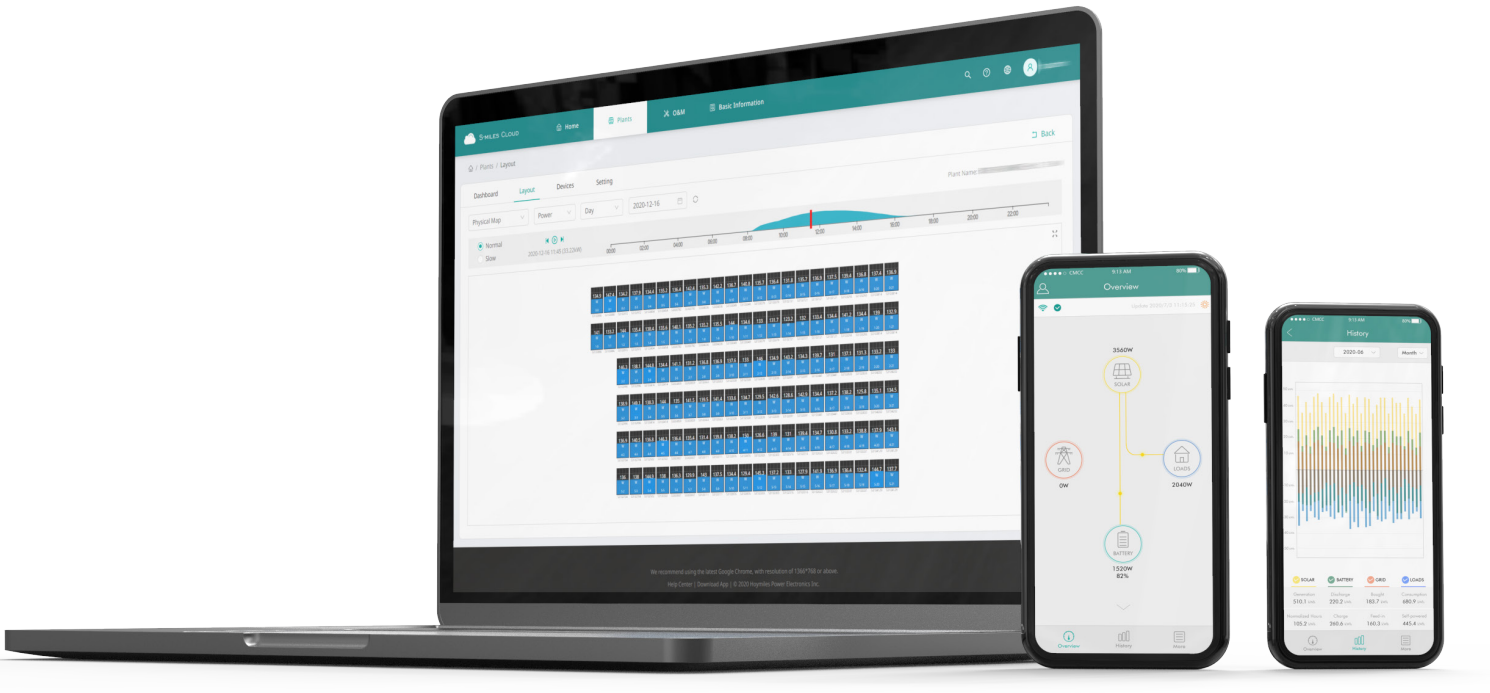

S-Miles Cloud Monitoring Platform

Operation Guide (App)

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Q: How do I change the owner information?
A: Please refer to 3.1.5.2.
Q: How do I change the plant settings?
A: Please refer to 3.1.5.4.
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Q: How do I view the device list and issue commands?
A: Please refer to 3.1.6.4.
Q: How do I turn off the inverter remotely?
A: Please refer to 3.1.6.4.
Q: How do I restart a device?
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Note:
Since the App version will be updated periodically, the pages displayed in your App will slightly differ from screenshots (Version 1.1.11) showed in this operation guide, which will not affect your operation.

1. Introduction

The S-Miles Cloud (Hoymiles Monitoring Platform) is a smart energy storage operation monitoring and management system developed by Hoymiles specifically for distributors, installers, and end users of distributed PV power plants.

At present, the system has Installer version and End-user version, with the corresponding webpage and mobile application available.

This platform provides an easy-to-use procedure for accounts under monitoring. It enables installers to configure the monitored accounts quickly and provides them with power generation data of both plant and device, as well as detailed alarm information about the power plant regarding commissioning and diagnostics. This manual is intended to guide users in operating and managing S-Miles Cloud.

Install the DTU, inverter, smart meter and battery before using the monitoring system. DTU is a communication gateway which is used to collect status and operation data from inverter and transmit control commands to it. At the same time, the DTU also connects to the Internet through a router and sends inverter data to the Hoymiles Monitoring Server to achieve remote control of the whole system.

2. App Download and Login

2.1 App Download

S-Miles Installer is a mobile application developed by Hoymiles especially for installers of distributed plants. It is committed to better performing installation and maintenance.

S-Miles End-user is a mobile application developed by Hoymiles especially for owners of distributed plants. It can absorb the operating data of plants from S-Miles Cloud.

a. Scan the QR code to download.

S-Miles Installer

S-Miles End-user

b. Search “Hoymiles” in the Google Play or App Store.

S-Miles Installer

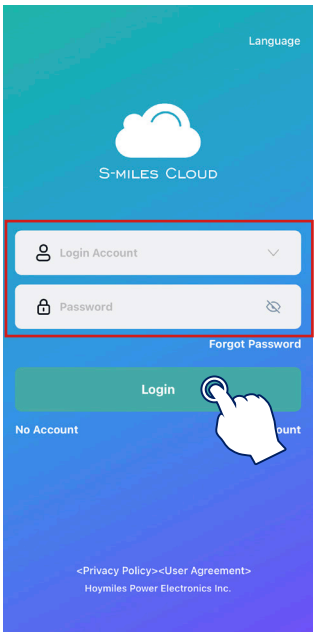
S-Miles End-user

Note:

The S-Miles App is available for iOS (version 13 and above) and Android (version 6 and above).

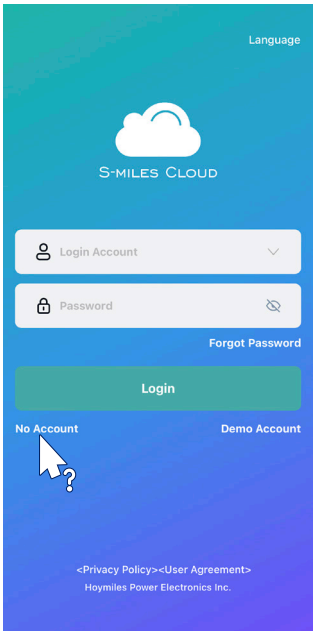
2.2 Login

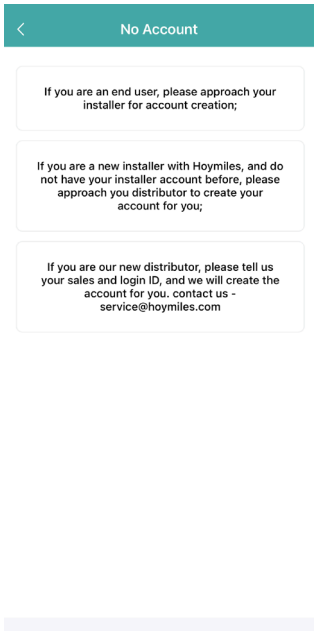
Enter your account and password, and then tap “Login” to log in to the App. If you forget the password, tap the “Forgot Password” to reset password.



Note:

For the first login, please approach your distributor or installer to create an account for you.





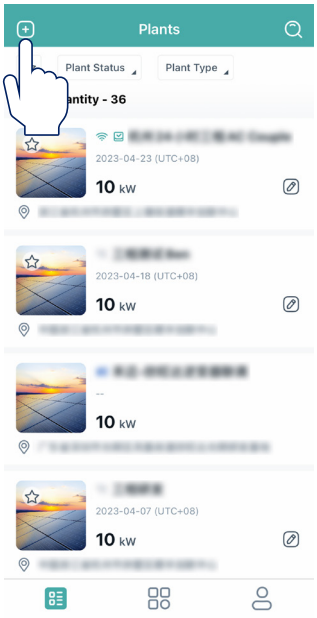
3. Interface

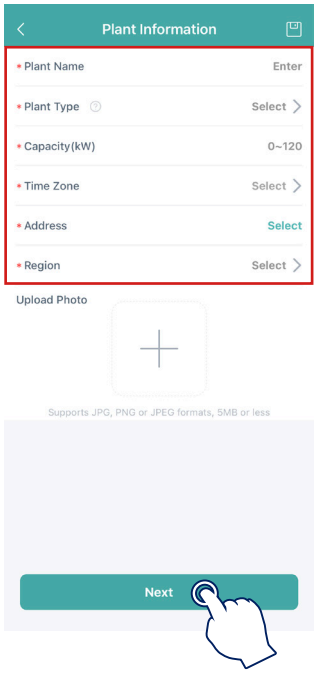
3.1 Plants

The left icon at the bottom left corner represents the plant page, and you can add, filter, edit and view your plants here.

3.1.1 Add a Plant

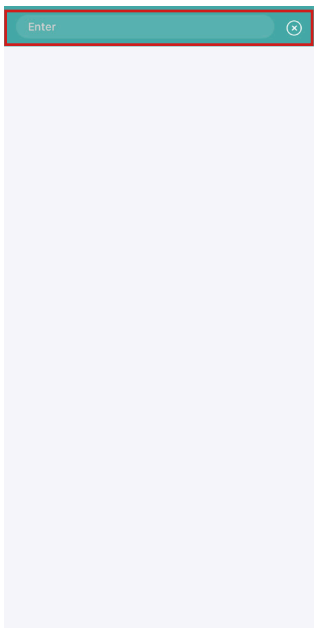
Tap the "⊕" icon at the upper left corner of this page to add a new plant. Enter the plant information and tap "Next".





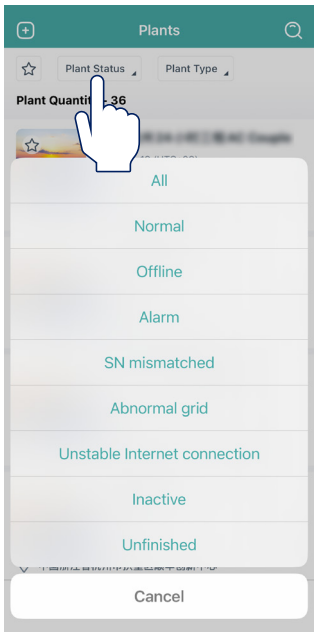
3.1.2 Search a Plant

Tap the "🔍" icon at the upper right corner of this page, and enter the key words of the plant name or the complete plant name to serch the plant.



