

SEMS+ WEB

User Manual

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NOTE

Due to product version upgrades or other reasons, the document content will be updated from time to time. Unless otherwise specified, the document content does not replace the safety precautions on the product label. All descriptions in this document are for guidance only.

Preface

Overview

This document mainly introduces the common operations of SEMS+ WEB.

Intended Audience

Applicable to professionals who are familiar with local regulations and standards and electrical systems, have received professional training, and have a good knowledge of this product, or end users who have purchased GoodWe products.

Symbol Definitions

 DANGER
Indicates a high potential hazard that, if not avoided, will result in death or serious injury.
 WARNING
Indicates a medium potential hazard that, if not avoided, could result in death or serious injury.
 CAUTION
Indicates a low potential hazard that, if not avoided, could result in moderate or minor injury.
NOTE
Emphasizes and supplements the content, and may also provide tips or tricks for optimized product use, helping you solve a problem or save time.

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1 Product Introduction

1.1 Compatible Products

Supports monitoring and management of GoodWe brand-related devices, such as inverters, Intelligent meters, data loggers, charging piles, etc.

1.2 Register an Account

NOTE

Distributor/Installer account registration only supports administrator accounts. To register technician or marketing personnel accounts, please have the administrator create them through Organization Management in the backend.

Procedure:

1. On the SEMS+ WEBlogin page, click "Register".
2. Select the server type and account registration type.
3. Enter account details. Click "Confirm" to complete registration.

Welcome to SEMS+
We, the Smart Energy Innovator

Email

Password

☐ Remember Password [Forgot Password](#)

☒ I have read and agreed to the "Terms of Use"

[login](#) [register](#) **1**

[Terms of Use](#) [Privacy Policy](#)
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Register

1 Account Type

2 Account Details

Account Type

Select your server (International outside except Europe, Australia, America)

Europe Server

Select identity
Please select user identity

Owner **Dealer/Installer**

3 [Next](#)

Account Details

Owner

Country/Region
Please Select

Username
First Name Last Name

Email
Please enter email

Slide Right to Verify

Verification Code
Please enter
Send

Password
Please enter

Enter Password Again
Please enter again

☐ I have read and agreed to the "Terms Agreement"

[Return](#) [Continue](#) **4**

Account Details

Dealer/Installer

Organization Name
Please enter

Organization Address
Please select

Country/Region
Please Select

Postal Code
Please enter

Username
First Name Last Name

Phone Number
Please enter

Email
Please enter

Slide Right to Verify

☐ I have read and agreed to the "Terms Agreement"

[Return](#) [Continue](#) **4**

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1.3 Log in to Web

NOTE

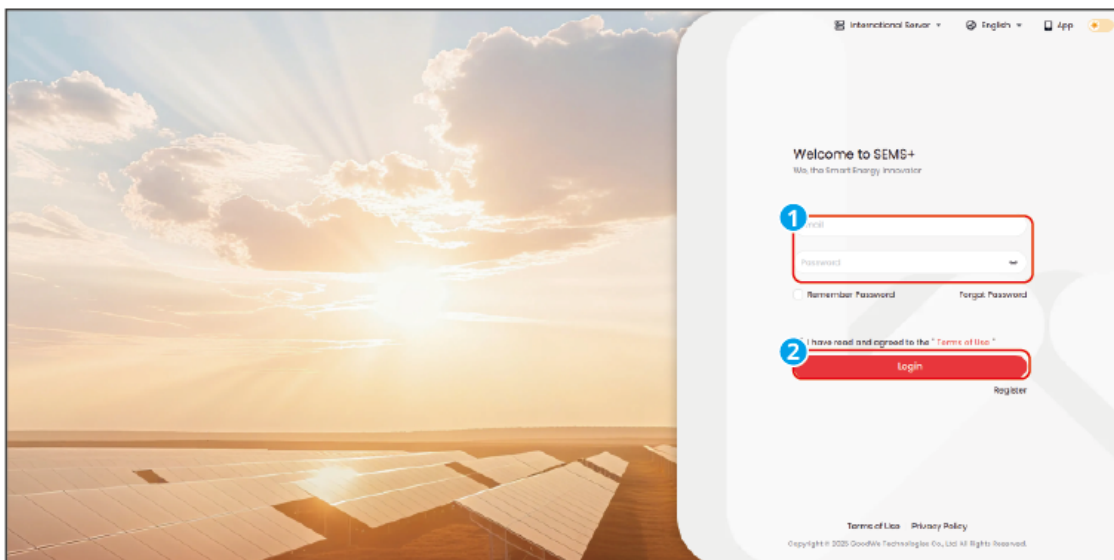
Users are advised to update their passwords regularly and remember the password after changing it to ensure account security.

Prerequisites:

- Account and password obtained
- Operating system: It is recommended to use Windows 7 or later operating systems
- Browser: It is recommended to use Chrome 87 or later browser versions
- Resolution: It is recommended to use 1920*1080 pixels

Login procedure:

1. In the browser address bar, enter <https://semsplus.goodwe.com/#/login> and press Enter to enter the login page.
2. Enter your email address and password, and click "Login".
3. If the account is logging in for the first time, after login, follow the on-screen prompts to change the login password, set personal preferences, create a plant, etc.

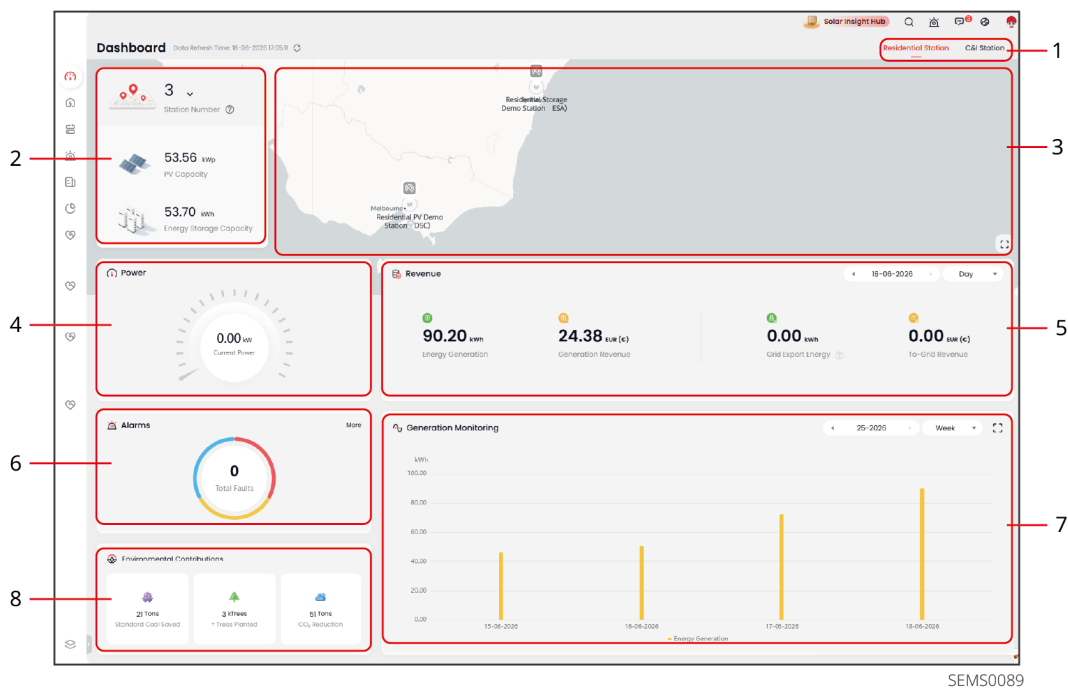


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2 Dashboard

NOTE

- When the plant type is different, the home page display may vary. Please refer to the actual display.
- When the number of plants is 1, the dashboard interface is not displayed, and after logging in, you will directly enter the plant details interface.
- When there is no plant, you will enter the plant list interface after logging in.



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No.	Function Description
1	Plant type switch button. Click to select the plant type. When the plant type is different, the information displayed on the home page will differ. When there is only one plant type in the account, this button is not displayed.

No.	Function Description
2	Displays parameters such as the number of plants of the current type, operating status, and capacity. • Plant Count: Displays the number of plants under the current plant type, the number of newly added plants, and the operating status. • PV Capacity: Displays the total installed capacity of PV in plants under the current plant type. • Battery Capacity: Displays the battery capacity under the current plant type.
3	• Plant Distribution Map. Displays the distribution of all plants and their operating status based on map latitude and longitude. • Click the plant name to enter the corresponding plant details page.
4	Power. Displays the current active power.

No.	Function Description
5	Revenue. • Power Generation Revenue: Displays the total power generation revenue under the current plant type. ◦ Generation revenue is calculated based on the plant-level Tariff of each plant. $\text{Generation revenue} = \text{Energy Generation} * \text{Export Tariff}$. ◦ When a plant uses the planned Tariff, calculation is based on the organization-level fixed Tariff. When a plant uses a fixed Tariff, calculation and statistics are based on the plant-level Tariff. • Energy Generation: Displays the total energy generation under the current plant type. • Grid Feed-in Revenue: Displays the total grid feed-in revenue under the current plant type. ◦ Export revenue is calculated based on the plant-level Export Tariff of each plant. $\text{Export revenue} = \text{Exported Energy} * \text{Export Tariff}$. ◦ When some plants use a planned Tariff, calculation is performed according to the fixed Tariff policy and the plant-level fixed Export Tariff. • Exported Energy: Displays the total exported energy under the current plant type.
6	Alarms. Displays the proportion of each alarm severity occurring on each device under the current plant type. Click "More" to enter the alarm list page to view alarm details.
7	Energy Generation Monitoring. Displays the energy generation of all plants, and supports statistics of energy generation by day, month, year, and full lifecycle.
8	Environmental Contributions. Displays the environmental benefits generated by PV power generation, including: reducing emissions of CO₂, saving standard coal, equivalent tree planting, etc.

3 Plant Monitoring

Supports viewing plant overview and detailed information, creating plants, sharing plants, favoriting plants, deleting plants, modifying basic plant information, viewing plant alarm information, and managing plant devices through the "Plant Monitoring" interface.

3.1 Create a Plant

You can create a plant according to actual needs.

Procedure

1. Click "Plant Monitoring">"Add Plant" to enter the plant creation page.
2. Set the plant address and click "Next". You can manually enter it or click the map on the right to locate the address.
3. Set the basic plant information according to actual conditions and click "Next".
4. Set the owner's email information.
5. Click "Finish" to create the plant.

1

Dashboard

Station List

Device List

Alarm Center

Report Center

Analysis

Service Center

Station List

Filter

Station/Device, Email, SN

Station Address

Email

Q

C

2

New Station

Station Information	Station Status	Today's Generation (kWh)	PV Power (kW)	Safe Operation Days (Day)	Note	Operation
Residential Storage Demo Station... XWQZ+C&I Anshun Bay of Plenty Region... 29.90kW	Running	99.20	0.00	683	--	
Residential Storage Demo Station... 27 Southon Ave, C&I P&I NSW 2154, A... 10.00kW	Running	66.30	0.13	663	--	
C&I Demo Station (417)						

3

Station Address

Please Enter

Longitude 103.819836 Latitude 1.352083

Please search and fill in the accurate station address. An incorrect address may affect energy scheduling, statistics, and revenue calculations.

Detailed Address

Please Enter

Country/Region

SG

Time Zone

Asia/Singapore (UTC+08:00)

☒
 Authorize the use of third-party services to update time zone information

4

Next

5

Station Type

☐ Residential PV Station
 ☐ Residential Storage Station

☐ C&I PV Station
 ☐ C&I Storage Station

Station Name

Please Enter

Rated Power

Please Enter

Auto Get

kW

PV Capacity

Please Enter

kWp

PV installation Angle

Please Enter

Commercial Operation Date

Please Select

Note

Please Enter

6

Previous

Next

7

Organization Code

Please enter

Owner's Email

Please enter

8

Previous

Complete

SEMS0091

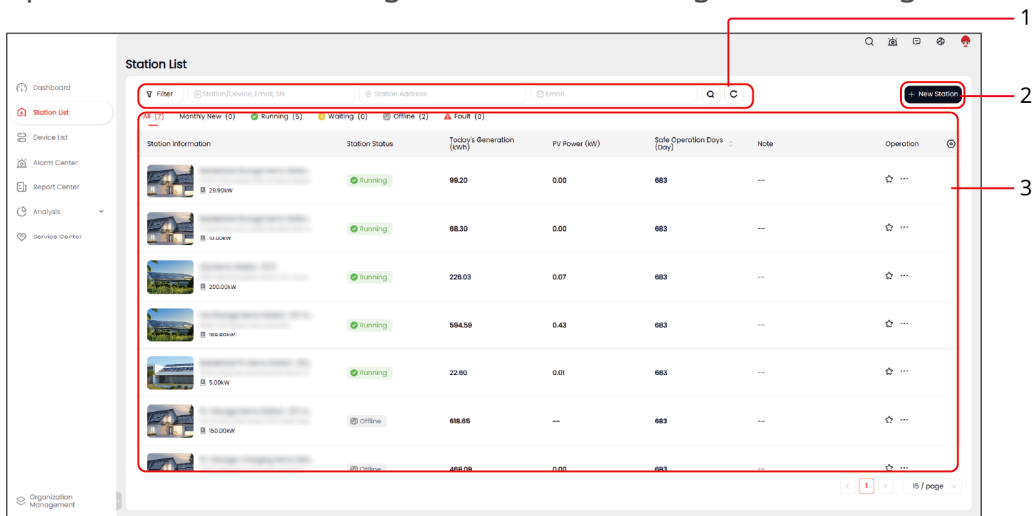
Parameter	Function Description
Plant Type	Set according to the actual plant type. Supported: Residential PV Station, Residential Storage Station, Commercial and Industrial Storage Station, Commercial and Industrial PV Station.

14

Parameter	Function Description
Plant Name	Set the plant name according to actual requirements.
Rated Power	Set the total installed power of the plant.
PV Capacity	Set thePV in plants under the current plant type.
Battery Capacity	Set the total battery capacity in the plant.
PV Installation Angle	SetPVPanel Installation Angle.
Commercial Operation Date	Set the grid connection date of the plant.

3.2 Plant List Overview

In the main menu bar, select "Plant Monitoring" to enter the Plant List screen, where you can query overview information for all plants in the account and perform operations such as adding to favorites, sharing, and deleting.



SEMS0092

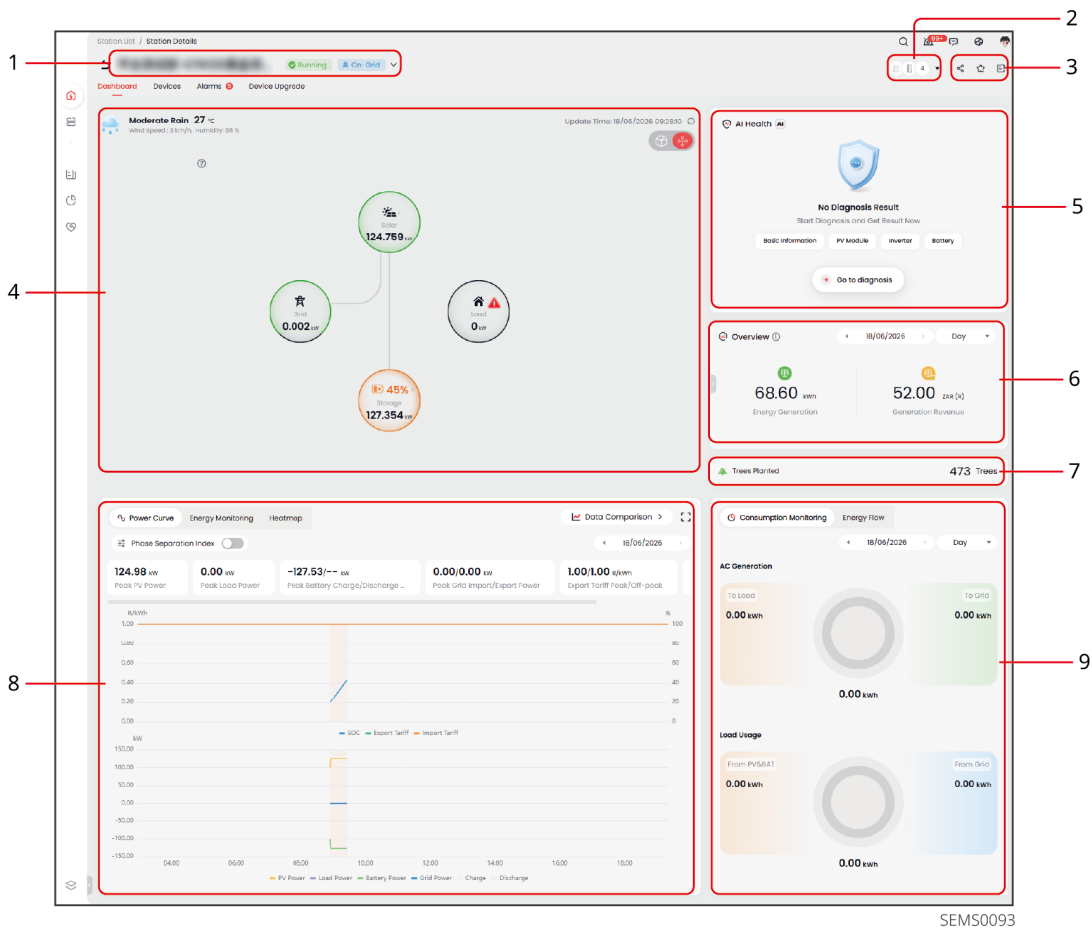
No.	Function Description
1	Use filters or enter plant information to quickly locate the plant you need to view.
2	Click to create a new plant.

