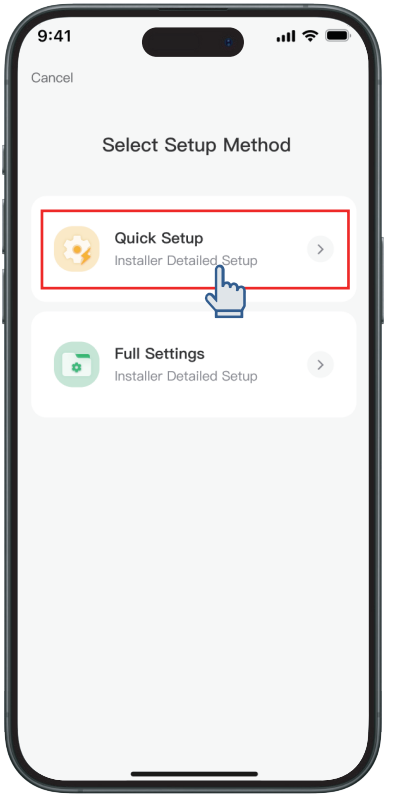




Step 6: On the monitoring parameter interface, click on the Param Settings entrance;

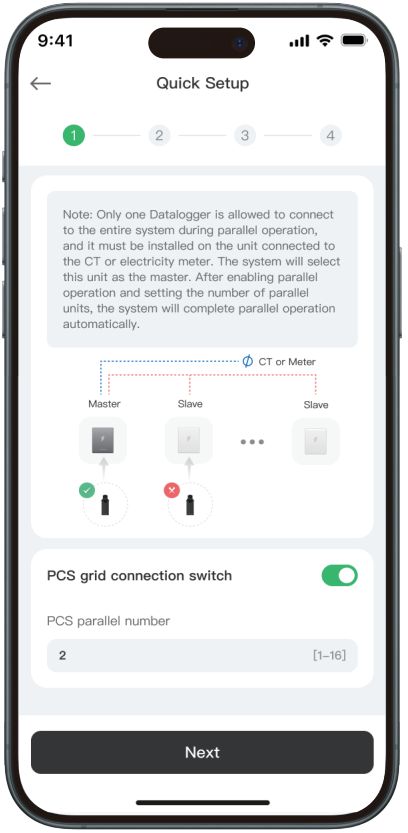
Step 7: Enter the Param Settings interface and click on the Quick Setup entrance:

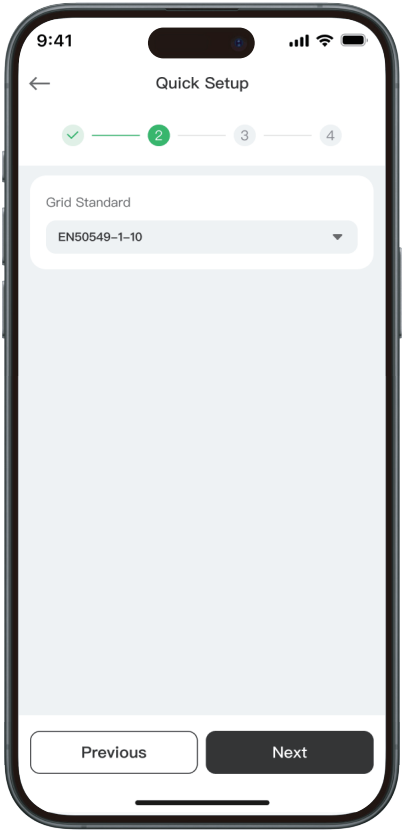


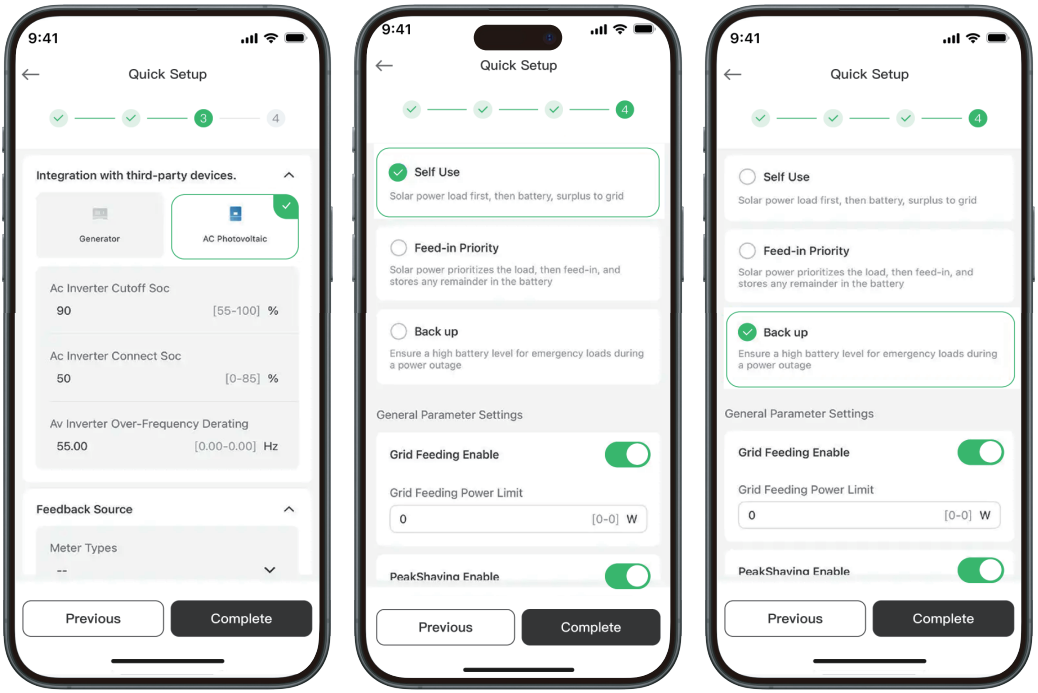


Step 8: Enter the quick settings interface, where users can quickly set parameters. There are a total of 4 steps to complete the device parameter configuration operation;

Step 9: During the quick setup process, users can switch between the next and previous steps, perform parameter modification operations, and click the "Finish" button to complete the device parameter configuration operation;







NOTE: The App provides two quick setting entrances, namely: after the network configuration is successful, the interface pops up the quick setting entrance, the local Bluetooth monitoring interface - parameter setting - quick setting entrance; The quick setting takes a total of four steps, and the point command is issued separately;

Step1: First determine whether it is a parallel system, after the parallel switch is enabled, fill in the number of parallels, if it is a parallel scenario, the equipment parameters are issued to the equipment for execution through broadcasting, and multiple devices execute the same parameter instructions;

Step2: Configure the grid security code and three-phase phase sequence configuration, in which the single camera is not displayed;

Step3: Select the third-party equipment: generator, AC Couple, intelligent load, feedback source settings, need to be enabled before the relevant parameter setting operations can be carried out, of which the feedback source settings are: meter settings, CT settings, etc.; The three third-party devices connected to the inverter are generators by default; choose one of the three and do not support coexistence;

a: When the generator is selected, the generator enable switch needs to be turned on, and the settings are supported: diesel generator rated power, battery charging power limit, generator control mode (automatic mode/manual mode), diesel generator maximum input power; If it is in manual mode, it supports the following settings: automatically start the minimum SOC of the diesel generator, stop the maximum SOC of the diesel generator, and the cooling time of the diesel generator; Among them, the split machine supports setting: automatic start of the minimum battery voltage of the diesel generator, the maximum stop voltage of the diesel generator;

b: When AC Couple is selected, it supports setting: AC photovoltaic inverter disconnects SOC, AC photovoltaic inverter connects to SOC, AC photovoltaic inverter overfrequency and load reduction frequency setting, if the battery type is: lead-acid battery, then the split machine supports setting: AC photovoltaic inverter disconnects the battery voltage, AC photovoltaic inverter connects to the battery voltage;

c: When the smart load is selected, it supports the following settings: smart load grid-connected always-on switch, smart load unavailable battery SOC, smart load available battery SOC; If the battery type is: lead-acid battery, then the split machine supports setting: intelligent load unavailable battery voltage, intelligent load available battery voltage;

d: The feedback source is set to: meter setting, CT setting (CT direction, CT ratio), if the meter type is built-in CT, it supports configuring CT ratio parameters;

Step4: Set the user scenario, support settings: anti-reverse flow mode, power sales priority mode; When the user selects the anti-reverse current mode and the feed enable switch is set to: Allow to sell power, the user is supported to set: feed power limit value, and when the Grid Peak-shaving switch is enabled, it is supported to set: Grid Peak-shaving power limit; When selecting a battery, it supports settings: the power grid allows charging the battery, the maximum power of the grid charging the battery, the number of battery packs is set, etc.; secondly, TOU is enabled by default, and the App interface is not displayed, if users need to set TOU-related parameters, they can modify the parameters by remote control or local Bluetooth.

*** The fourth step of the quick setup may vary depending on different software versions; the actual display is subject to the software version of the device:**

As shown in Figure 1: Set user scenarios, supporting settings such as reverse power flow prevention mode and sell-to-grid priority mode. When the user selects the reverse power flow prevention mode and the power feed enable switch is set to "Allow selling electricity," the user can set the power feed limit value. When the Grid Peak-shaving switch is enabled, the Grid Peak-shaving power limit value can be set. When a battery is selected, settings such as allowing the grid to charge the battery, maximum grid-to-battery charging power, and the number of battery packs can be configured. Additionally, TOU (Time of Use) is enabled by default and is not displayed on the app interface. If users need to adjust TOU parameters, they can do so via remote control or local Bluetooth parameter modification.

As shown in Figure 2: Users can set operation modes including self-consumption, sell-to-grid priority, and battery backup.