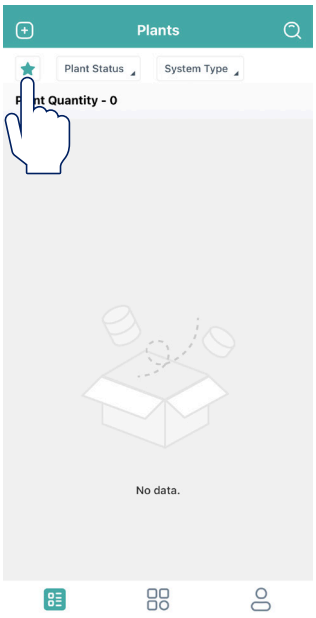
3.1.3 Filter the Plant

Tap “Plant Status” to filter plants according to different status such as Normal, Offline, Alarm and so on. Tap “Plant Type” to filter plants according to different types such as PV Microinverter, RSD/OPT + PV String, and PV String + Battery.



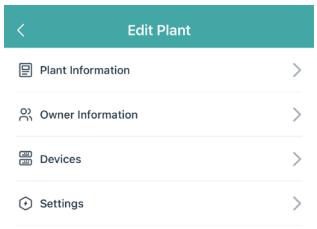
3.1.4 Add a Plant to Favorites

Tap the “☆” icon at the upper left corner of the plant that you want to add to your favorites, and then you can tap the “☆” icon on the left of “Plant Status” to check your favorites.



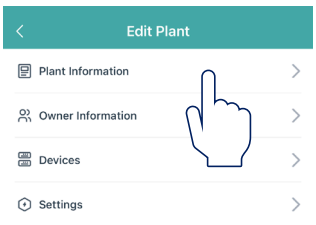
3.1.5 Edit the Plant

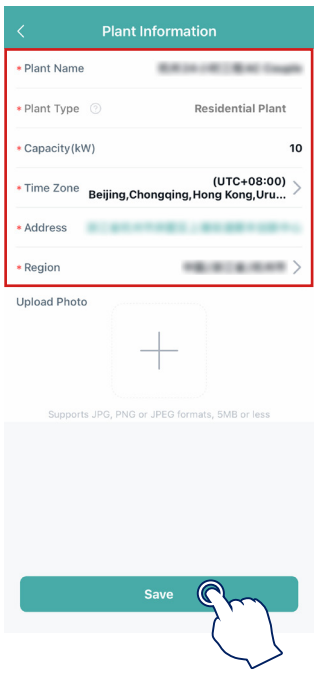
Choose the plant that you want to change and tap the "✎" icon to edit the plant information, owner information, devices and settings.



3.1.5.1 Plant Information

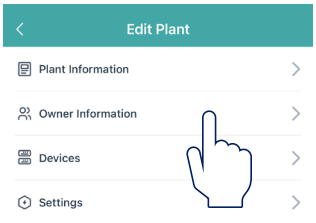
Tap "Plant Information", edit information, and then tap "Save" to complete the changes.

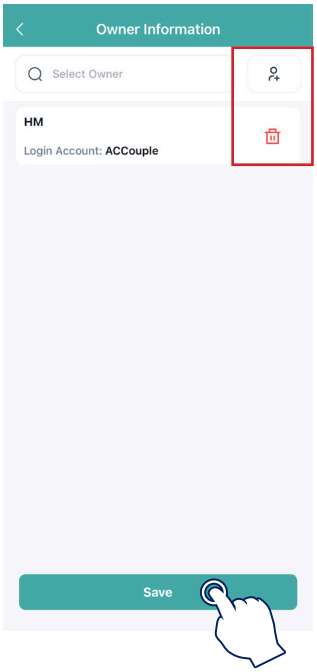




3.1.5.2 Owner Information

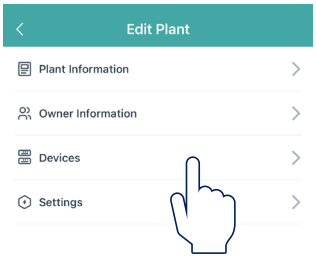
Tap “Owner Information” to add a new owner, or choose an existing owner and delete the login account, and then tap “Save” to complete the changes.





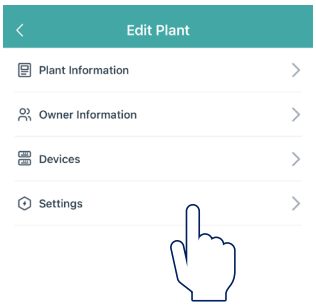
3.1.5.3 Devices

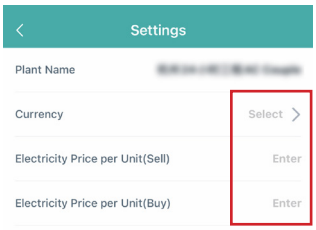
Tap “Devices” to check DTU SN and Inverter SN.



3.1.5.4 Settings

Tap “Settings” to set the currency type and electricity price per unit (sell and buy), and then tap “Save” to complete the settings.

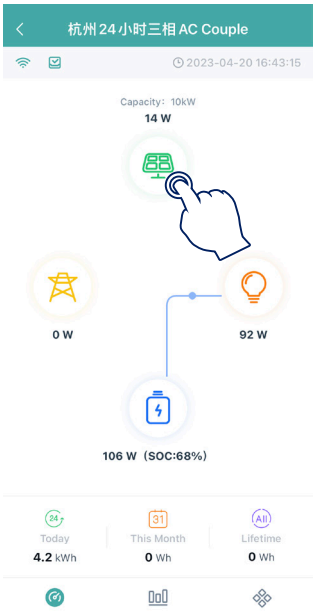




3.1.6 View the Plant

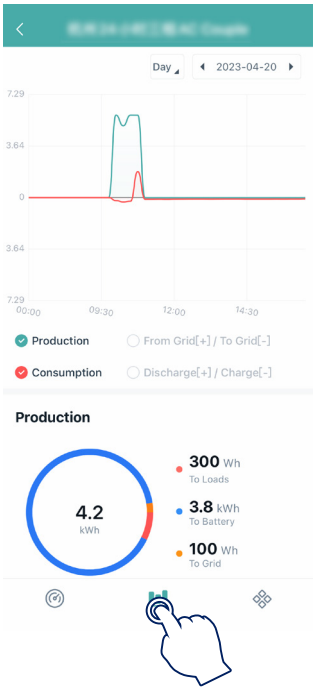
3.1.6.1 Overview

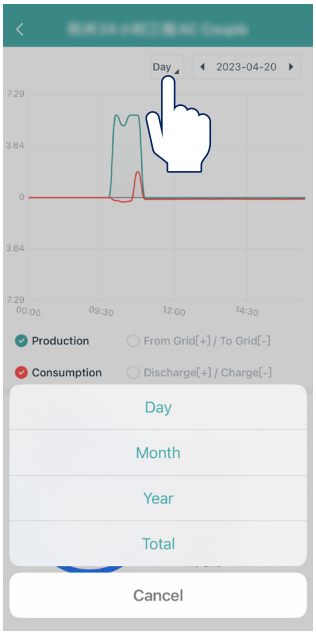
Tap the plant that you want to view to enter the overview page. You can tap the PV/Grid/Load/Battery icons to check the real-time data here.



3.1.6.2 Historical Records

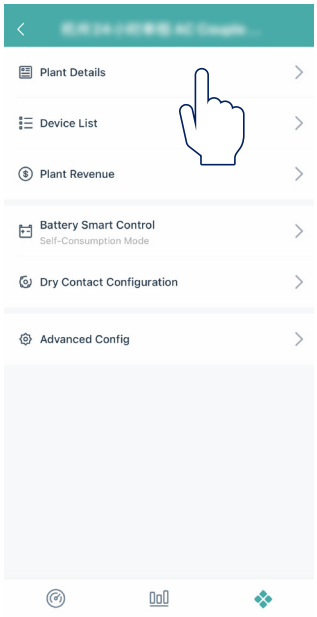
Tap the plant that you want to view and tap the middle icon at the bottom to enter the historical records page. You can check the production and consumption data here according to day, month, year and total.

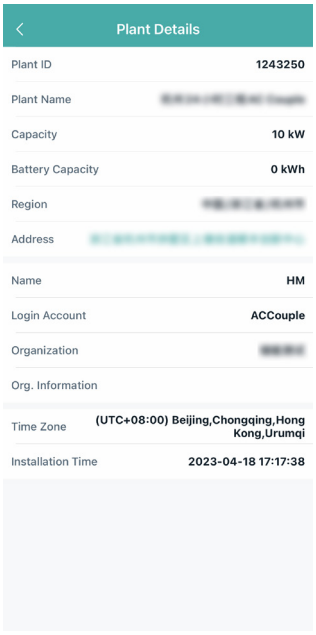




3.1.6.3 Plant Details

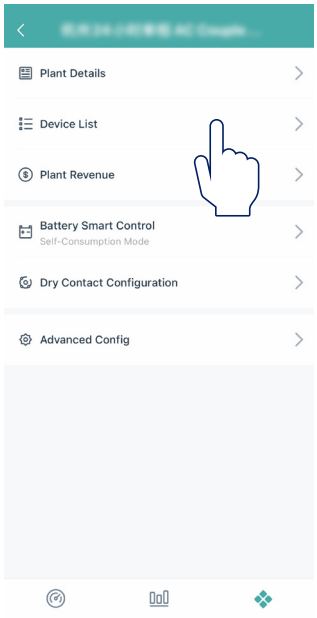
Tap the plant that you want to view, tap the rhombus icon at the bottom right corner, and then tap “Plant Details” to view plant details.