No.	Function Description
3	Display overview information for all plants under the account. • Plant operating status, energy generation, power, and other information. The displayed information can be adjusted and configured via . • Click  to share the plant with other organizations or individual users, and set the sharing permissions and time limit. To share the plant with unregistered users, follow the on-screen prompts to enter information such as an email address, and an account will be automatically registered. • Click  to favorite the plant. Click  to remove it from favorites. • Click ... >  to delete the plant.

3.3 Plant Details

In the plant list on the "Plant Monitoring" screen, click any plant name to enter the Plant Details screen. On the Plant Details screen, you can view basic plant information, Energy Generation, revenue, energy flow diagram, Environmental Contributions, and other information.

3.3.1 Plant Dashboard



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No.	Function Description
1	- Display the current plant name, operating status, and On/Off-grid status. - Click▼to quickly switch plants. - If it is a shared plant, click "Shared" to view the sharer's information.
2	- Total number and types of devices in the current plant. - Click▼to display the quantity and operating status of each type of device.

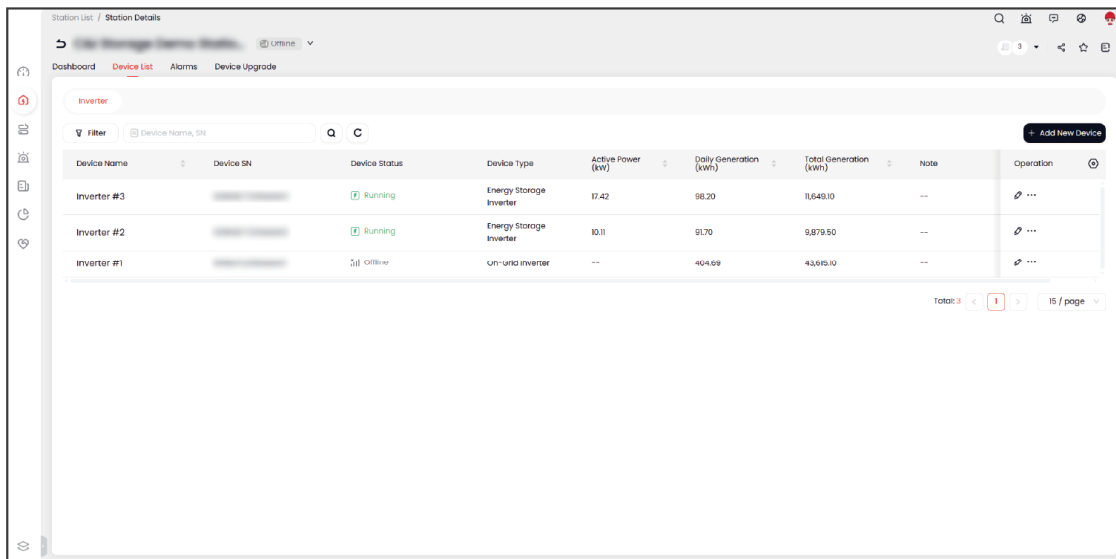
No.	Function Description
3	Perform operations on the plant. - Click  to share the plant with other organizations or individual users, and set sharing permissions and time limits. - Click  to favorite the plant. Click  to remove it from favorites. - Click  to view or modify basic plant information and Tariff information.
4	- The energy flow diagram displays the current energy flow of the plant. - Displays the weather conditions at the plant location. - Supports switching between 2D and 3D energy flow diagrams. After switching the 2D/3D energy flow diagram for any plant, all plants of the same type in the account switch simultaneously.
5	- AIHealth. Based on AI algorithms and big data analysis capabilities, it performs multi-dimensional health status diagnosis of the plant. - AI Health Diagnosis is only applicable to commercial and industrial scenarios. - Click "Go to Diagnosis" to enter the diagnosis details screen and view the specific diagnosis report. For specific operations, refer to 3.3.9. Diagnose Plant Health (Page 30).

No.	Function Description
6	Revenue. Revenue statistics require configuring the Tariff when creating a plant; otherwise, the system cannot calculate revenue data. • Power Generation Revenue: Displays the total power generation revenue under the current plant type. ◦ Generation revenue is calculated based on the plant-level Tariff of each plant. $\text{Generation revenue} = \text{Energy Generation} * \text{Export Tariff}$. ◦ When a plant uses the planned Tariff, calculation is based on the organization-level fixed Tariff. When a plant uses a fixed Tariff, calculation and statistics are based on the plant-level Tariff. • Energy Generation: Displays the total energy generation under the current plant type. • Grid Feed-in Revenue: Displays the total grid feed-in revenue under the current plant type. ◦ Export revenue is calculated based on the plant-level Export Tariff of each plant. $\text{Export revenue} = \text{Exported Energy} * \text{Export Tariff}$. ◦ When some plants use a planned Tariff, calculation is performed according to the fixed Tariff policy and the plant-level fixed Export Tariff. • Exported Energy: Displays the total exported energy under the current plant type.
7	Environmental Contributions. Displays the environmental benefits generated by PV power generation, including: reducing emissions of CO₂, saving standard coal, equivalent tree planting, etc.
8	• Power Curve/Energy Monitoring/Heat Map. Through visual charts, it displays the plant's operating status and energy dynamics. • Supports viewing year-on-year data comparison charts. • If the inverter in the plant supports split-phase, you can enable "Split-Phase Metrics" to turn on split-phase power monitoring. After this function is enabled for any plant, split-phase monitoring is automatically enabled for all plants in the account that support split-phase.
9	Power Consumption Monitoring/Energy Flow. Displays the energy flow among PV, grid, and load.

3.3.2 Plant Devices

On the Plant Details screen, click "Device List" to view all device information in this plant, including device name, serial number, type, model, status, etc.

- Click the device name to enter the Device Details screen. Device settings are supported. If you need to configure settings, refer to [4.3.Set Device Parameters\(Page 43\)](#) section.
- Click "Add Device" to enter the Add Device screen. For specific methods of adding devices, refer to [3.3.3.Add Plant Devices\(Page 20\)](#) section.
- Click  to adjust the information displayed in the list screen.
- Click  to edit the device name or add a remark.
- Click ... >  to delete the device.



Device Name	Device SN	Device Status	Device Type	Active Power (kW)	Daily Generation (kWh)	Total Generation (kWh)	Note	Operation
Inverter #3		Running	Energy Storage Inverter	17.42	98.20	11,649.10	--	 ...
Inverter #2		Running	Energy Storage Inverter	10.11	91.70	9,879.50	--	 ...
Inverter #1		Offline	On-grid inverter	--	-104.69	43,615.10	--	 ...

SEMS0094

3.3.3 Add Plant Devices

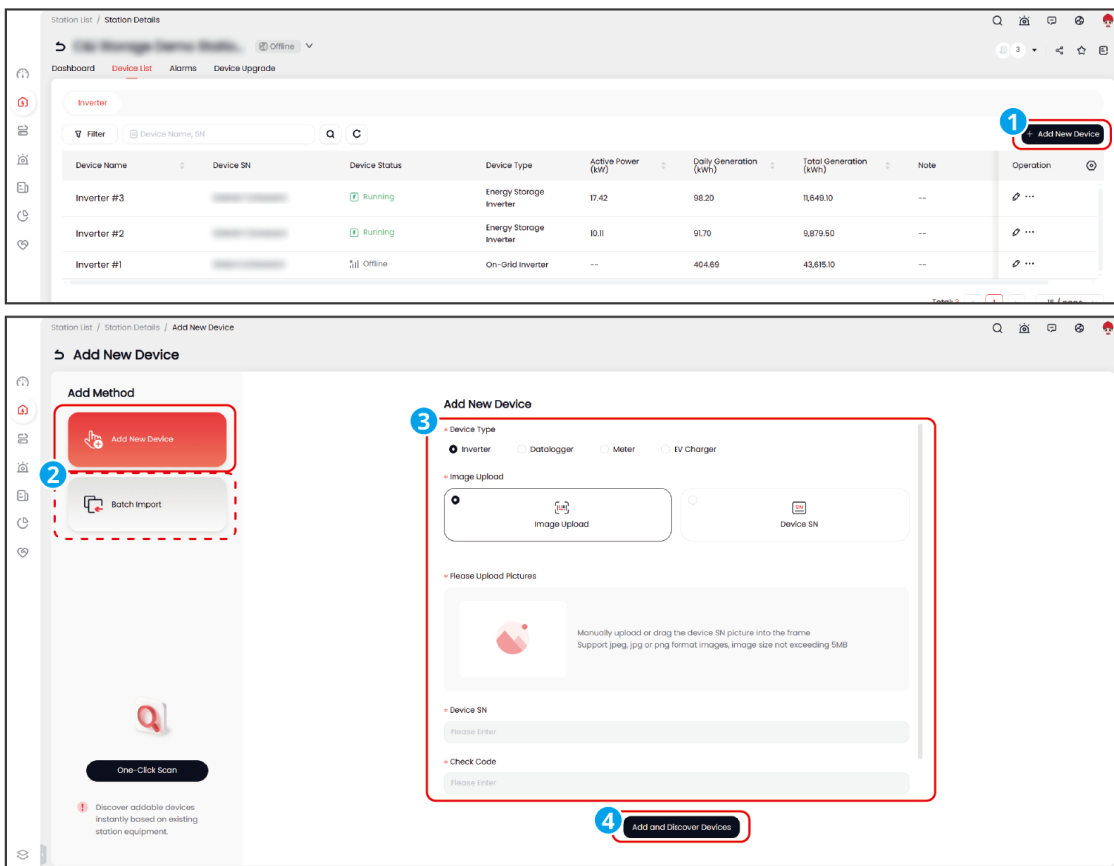
If you need to add devices to an existing plant, you can add them by using the Add Device function.

Procedure:

1. On the Plant Details screen, click "Device List">"Add Device".
2. Add devices according to your actual needs. To add devices automatically, click "One-Click Scan" to find devices that can be added in the plant. To add devices manually, select "Add Device" or "Batch Import" and complete the device search

according to the on-screen prompts.

- Add Device: Select the device type and upload the deviceSN or manually enter the deviceSN, then click "Add and Discover Device".
 - Batch Import: Click "Download Template", then after filling it out, upload it to the "Upload File" box.
3. After the device search is complete, confirm the discovered device information. After confirmation, click "Add". After devices are added, if there are new devices in the system, it will automatically scan and prompt for new devices.



SEMS0095

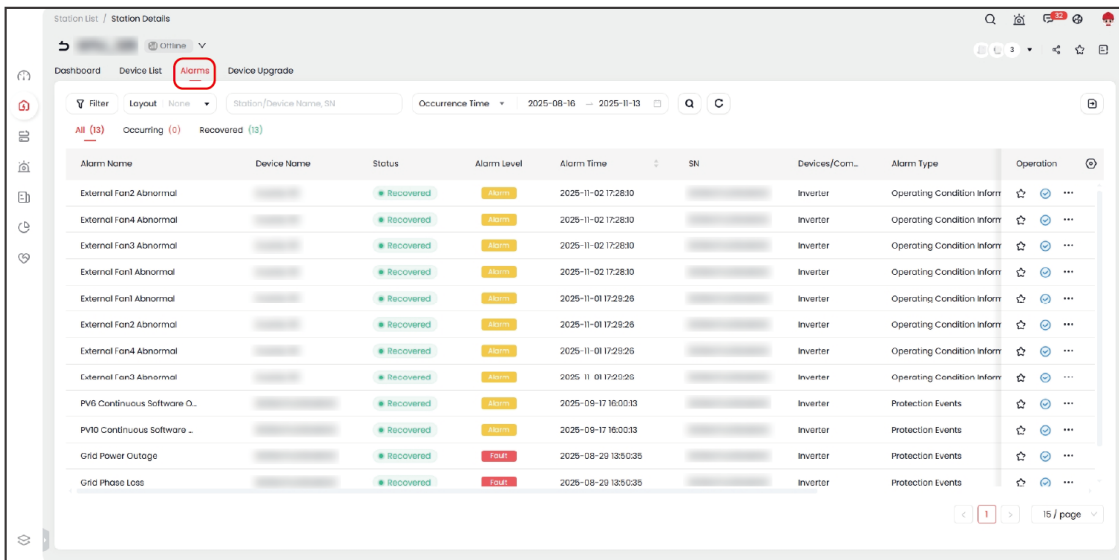
3.3.4 Plant Alarms

Procedure:

1. On the Plant Details screen, click "Alarms" to view all alarm information for the current plant.
- Supports filtering by alarm type, alarm plant, alarm device, alarm occurrence time,

alarm Recovery Time, etc., according to actual needs.

- Supports configuring the interface view, i.e., selecting the information to be displayed on the interface and saving the display configuration.
- Click  to adjust the information displayed on the alarm interface.
- Click  to export alarm information.



Alarm Name	Device Name	Status	Alarm Level	Alarm Time	SN	Devices/Com.	Alarm Type	Operation
External Fan2 Abnormal		Recovered	Alarm	2025-11-02 17:28:30		Inverter	Operating Condition Inform	
External Fan4 Abnormal		Recovered	Alarm	2025-11-02 17:28:30		Inverter	Operating Condition Inform	
External Fan3 Abnormal		Recovered	Alarm	2025-11-02 17:28:30		Inverter	Operating Condition Inform	
External Fan1 Abnormal		Recovered	Alarm	2025-11-02 17:28:30		Inverter	Operating Condition Inform	
External Fan1 Abnormal		Recovered	Alarm	2025-11-01 17:29:26		Inverter	Operating Condition Inform	
External Fan2 Abnormal		Recovered	Alarm	2025-11-01 17:29:26		Inverter	Operating Condition Inform	
External Fan4 Abnormal		Recovered	Alarm	2025-11-01 17:29:26		Inverter	Operating Condition Inform	
External Fan3 Abnormal		Recovered	Alarm	2025-11-01 17:29:26		Inverter	Operating Condition Inform	
PV6 Continuous Software O...		Recovered	Alarm	2025-09-17 16:00:33		Inverter	Protection Events	
PV10 Continuous Software ...		Recovered	Alarm	2025-09-17 16:00:33		Inverter	Protection Events	
Grid Power Outage		Recovered	Fault	2025-08-29 13:50:35		Inverter	Protection Events	
Grid Phase Loss		Recovered	Fault	2025-08-29 13:50:35		Inverter	Protection Events	

SEMS0096

3.3.5 Intelligent Management

3.3.5.1 Workflow

Through Workflow, users can quickly create automated workflows according to actual needs, i.e., preset scenario trigger conditions, trigger time periods, and other instructions, and execute corresponding operations within the defined conditions and time period.

For example: set the trigger condition to ambient temperature below 0°C and the effective time period to 7 PM to 12 AM every day. When both conditions are met simultaneously, turn on the heat pump.

NOTE

Workflows created via Workflow have higher priority than working modes set via devices or plants.

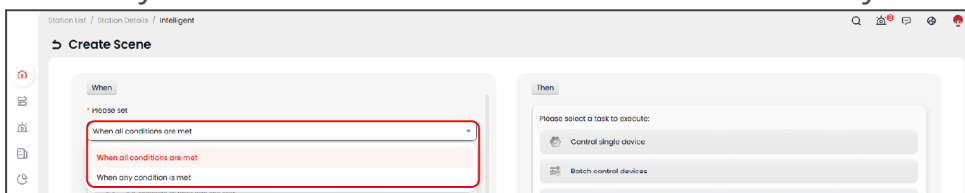
Procedure:

1. Go to the plant details page, click "Intelligent" > "Workflow" > **+**, start creating a new scene.



SEMS0209

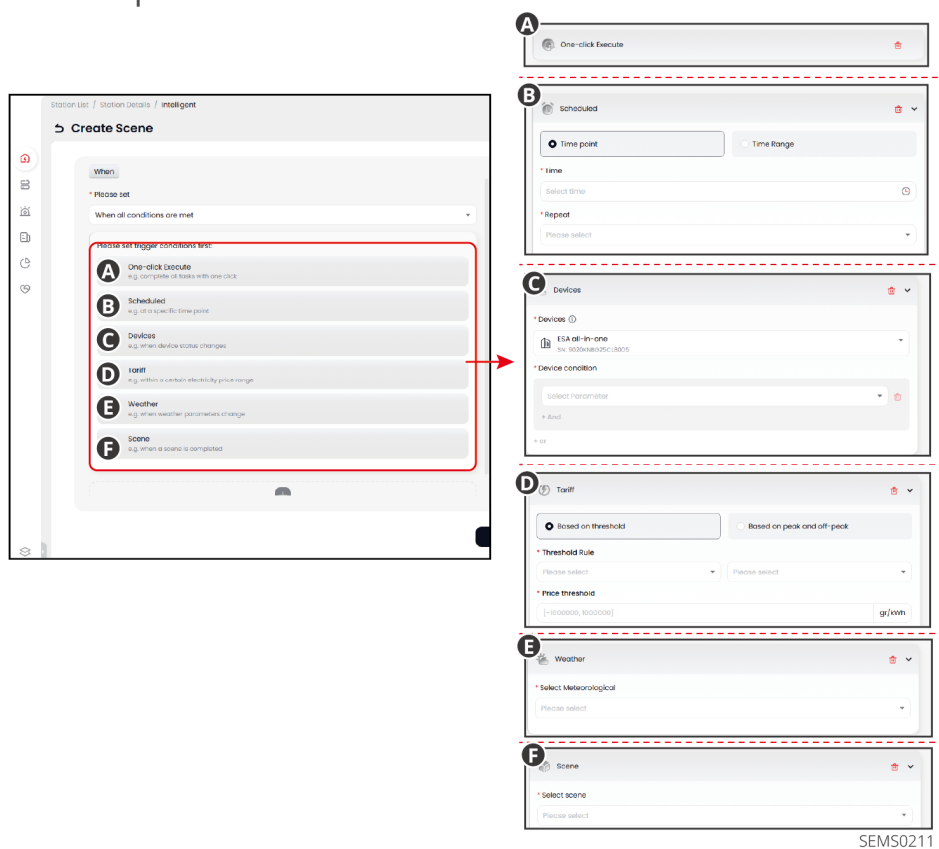
2. If there are multiple trigger conditions, please select first:
 - When all conditions are met: The task is executed only when all conditions are true.
 - When any condition is met: The task is executed when any one condition is true.