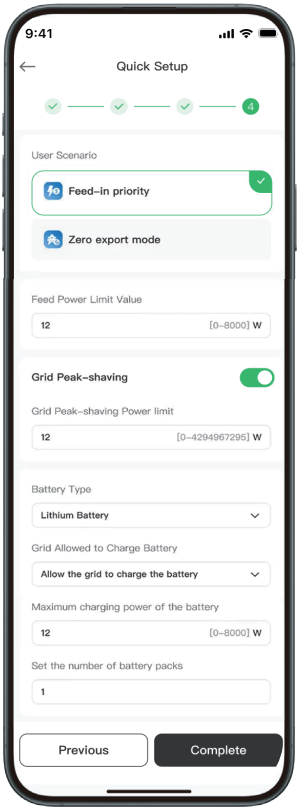


Figure 1

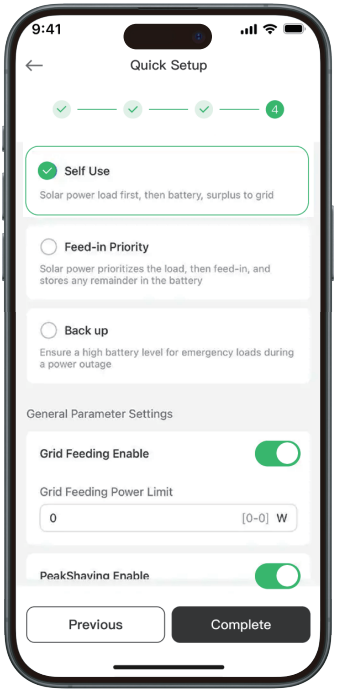


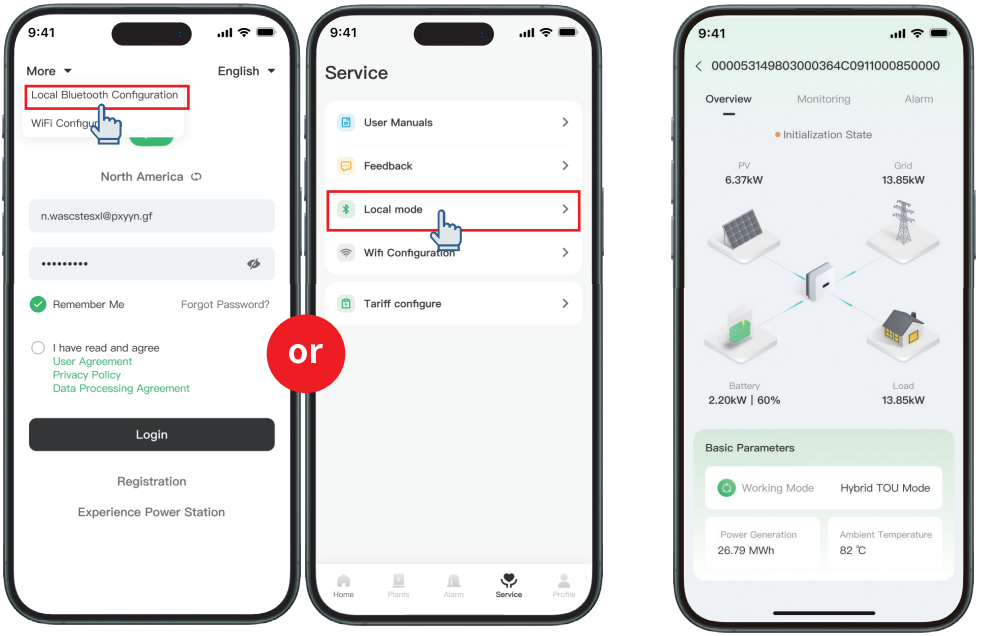
Figure 2

13 Energy Storage Operation Mode Settings

The energy storage operation mode settings support both local Bluetooth and cloud-based configuration. The specific operation steps are as follows:

Local Bluetooth Operation Mode Setting Entry:

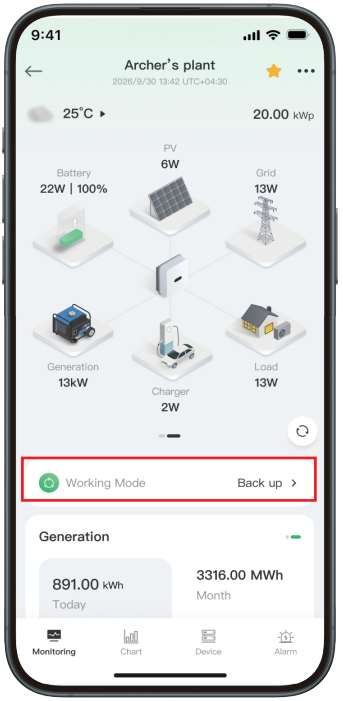
The user enters the local Bluetooth operation interface, where the operation mode setting entry is displayed on the overview page

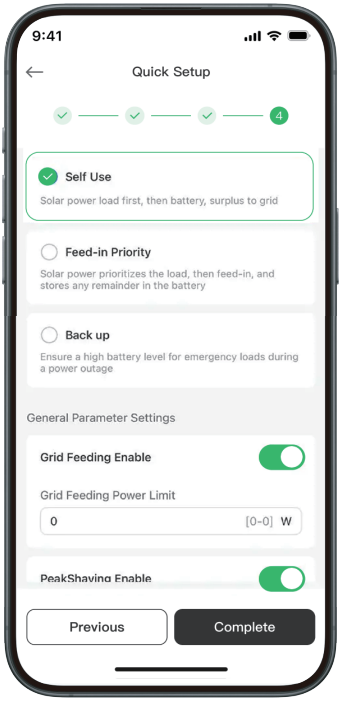


Cloud Energy Storage Operation Mode Access:

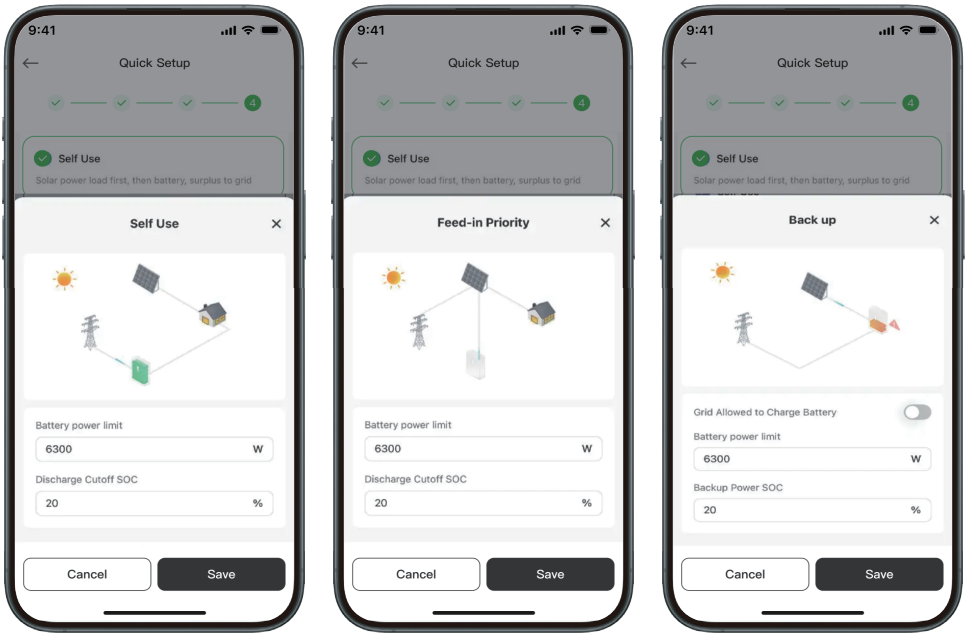
Step 1: The user enters the single power station interface, where the mode setting operation entry is displayed below the energy flow diagram;

Step 2: The user clicks on the operation mode and can perform mode settings. The user can set the following options: Self Use, Feed-in Priority, Back up, and custom settings;





Step 3: Display the specific operation interfaces for the modes of self-consumption, priority electricity selling, and battery backup as shown below.



NOTE:

1.Self Use: Allows modification of settings such as battery power limit (if the battery charge/discharge mode is set to discharge, this refers to the discharge battery power limit) and discharge cutoff SOC value.

2.Feed-in Priority: Allows modification of settings such as battery power limit (if the battery charge/discharge mode is set to discharge, this refers to the discharge battery power limit) and discharge cutoff SOC value.

3.Back up: Allows modification of settings such as grid permission for battery charging enable switch, battery power limit (if the battery charge/discharge mode is set to discharge, this refers to the discharge battery power limit), and backup SOC value.

4.General parameter settings: Parameters take effect globally and support setting the feed-in enable switch, feed-in power limit, Grid Peak-shaving switch, and Grid Peak-shaving power limit.

5.Custom settings: When the user clicks on custom settings, the interface will navigate to the remote control settings page.

14 Explanation of Safety Regulations Parameters:

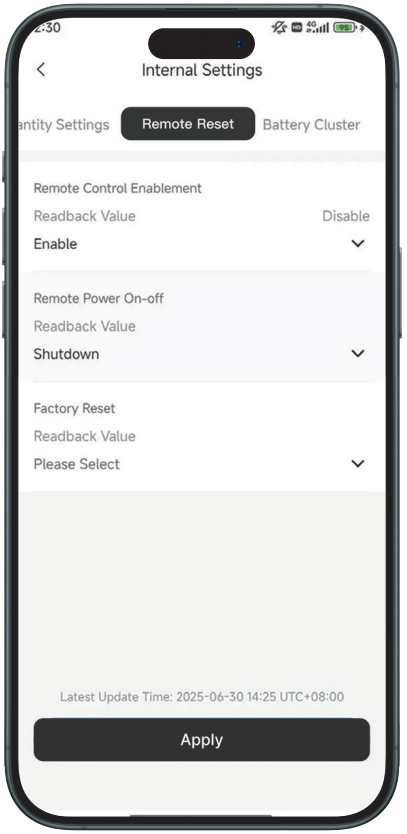
Setting up Remote Switching / DRM.Enable remote switching/DRM before connecting third-party DRM, remote shutdown devices to comply with local laws and regulations.

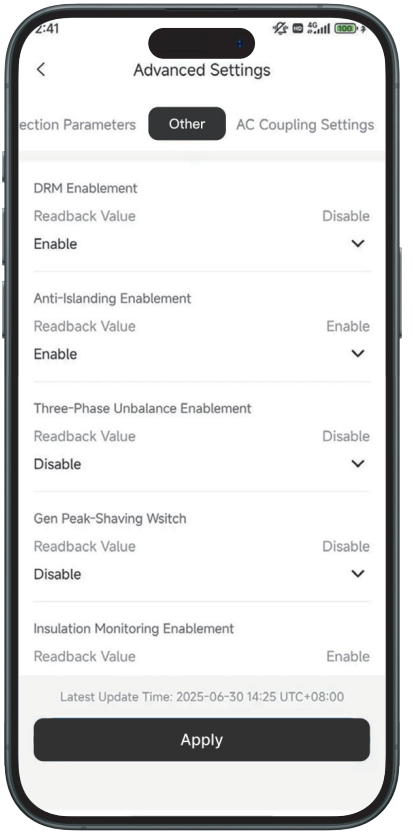
✓Remote control of switching on/off:

1) Device Details-> Settings -> Internal Settings -> Remote Reset;

2) Remote Control Enable -> Remote Control Switch Enable;

✓ DRM:



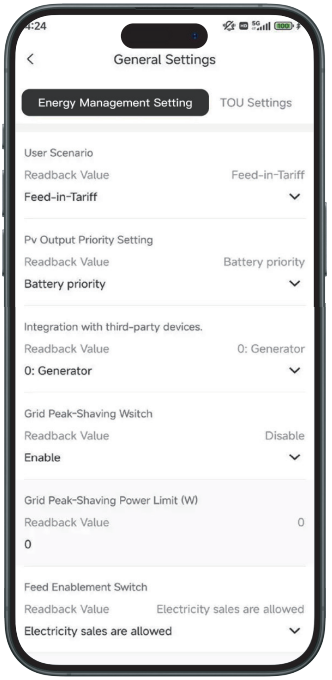


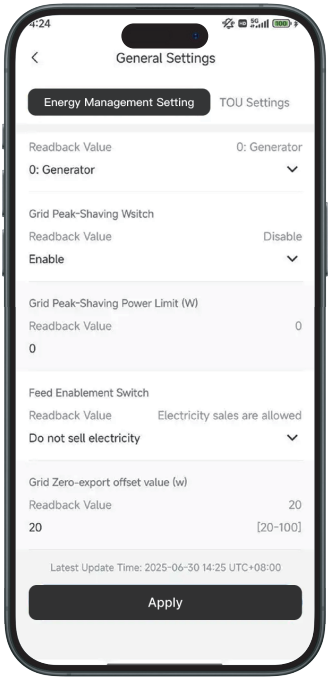
✓ Setting Power Limit Parameters

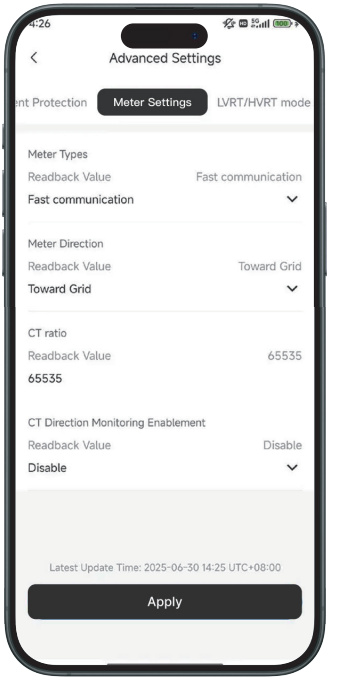
Enable power limiting when local grid standards and requirements require power limiting.