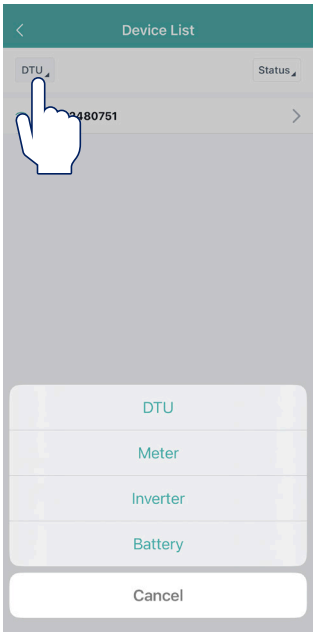


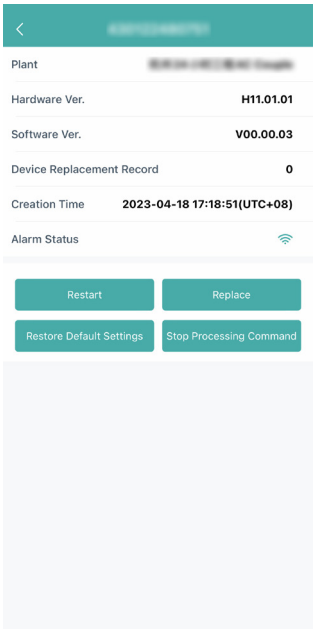


3.1.6.4 Device List

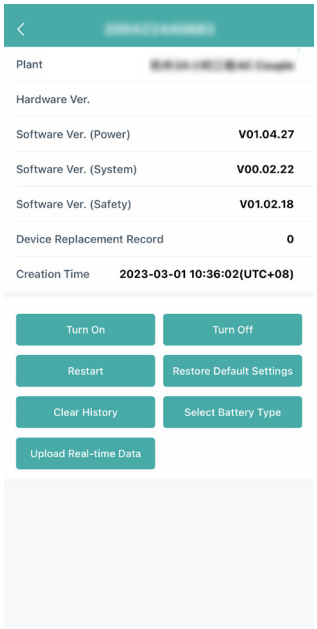
Tap the plant that you want to view, tap the rhombus icon at the bottom right corner, and then tap “Device List” to view DTU/Inverter/Battery details and issue commands.



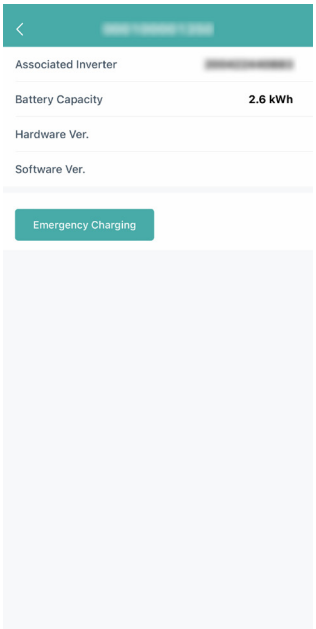




DTU



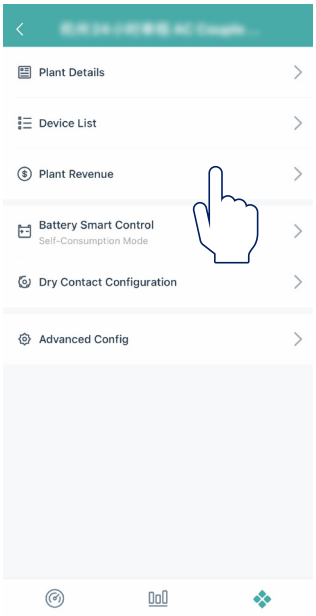
Inverter

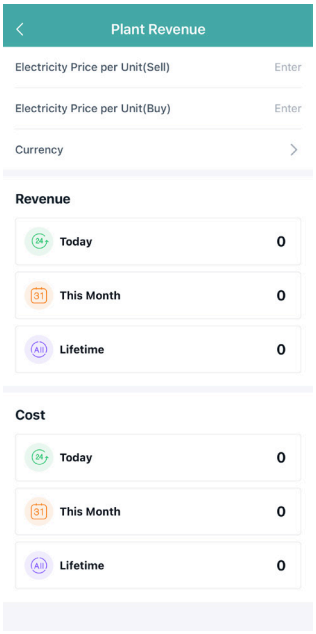


Battery

3.1.6.5 Plant Revenue

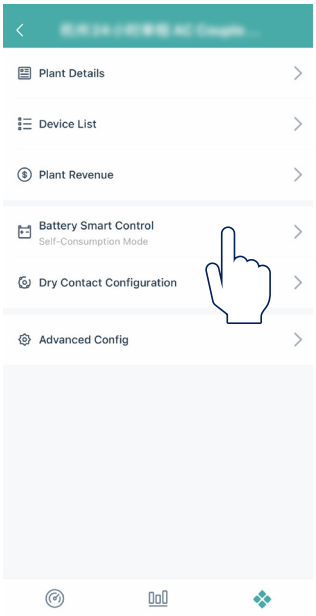
Tap the plant that you want to view, tap the rhombus icon at the bottom right corner, and then tap “Plant Revenue” to view plant revenue and cost.

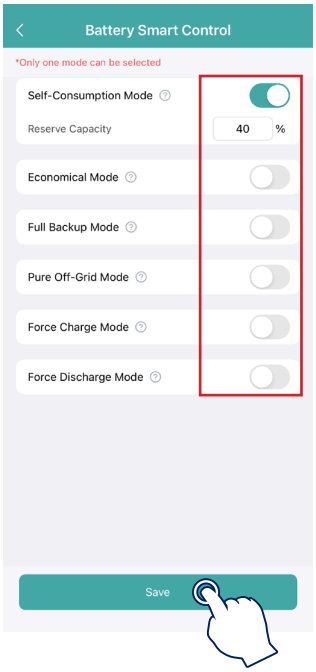




3.1.6.6 Battery Smart Control

Tap the plant that you want to view, tap the rhombus icon at the bottom right corner, and then tap “Battery Smart Control” to set the system mode.





★ Self-consumption Mode

In the daytime, solar energy supports the loads firstly, and surplus energy is stored in the battery. When the battery is fully charged or reaches the maximum charge power, the surplus energy is fed into grid (or limited if required). At night, the battery discharges for the loads firstly, and the grid will supply the loads once the battery power is not enough. In this mode, battery cannot be charged from grid at night.
The self-consumption mode can reduce the use of grid power. Solar energy is preferentially supplied to the load, charged to the battery, and fed into the grid last. You can set the reserve capacity within a certain range (a small amount of power can be reserved due to infrequent power outages), and then tap “Save”.

★ Economical Mode

In this mode, battery charging and discharging periods need to be defined. Meanwhile, the battery can be forced to charge from the grid during the preset charging time. For instance, the battery could be charged or discharged according to valley or peak electricity prices. You can set reserve capacity within a certain range (a small amount of power can be reserved due to infrequent power outages) , select the type of currency you need, and set different time periods to be more flexible to save costs of electricity. Tap “Edit” to set the time period for peak, low and partial peak grid prices in different seasons or dates, but you can just add up to four time periods, and then tap “Save”.

★ Full Backup Mode

Full backup mode can be selected when the grid frequently breaks down. The battery will be forced to charge to a set capacity so that it has enough power to support the electricity consumption in daily life when the inverter is in off-grid mode. You can also set the reserve capacity within the certain range and tap “Save”.

★ Pure Off-grid Mode

When the system is not connected to the grid, you can choose the pure off-grid mode and tap “Save”.

★ Force Charge Mode

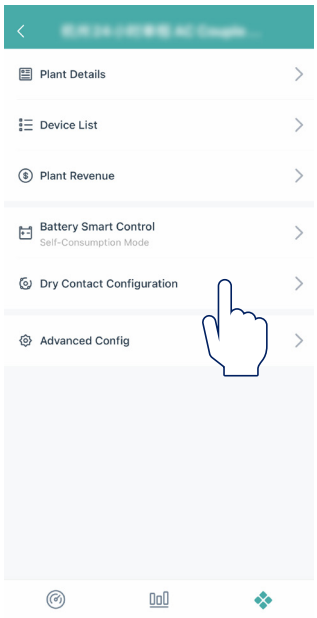
The force charge mode can be used during the commissioning of inverter or when the battery capacity falls below the value of safety SOC. You can set the reserve capacity within the certain range. If the battery capacity is lower than the setting, the battery will be forcibly charged. And you can set the charging power of battery if needed. Finally, save the values you have changed.

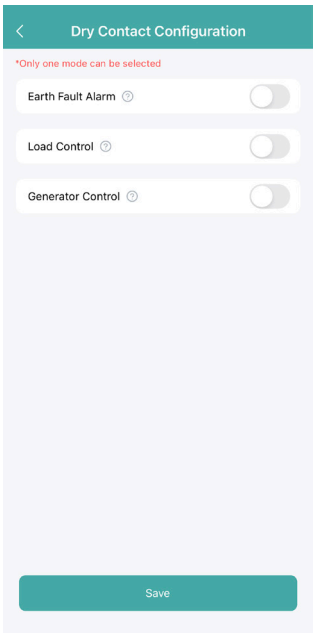
★ Force Discharge Mode

The force discharge mode can be used during the commissioning of inverter or when the battery capacity rises above the value of safety SOC. You can set the reserve capacity within the certain range. If the battery capacity is higher than the setting, the battery will be forcibly discharged. And you can set the discharge power of battery if needed. Finally, save the values you have changed.

3.1.6.7 Dry Contact Configuration

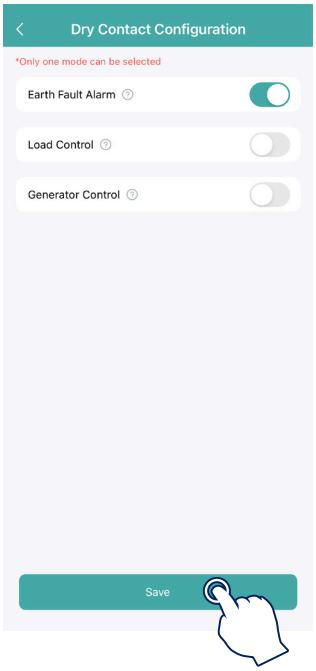
Tap the plant that you want to view, tap the rhombus icon at the bottom right corner, and then tap “Dry Contact Configuration” to edit dry contact configuration. Note that only one mode can be selected at a time.





★ Earth Fault Alarm

This function is used for external alarm caused by grounding insulation resistance fault or residual current fault. Disable the external alarm when the load is connected. This function is to produce alarm, not to cause tripping.



★ Load Control

Load control can be used according to individual demand. This setting is to control whether the load is working or not. There are five modes available as follows.

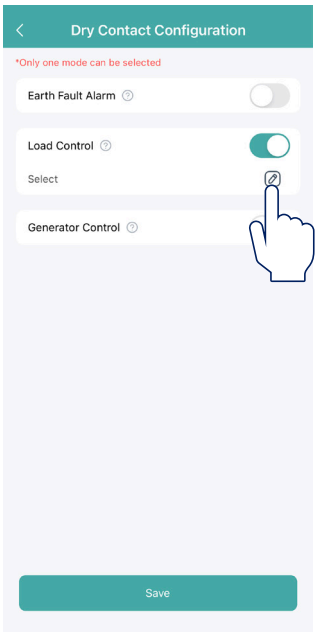
(1) **Switch Mode:** Manually turn on or turn off the dry contact.