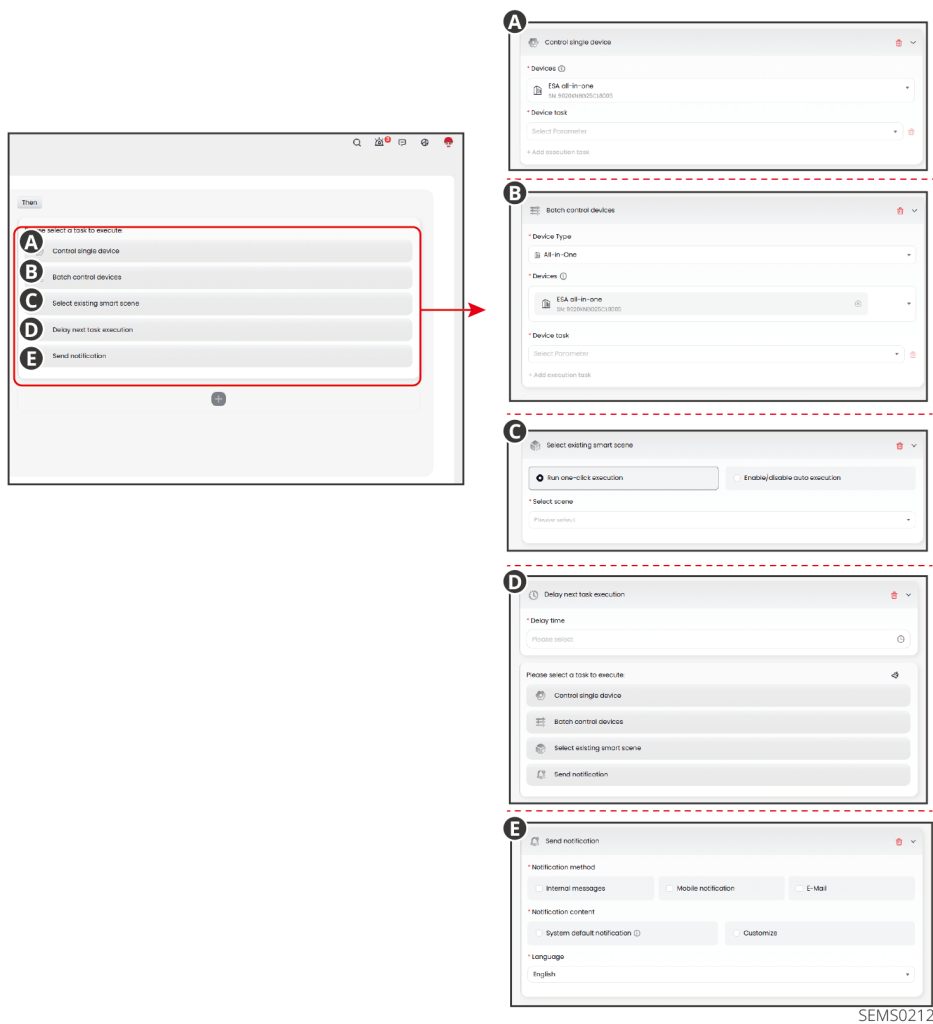
SEMS0210

3. Follow the UI prompts to set scene conditions. Except for "One-Click Execution", other conditions support combined settings:
 - One-Click Execution: Manually execute the task without additional trigger conditions.
 - Scheduled: Set the time point or time period for triggering the task, as well as the repetition cycle. If a time point is selected, the current task continues by default after the time expires; if a time period is selected, you can choose to continue the current task or switch to a new task after expiration.
 - Device: Select a device and set conditions. The task is triggered when the selected device meets the conditions.
 - Tariff: Trigger tasks based on Tariff changes. Not applicable to fixed Tariff.
 - Threshold-based: The task is triggered when the Export Energy Tariff or Import Energy Tariff is higher/lower than the configured Tariff threshold.

- Peak-Valley-based: Within a specified time period, select the time period(s) when the Export Energy Tariff is relatively high or the Import Energy Tariff is relatively low. The selected time periods may be non-contiguous. For example: the time period is from 8:00 AM to 2:00 PM, and within this period, the 2 hours with a relatively high Export Energy Tariff need to be selected. Based on Tariff fluctuations, the time periods with a relatively high Export Energy Tariff are 11:00 AM to 12:00 PM and 1:00 PM to 2:00 PM.
- Meteorological: The task is triggered when meteorological conditions such as weather, temperature, humidity, wind speed, etc. meet the conditions.
- Scene: After an existing scene is successfully executed, fails, or is completed, set a subsequent task to execute.

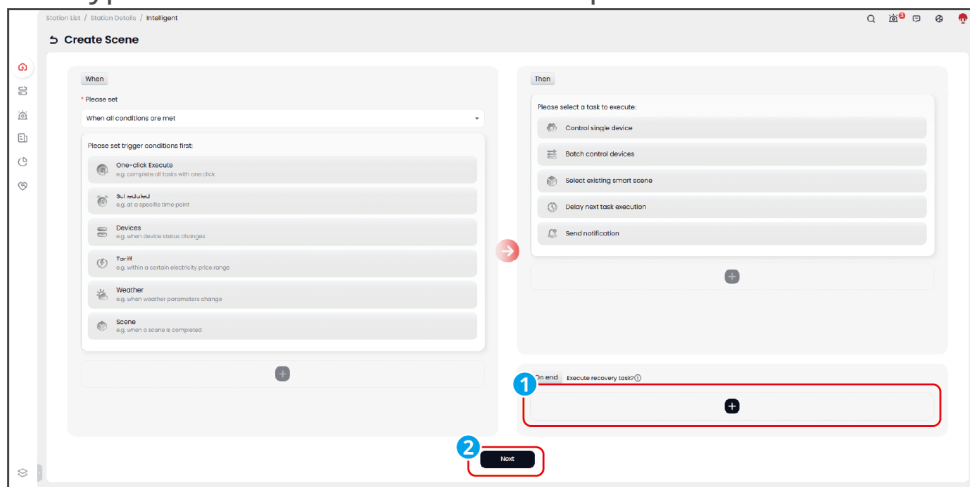


4. Preset the tasks to be executed according to the UI prompts:
 - a. Control a Single Device: Specify one device and its task
 - b. Batch Control Devices: Control multiple devices and their tasks simultaneously
 - c. Select an Existing Intelligent Scene: Invoke the currently existing scene
 - d. Delay Execution of the Next Task: Set a delay time; execute the subsequent task when the time expires
 - e. Send Notification Alerts: Send notifications via in-app messages, message notifications, email, etc.



SEMS0212

5. When the set condition is a scheduled time period or Tariff, you can set the next task after the current task ends according to actual requirements. The supported task types are the same as those in Step 4.



SEMS0215

- Set the scene name and describe the current scene, and select the effective time period. Click "Save and Enable" to create and enable the scene, or click "Save" to create the scene only without enabling it for now.

SEMS0213

3.3.5.2 Scheduling Timeline

Use the Scheduling Timeline to view historical dispatch information and the current day's dispatch plan for the plant, such as who initiated the dispatch command, when the dispatch occurred, which actions were executed, etc.

Currently supported dispatch modes:

- Grid Dispatch: The plant responds to grid commands and accepts grid dispatch, such as DNSP in Australia.
- VPP Dispatch: The plant accepts virtual power plant dispatch. Only applicable to Europe and Australia.
- AI Copilot: The plant operates according to strategies generated by AI Intelligent algorithms.
- Workflow Dispatch: The plant operates based on the conditions preset by the user in Workflow and the triggered working mode.

Procedure:

- Go to the plant details page and click "Intelligent" > "Scheduling Timeline".



SEMS0214

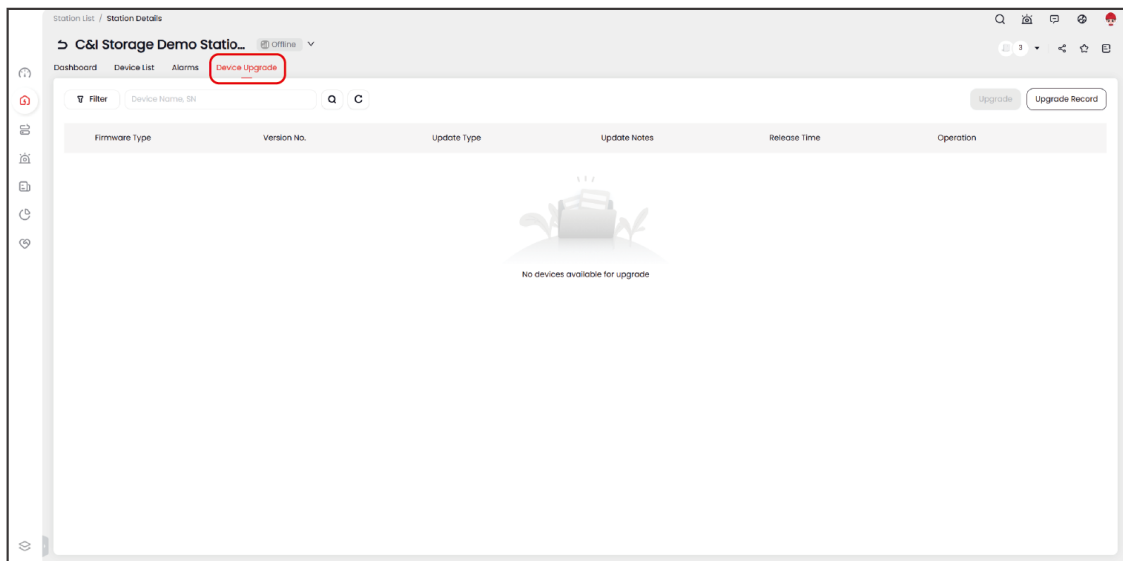
3.3.6 Device Upgrade

Supports upgrading a single device in the current plant or batch upgrading multiple devices in the plant.

If the upgrade is interrupted, the device goes offline, etc., during the upgrade process, the system will continue the upgrade after detecting that normal conditions are restored.

Procedure:

1. On the plant details page, click "Device Upgrade".
2. (Optional) Filter by device type or search for devices.
3. Click , to upgrade the firmware of a single device. For batch upgrade, click "Upgrade", select multiple devices, and click "Batch Upgrade".



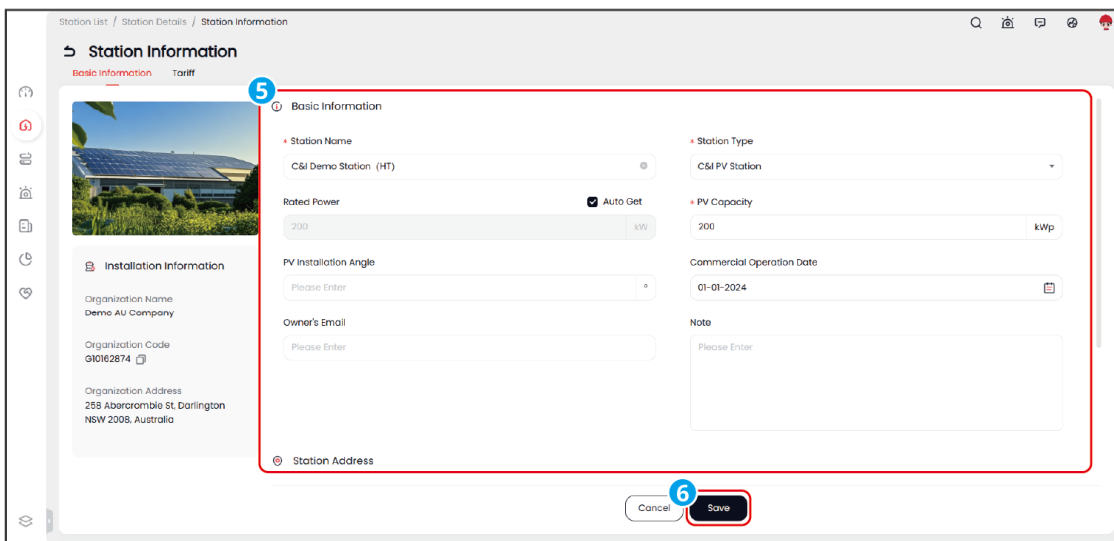
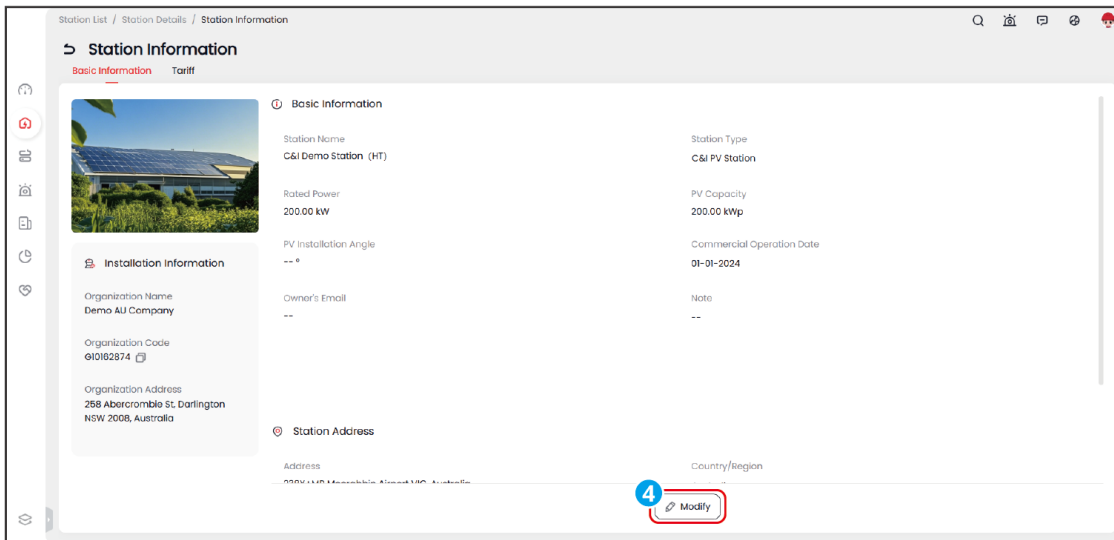
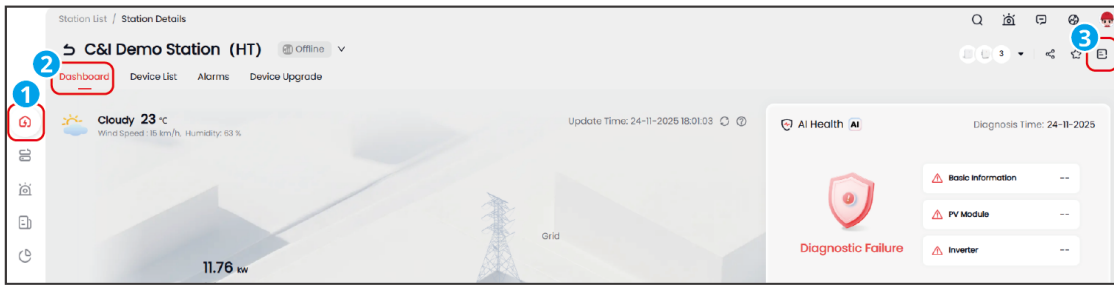
SEMS0097

3.3.7 Edit Plant Basic Information

The basic information set when the plant was created can be modified, including plant name, plant type, Rated Power, PV capacity, etc.

Procedure:

1. On the plant details page, click , to enter the "Basic Information" page.
2. Click "Modify" and enter the information according to actual requirements.
3. Click "Save" to complete the modification.