1) Device Details -> Settings -> General Settings/Advanced Settings;

2) Set the user scenario, feeder enable switch (if the user scenario is: seller priority mode, the switch is not displayed, and anti-reverse current mode is displayed), feeder power limit values, feeder internal bias value setting, and CT ratio;





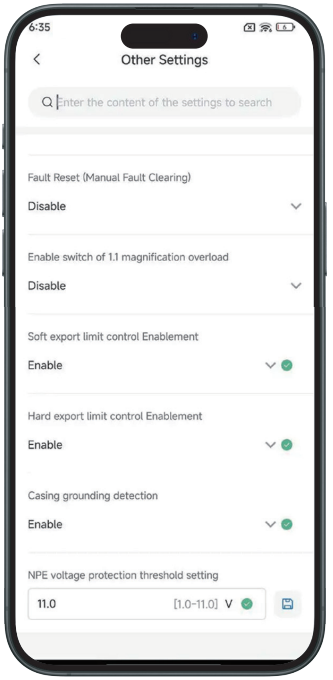


NO.	Parameter Name	Descriptions
1	User Scenarios	User Scenario Settings
2	PV Output Priority Settings	PV Energy Priority for Battery or Load Settings
3	Connect third-party devices	Settings for Selecting Which Device to Connect: Generator, Smart Load, AC Photovoltaic
4	AC Photovoltaic Inverter Connection Port	Should the AC photovoltaic system be installed and connected to the backup power port or the diesel generator port (a shared port, supported only by Hybrid Inverter)
5	Generator inlet	Should the generator be installed and connected to the grid port or the diesel generator port (a shared port, supported only by Hybrid Inverter)
6	Grid Peak-shaving Switch	Setting to determine whether Grid Peak-shaving is enabled
7	Grid Peak-shaving Power Limit	Setting value for the Grid Peak-shaving power limit when drawing power from the grid
8	Feed Enablement Switch	Whether to allow power feeding to the grid; In self-generation and self-consumption mode, the feeder enable switch is turned off so that no power is sent to the grid; in sell-first mode, this switch is not restricted
9	Feed Power Limit Value	Setting value for the power limit when feeding power to the grid;
10	Grid Feed-In Bias Setting	Power Reduction on the Basis of Grid Feed-In Power Limitation, i.e., the Power Less Than the Feed-In Power to Sell
11	Meter Type	Whether the grid connection point is connected to a CT or meter, and the meter model
12	CT Direction	Positive direction setting when installing the CT or meter
13	CT Ratio	CT ratio settings

✓ Setting N-PE Input Voltage Detection

1) Device Details -> Settings -> Advanced Settings;

2) Other Settings -> Enable Enclosure Ground Detection -> NPE voltage protection threshold setting;

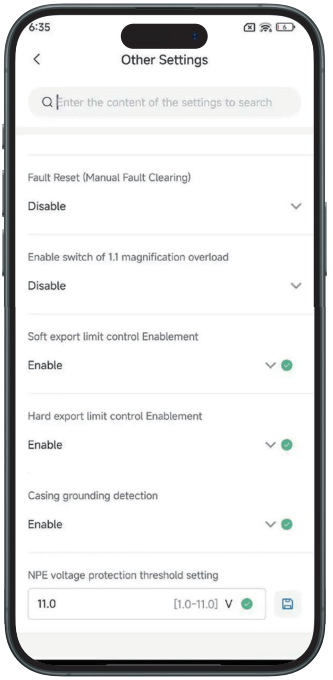


NO.	Parametric	Descriptions
1	Enable Enclosure Ground Detection	Enclosure ground detection protection enable. When switched on, it detects the correct grounding
2	NPE voltage protection threshold setting	Protects if the detected voltage is higher than the set value

✓ Setting Power Dispatch Response Parameters

1) After successful Bluetooth mating, click Monitor Tab->Internal Parameter Setting;

2) Internal Settings->Other Settings for power scheduling response parameter settings;

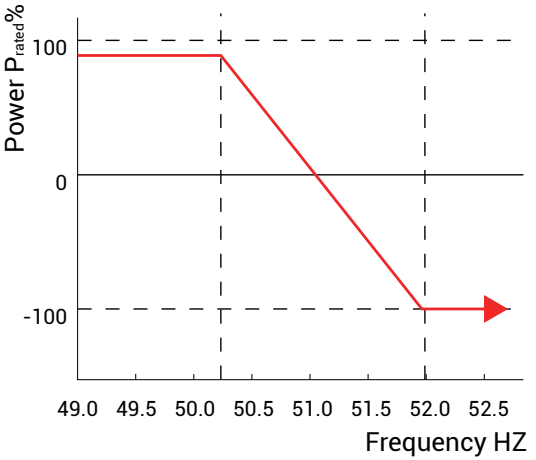


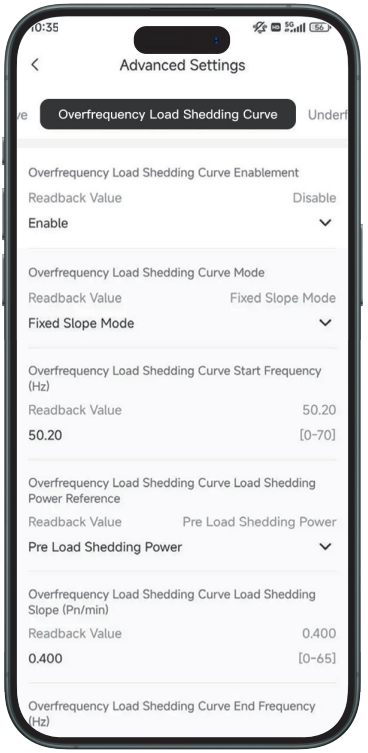
NO.	Parametric	Descriptions
1	Active Dispatch Slope	Active power regulation rate. For example, a setting of 10 means that the slope is 10% P_{rated}/min.
2	Active Dispatch Ramp LPF Adjustment Time	Active power regulation according to the time constant t of a one-section low-pass LPF
3	Reactive Dispatch Slope	Reactive power regulation rate. For example, a setting of 10 means that the slope is 10% P_{rated}/min.
4	Reactive Dispatch Slope LPF Adjustment Time	Reactive power regulation according to the time constant t of a one-section low-pass LPF

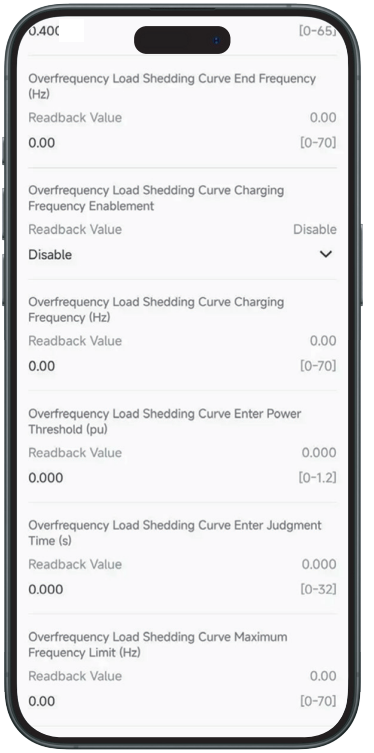
✓ Setting the active curve - overfrequency derating curve

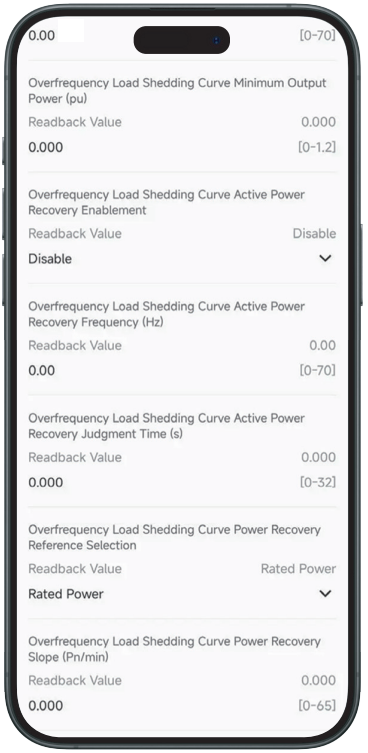
1) Device Details -> Settings -> Advanced Settings;

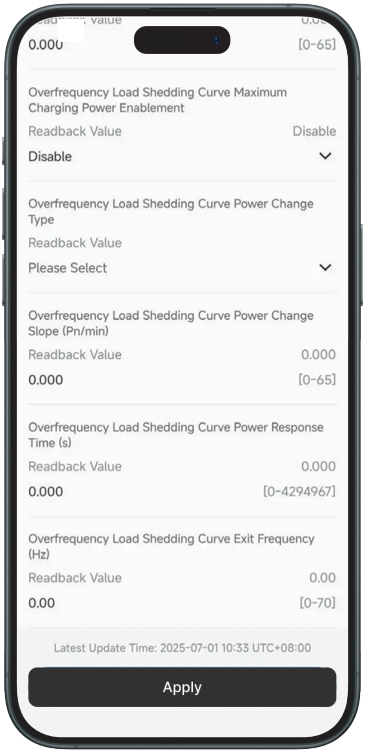
2) Overfrequency Derating -> After overfrequency derating enable, set the parameters related to overfrequency derating curve;




10:35
Advanced Settings
Overfrequency Load Shedding Curve
Overfrequency Load Shedding Curve Enablement
Readback Value
Disable
Enable
Overfrequency Load Shedding Curve Mode
Readback Value
Fixed Slope Mode
Fixed Slope Mode
Overfrequency Load Shedding Curve Start Frequency (Hz)
Readback Value
50.20
50.20
[0-70]
Overfrequency Load Shedding Curve Load Shedding Power Reference
Readback Value
Pre Load Shedding Power
Pre Load Shedding Power
Overfrequency Load Shedding Curve Load Shedding Slope (Pn/min)
Readback Value
0.400
0.400
[0-65]
Overfrequency Load Shedding Curve End Frequency (Hz)