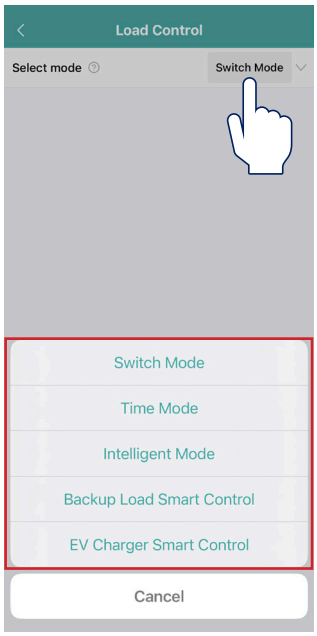
(2) **Time Mode:** Set the time period for the dry contact to work. The dry contact is closed during this set time and disconnected at other times.

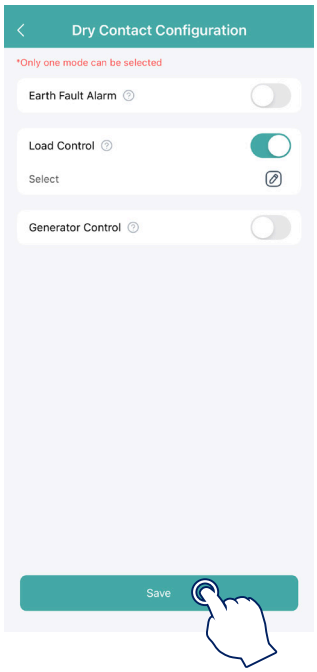
(3) **Intelligent Mode:** Because the energy generated by PV fluctuates a lot, this mode is to make the dry contact avoid being turned on and off frequently. The dry contact will only be turned on when the residual energy generated by the PV exceeds the power set by the load within the set time period. You can set the minimum run time and the nominal power of the dry contact.

(4) **Backup Load Smart Control:** The unnecessary dry contact will be turned off in off-grid situation when the battery capacity is lower than the set SOC value. You can set the value of protection SOC if needed.

(5) **EV Charger Smart Control:** EV Charger will be turned on when entrance breaker has enough margin.

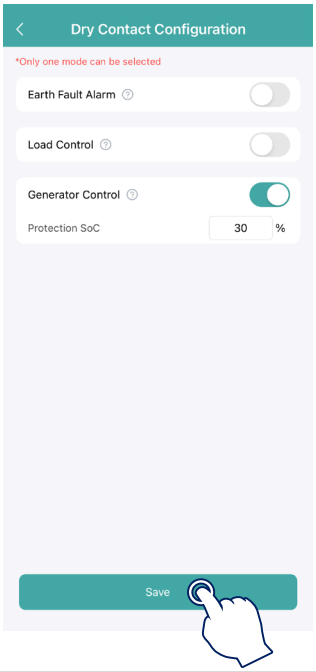






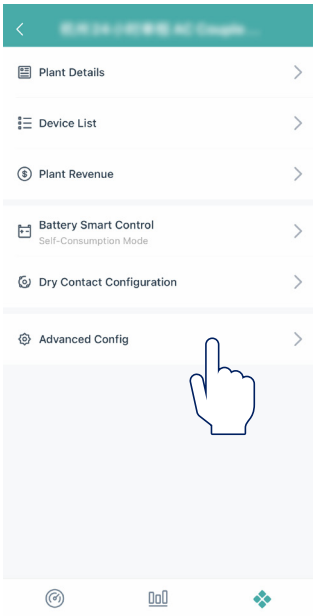
★ Generator Control

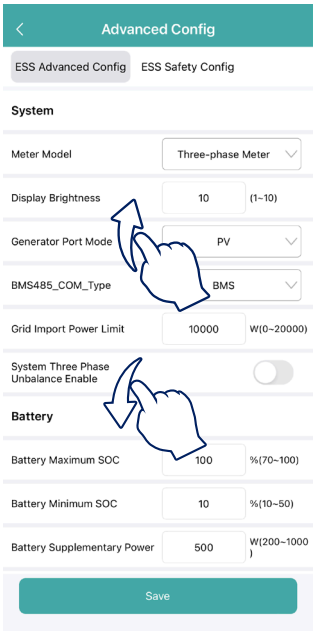
Generator control is used when there is higher power on the load side or lower battery capacity in off-grid mode. You can set the value of protection SOC within the certain range if needed. When the battery capacity is below the set protection SOC, the generator will work.



3.1.6.8 Advanced Configuration

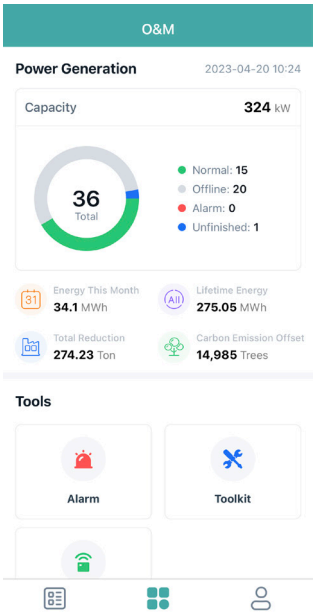
Tap the plant that you want to view, tap the rhombus icon at the bottom right corner, and then tap “Advanced Config” to edit ESS advanced configuration and ESS safety configuration. After entering the advanced configuration page, you can slide your finger up or down to check and set relevant parameters. For detailed settings, please refer to “Chapter 4 Advaned Configuration”.





3.2 O&M

The Middle interface is the O&M (Operation and Maintenance) interface, including power generation to check basic information and tools to perform relevant settings.



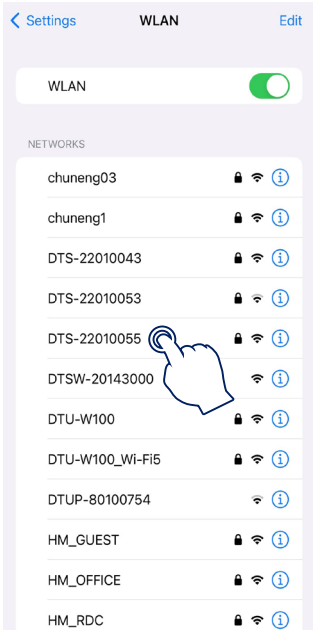
3.2.1 Alarm

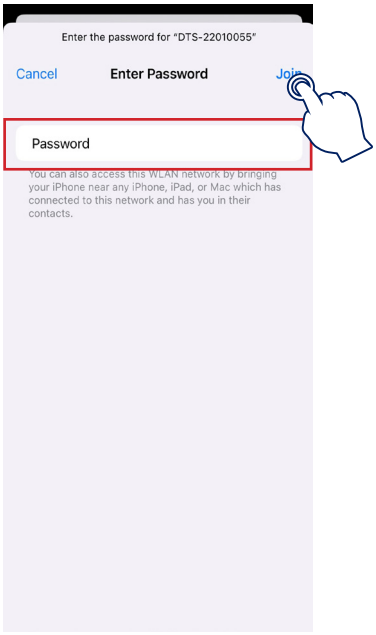
Tap “Alarm” to check the historical and current alarms.

3.2.2 Network Configuration

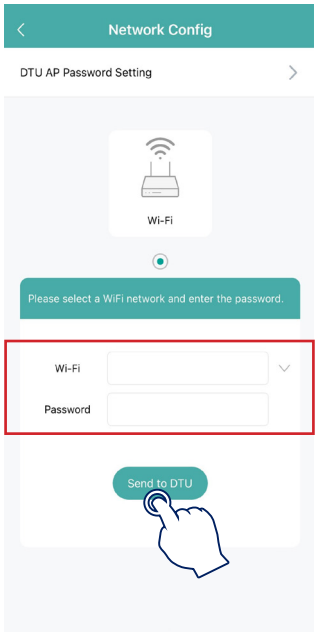
3.2.2.1 Configure the Network of DTU

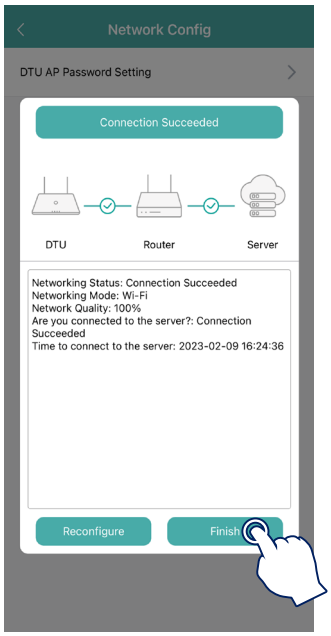
a. Choose the wireless network of DTU with serial number like “DTS-22010055” and enter the default password “ESS12345” to connect DTU.





b. Open the App and choose the “O&M → Network Config”. Enter the account and password of nearby stable wireless network, tap “Send to DTU”, and wait until the “Connection Succeeded” appears to tap “Finish”.



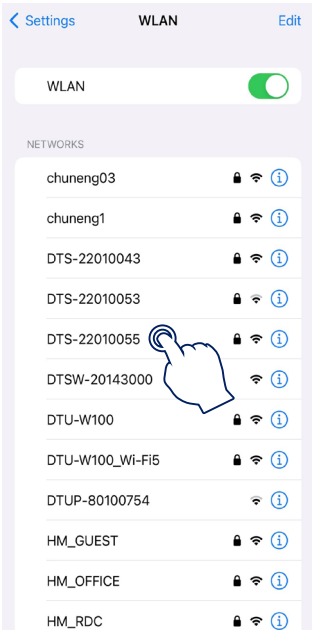


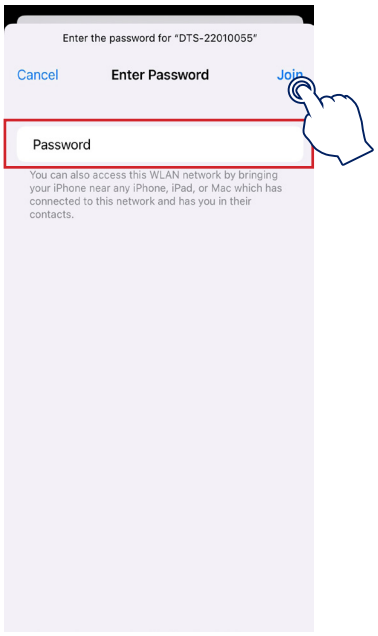
Note:

The DTU only supports 2.4G Hz router, and the IP of router cannot begin with 10.10.