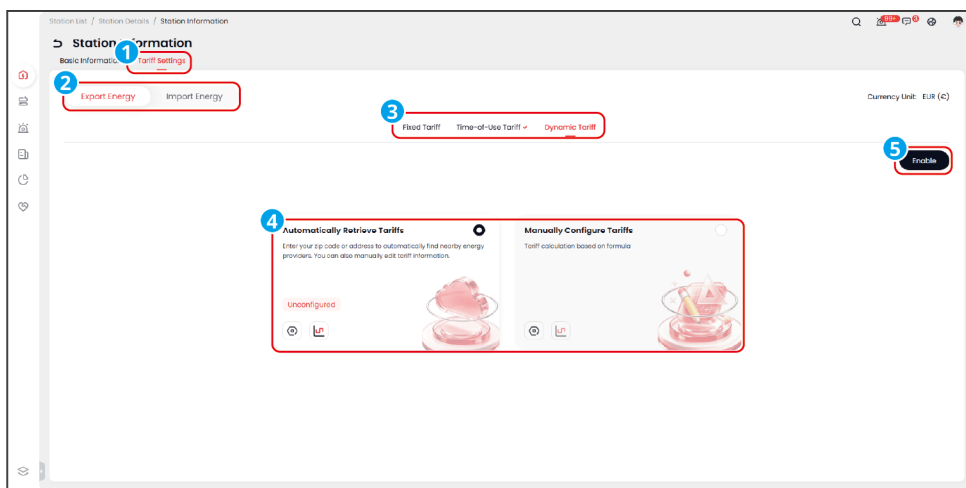
SEMS0128

3.3.8 Configure Tariff Information

Supports viewing or configuring plant Tariff information according to actual conditions.

Procedure:

1. On the plant details page, click  >"Tariff".
2. Select "Export Tariff" or "Import Tariff". Then set the Tariff type. Supported types include "Fixed Tariff", "Time-of-Use Tariff", and "Dynamic Pricing".
 - Fixed Tariff: Users set it according to the actual Tariff.
 - Time-of-Use Tariff: Users can set Tariff information for different time periods according to the actual Tariff. Multiple Tariff groups can be configured.
 - Dynamic Pricing: Obtain Dynamic Pricing from the power company, and combine it with user-defined Tariff surcharges to dynamically adjust the actual Tariff for buying and Export Energy.
 - Supports automatically obtaining the Tariff based on the matched power utility, or manually configuring the Tariff.
 - Only applicable to certain regions and certain devices.
3. Enter the Tariff information according to actual conditions.
4. After completing the Tariff information, click "Confirm" to complete the settings.



SEM50098

3.3.9 Diagnose Plant Health

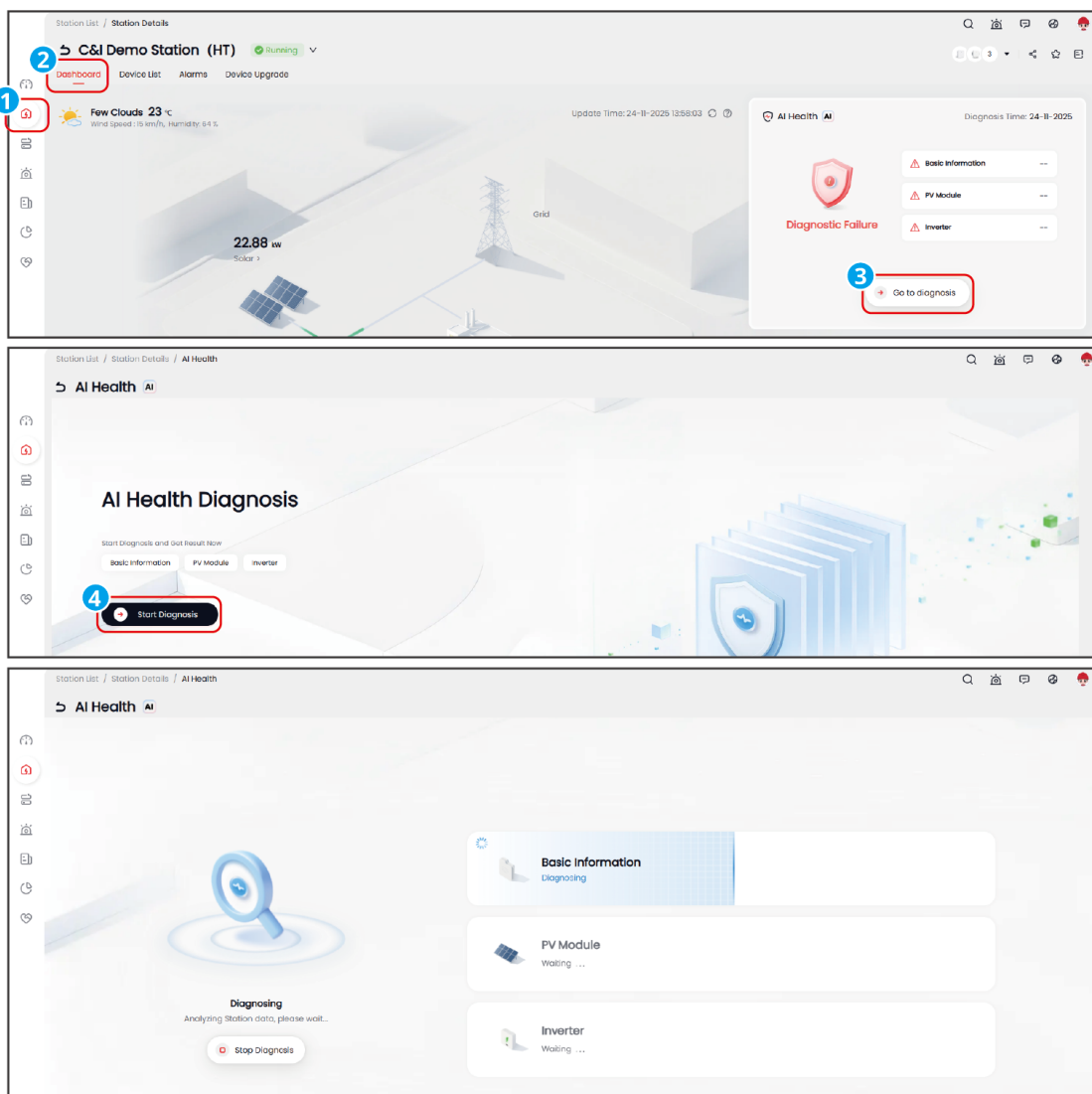
AIHealth Diagnosis is only applicable to commercial and industrial scenarios. Based on AI algorithms and big data analysis capabilities to perform multi-dimensional health status diagnosis on the plant, including but not limited to:

- Basic Information: Basic plant information.
- PV Modules: Analyze module power generation Efficiency and shading conditions.
- Inverter: Detect inverter current dispersion rate deviation.

- Energy Storage Consistency: Evaluate Battery Consistency.

Procedure:

1. On the plant dashboard interface, view "AIHealth Score."
2. Click "Go to Diagnostics">"Start Diagnosis."
3. After the diagnosis is complete, click each module to view specific diagnostic results and suggestions.



SEMS0099

3.3.10 Set System Operating Mode

Supports selecting the system operating mode based on Tariff, electricity demand, or power supply environment, etc. After the settings are complete, the system

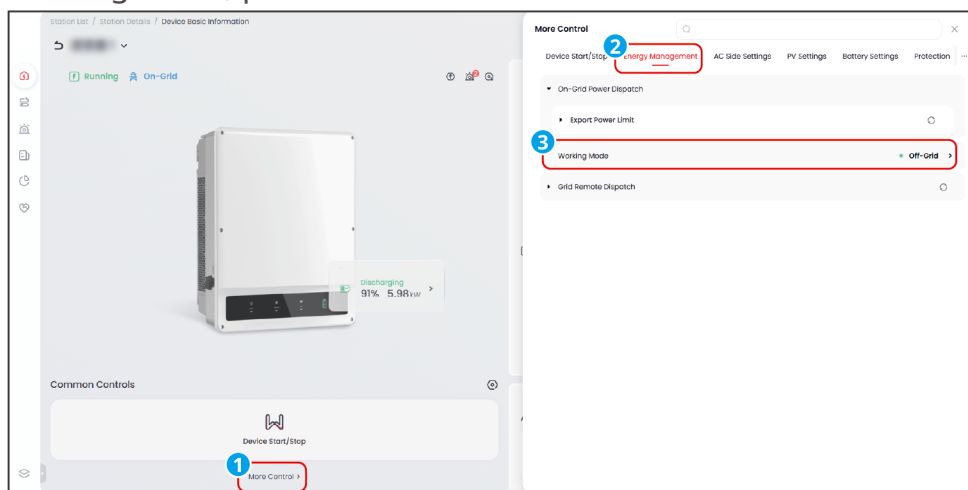
automatically coordinates PV, battery, and grid to perform power scheduling according to actual requirements.

NOTE

- The default working mode is Self-consumption Mode.
- Different systems support different working modes. Please refer to the actual interface.
- When the working mode is set through the inverter, the working mode priority is: Off-grid Mode > Demand Management > Intelligent Charging > TOU > Backup Mode > Self-consumption.
- When the working mode is set through the home energy management system, the working mode priority is: Backup Mode > AI Mode > Demand Management > TOU Mode > Self-consumption.
- When the plant supports the cloud EMS function, the plant-level working mode can be set; otherwise, the working mode can only be set through devices.
- The cloud EMS function is currently only applicable to some plants with a single energy storage unit installed.

Device-Level Working Mode Operation Steps

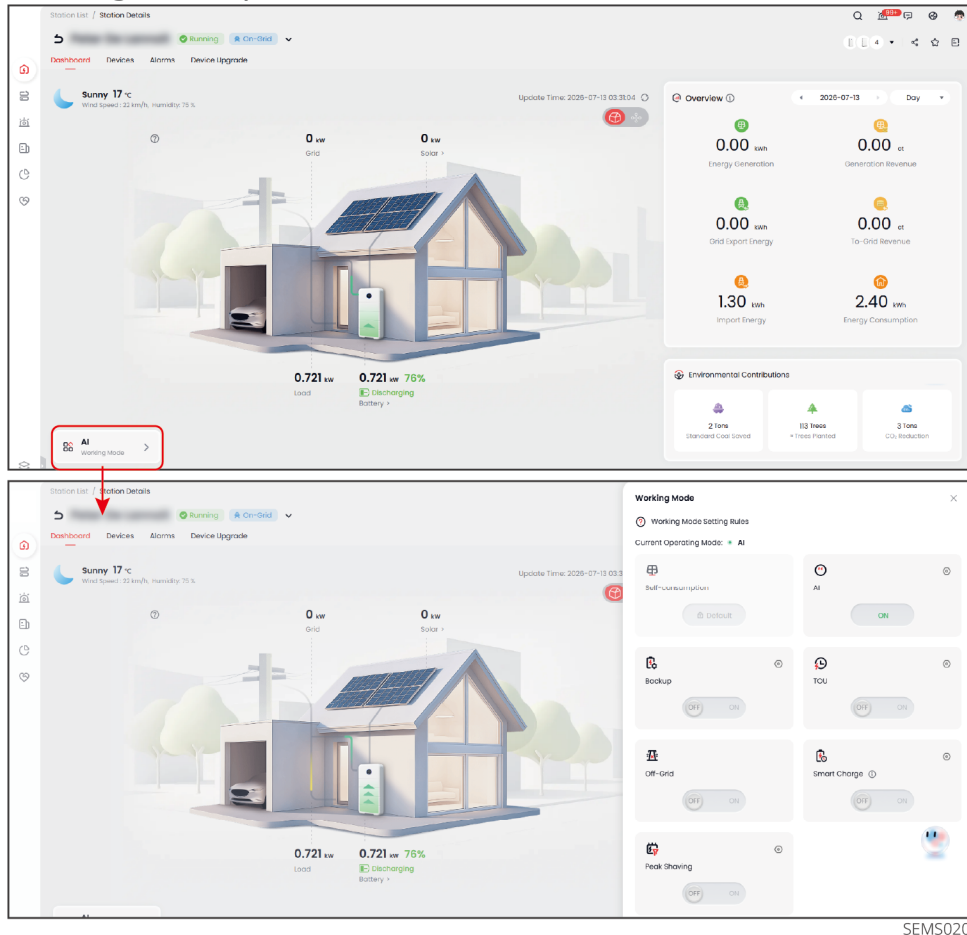
1. On the device details screen, go to "Common Controls" > "Energy Management" > "Working Mode", or search for "Working Mode" to enter the Working Mode Settings screen.
2. Set the working mode according to actual requirements. For details about the working mode, please click?



SEMS0222

Plant-Level Working Mode Settings Steps

1. On the plant dashboard screen, click "Working Mode".
2. Set the working mode according to actual requirements. For details about the working mode, please click?



SEMS0201

Self-consumption

The basic working mode for system operation.

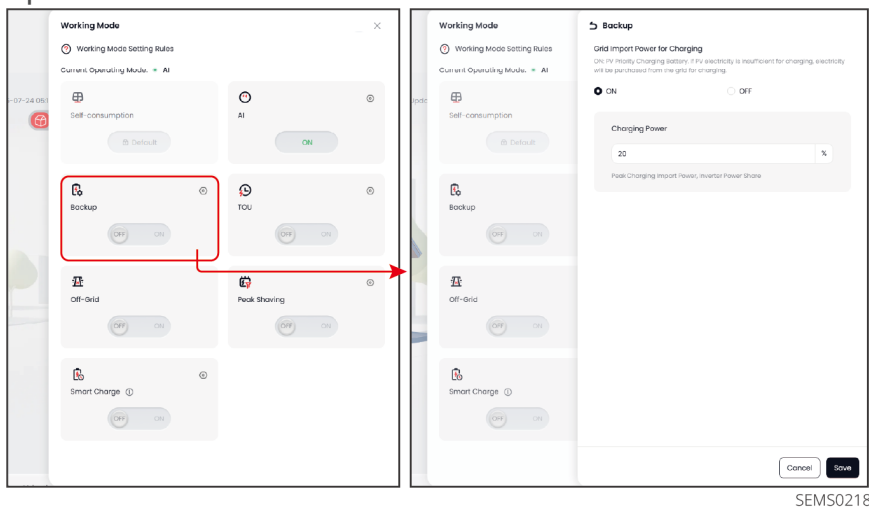
PV power is preferentially used to supply the load; surplus power is used to charge the battery, and any remaining power is exported to the grid. When PV generation is insufficient, the battery supplies the load; when the battery charge also cannot meet the load demand, the grid supplies the load.

Backup Mode

Recommended for use in areas with an unstable grid.

When a Grid Power Outage occurs, the inverter switches to off-grid operating mode, and the battery discharges to supply the load to ensure the BACKUP load is not interrupted; when the grid recovers, the inverter switches to grid-connected

operation.



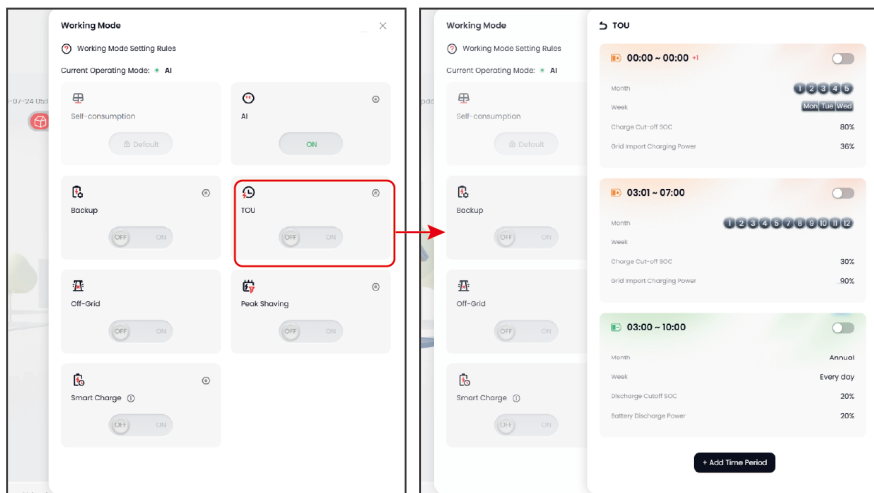
Parameter Name	Description
Grid Import Charging	Enable this function to allow the system to import power from the grid.
Charging Power	Peak power during grid import, as a percentage of the inverter's Rated Power.

TOU Mode

Suitable for areas with a large peak-valley Tariff difference.

Subject to local laws and regulations, set the system to import energy or Export Energy according to the grid's peak-valley Tariff periods. For example, during low Tariff periods, set the battery to charging mode to import energy from the grid for charging; during high Tariff periods, set the battery to discharging mode to supply the load or Export Energy to the grid.

Supports configuring multiple time periods according to actual needs and naming them as required.



SEMS0219

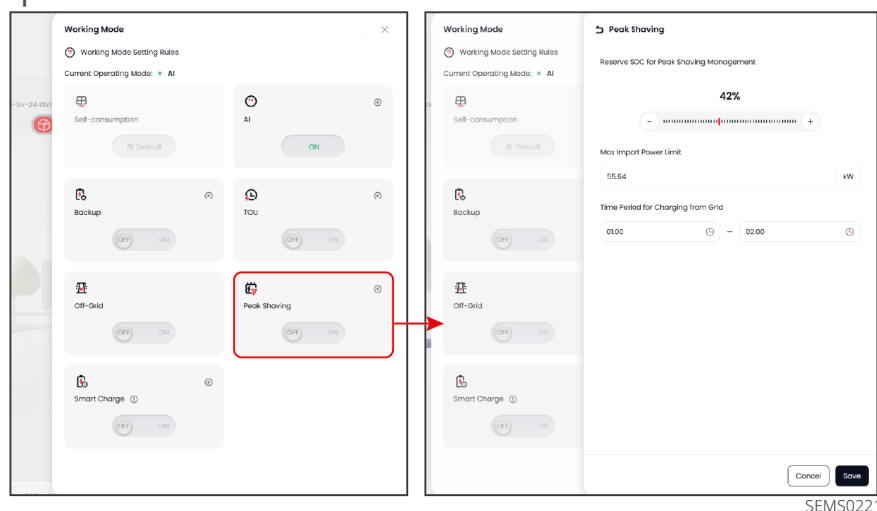
Parameter Name	Description
Start Time	Within the Start Time and End Time, the battery charges or discharges according to the configured charge/discharge mode and Rated Power. Outside the time period, it operates in Self-consumption Mode.
End Time	
Charge/Discharge Mode	Set to charging or discharging according to actual needs. - Charging: PV has priority to charge the battery. - Discharging: PV Priority to Export Power to the grid.
Charge Cut-off SOC	When the battery SOC reaches the set SOC, stop charging.
Grid Import Charging Power	Charging power, as a percentage of the inverter's Rated Power.
Power Limited Type	In discharging mode, some models support selecting either battery discharge or Export Energy to the grid. After discharging to the Discharge Cut-off SOC, stop discharging.
Discharge Cut-off SOC	
Discharging Power	Discharging power, as a percentage of the inverter's Rated Power.