[0-65]
Overfrequency Load Shedding Curve End Frequency (Hz)
Readback Value
0.00
0.00
[0-70]
Overfrequency Load Shedding Curve Charging Frequency Enablement
Readback Value
Disable
Disable
Overfrequency Load Shedding Curve Charging Frequency (Hz)
Readback Value
0.00
0.00
[0-70]
Overfrequency Load Shedding Curve Enter Power Threshold (pu)
Readback Value
0.000
0.000
[0-1.2]
Overfrequency Load Shedding Curve Enter Judgment Time (s)
Readback Value
0.000
0.000
[0-32]
Overfrequency Load Shedding Curve Maximum Frequency Limit (Hz)
Readback Value
0.00
0.00
[0-70]


0.00
[0-70]
Overfrequency Load Shedding Curve Minimum Output Power (pu)
Readback Value
0.000
0.000
[0-1.2]
Overfrequency Load Shedding Curve Active Power Recovery Enablement
Readback Value
Disable
Disable
Overfrequency Load Shedding Curve Active Power Recovery Frequency (Hz)
Readback Value
0.00
0.00
[0-70]
Overfrequency Load Shedding Curve Active Power Recovery Judgment Time (s)
Readback Value
0.000
0.000
[0-32]
Overfrequency Load Shedding Curve Power Recovery Reference Selection
Readback Value
Rated Power
Rated Power
Overfrequency Load Shedding Curve Power Recovery Slope (Pn/min)
Readback Value
0.000
0.000
[0-65]


0.000
[0-65]
Overfrequency Load Shedding Curve Maximum Charging Power Enablement
Readback Value
Disable
Disable
Overfrequency Load Shedding Curve Power Change Type
Readback Value
Please Select
Overfrequency Load Shedding Curve Power Change Slope (Pn/min)
Readback Value
0.000
0.000
[0-65]
Overfrequency Load Shedding Curve Power Response Time (s)
Readback Value
0.000
0.000
[0-4294967]
Overfrequency Load Shedding Curve Exit Frequency (Hz)
Readback Value
0.00
0.00
[0-70]
Latest Update Time: 2025-07-01 10:33 UTC+08:00
Apply

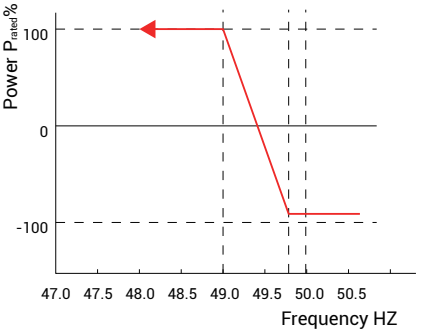
NO.	Parametric	Descriptions
1	Overclocking derating curve enable	Enable
2	Starting frequency of overfrequency derating curve	Frequency value setting for entering the overfrequency derating curve
3	Slope of overfrequency derating curve	Setting this frequency determines the setting of the load shedding slope during the overclocking derating phase
4	Over Frequency Derating Curve Derating Power Reference	Adjust the inverter output power based on Apparent Active Power, Rated Active Power, Momentary Active Power, Or Max. Active Power
5	Power Response Time for Over Frequency Buckling Curve	Active power regulation rate. For example, a setting of 10 means that the slope is 10% P_{rated}/min.
6	Overclocking derating curve active recovery frequency	After this frequency is set, it means that overfrequency load shedding is over and active power restoration begins at frequencies below this level.
7	Power Recovery Slope of overclocking derating curve	Slope of power recovery at the end of the overfrequency state

✓ Setting the active curve - underfrequency loading curve

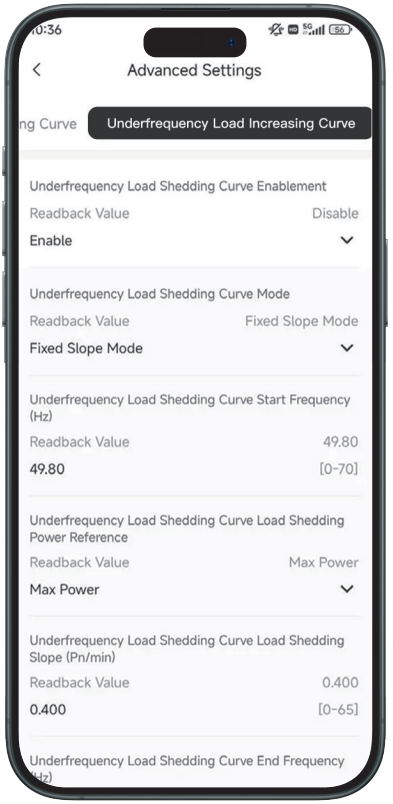
1) Device Details -> Settings -> Advanced Settings;

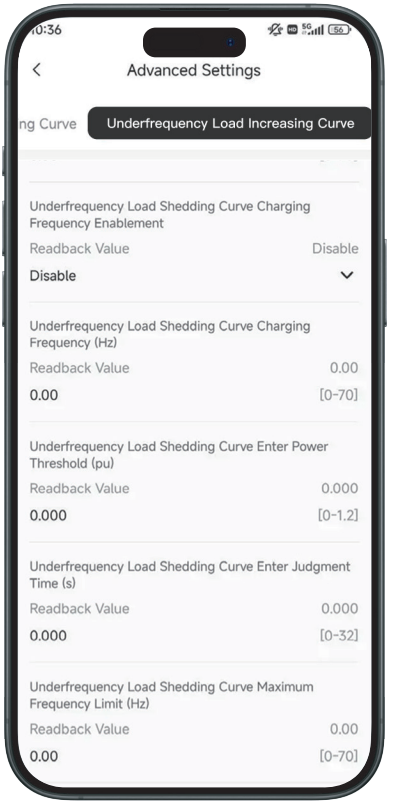
2) After overfrequency derating-> underfrequency loading is enabled,

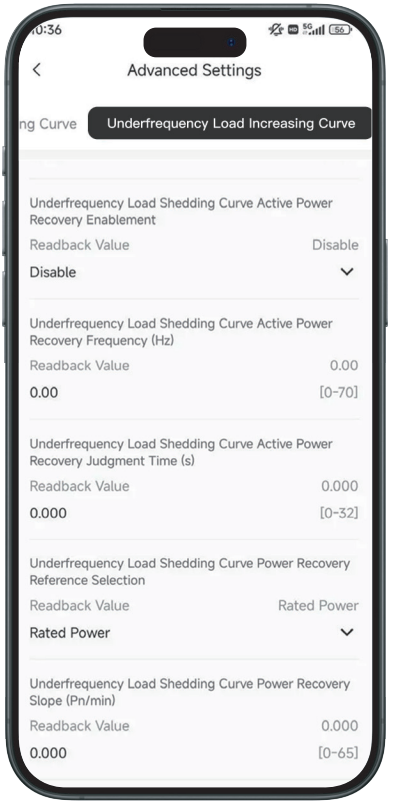
set the underfrequency loading curve related parameters;

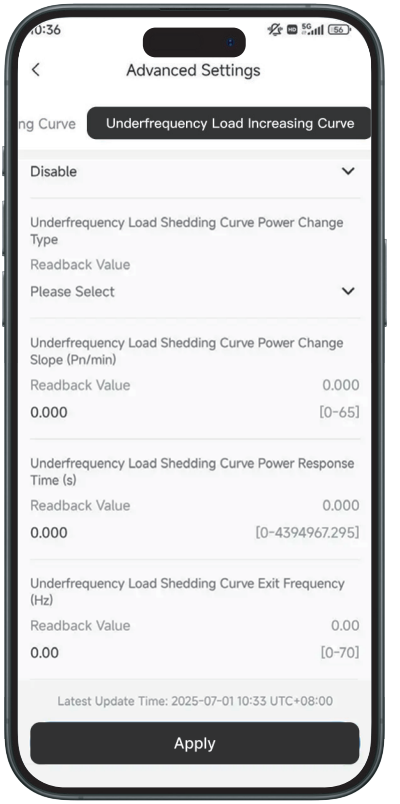


NO.	Parametric	Descriptions
1	Underfrequency loading curve enable	Enable
2	Underfrequency loading curve start frequency	Enter the frequency value setting of the under-frequency loading curve frequency
3	Underfrequency loading curve loading slope	Setting this frequency determines the downslope setting during the underfrequency loading phase frequency
4	Underfrequency loadingcurve loading power reference slope	Adjust the inverter output power based on Apparent Active Power, Rated Active Power, Momentary Active Power, Or Max. Active Power.
5	Underfrequency loading curve power response time slope	Active power regulation rate. For example, a setting of 10 means that the slope is 10% Prated/min.
6	Underfrequency loading curve active recovery frequency	After this frequency is set, it means that underfrequency loading is over and active power restoration begins at frequencies below this level.
7	Power recovery slope of underfrequency loading curve	Slope of power recovery at the end of the underfrequency state


Advanced Settings
ng Curve
Underfrequency Load Increasing Curve
Underfrequency Load Shedding Curve Enablement
Readback Value
Disable
Enable
Underfrequency Load Shedding Curve Mode
Readback Value
Fixed Slope Mode
Fixed Slope Mode
Underfrequency Load Shedding Curve Start Frequency (Hz)
Readback Value
49.80
49.80
[0-70]
Underfrequency Load Shedding Curve Load Shedding Power Reference
Readback Value
Max Power
Max Power
Underfrequency Load Shedding Curve Load Shedding Slope (Pn/min)
Readback Value
0.400
0.400
[0-65]
Underfrequency Load Shedding Curve End Frequency


Advanced Settings
ng Curve
Underfrequency Load Increasing Curve
Underfrequency Load Shedding Curve Charging Frequency Enablement
Readback Value
Disable
Disable
Underfrequency Load Shedding Curve Charging Frequency (Hz)
Readback Value
0.00
0.00
[0-70]
Underfrequency Load Shedding Curve Enter Power Threshold (pu)
Readback Value
0.000
0.000
[0-1.2]
Underfrequency Load Shedding Curve Enter Judgment Time (s)
Readback Value
0.000
0.000
[0-32]
Underfrequency Load Shedding Curve Maximum Frequency Limit (Hz)
Readback Value
0.00
0.00
[0-70]


Advanced Settings
ng Curve
Underfrequency Load Increasing Curve
Underfrequency Load Shedding Curve Active Power Recovery Enablement
Readback Value
Disable
Disable
Underfrequency Load Shedding Curve Active Power Recovery Frequency (Hz)
Readback Value
0.00
0.00
[0-70]
Underfrequency Load Shedding Curve Active Power Recovery Judgment Time (s)
Readback Value
0.000
0.000
[0-32]
Underfrequency Load Shedding Curve Power Recovery Reference Selection
Readback Value
Rated Power
Rated Power
Underfrequency Load Shedding Curve Power Recovery Slope (Pn/min)
Readback Value
0.000
0.000
[0-65]