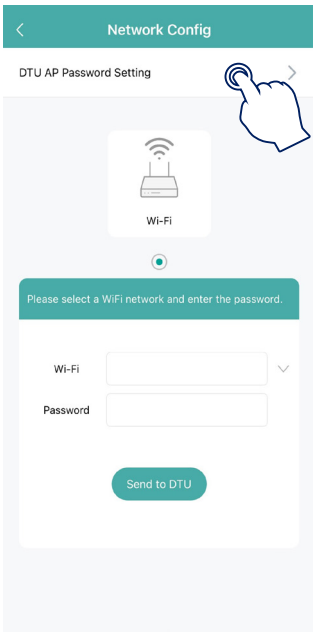
3.2.2.2 Change the Default Password of DTU

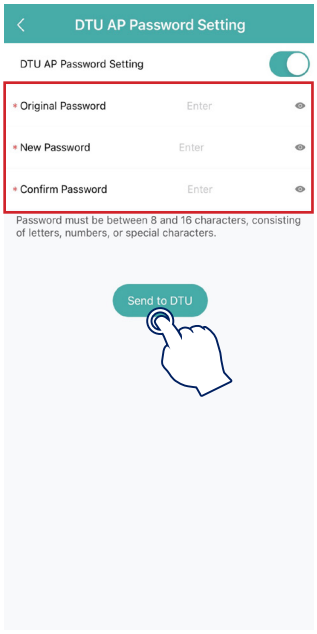
a. Choose the wireless network of DTU with serial number like “DTS-22010055” and enter the default password “ESS12345” to connect DTU.

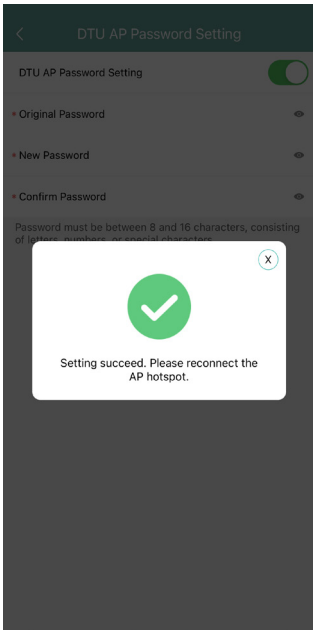




b. Open the App and choose the “O&M → Network Config → DTU AP Password Setting”. Enter the original password and new password, tap “Send to DTU”, and wait until “Setting succeed” appears to reconnect the DTU.







Note:

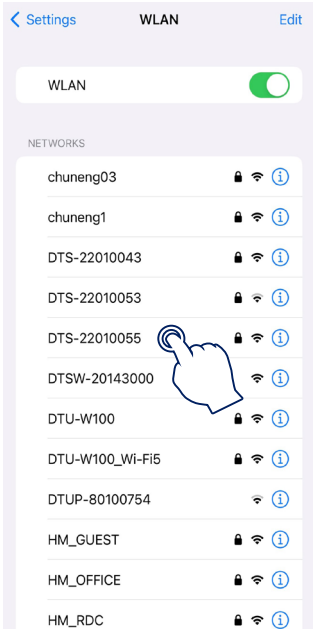
The Wi-Fi name and password do not support special characters such as spaces.

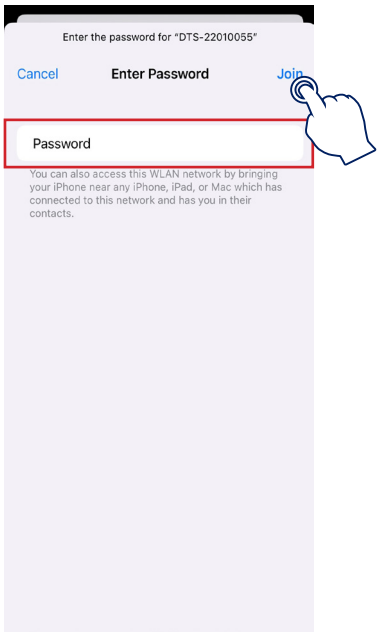
3.2.2.3 Reset the Password of DTU

When the DTU is powered on, long press the “SET” button on the left of DTU for 5 seconds (DTU indicators will be off during the long press), and then the DTU password will be restored to default password “ESS12345”.

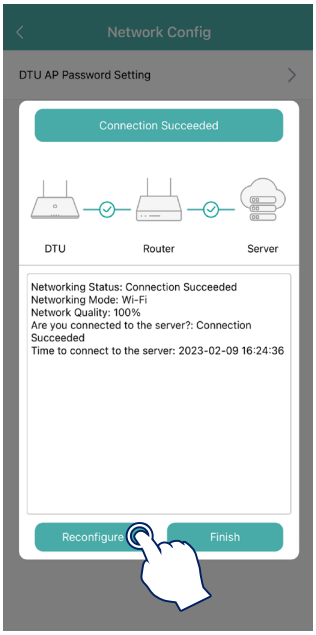
3.2.2.4 Reconfigure the Network of DTU

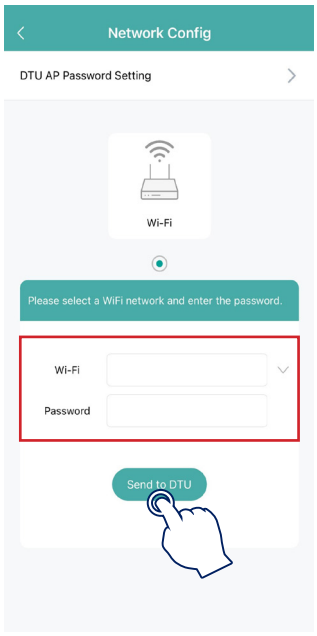
a. Choose the wireless network of DTU with serial number like “DTS-22010055” and enter the default password “ESS12345” to connect DTU.

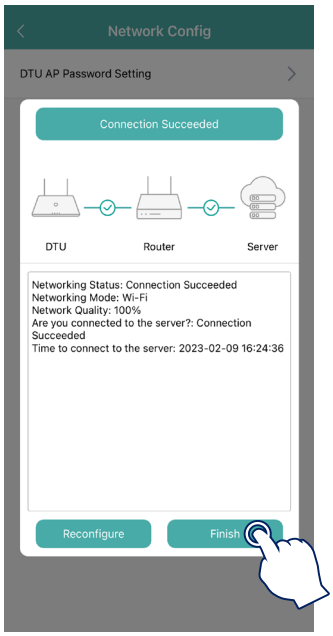




b. Open the App, choose “O&M → Network Config”, tap the “Reconfigure”, and then choose a new wireless network. Enter the account and password, tap “Send to DTU”, and wait until “Connection Succeeded” appears to tap “Finish”.

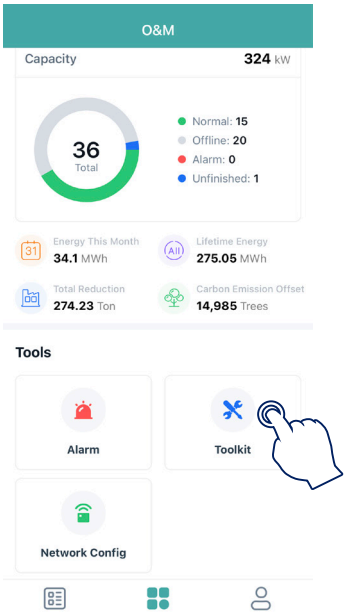


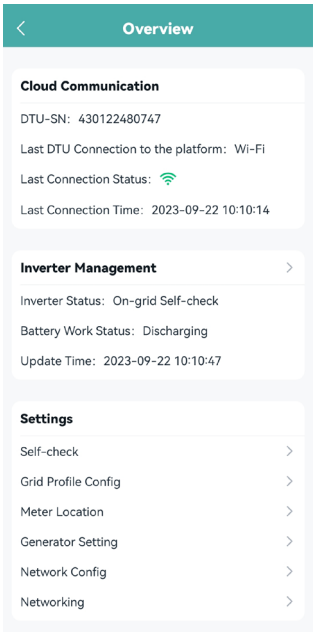




3.2.3 Toolkit

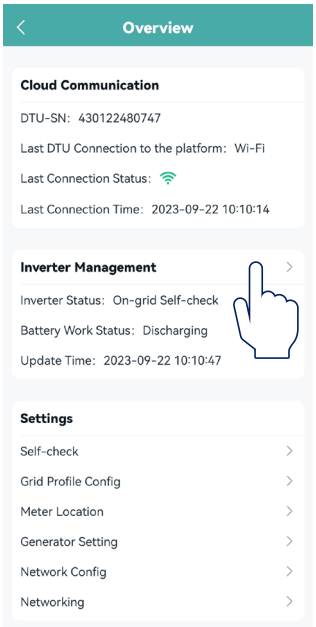
Tap “Toolkit” to enter the Overview page where you can view the cloud communication information and perform inverter management and relevant settings.

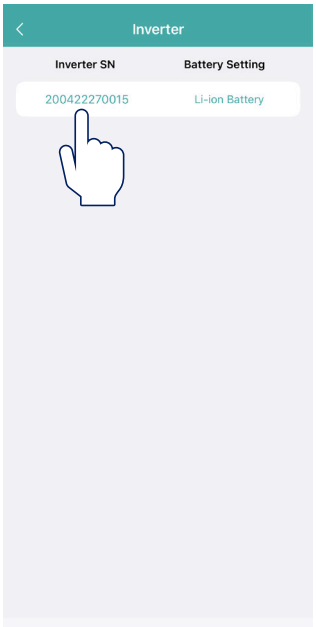


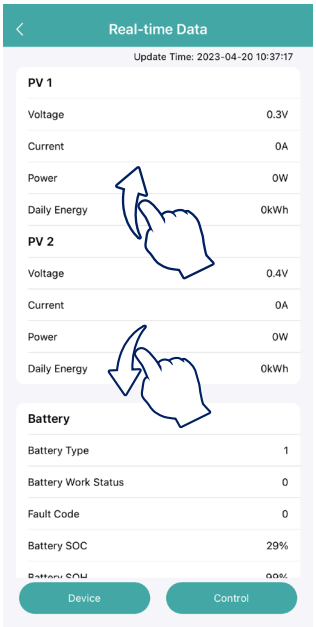


3.2.3.1 Inverter Management

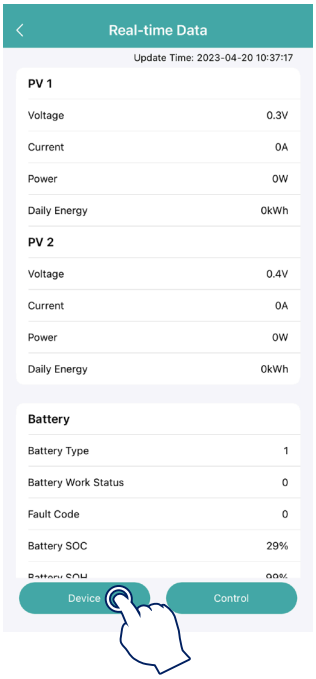
a. Tap “Toolkit → Inverter Management”, and then tap “Inverter SN” to check the real-time data of PV, Battery, Grid, EPS and Generator. After entering the “Real-time Data” page, you can slide your finger up or down to check the relevant real-time data whichever you want.