Off-grid Mode

- Suitable for areas without a grid. PV and batteries form a pure off-grid system. PV power supplies the load, and surplus power charges the battery. When PV generation cannot meet the load demand, the battery supplies the load.
- Some models support manually or automatically enabling Off-Grid Mode.
 - Manual Off-Grid: The user manually switches to Off-Grid Operating Mode.
 - Auto Off-Grid: When the battery SOC is greater than the "Off-Grid SOC Upper Limit", the system automatically switches to off-grid operation; when the battery SOC is less than the "Off-Grid SOC Lower Limit", the system automatically switches back to grid-connected operation.

Demand Control

Applicable to scenarios with limited peak purchased power. When the total load power approaches the upper limit of the electricity purchase quota, battery discharge is used to reduce the portion of electricity consumption exceeding the quota.

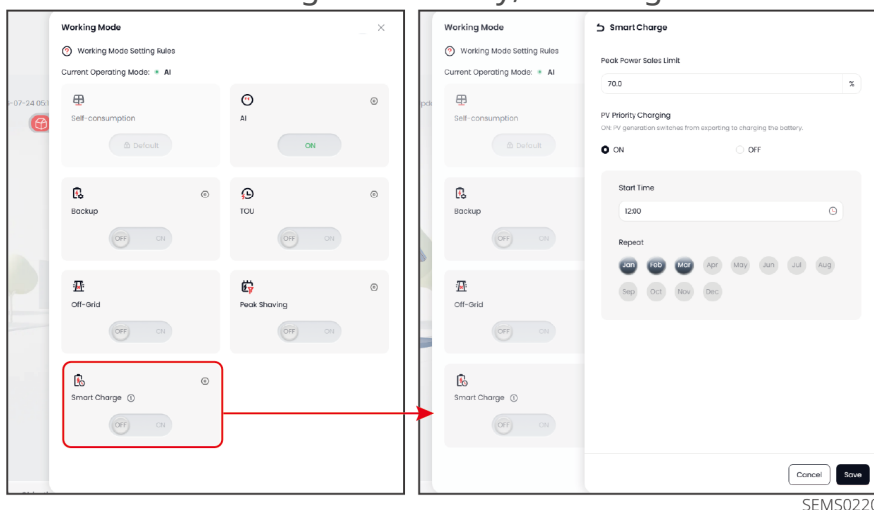


Parameter Name	Description
Reserve SOC for Demand Control	In Demand Control Mode, the reserved SOC is used for demand control. When the battery SOC is higher than the reserved SOC, the demand control function is disabled.

Parameter Name	Description
Peak Power Purchase Limit	Set the Max. Power limit allowed for purchasing electricity from the grid. When the load power exceeds the sum of the PV power generated in the PV system and this limit, the battery discharges to make up the excess power.
Time Period for Charging from Grid	- Within the Time Period for Charging from Grid, when the load power consumption does not exceed the electricity purchase quota, the battery can be charged from the grid. Outside this time period, the battery can only be charged using PV power. - Supports setting multiple time periods according to actual needs.

Intelligent Charging (Delayed Charging)

Applicable to regions with grid-connected power output limits. By setting the peak power limit and Charging Time period, PV power exceeding the grid-connected limit can be used to charge the battery, reducing PV curtailment.

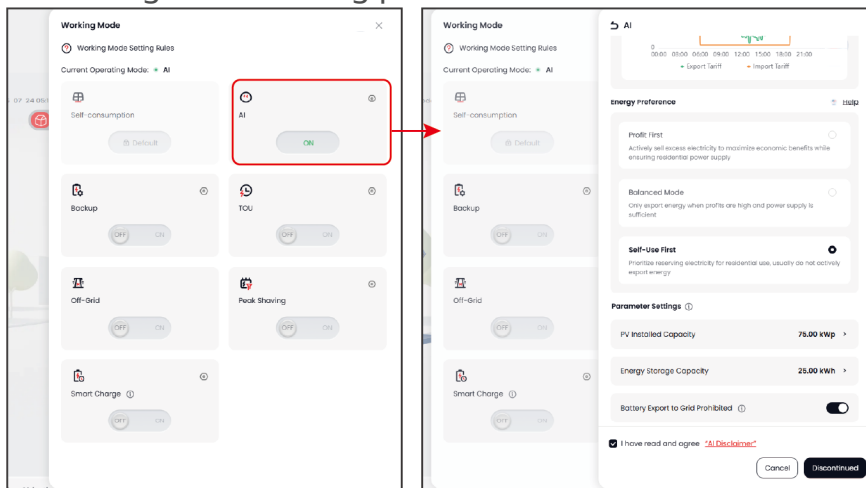


Parameter Name	Description
Peak Power Sales Limit	According to the grid code requirements of certain countries or regions, set the peak power limit. The peak power limit value must be lower than the locally specified output power limit.
PV Priority Charging	Within the Charging Time range, surplus PV power after load consumption is preferentially used to charge the battery. Outside the Charging Time range, surplus PV power after load consumption is preferentially used for Export Energy.
Start Charging Time	

AI Mode

AI Mode can be enabled when a Home Energy Management System (HEMS) device or cloud EMS function is used in the system.

Set the Tariff according to user needs, and combine AI computing to optimize scheduling to maximize energy and economic Efficiency. When using AI Mode, deviations between the predicted curve and actual conditions may occur during the initial stage of collecting plant information.



SEMS0217

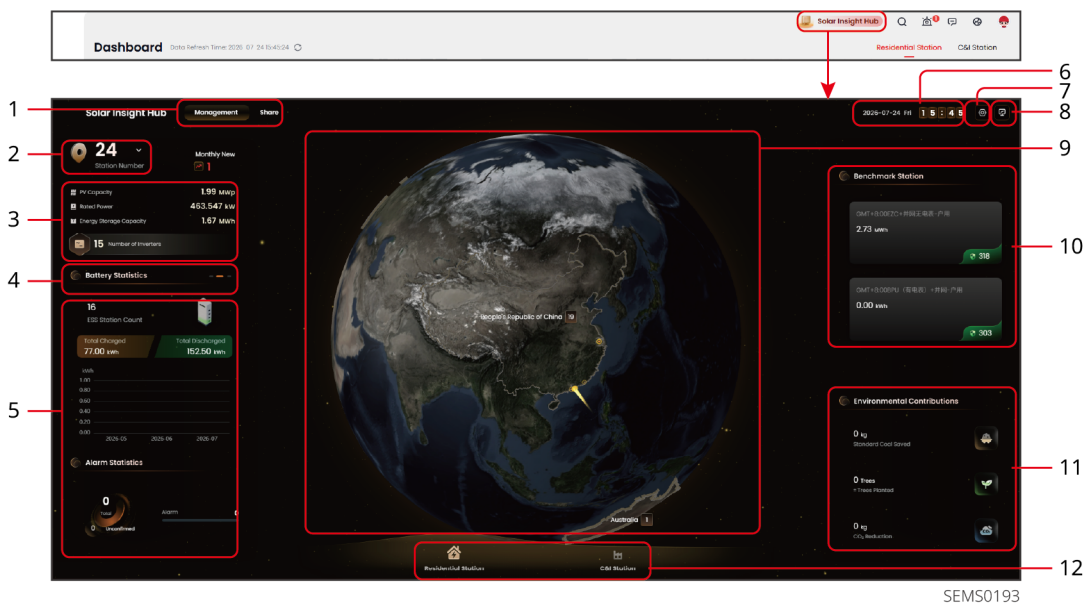
- Before enabling AI Mode, please set a Tariff plan first. When the Tariff plan is a fixed Tariff, AI Mode is not supported.
- Select Time-of-Use Tariff or Dynamic Pricing, supporting:
 - Dynamic Pricing: Obtain Dynamic Pricing from the utility company, and combine it with the user-defined Tariff surcharge to dynamically adjust the actual Tariff for purchasing electricity and Export Energy.

- Time-of-Use Tariff: Users can set Tariff information for different time periods according to the actual Tariff. Multiple Tariff groups can be set.
- Set the energy usage preference for AI Mode according to actual needs. If you have any questions, please click the "Help" button.

3.4 Data Dashboard

On the web interface, click "Data Wall" to enter the large-screen display interface and view the overall operating data of the plants.

To enable the Data Wall function, ensure that the number of plants under the account is at least 2.



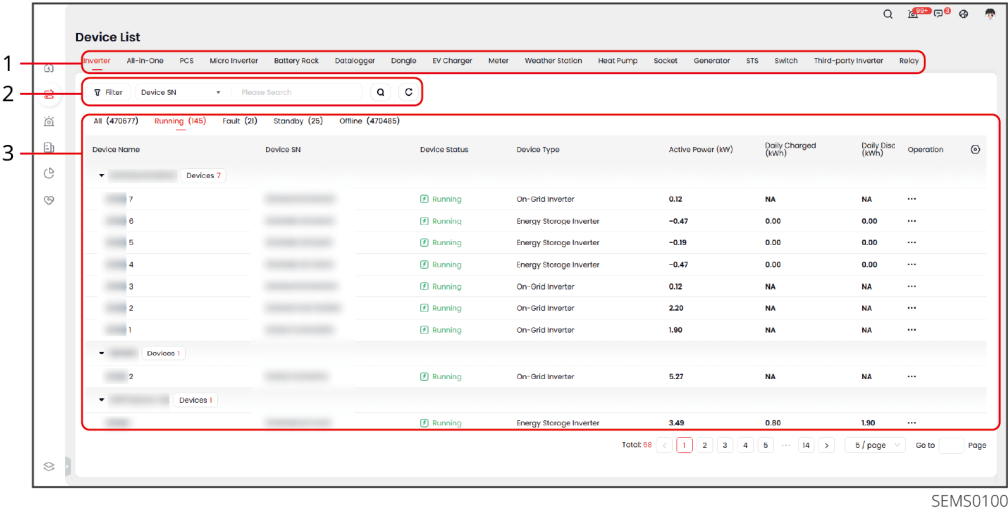
No.	Function Description
1	• The Data Wall displays plant information managed by the current account by default. • Supports switching to shared plants.
2	• Displays the current number of plants. • Hover to display the number of plants in different operating states.

No.	Function Description
3	Displays basic installation information of the plant, such as PV capacity, Rated Power, energy storage capacity, etc.
4	Displays the total number of inverters in all plants.
5	Statistics of Energy Generation and electricity consumption, such as cumulative Energy Generation, cumulative electricity consumption, cumulative energy storage charging energy, cumulative discharge energy, etc.
6	Data refresh time displayed on the large screen.
7	Configure the Data Wall display panels.
8	Full-screen display mode.
9	Global Plant Distribution 3D Model. Click to view the plant overview for the corresponding region.
10	- Benchmark plant information is not displayed in the Managed Plants view. - Click the plant name to display information such as plant address, operating status, safe operating days, Rated Power, Energy Generation, etc.
11	Display Environmental Contributions, such as CO ₂ Reduction, Standard Coal Saved, equivalent tree planting, etc.
12	Switch between residential plants and commercial & industrial plants according to actual needs.

4 Device Monitoring

4.1 Device List Overview

On the "Device List" page, you can view an overview of all devices under the account, including device name, device serial number, associated plant, operating status, etc.



No.	Function Description
1	Device type tabs. Displayed according to the actual device types in the plant.
2	Filter the devices to view by entering plant information.
3	Display overview information for all devices of the same type under the account. - Information such as device name, associated plant, serial number, status, type, power, Energy Generation, etc. The displayed information can be adjusted and configured via . - Click the device name to enter the device details page. - Click  to modify the device name or add device notes. - Click ... > , delete the device.

4.2 Device Details

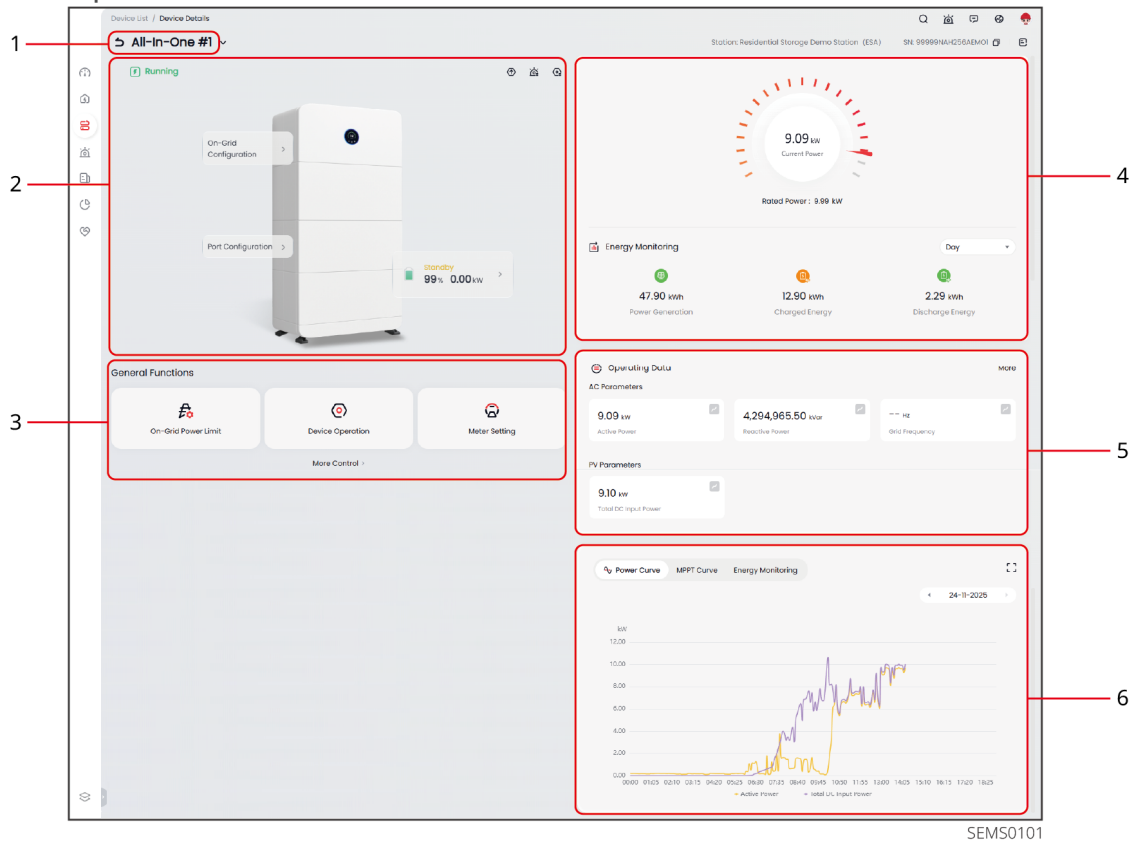
In the "Device List", click the "Device Name" of the specific device you want to view to

enter the "Device Details" page.

On the "Device Details" page, you can view device information, operating status, Energy Generation, power curve, or set device parameters, such as operating mode, grid connection parameters, safety parameters, battery parameters, etc.

Different devices display different details pages; please refer to the actual interface.

The following figure uses a commercial and industrial integrated cabinet as an example.



No.	Function Description
1	Display information such as device SN and associated plant. - Click  to switch to other devices in the plant. - Click  to copy the deviceSNnumber. - Click  to view detailed device information, such as device type, model, time added, Rated Power, etc.

No.	Function Description
2	• Device operating status. • Click  to upgrade the device or view device upgrade records. • Click  to view alarm records. • Click  to view device control records. • For some devices, such as all-in-one machines, a shortcut entry is provided to view or set details of the PCS, battery, etc.
3	• Display shortcut entries for commonly used control items. • Click "More Control" to view all control items of the device.
4	• Display current power and Rated Power values. • Display Energy Generation on a daily, weekly, monthly, yearly, and total basis.
5	• Display device operating data. • Click  to display the curves of each parameter. • Click "More" to display all data details.
6	• Within each time dimension, power curves, MPPT curves, and energy monitoring curves are displayed. • Click  to zoom in and display the curve chart.

4.3 Set Device Parameters

Parameter items vary by device; please refer to the actual interface.

Procedure:

1. Click "Device List" and select the device type tab according to actual requirements.
2. Click the name of the device to be configured to enter the device details screen.
3. Click "More Settings" and set parameters according to actual requirements.

The screenshot displays the Enphase Enlighten web interface. The top navigation bar includes 'Inverter', 'All-In-One', 'Data Logger', and 'EV Charger'. The 'All-In-One' tab is selected. The 'Device List' table shows a single device, 'All-In-One #1', with a status of 'Running'. The 'Device Details' page for 'All-In-One #1' is shown below, featuring a 3D model of the unit and various monitoring metrics. The 'More Control' section is highlighted with a red box and an arrow pointing to the 'More Control' link in the 'General Functions' section. The 'More Control' page shows a 'Customized Safety Parameters' tab, which is currently active, displaying a list of control functions and their values.