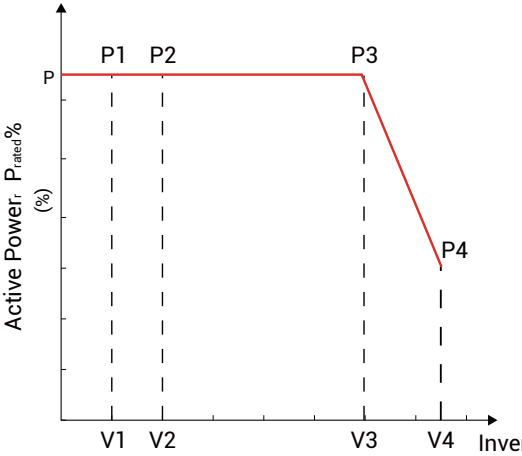

Advanced Settings
ng Curve
Underfrequency Load Increasing Curve
Disable
Underfrequency Load Shedding Curve Power Change Type
Readback Value
Please Select
Underfrequency Load Shedding Curve Power Change Slope (Pn/min)
Readback Value
0.000
0.000
[0-65]
Underfrequency Load Shedding Curve Power Response Time (s)
Readback Value
0.000
0.000
[0-4394967.295]
Underfrequency Load Shedding Curve Exit Frequency (Hz)
Readback Value
0.00
0.00
[0-70]
Latest Update Time: 2025-07-01 10:33 UTC+08:00
Apply

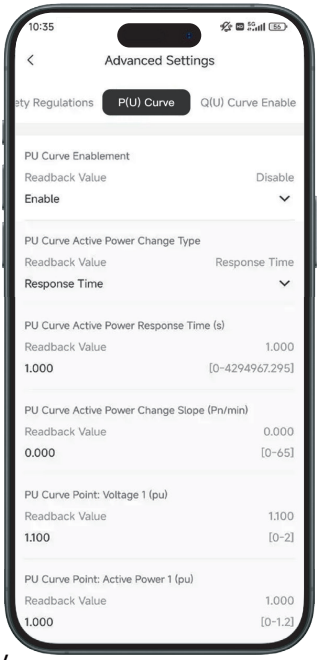
✓ Setting the active curve - Setting the P(U) curve

Reducing the inverter output power to reduce the grid-connected power when the grid voltage is too high.

1) Device Details -> Settings -> Advanced Settings;

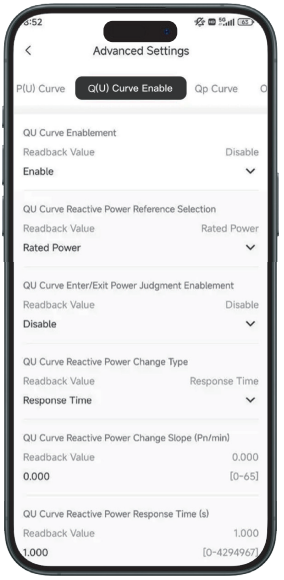
2) PU Curve->After PU Curve Enable, set the PU Curve related parameters;





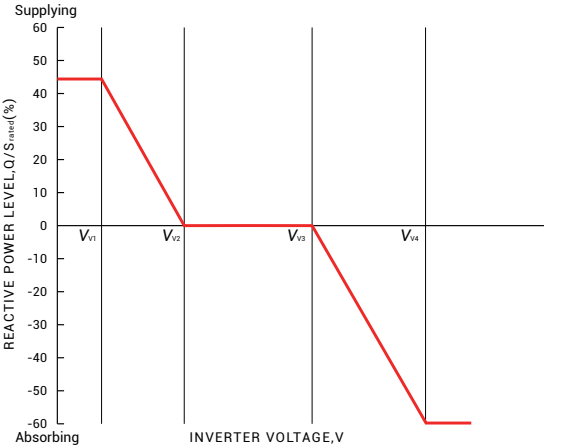
NO.	Parametric	Descriptions
1	PU curve enable	Enable
2	PU curve point: voltage 1	The actual voltage as a percentage of the rated voltage at point Vn. (n=1) For example, setting the Vn voltage to 90 means that V/V rating % = 90%.
3	PU curve point: active 1	The percentage of output active power to apparent power at point Vn, (n=1). For example, if the Vn active power at is 48.5, it means that P/P $_{rated}$ % = 48.5%.
4	PU curve point: voltage 2	Percentage of actual voltage to rated voltage at point Vn, n=2,. For example, setting the Vn voltage to 90 means that V/V rated % = 90%.
5	PU curve point: active 2	The percentage of output active power to apparent power at point Vn, (n=2). For example, if the Vn active power at is 48.5, it means that P/P rated % = 48.5%.
6	PU curve point: voltage 3	Percentage of actual voltage to rated voltage at point Vn, n=3. For example, setting the Vn voltage to 90 means V/V rated %=90%.
7	PU curve point: active 3	The percentage of output active power to apparent power at point Vn, (n=3). For example, if the Vn active power at is 48.5, it means that P/P rated % = 48.5%.
8	PU curve point: voltage 4	Percentage of actual voltage to rated voltage at point Vn, n=4. For example, setting the Vn voltage to 90 means that V/V rated %=90%.
9	PU curve point: active 4	The percentage of output active power to apparent power at point Vn, (n=4). For example, if the Vn active power at is 48.5, it means that P/P rated % = 48.5%.
10	PU curve active response time	The rate at which the PU curve outputs active power For example, a setting of 10 means that the start-up slope is 10%P_{rated}/minute.

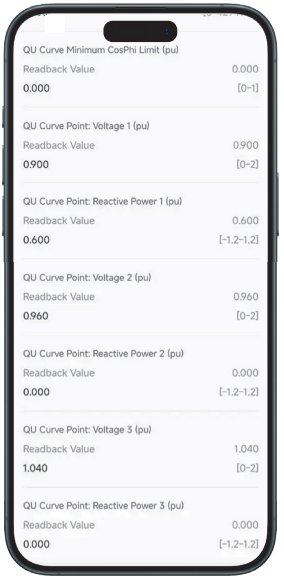
✓ Setting the reactive power curve - Setting the Q(U) curve

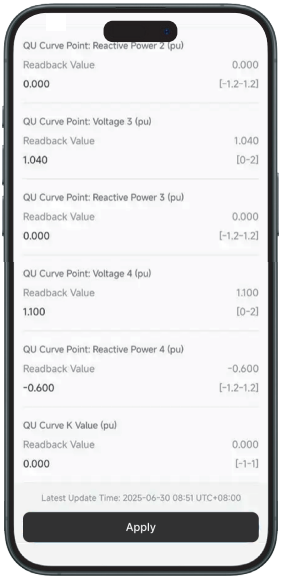


1) Device Details->Settings->Advanced Settings;

2) QU Curve->After QU Curve Enable, set QU Curve related parameters;







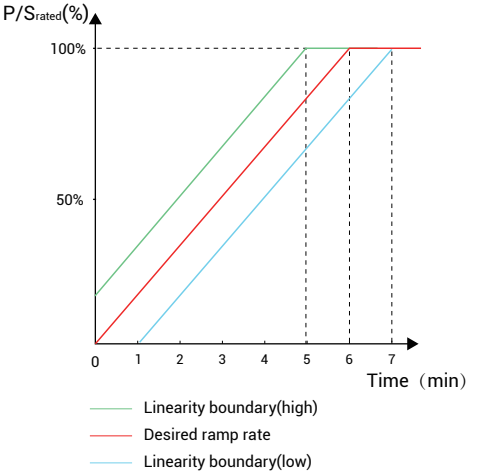
NO.	Parametric	Descriptions
1	QU curve enable slope	Enable
2	QU curve points: voltage 1	The percentage of actual voltage to the rated voltage at Vn point, n=1. For example, setting Vn Voltage to 90 means V/Vrated%=90%.
3	QU curve point: reactive power 1	The percentage of the reactive output power to the apparent power at Vn point, n=1. For example, setting Vn Reactive Power to 48.5 means Q/ Srated%=48.5%
4	QU curve points: voltage 2	The percentage of actual voltage to the rated voltage at Vn point, n= 2. For example, setting Vn Voltage to 90 means V/Vrated%=90%.
5	QU curve point: reactive power 2	The percentage of the reactive output power to the apparent power at Vn point, n=2. For example, setting Vn Reactive Power to 48.5 means Q/ Srated%=48.5%
6	QU curve points: voltage 3	The percentage of actual voltage to the rated voltage at Vn point, n=3. For example, setting Vn Voltage to 90 means V/Vrated%=90%.
7	QU curve point: reactive power 3	The percentage of the reactive output power to the apparent power at Vn point, n=3. For example, setting Vn Reactive Power to 48.5 means Q/ Srated%=48.5%
8	QU curve points: voltage 4	The percentage of actual voltage to the rated voltage at Vn point, n=4. For example, setting Vn Voltage to 90 means V/Vrated%=90%.
9	QU curve point: reactive power 4	The percentage of the reactive output power to the apparent power at Vn point, n=4. For example, setting Vn Reactive Power to 48.5 means Q/ Srated%=48.5%
10	QU Curve reactive power response time	The rate at which the QU curve outputs reactive power For example, a setting of 10 means that the start-up ramp is 10%P_{rated}/minute.

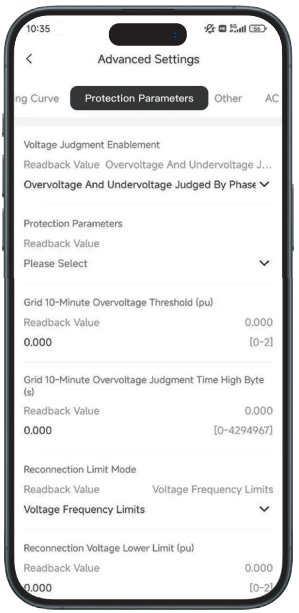
✓ Setting the protection parameters

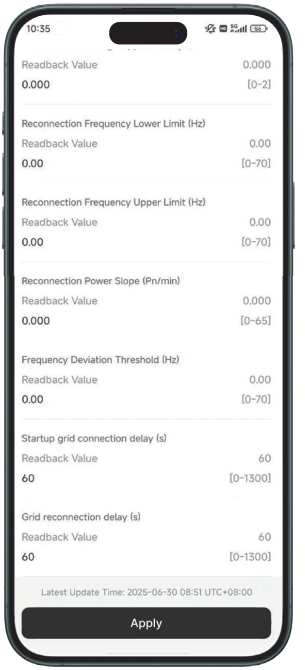
Note: Set the security parameters according to local requirements. Parameters may not be changed without prior consent of the grid company