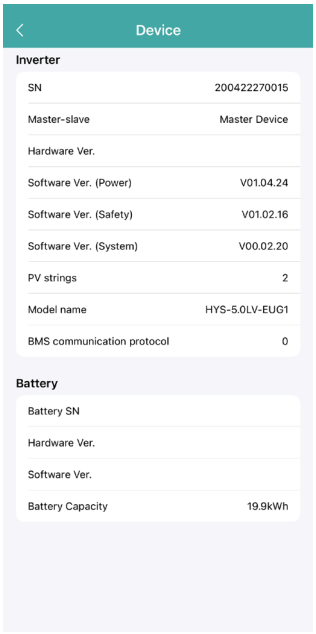




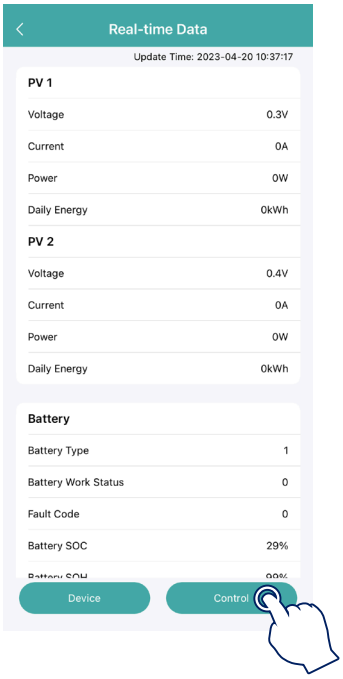


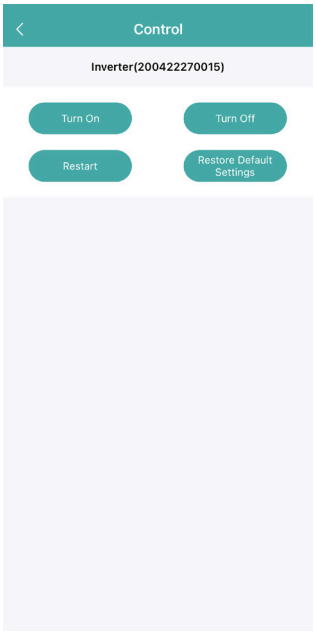
b. Tap “Device” to check the basic information of inverter and battery.



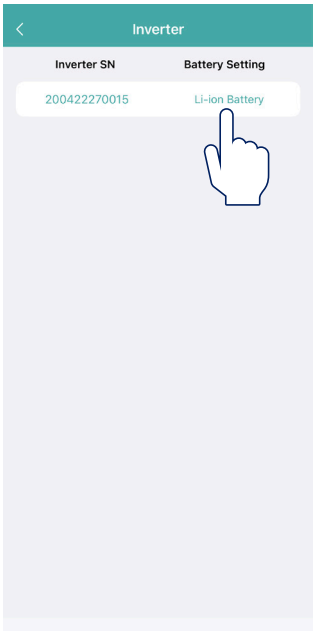


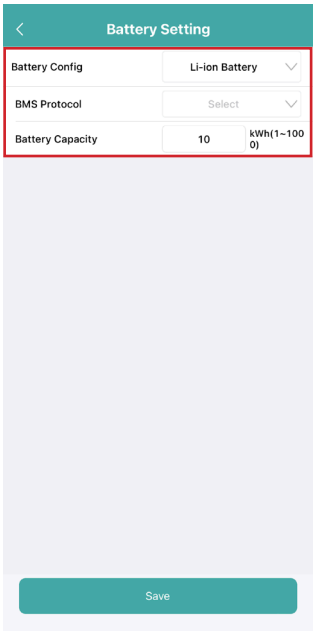
c. Tap “Control” to turn on, turn off or restart the inverter, or restore its default settings.





d. Tap the “Inverter Management → Battery Setting” to set battery type, BMS protocol and battery capacity. (The default setting is “No battery”.)

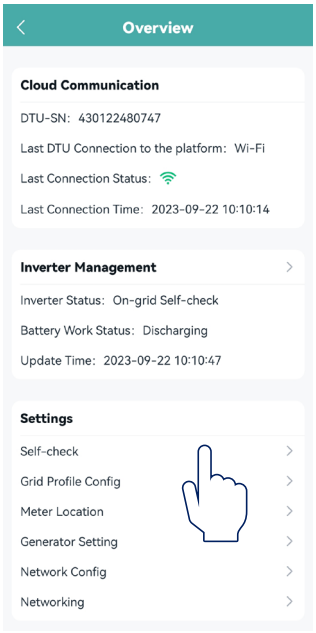


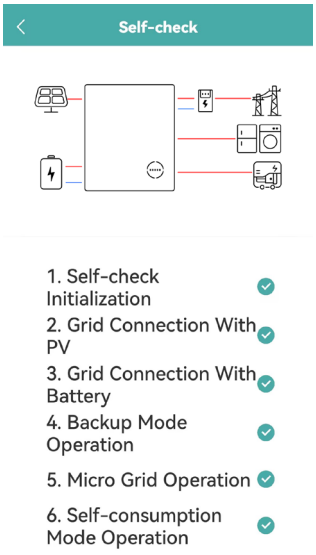


3.2.3.2 Settings

★ Self-check

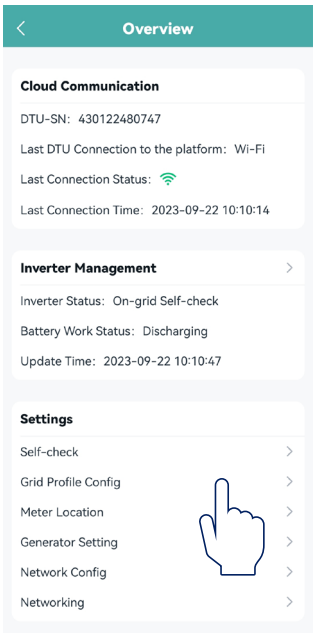
Make sure that all cables including DC cables, AC cables and communication cables are properly connected, and all AC and DC switches are turned on, and then tap “Self-check” to complete the self-check . If there is any problem, solve it according to the prompts, and tap “Self-check” again to confirm that the problem is completely solved. If there is no problem, this interface will diaplay green checkmarks on the right of these items.

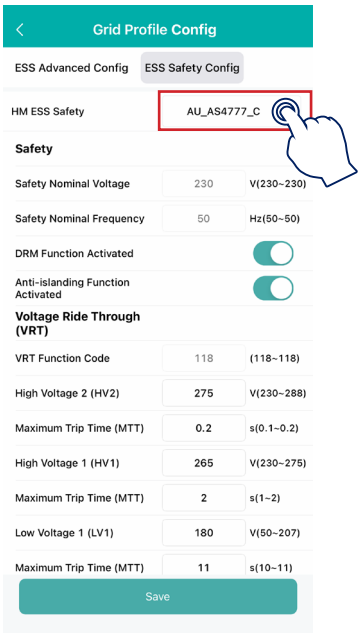


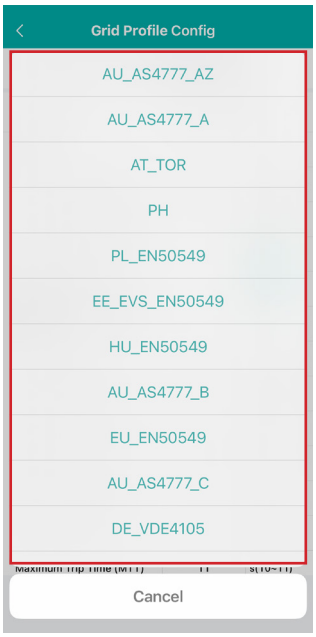


★ Grid Profile Configuration

Tap the “Grid Profile Config → ESS Safety Config” to check relevant parameters of grid protection profile and power quality response mode under “HM ESS Safety” where you can choose corresponding grid code. We classify the installer account and user account through authority management, the installer can modify grid protection and power quality response mode parameters.

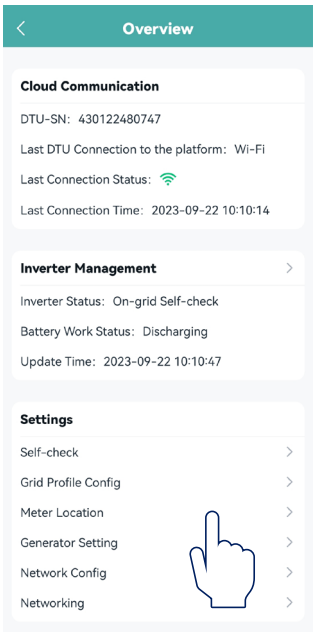


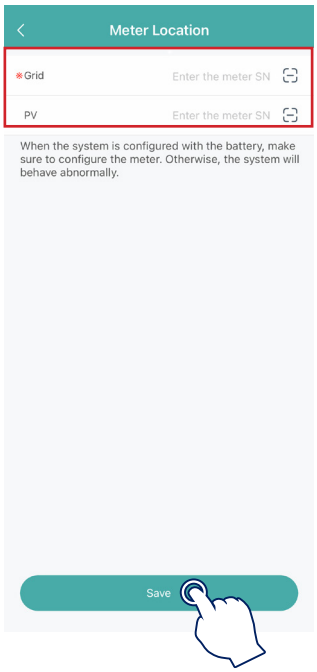




★ Meter Location

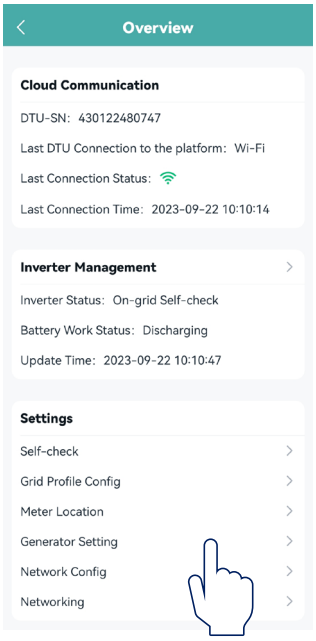
Tap the “Meter Location” to configure the grid side meter. The serial number (SN) can be entered manually or identified through scanning the QR code. (For EUG1 series inverter, If the GEN port is connected to the inverter or generator, the PV side meter also needs to be configured.)