Device List

Station Name	Device Name	Device SN	Device Status	Device Type	Active Power (kW)	Daily Generation (kWh)	SOC (%)	Operation
	All-In-One #1	99999944C5568MCH	Running	All-In-One	8.86	49.80	99.00	...

Device Details: All-In-One #1

Station: Residential Storage Demo Station (ESA) SN: 99999944C5568MCH

General Functions

- On-Grid Configuration
- Port Configuration
- Intensity: 99% 0.00 kW
- On-Grid Power Limit
- Device Operation
- Meter Setting
- More Control

More Control

Customized Safety Parameters | Global Generator Settings | Battery Function | Intelligently Intelligent Detection

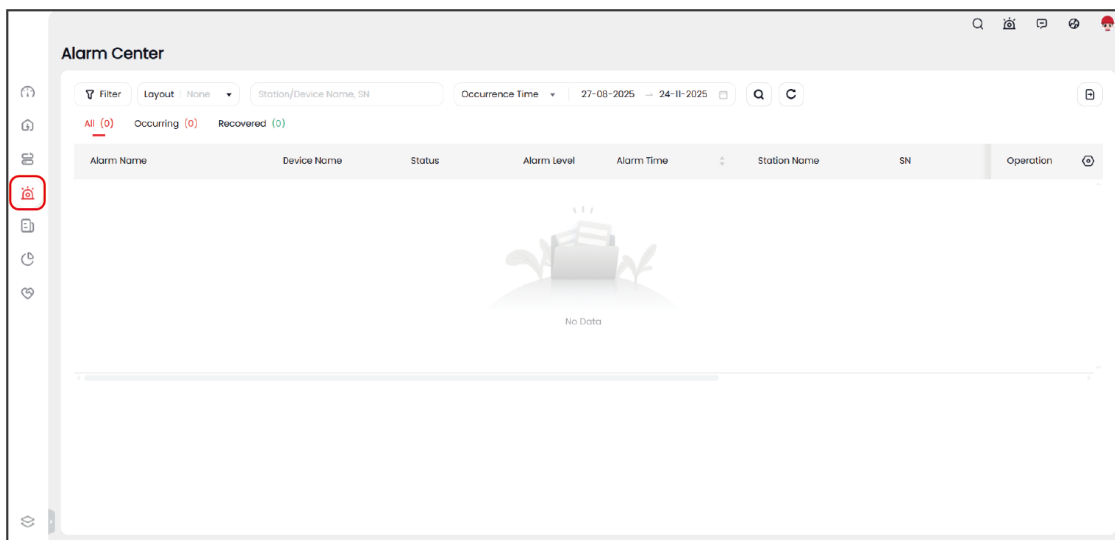
Control Functions

- Active Power Mode Settings
- Reactive Power Mode Settings
- Protection Parameters
- Connection Parameters
- Frequency Fault Ride Through
- Fault Ride-Through

5 Alarm Management

Through the Alarm Center interface, you can view alarms for all plants in the account and perform operations such as acknowledging and downloading alarms.

- Supports filtering by device type, alarm severity, alarm type, status, and other information, and saving as a view.
- Supports filtering alarm information for a specified time period.
- Supports viewing alarm details by clicking the alarm name.
- Click  to adjust the information type displayed on the interface.
- Click  to favorite the alarm.
- Click  to download alarm information.



SEMS0103

6 Intelligent Analysis

Applicable only to some plants. Please refer to the actual interface.

6.1 IV Diagnosis

Based on IV curve analysis, perform fault diagnosis on power station equipment, automatically locate faults, provide improvement suggestions, and generate diagnostic reports.

Before performing IV diagnosis or scanning tasks, please refer to the task setting operation suggestions and confirm that the operating conditions are met.

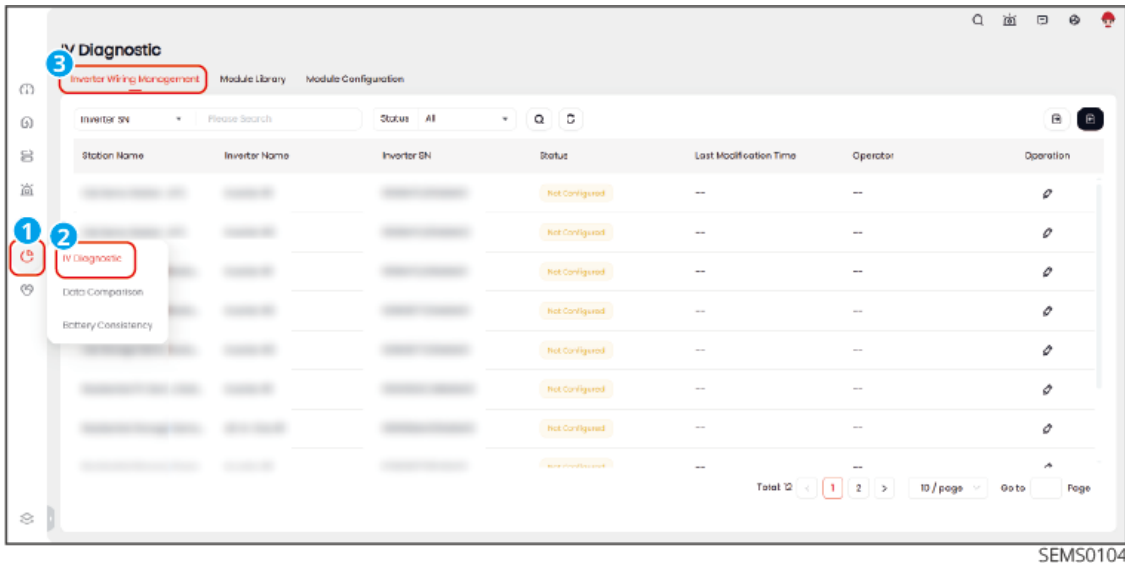
Only applicable to HT 225K series, UT 320K series, and GT G1 series inverters.

6.1.1 Manage Inverter Wiring Information

When an inverter supports connecting multiple strings, you need to configure the ports to which strings are actually connected according to the actual wiring conditions. For example, if inverter A has PV1-10, but actually PV1-3 are connected to strings, you need to select and configure PV1-3.

Procedure:

1. Click "Analysis" > "IV Diagnosis" > "Inverter Wiring Management".
2. Edit inverter wiring information according to actual requirements. After configuration is complete, the status will be displayed as "Configured".
 - If a single inverter needs to be configured, click  to configure it.
 - If multiple inverters need to be configured, click "Download Template", fill in the module information in the template, and click  to batch upload.



SEMS0104

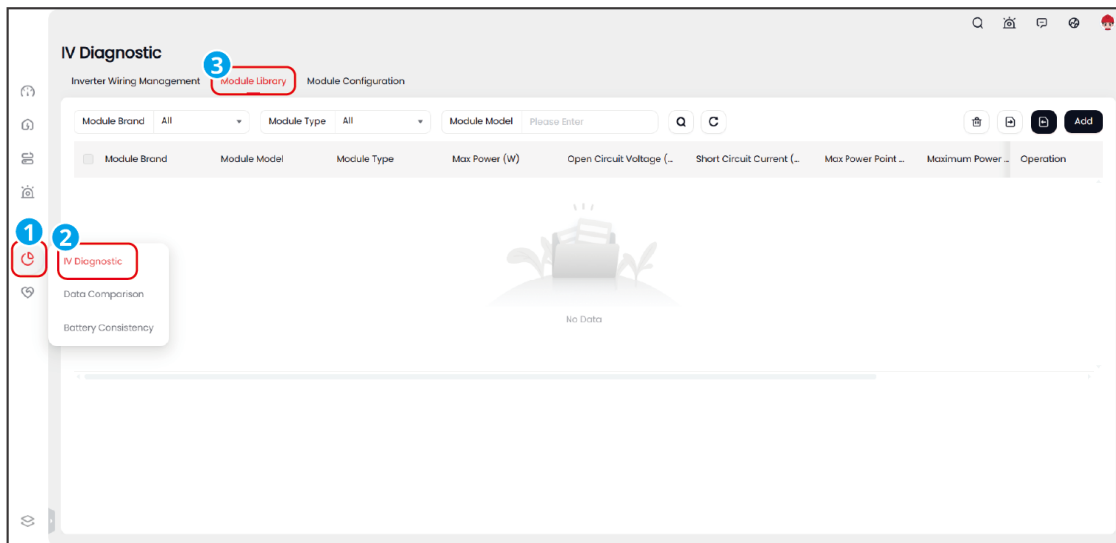
6.1.2 Manage Module Information

Manage Module Library

Supports adding, deleting, or downloading module information in the plant, including module brand, model, type, power, current, voltage, etc.

Procedure:

1. Click "Analysis" > "IVDiagnosis" > "Module Library" to enter the Module Library management interface.
2. Add or delete Module Library information according to actual requirements.
 - If a single module needs to be added, click "Add" to add a single module.
 - If multiple modules need to be added, click "Download Template", fill in the module information in the template, and click  to batch upload.
 - After selecting modules, click  to delete the selected modules.
 - Click  to download the module information in the current Module Library.



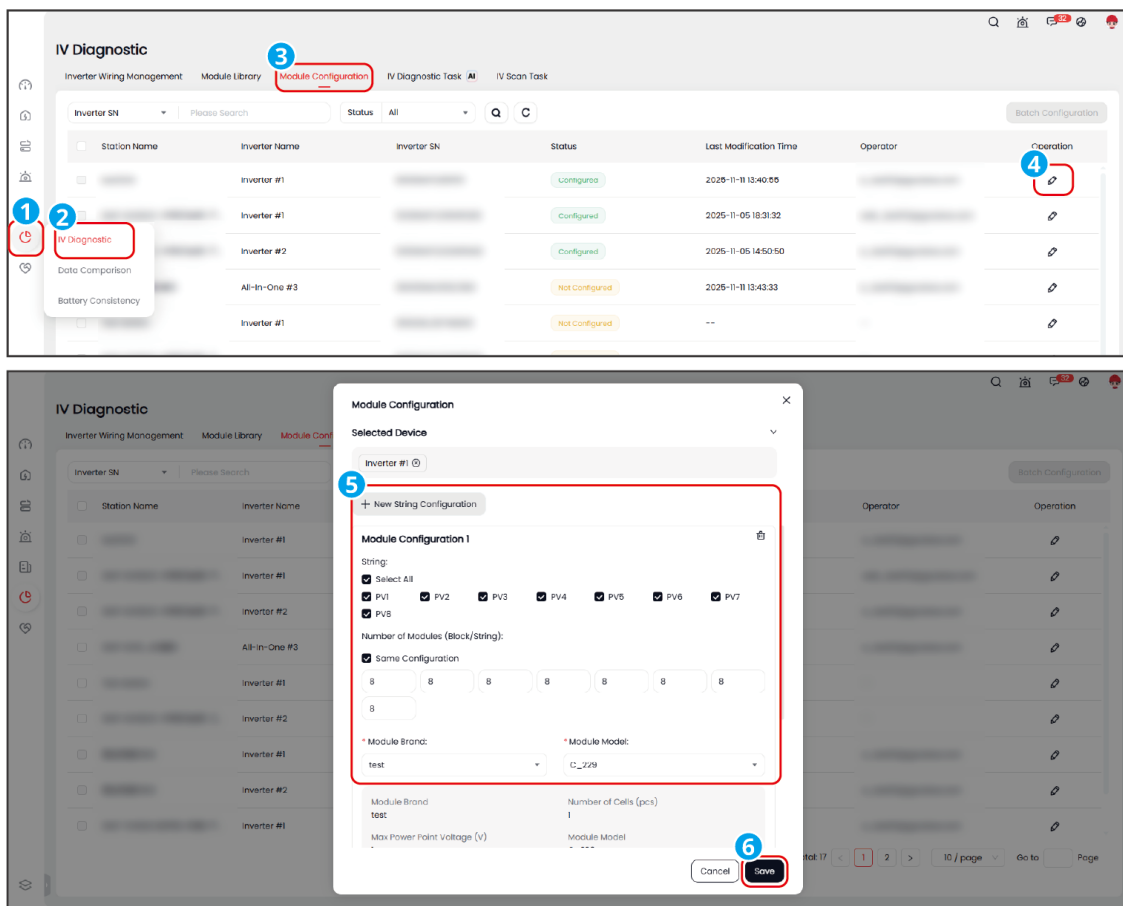
SEMS0105

Manage Module Configuration

Supports configuring the module information used by each PV channel of the inverter. Before configuring the inverter module information, make sure the corresponding module information has been added to the Module Library.

Procedure:

1. Click "Analysis" > "IVDiagnosis" > "Module Configuration".
2. For inverters in the "Not Configured" status, click  to enter the configuration interface.
3. Configure the inverter's module information according to actual needs, and click "Save".

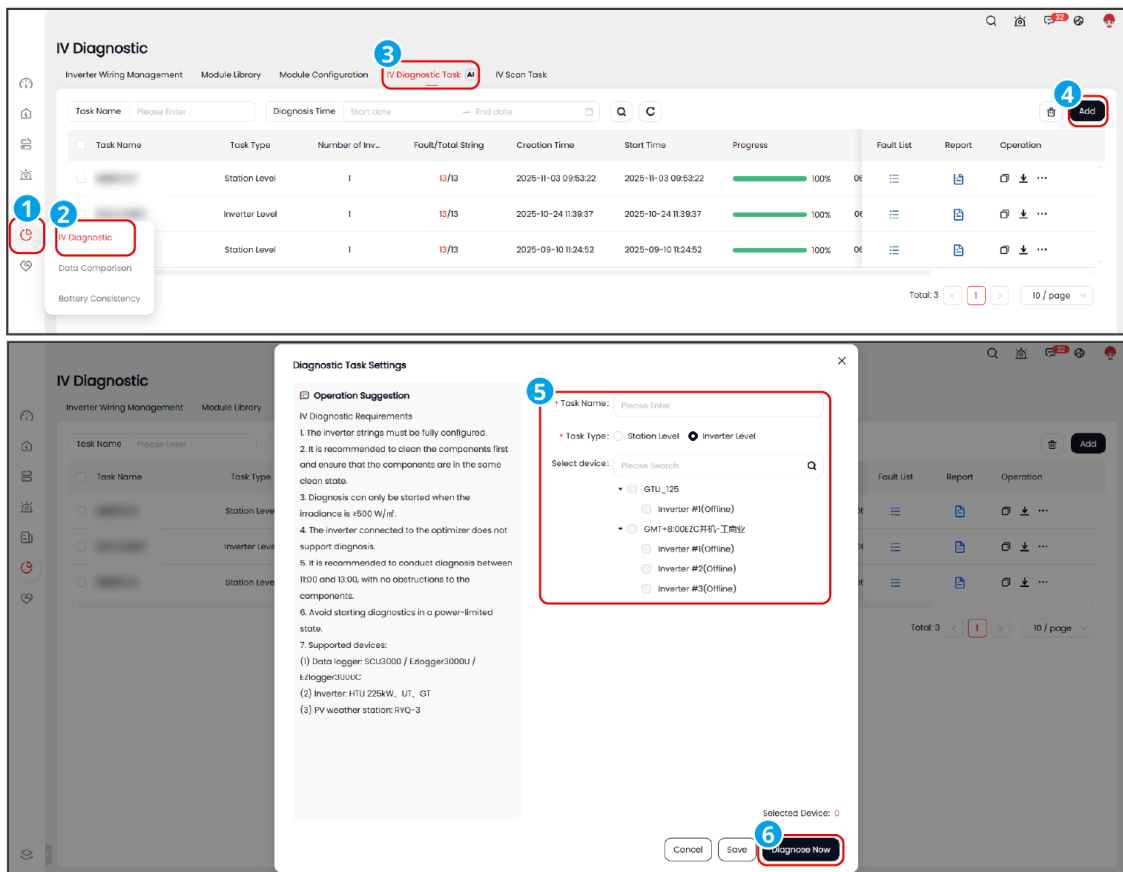


SEMS0106

6.1.3 IV Diagnosis Task

Procedure:

1. Click "Analysis" > "IV Diagnosis" > "IV Diagnosis Task" to enter the diagnosis interface.
2. Click "Add" to enter the Create Diagnosis Task interface. Fill in the task requirements as needed and click "Diagnose Now" to start the task.
3. After diagnosis is complete, automatically return to the IV Diagnosis interface, where you can view task progress and other information.
 - Click View Report, Export Report;
 - Click Download Report;
 - Click ... > Delete Report.