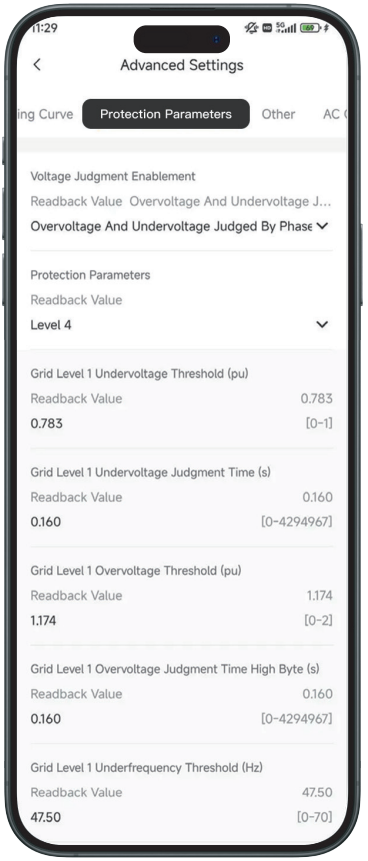
1) Device Details->Settings->Advanced Settings;

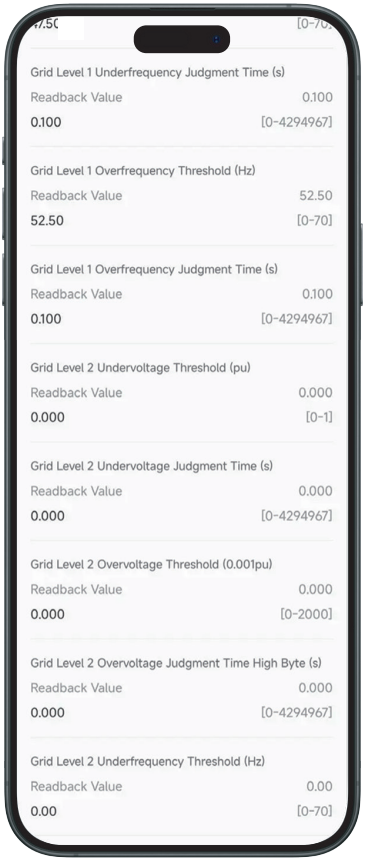
2) Protection Parameters->Perform Setting Voltage Protection, Frequency Protection, and Setting Startup and Reconnect Protection Related Parameters;

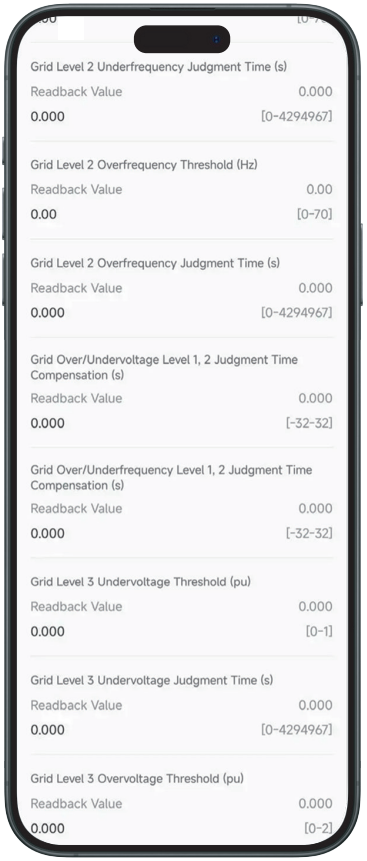


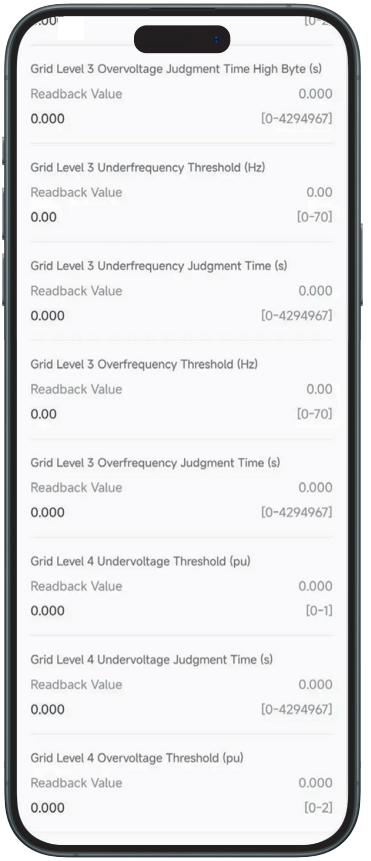


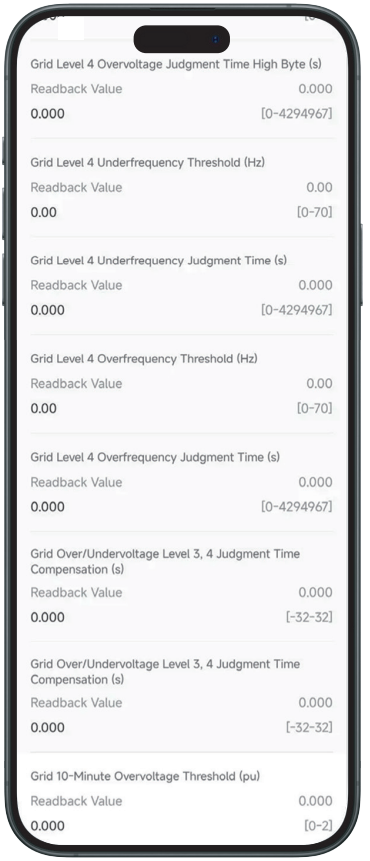


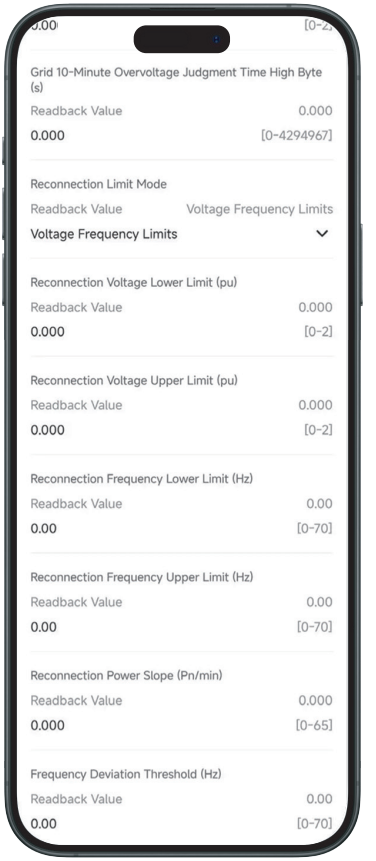

11:29
Advanced Settings
ing Curve
Protection Parameters
Other
AC
Voltage Judgment Enablement
Readback Value Overvoltage And Undervoltage J...
Overvoltage And Undervoltage Judged By Phase
Protection Parameters
Readback Value
Level 4
Grid Level 1 Undervoltage Threshold (pu)
Readback Value 0.783
0.783 [0-1]
Grid Level 1 Undervoltage Judgment Time (s)
Readback Value 0.160
0.160 [0-4294967]
Grid Level 1 Overvoltage Threshold (pu)
Readback Value 1.174
1.174 [0-2]
Grid Level 1 Overvoltage Judgment Time High Byte (s)
Readback Value 0.160
0.160 [0-4294967]
Grid Level 1 Underfrequency Threshold (Hz)
Readback Value 47.50
47.50 [0-70]

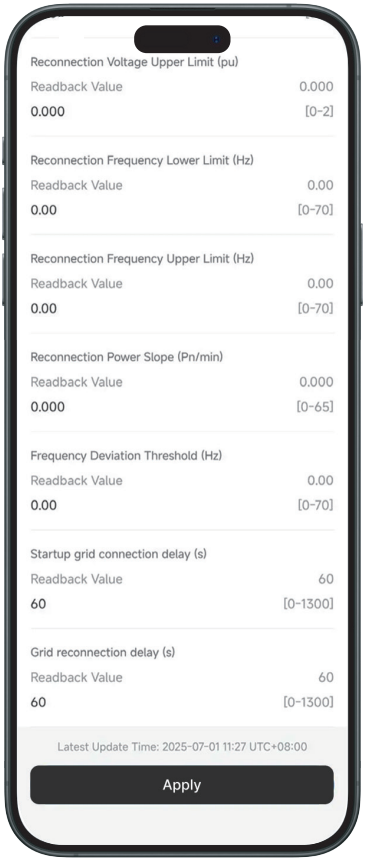

Grid Level 1 Underfrequency Judgment Time (s)
Readback Value 0.100
0.100 [0-4294967]
Grid Level 1 Overfrequency Threshold (Hz)
Readback Value 52.50
52.50 [0-70]
Grid Level 1 Overfrequency Judgment Time (s)
Readback Value 0.100
0.100 [0-4294967]
Grid Level 2 Undervoltage Threshold (pu)
Readback Value 0.000
0.000 [0-1]
Grid Level 2 Undervoltage Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 2 Overvoltage Threshold (0.001pu)
Readback Value 0.000
0.000 [0-2000]
Grid Level 2 Overvoltage Judgment Time High Byte (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 2 Underfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]

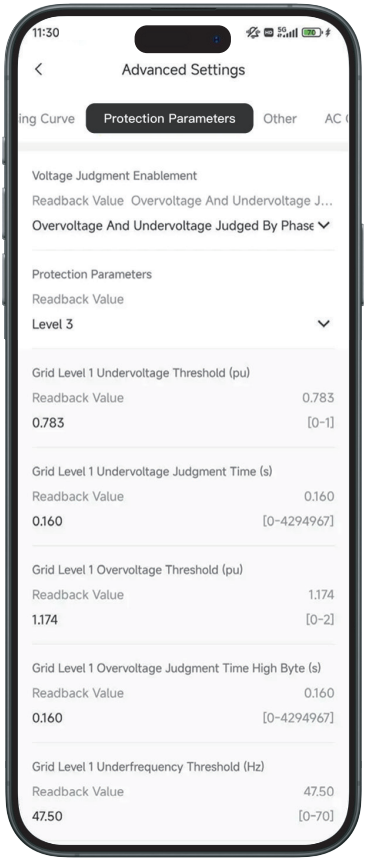

Grid Level 2 Underfrequency Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 2 Overfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Grid Level 2 Overfrequency Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Over/Undervoltage Level 1, 2 Judgment Time Compensation (s)
Readback Value 0.000
0.000 [-32-32]
Grid Over/Underfrequency Level 1, 2 Judgment Time Compensation (s)
Readback Value 0.000
0.000 [-32-32]
Grid Level 3 Undervoltage Threshold (pu)
Readback Value 0.000
0.000 [0-1]
Grid Level 3 Undervoltage Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 3 Overvoltage Threshold (pu)
Readback Value 0.000
0.000 [0-2]