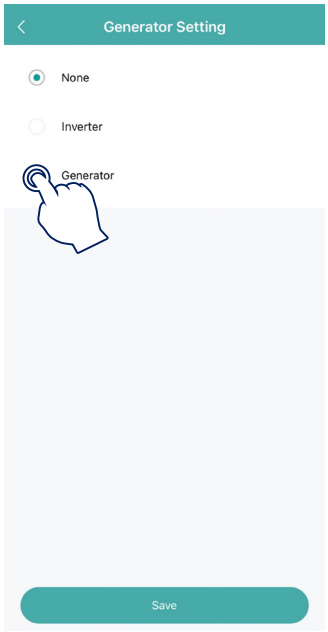




★ Generator Setting

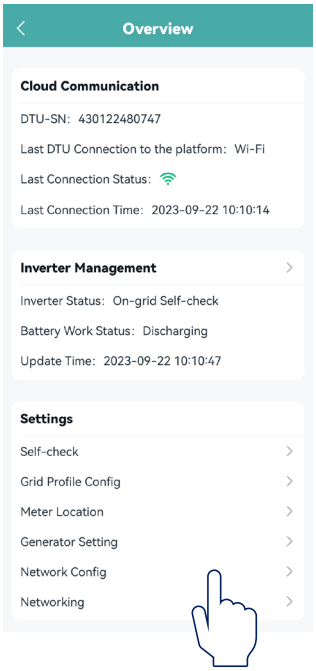
Tap “Generator Setting” to enter the generator setting page, tap the corresponding option according to whether the device connected to the GEN port is “Inverter” or “Generator”, and then tap “Save”. (The default option is “None”.)

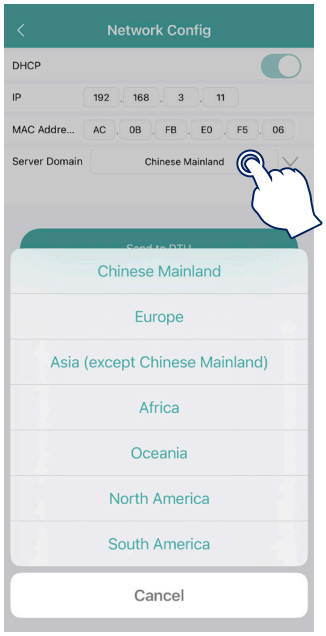


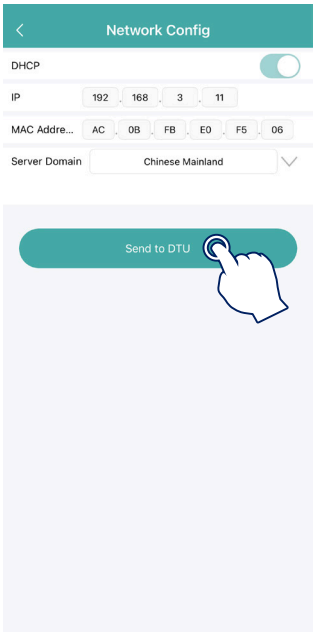


★ Network Configuration

Tap “Network Config” to enter the network configuration page where you can choose the server domain and change other settings, and then tap “Send to DTU”. The default status of DHCP is enabled, so the DTS can automatically obtain the router's IP address and connnect to the router. If you want to manually configure the IP address, first disable the DHCP.

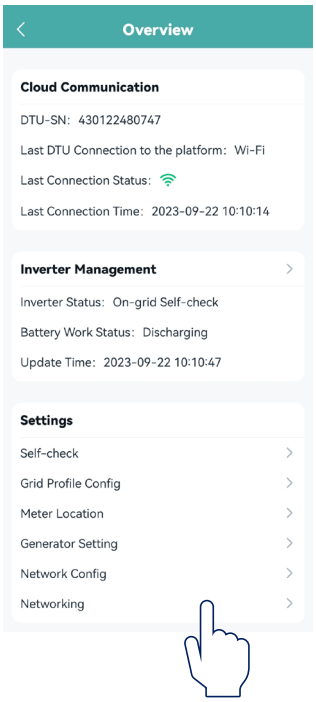


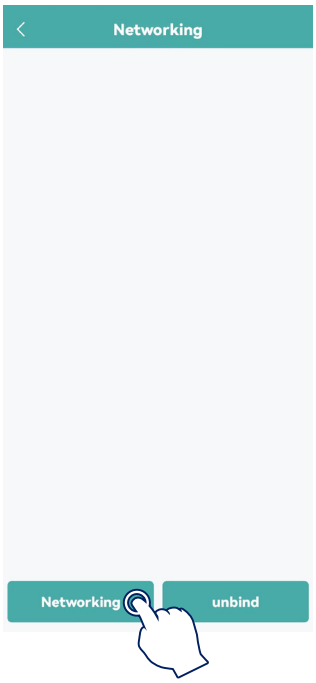




★ Networking

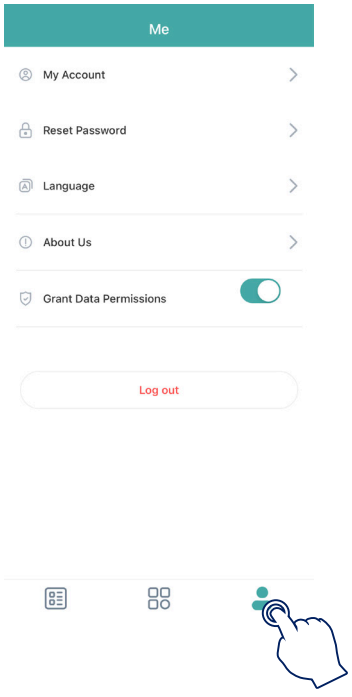
Tap “Networking” to access to the networking page, and tap “Networking” at the bottom left corner to configure relevant settings. The inverter connected to the DTS is the master, and the others are slaves. After the slaves are connected to the master through a communication cable, they can communicate with the DTS. Note that a single DTS can only communicate with up to 10 inverters. If you want to change the master, tap “unbind” to change the master.





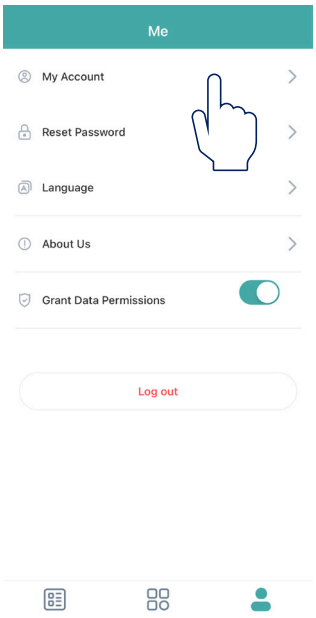
3.3 Me

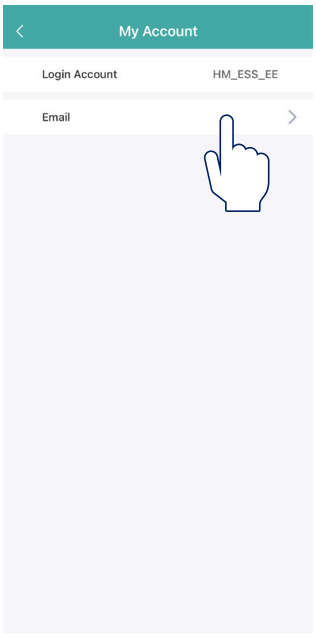
Tap the person icon at the bottom right corner to enter the “Me” interface.

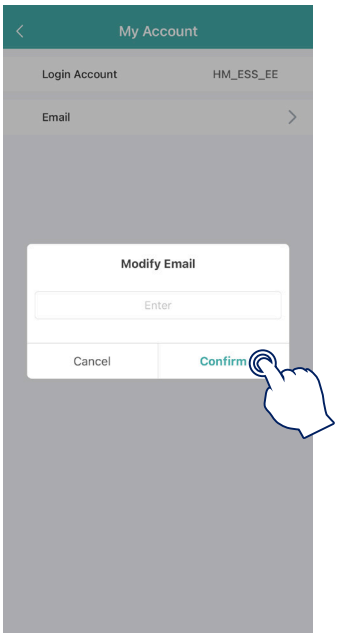


3.3.1 My Account

Tap “My Account” to check your account and modify Email address.

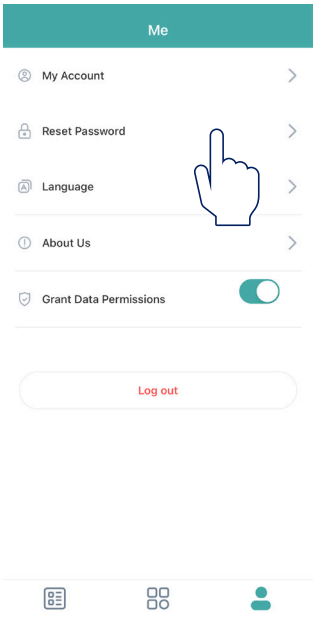


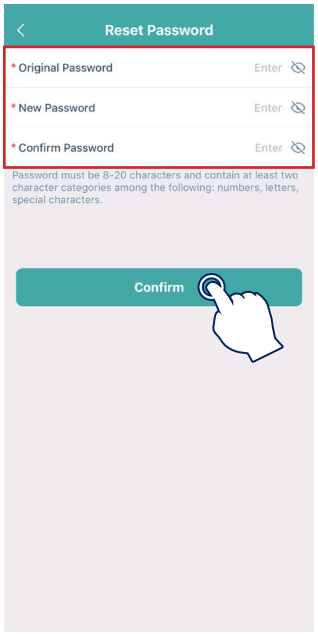




3.3.2 Reset the Login Password

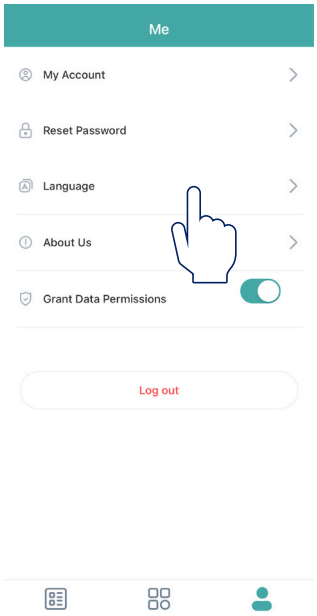
Tap “Reset Password”, enter the original password and new password, and tap “Confirm”.