SEMS0107

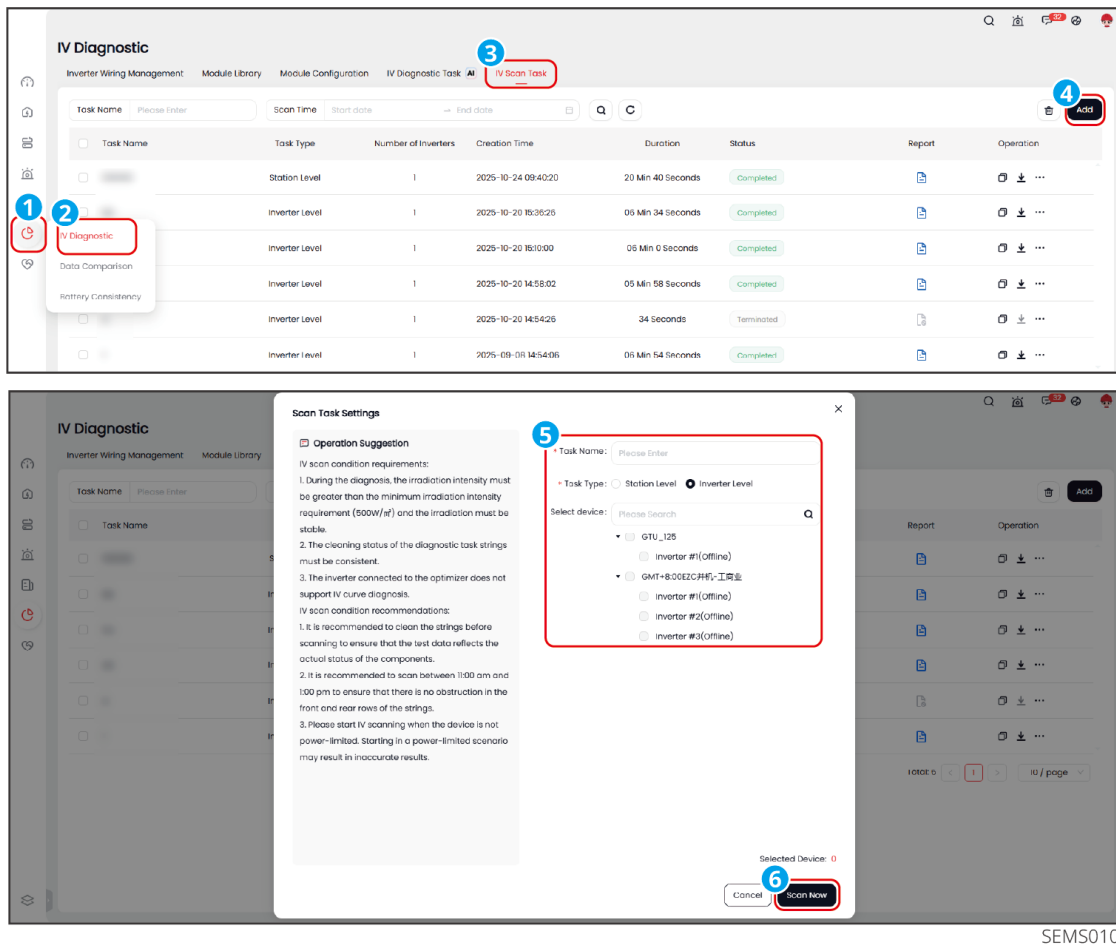
6.1.4 IV Scan Task

Step1: Click "Analysis">"IVDiagnosis">"IVScanning Task" to enter the diagnosis interface.

Step2: Click "Add" to enter the Create Scanning Task interface. Fill in the task requirements as needed and click "Scan Now" to start the task.

Step3: After scanning is complete, automatically return toIVdiagnosis interface, where you can view task progress and other information.

- Click View Report, Export Report;
- Click Download Report;
- Click ... > Delete Report.



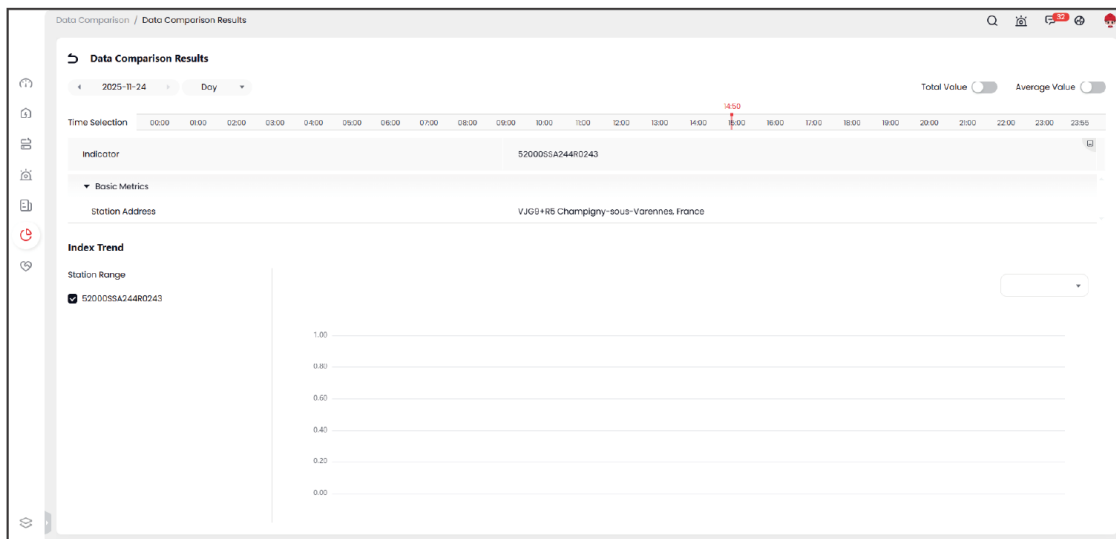
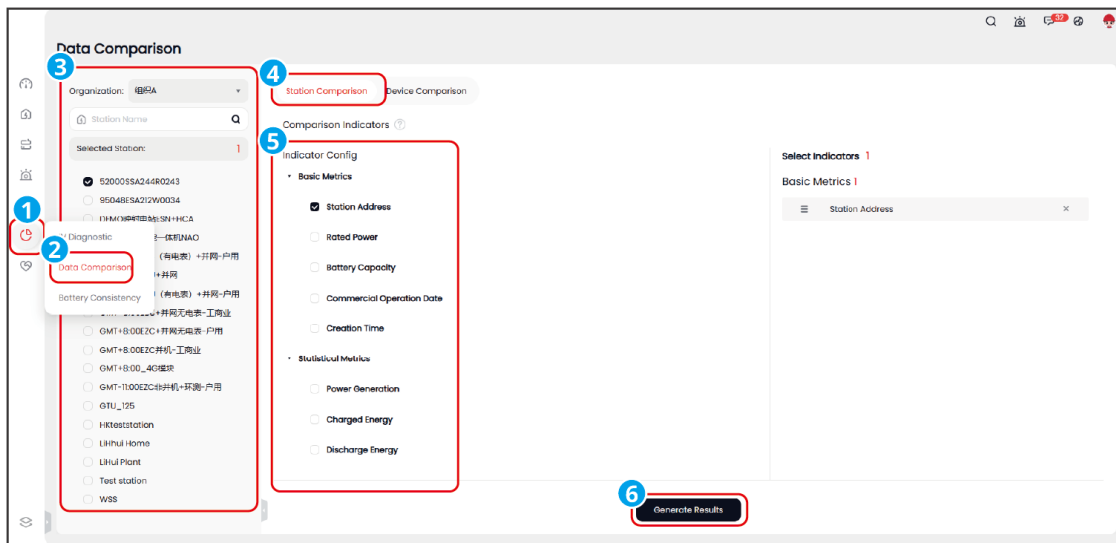
SEMS0108

6.2 Data Comparison

Supports selecting multiple power stations to perform Data Comparison between power stations and Data Comparison between devices under a power station.

Procedure:

1. Click "Analysis" > "Data Comparison" to enter the Data Comparison interface.
2. Select the power stations to be compared.
3. Select "Station Comparison" or "Device Comparison" as needed, and configure the metrics to be compared.
4. Click "Generate Results" to enter the comparison data display interface.



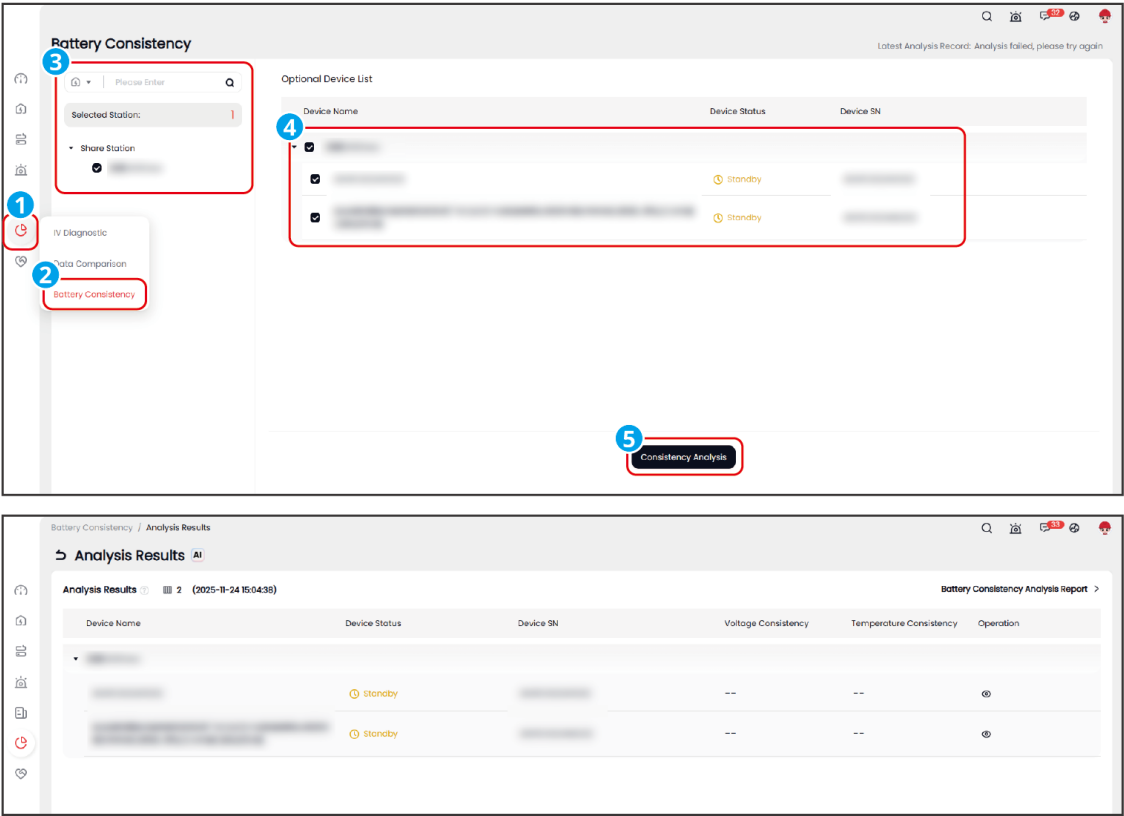
SEMS0109

6.3 Battery Consistency Analysis

Supports selecting multiple batteries to perform temperature consistency and voltage consistency analysis in batches, improving monitoring Efficiency.

Procedure:

1. Click "Analysis" > "Battery Consistency Analysis" to enter the Data Comparison interface.
2. Select the plants and devices to be compared.
3. Click "Consistency Analysis". After the analysis is complete, you can enter the analysis result interface. If needed, click to download the consistency analysis report.



SEMS0110

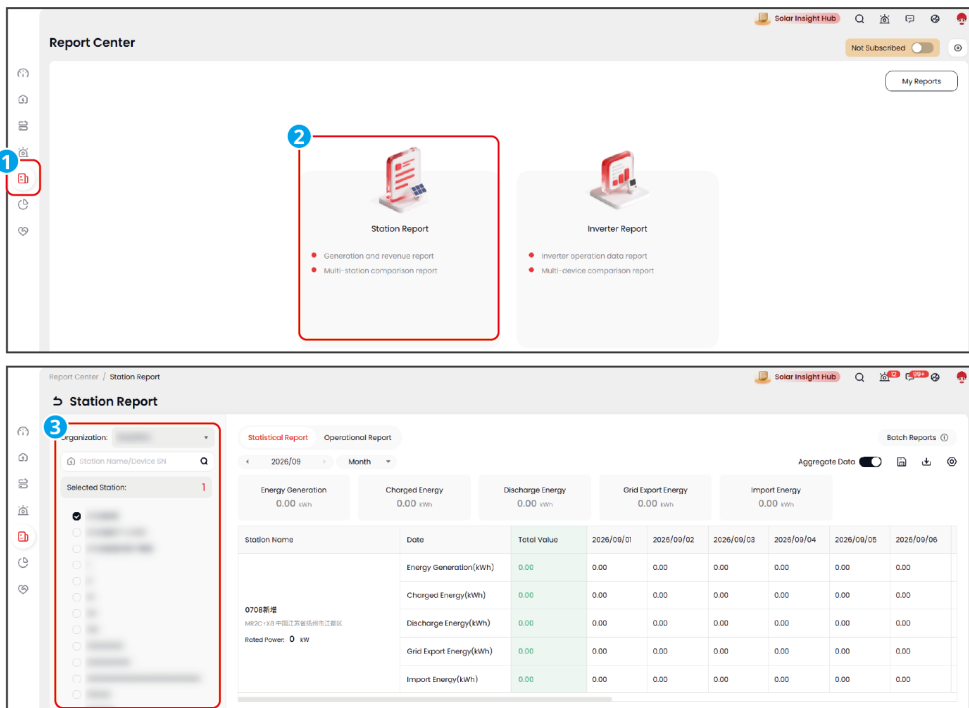
7 Report Management

Log in to the WEB, and click "Report Center" in the navigation bar to view or configure report information.

7.1 View Plant Reports

Procedure:

1. Click "Report Center" > "Station Reports" to enter the settings screen.
2. Select one or more stations to view.
3. Select the report type, time range, etc. to view as needed, and the report information will be displayed. Click  to set the statistical metrics, sorting, and other information in the report.
4. (Optional): If needed, you can click  to download or  save the report. To download reports for multiple stations, click "Batch Reports".

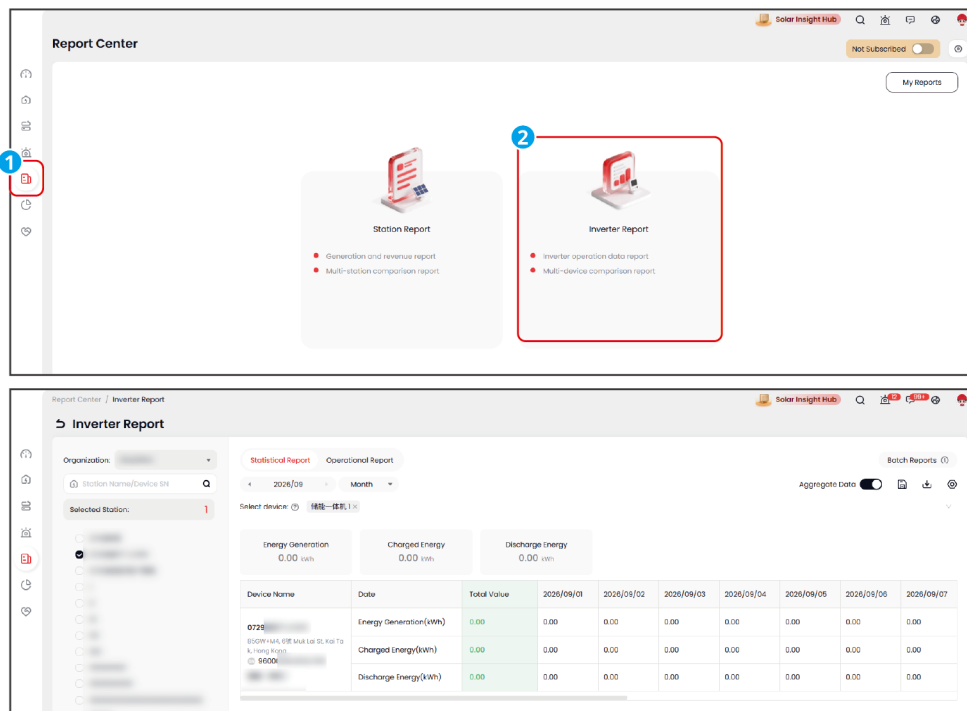


SEMS0111

7.2 View Device Reports

Procedure:

1. Click "Report Center" > "Inverter Device Reports" to enter the settings screen.
2. Select one or more stations to view.
3. Select the report type, time range, etc. to view as needed, and the report information will be displayed. Click  to set the statistical metrics, sorting, and other information in the report.
4. (Optional): If needed, you can click  to download or  save the report. To download reports for multiple devices, click "Batch Reports".