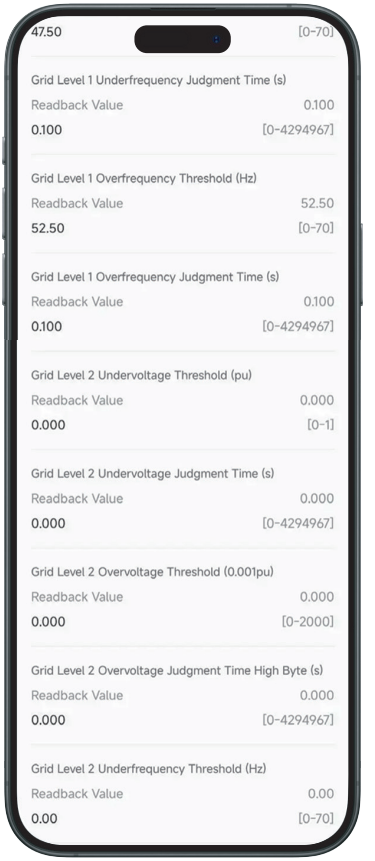

Grid Level 3 Overvoltage Judgment Time High Byte (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 3 Underfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Grid Level 3 Underfrequency Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 3 Overfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Grid Level 3 Overfrequency Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 4 Undervoltage Threshold (pu)
Readback Value 0.000
0.000 [0-1]
Grid Level 4 Undervoltage Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 4 Overvoltage Threshold (pu)
Readback Value 0.000
0.000 [0-2]

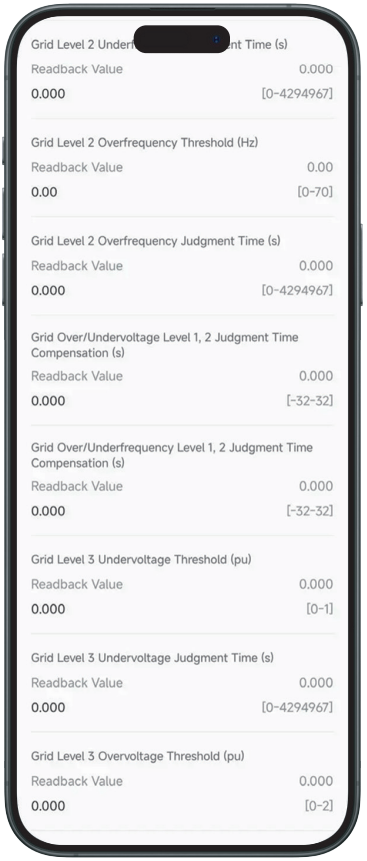

Grid Level 4 Overvoltage Judgment Time High Byte (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 4 Underfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Grid Level 4 Underfrequency Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 4 Overfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Grid Level 4 Overfrequency Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Over/Undervoltage Level 3, 4 Judgment Time Compensation (s)
Readback Value 0.000
0.000 [-32-32]
Grid Over/Undervoltage Level 3, 4 Judgment Time Compensation (s)
Readback Value 0.000
0.000 [-32-32]
Grid 10-Minute Overvoltage Threshold (pu)
Readback Value 0.000
0.000 [0-2]

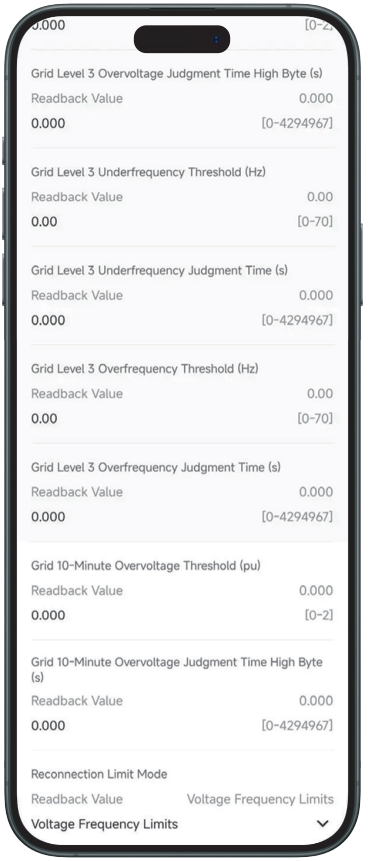

Grid 10-Minute Overvoltage Judgment Time High Byte (s)
Readback Value 0.000
0.000 [0-4294967]
Reconnection Limit Mode
Readback Value Voltage Frequency Limits
Voltage Frequency Limits
Reconnection Voltage Lower Limit (pu)
Readback Value 0.000
0.000 [0-2]
Reconnection Voltage Upper Limit (pu)
Readback Value 0.000
0.000 [0-2]
Reconnection Frequency Lower Limit (Hz)
Readback Value 0.00
0.00 [0-70]
Reconnection Frequency Upper Limit (Hz)
Readback Value 0.00
0.00 [0-70]
Reconnection Power Slope (Pn/min)
Readback Value 0.000
0.000 [0-65]
Frequency Deviation Threshold (Hz)
Readback Value 0.00
0.00 [0-70]

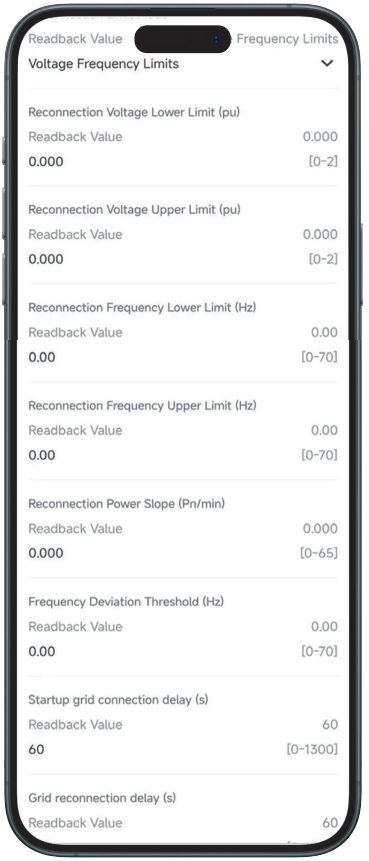

Reconnection Voltage Upper Limit (pu)
Readback Value 0.000
0.000 [0-2]
Reconnection Frequency Lower Limit (Hz)
Readback Value 0.00
0.00 [0-70]
Reconnection Frequency Upper Limit (Hz)
Readback Value 0.00
0.00 [0-70]
Reconnection Power Slope (Pn/min)
Readback Value 0.000
0.000 [0-65]
Frequency Deviation Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Startup grid connection delay (s)
Readback Value 60
60 [0-1300]
Grid reconnection delay (s)
Readback Value 60
60 [0-1300]
Latest Update Time: 2025-07-01 11:27 UTC+08:00
Apply

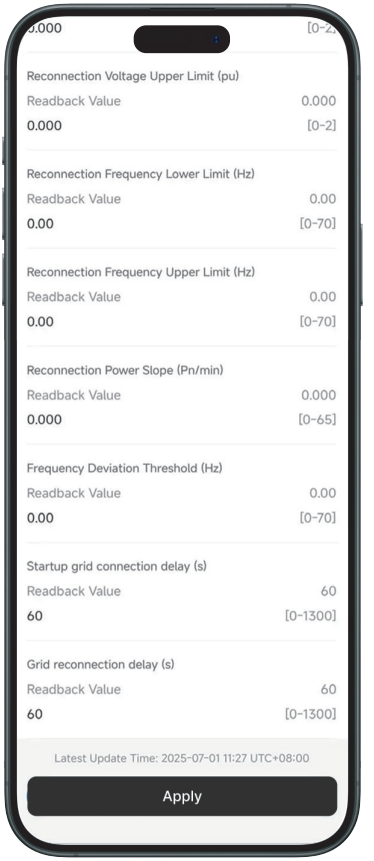

11:30
Advanced Settings
ing Curve
Protection Parameters
Other
AC
Voltage Judgment Enablement
Readback Value Overvoltage And Undervoltage J...
Overvoltage And Undervoltage Judged By Phase
Protection Parameters
Readback Value
Level 3
Grid Level 1 Undervoltage Threshold (pu)
Readback Value 0.783
0.783 [0-1]
Grid Level 1 Undervoltage Judgment Time (s)
Readback Value 0.160
0.160 [0-4294967]
Grid Level 1 Overvoltage Threshold (pu)
Readback Value 1.174
1.174 [0-2]
Grid Level 1 Overvoltage Judgment Time High Byte (s)
Readback Value 0.160
0.160 [0-4294967]
Grid Level 1 Underfrequency Threshold (Hz)
Readback Value 47.50
47.50 [0-70]


47.50 [0-70]
Grid Level 1 Underfrequency Judgment Time (s)
Readback Value 0.100
0.100 [0-4294967]
Grid Level 1 Overfrequency Threshold (Hz)
Readback Value 52.50
52.50 [0-70]
Grid Level 1 Overfrequency Judgment Time (s)
Readback Value 0.100
0.100 [0-4294967]
Grid Level 2 Undervoltage Threshold (pu)
Readback Value 0.000
0.000 [0-1]
Grid Level 2 Undervoltage Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 2 Overvoltage Threshold (0.001pu)
Readback Value 0.000
0.000 [0-2000]
Grid Level 2 Overvoltage Judgment Time High Byte (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 2 Underfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]


Grid Level 2 Underf nt Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 2 Overfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Grid Level 2 Overfrequency Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Over/Undervoltage Level 1, 2 Judgment Time Compensation (s)
Readback Value 0.000
0.000 [-32-32]
Grid Over/Underfrequency Level 1, 2 Judgment Time Compensation (s)
Readback Value 0.000
0.000 [-32-32]
Grid Level 3 Undervoltage Threshold (pu)
Readback Value 0.000
0.000 [0-1]
Grid Level 3 Undervoltage Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 3 Overvoltage Threshold (pu)
Readback Value 0.000
0.000 [0-2]


0.000
Grid Level 3 Overvoltage Judgment Time High Byte (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 3 Underfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Grid Level 3 Underfrequency Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid Level 3 Overfrequency Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Grid Level 3 Overfrequency Judgment Time (s)
Readback Value 0.000
0.000 [0-4294967]
Grid 10-Minute Overvoltage Threshold (pu)
Readback Value 0.000
0.000 [0-2]
Grid 10-Minute Overvoltage Judgment Time High Byte (s)
Readback Value 0.000
0.000 [0-4294967]
Reconnection Limit Mode
Readback Value Voltage Frequency Limits
Voltage Frequency Limits


Readback Value
Frequency Limits
Voltage Frequency Limits
Reconnection Voltage Lower Limit (pu)
Readback Value 0.000
0.000 [0-2]
Reconnection Voltage Upper Limit (pu)
Readback Value 0.000
0.000 [0-2]
Reconnection Frequency Lower Limit (Hz)
Readback Value 0.00
0.00 [0-70]
Reconnection Frequency Upper Limit (Hz)
Readback Value 0.00
0.00 [0-70]
Reconnection Power Slope (Pn/min)
Readback Value 0.000
0.000 [0-65]
Frequency Deviation Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Startup grid connection delay (s)
Readback Value 60
60 [0-1300]
Grid reconnection delay (s)
Readback Value 60


Reconnection Voltage Upper Limit (pu)
Readback Value 0.000
0.000 [0-2]
Reconnection Frequency Lower Limit (Hz)
Readback Value 0.00
0.00 [0-70]
Reconnection Frequency Upper Limit (Hz)
Readback Value 0.00
0.00 [0-70]
Reconnection Power Slope (Pn/min)
Readback Value 0.000
0.000 [0-65]
Frequency Deviation Threshold (Hz)
Readback Value 0.00
0.00 [0-70]
Startup grid connection delay (s)
Readback Value 60
60 [0-1300]
Grid reconnection delay (s)
Readback Value 60
60 [0-1300]
Latest Update Time: 2025-07-01 11:27 UTC+08:00
Apply