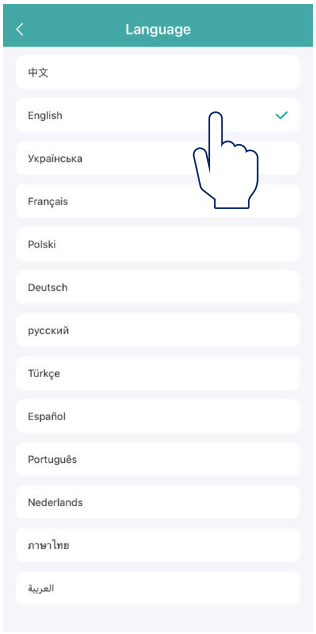




3.3.3 Change the Language

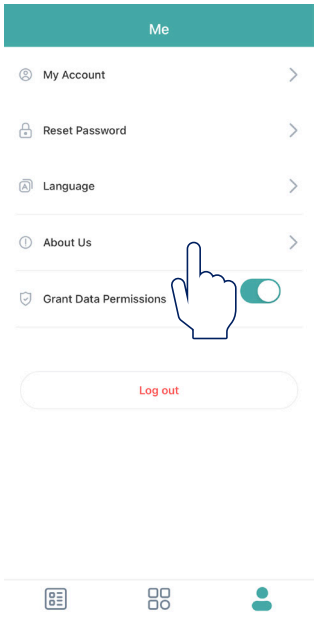
Tap “Language” and choose the language you prefer.

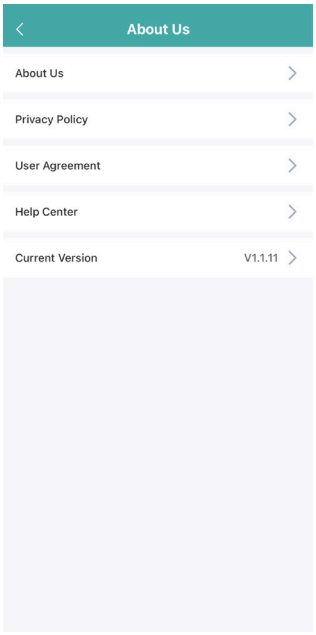




3.3.4 About Us

Tap “About Us” to enter the About Us page where you can check the Hoymiles basic information, privacy policy, user agreement, and current version, and enter Hoymiles help center.





4. Advanced Configuration

4.1 ESS Advanced Configuration

4.1.1 System Settings

Parameter	Description	Default Value
Meter Model	Choose Single-phase Meter, Two-phase Meter, or Three-phase Meter according to the meter your inverter connected.	No Meter
Display Brightness	The brightness of the machine display lamp.	10
Generator Port Mode	After the generator port is connected to the inverter or generator, select the corresponding option.	Disable
BMS485_COM_Type	Communication type includes BMS485 and DTU Com. If the RS485 port is connected to the battery, please choose BMS485; if the RS485 port is connected to the microinverter DTU, please choose DTU.COM.	BMS
Grid Import Power Limit	Limit the charging power of grid to the battery. The power input limit must not exceed the inverter power.	The default value is set according to the inverter type.
System Three-phase Unbalance Enable	When the loads of the three-phase inverter are not balanced, enable the system three-phase unbalance function. It can compensate each load.	Disable

4.1.2 Battery Settings

Parameter	Description	Default Value
Battery Maximum SOC	Set the maximum battery capacity as recommended by the battery manufacturer.	90%
Battery Minimum SOC	Set the minimum battery capacity as recommended by the battery manufacturer.	10%
Battery Supplementary Power	When the battery emergency charging is enabled, or the battery capacity falls below the minimum battery SOC, the battery charge will be triggered.	200 W
Reserved SOC Supplementary Power	Set the percentage of reserved SOC supplementary power. (When the battery SOC falls below reserved SOC, the battery will be charged at this percentage.)	0
Battery Grid Feed Power in Peak Time	Set the percentage of battery feed-in power in peak time.	100%
Bat Discharge Power in Partial Peak Time	Set the percentage of battery disachage power in partial peak time.	100%
MPPT Global Scan Enable	If the PV modules are shaded, enable this function.	Disable

4.1.3 Emergency Power Supply (EPS) Settings

Parameter	Description	Default Value
EPS Mode	When the EPS port is connected, you can choose “EPS” or “UPS”. You can choose “UPS” when the load keeps power on, and the on-grid mode and off-grid mode will automatically switch to each other under UPS mode.	EPS
	EPS is characterized by continuous power supply, which means that the loads are powered by bypass under normal power supply, and the DC power will be inverted to supply the loads during power outage, maximizing energy utilization.	
	UPS is a kind of uninterrupted power supply which has stable voltage and frequency, and has an extremely high requirement for switching time. UPS not only operates during power outage, but also can output high quality power supply to ensure normal operation of electric equipment when such abnormal situations of power supply as overvoltage, undervoltage and surge occur.	
	When the inverter is used as a PV inverter, choose “Disable”.	
PV Off-grid Mode Enable	In off-grid mode, PV can also operate without the battery. (Under this mode, the system is unstable, so this function is not recommended.)	Disable

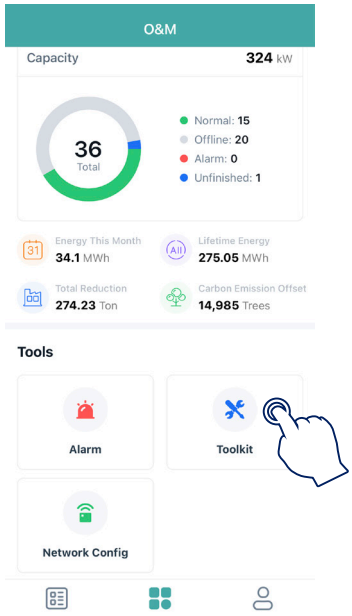
4.1.4 Isolation Resistance (ISO) Settings

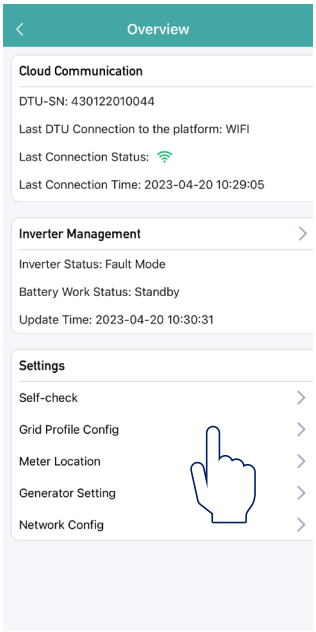
Parameter	Description	Default Value
Minimum Isolation Resistance	This function is to detect whether there is an ISO fault, and it is enabled by default. When the resistance detected is lower than the minimum isolation reisitance, the inverter will be shut down.	Single-phase: 50 Three-phase: 100

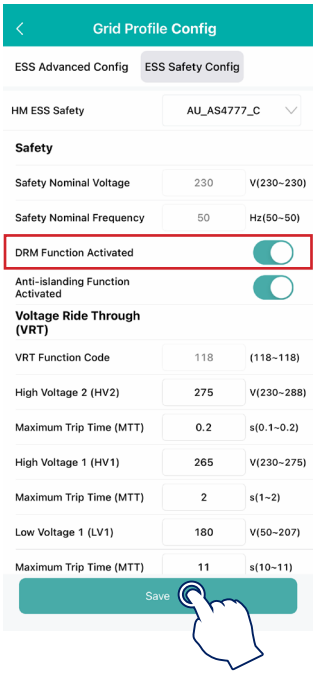
4.2 ESS Safety Configuration

4.2.1 DRM Setting

Tap “Toolkit → Grid Profile Config → ESS Safety Config” to configure the DRM setting. Tap the “DRM Function Activated” to enable the DRM function. (This function is disabled by default.)

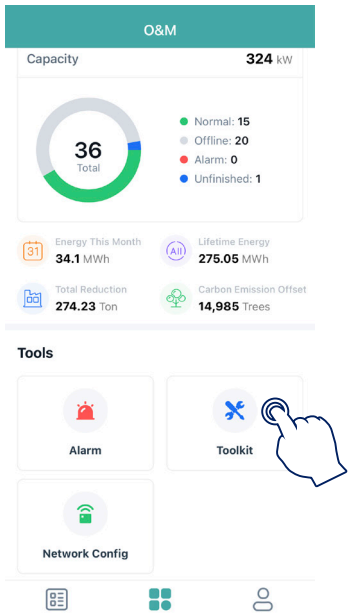


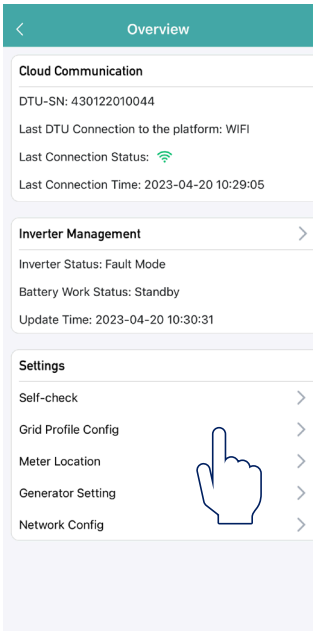


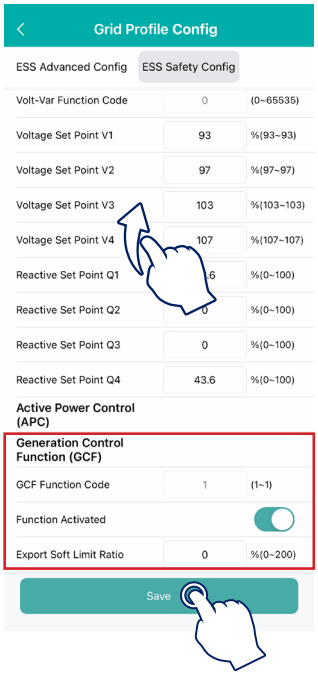


4.2.2 Export Limit Settings

Tap “Toolkit → Grid Profile Config → ESS Safety Config” to configure export limit settings. If you want to set export limitation parameters, slide your finger up, tap “Function Activated” under “Generation Control Function (GCF)” to enable this function, and fill in relevant parameters according to local power grid policy.







Note:

For more settings about ESS safety configuration, you can slide your finger up or down to view or modify relevant settings.

S-Miles Installer

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