1) DeVoltage Protection Parameters

NO.	Parametric	Descriptions
1	OV Stage n Trip Value	Set the grid overvoltage protection threshold value
2	OV Stage n Trip Time	Set the grid overvoltage protection tripping time
3	UV Stage n Trip Value	Set the grid undervoltage protection threshold value
4	UV Stage n Trip Time	Set the grid undervoltage protection tripping time
5	10min Overvoltage Trip Threshold	Set the 10min overvoltage protection threshold value

2) Frequency protection parameters

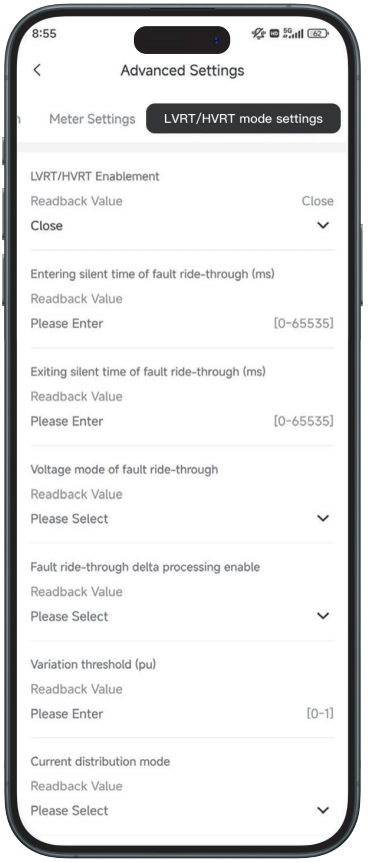
NO.	Parametric	Descriptions
1	OF Stage n Trip Value	Set the level n overfrequency protection threshold value
2	OF Stage n Trip Time	Set the level n overfrequency protection tripping time
3	UF Stage n Trip Value	Set the level n underfrequency protection threshold value
4	UF Stage n Trip Time	Set the level n underfrequency protection tripping time

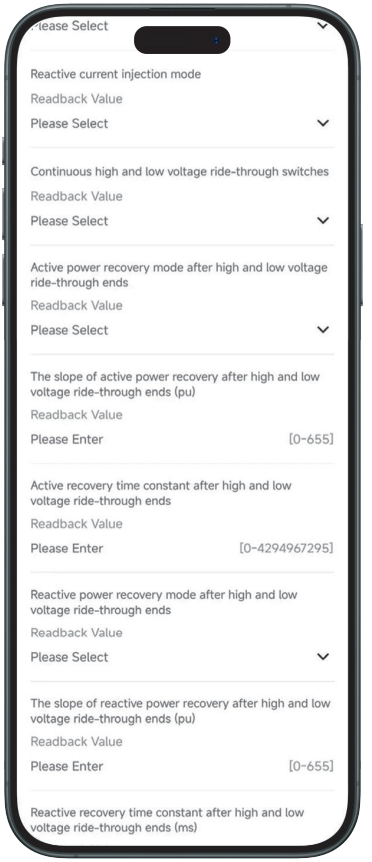
3) Setting Startup and Reconnect Protection Parameters

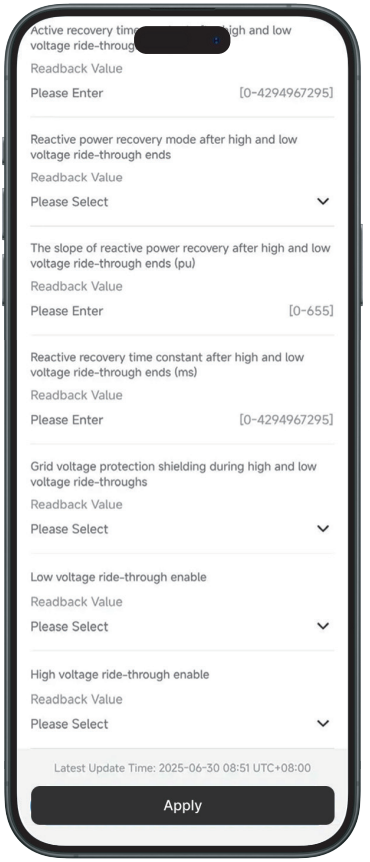
NO.	Parametric	Descriptions
1	Remote Control Enable	Enable
2	Lower limit of grid-connected frequency	The inverter cannot connect to the grid if it is powered on for the first connection and the grid frequency is lower than the Lower Frequency.
3	Upper limit of grid-connected frequency	The inverter cannot connect to the grid if it is powered on for the first connection and the grid frequency is higher than the Upper Frequency.

4	Lower limit of grid-connected voltage	The inverter cannot connect to the grid if it is powered on for the first connection and the grid voltage is lower than the Lower Voltage.
5	Upper limit of grid-connected voltage	The inverter cannot connect to the grid if it is powered on for the first connection and the grid voltage is higher than the Upper Voltage.
6	Slope of grid-connected power	Indicates the percentage of incremental output power per minute based on the local requirements when the inverter is powered on for the first time. For example, setting Soft Ramp Up Gradient to 10 means the start-up slope is 10%P_{rated}/min.
7	Lower limit of reconnection frequency	The inverter cannot connect to the grid if it is reconnecting due to a fault and the grid frequency is lower than the Lower Frequency.
8	Upper limit of reconnection frequency	The inverter cannot connect to the grid if it is reconnecting due to a fault and the grid frequency is higher than the Upper Frequency.
9	Lower Reconnect Voltage Limit	The inverter cannot connect to the grid if it is reconnecting due to a fault and the grid voltage is lower than the Lower Voltage.
10	Upper Reconnect Voltage Limit	The inverter cannot connect to the grid if it is reconnecting due to a fault and the grid voltage is higher than the Upper Voltage.
11	Reconnecting Power Slope	Indicates the duration for the output power increases to the rated power when the inverter reconnects to the utility grid due to a fault.

✓ LVRT/HVRT mode settings







1) Device Details->Settings->Advanced Settings;

2) LVRT/HVRT Mode Settings->To set LVRT/HVRT related parameters;

NO.	Parametric	Descriptions
1	Low Penetration Function	Enable
2	Point0 - Low penetration time	The time maintained at the lowest voltage point at Point0
3	Point0 - Low penetration depth	Lowest voltage point setting for low penetration, the lowest voltage point that occurs during low penetration. Point0
4	Point1 - Low penetration time	At the point of lowest voltage at Point1, the time maintained
5	Point1 - Low penetration depth	Lowest voltage point setting for low penetration, the lowest voltage point that occurs during low penetration. Point1
6	Point2 - Low penetration time	At the point of lowest voltage at Point2, the time maintained
7	Point2 - Low penetration depth	Lowest voltage point setting for low penetration, the lowest voltage point that occurs during low penetration. Point2
8	Point3 - Low penetration time	At the point of lowest voltage at Point3, the time maintained
9	Point3 - Low penetration depth	Lowest voltage point setting for low penetration, the lowest voltage point that occurs during low penetration. Point3
10	Point4- Low penetration time	At the point of lowest voltage at Point4, the time maintained
11	Point4 - Low penetration depth	Lowest voltage point setting for low penetration, the lowest voltage point that occurs during low penetration. Point4
12	High-penetration function enable	Enable
13	Point0- High penetration time	At the point of highest voltage at Point0, the time maintained
14	Point0 - High penetration depth	Maximum voltage point setting for high penetration, the maximum voltage point that occurs during high penetration. Point0
15	Point1- High penetration time	At the point of highest voltage at Point1, the time maintained

NO.	Parametric	Descriptions
16	Point1 - High penetration depth	Maximum voltage point setting for high penetration, the maximum voltage point that occurs during high penetration. Point1
17	Point2- High penetration time	At the point of highest voltage at Point2, the time maintained
18	Point2 - High penetration depth	Maximum voltage point setting for high penetration, the maximum voltage point that occurs during high penetration. Point2
19	Point3- High penetration time	At the point of highest voltage at Point3, the time maintained
20	Point3 - High penetration depth	Maximum voltage point setting for high penetration, the maximum voltage point that occurs during high penetration. Point3
21	Point4- High penetration time	At the point of highest voltage at Point4, the time maintained
22	Point4 - High penetration depth	Maximum voltage point setting for high penetration, the maximum voltage point that occurs during high penetration. Point4

15 Australian Safety Code

For the Australian market, to comply with AS/NZS 4777.2:2020, select from Australia A, Australia B, Australia C or New Zealand. Please contact your local grid operator to determine which region to choose!

Region	Default value	U1	U2	U3	U4
Australia A	Voltage	207V	220V	240V	258V
	Inverter reactive power level (Q) % of Srated	44 % supplying	0%	0%	60 % absorbing
Australia B	Voltage	205V	220V	235V	255V
	Inverter reactive power level (Q) % of Srated	30 % supplying	0%	0%	40 % absorbing
Australia C	Voltage	215V	230V	240V	255V
	Inverter reactive power level (Q) % of Srated	44 % supplying	0%	0%	60 % absorbing
New Zealand	Voltage	207V	220V	235 V	244 V
	Inverter reactive power level (Q) % of Srated	60 % supplying	0%	0%	60 % absorbing
Allowed range	Voltage	180 to 230 V	180 to 230 V	230 to 265 V	230 to 265 V
	Inverter reactive power level (Q) % of Srated	30 to 60 % supplying	0%	0%	30 to 60 % absorbing

Note 1: The inverter may operate at reactive power levels ranging up to 100 % supply or absorption.
Note 2: The Australian C parameter set is suitable for isolated or remote power systems.

Voltage-Watt Response Default Setting

Region	Default value	U3	U4
Australia A	Voltage	253V	260V
	Inverter maximum active power output level (P) % of Srated	100%	20%
Australia B	Voltage	250V	260V
	Inverter maximum active power output level (P) % of Srated	100%	20%
Australia C	Voltage	253V	260V
	Inverter maximum active power output level (P) % of Srated	100%	20%
New Zealand	Voltage	242 V	250V
	Inverter maximum active power output level (P) % of Srated	100%	20%
Allowed range	Voltage	235 to 255 V	240 to 265 V
	Inverter maximum active power output level (P) % of Srated	100%	0 % to 20 %

The Australia C parameter set is intended for application to isolated or remote power systems.

Passive Anti-Islanding Voltage Limit Value

Protective function	Protective function	Trip delay	Maximum
	limit	time	disconnection time
Undervoltage 2 (V < <)	70 V	1 s	2 s
Undervoltage 1 (V <)	180 V	10 s	11 s
Overvoltage 1 (V >)	265 V	1 s	2 s
Overvoltage 2 (V > >)	275V	-	0.2 s

HICONICS ECO-ENERGY DRIVE TECHNOLOGY CO., LTD.

No.3 Boxing 2nd Road, Economic and Technological Development Zone, 100176, Beijing, P.R. China

European Services: Email: solar_service_eu@midea.com

Australian Services: Tel: +61 1300 457 098 Email: solar_service_au@midea.com

Global: Email: solar_service@midea.com

Web://www.hiconics-global.com