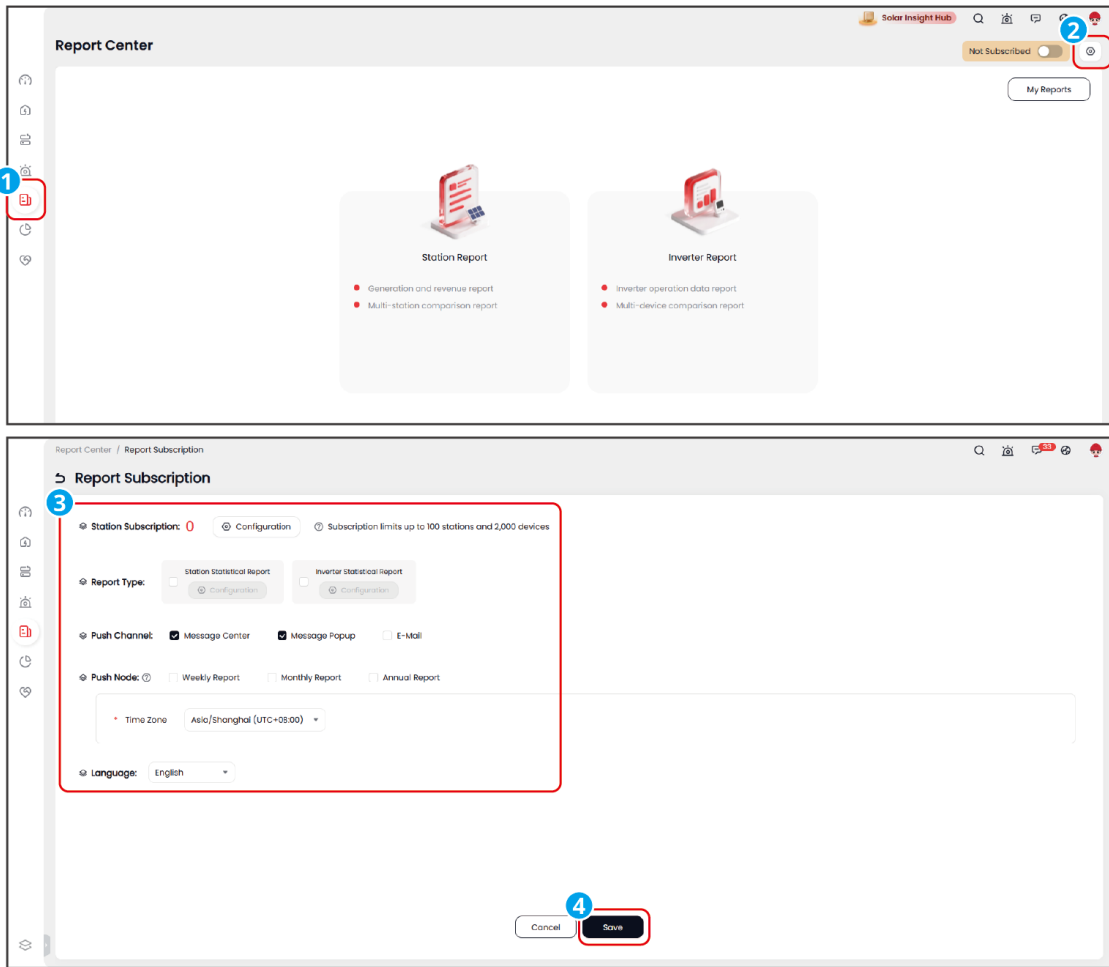
SEMS0112

7.3 Set Report Subscription Information

Supports customizing report information and push methods based on actual needs. Supports selecting the organization type, report type, push node, push channel, etc. for pushing reports.

Procedure:

1. Click "Report Center" > "Report Subscription" to enter the settings screen.

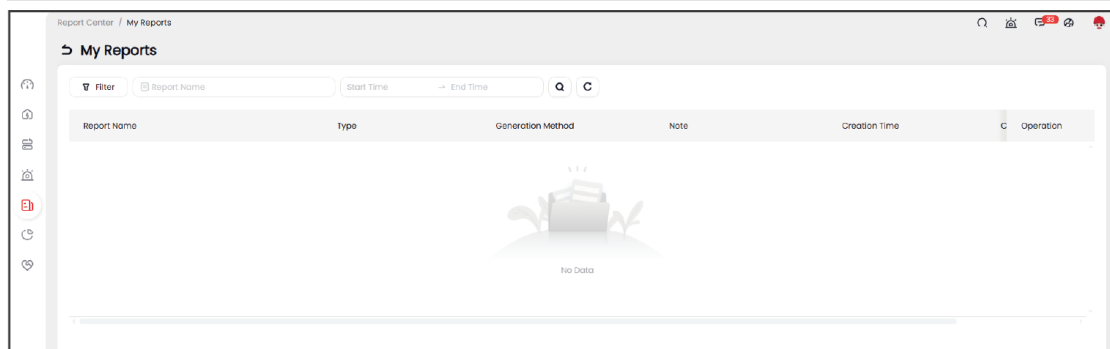
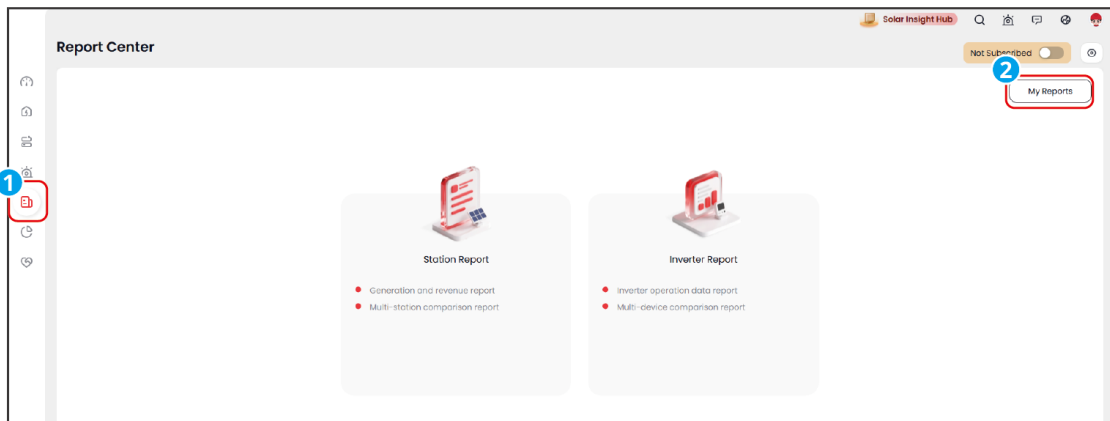


SEMS0113

7.4 Query My Reports

Procedure:

1. Click "Report Center" > "My Reports" to enter the My Reports screen, where you can filter, view, download, or delete reports as needed.

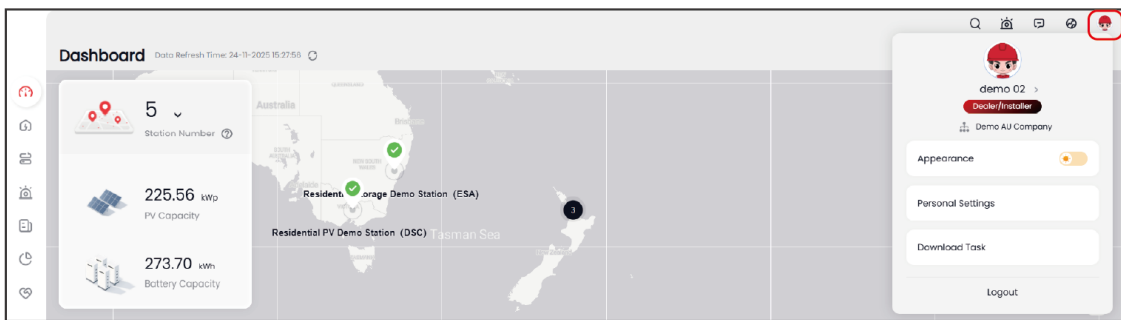


SEMS0114

8 Personal Center Management

Supports personalized settings for the account, such as switching webinterface appearance, modifying personal information, viewing download tasks, etc.

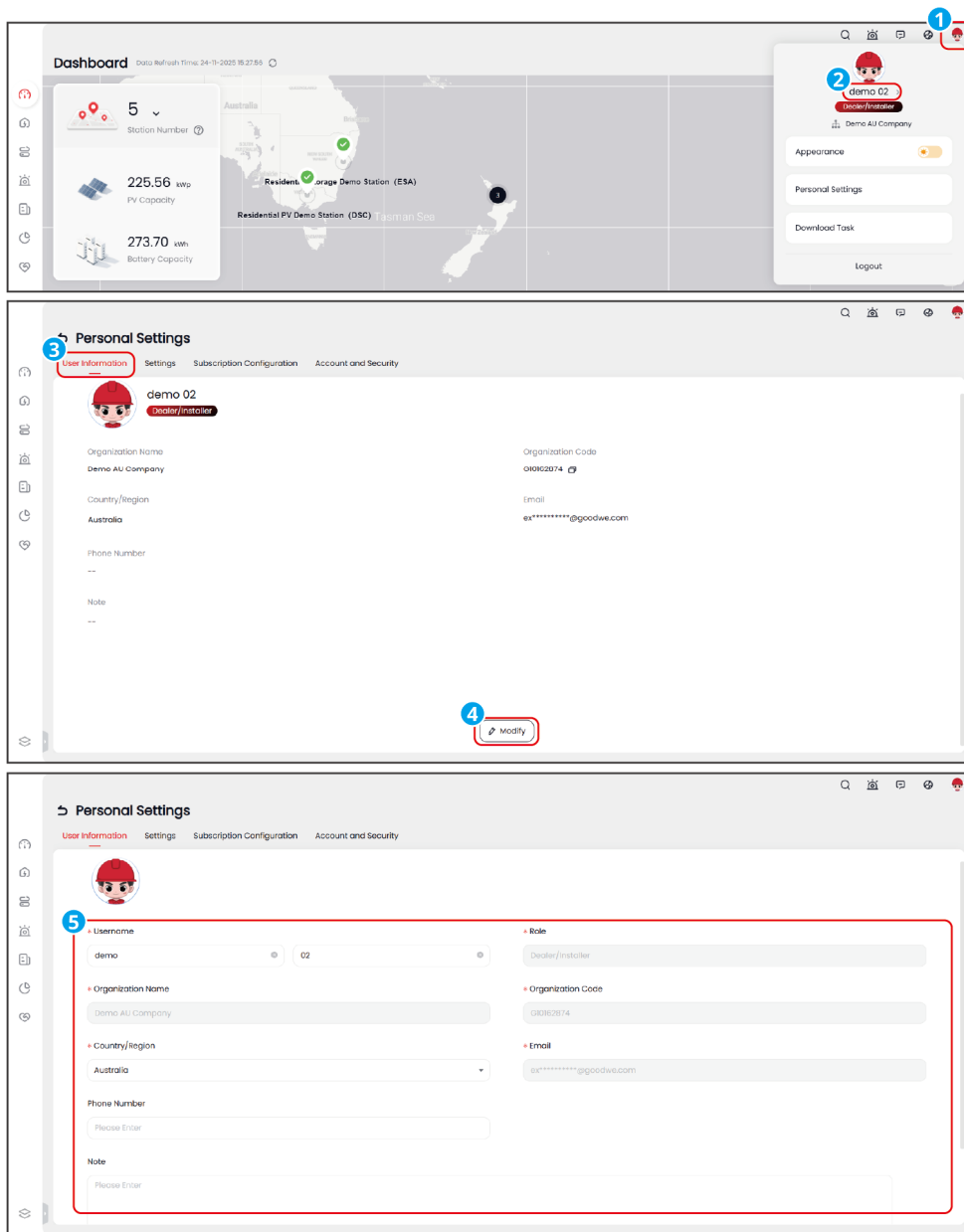
- Click "Appearance" to switch webinterface display appearance, supporting light and dark modes.
- Click "Personal Settings" to configure personal information, preference settings, Subscription Configuration, change password, etc.
- Click "Download Tasks" to view and manage the progress of all export tasks.



8.1 Modify User Information

Procedure:

1. Click webinterface's upper right corner account avatar > "Personal Settings" > "User Information".
2. Click "Modify" to update the account information that needs to be modified, such as avatar, username, and country/region.
3. Click "Save" to complete the modification.



SEMS0116

8.2 Use AI Assistant

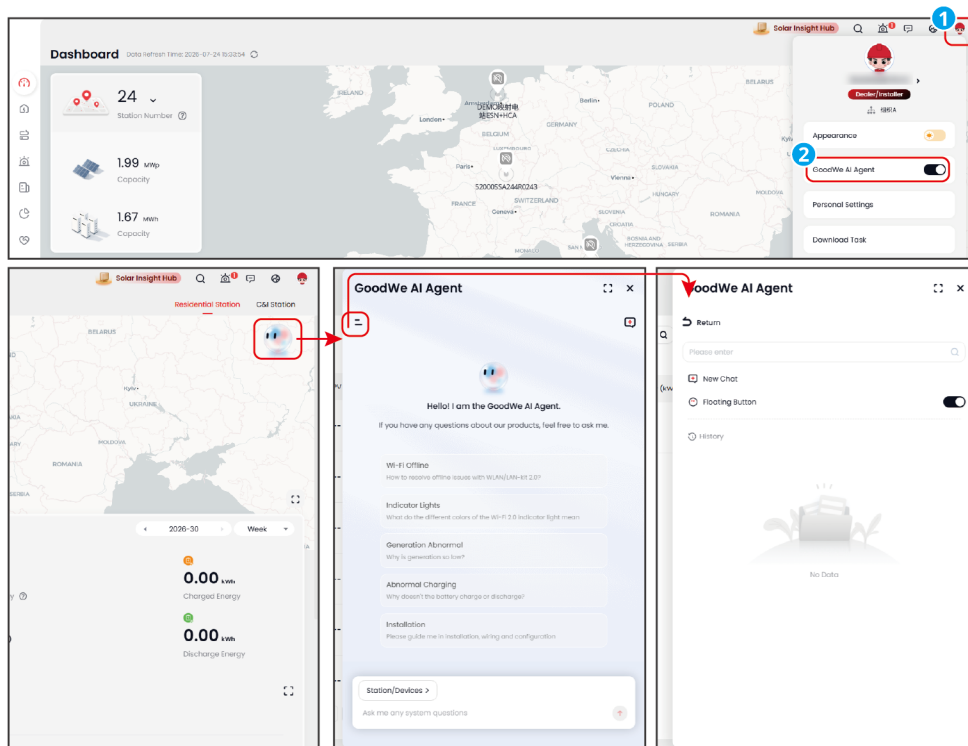
Quickly obtain graphical and textual information through Q&A with the GoodWe AI Assistant.

- Supports querying knowledge base information, such as GoodWe product and device manuals, etc.
- Supports querying business data, such as Energy Generation information, fault information, power information, etc.

- Supports querying external data, such as weather information, date information, etc.
- Supports feedback and suggestions on AI answers. When the AI cannot solve the problem, you can transfer to manual processing with one click and generate an after-sales work order.

Procedure:

1. Click the account avatar in the upper right corner of the interface > "Xiaogu AI Assistant" to enable the AI Assistant.
2. Enter the question you want to ask in the dialog box to quickly generate an answer.

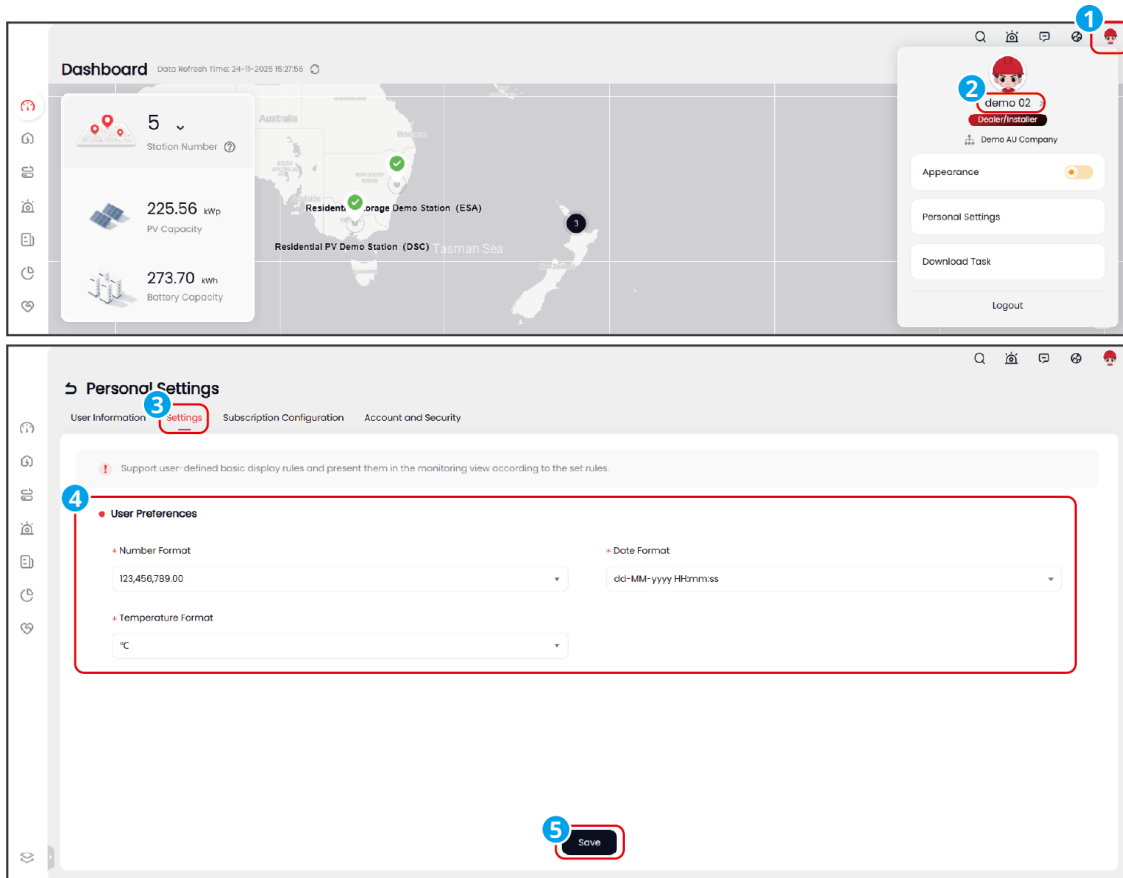


SEMS0192

8.3 Set Preference Format

Procedure:

1. Click web interface's upper right corner account avatar > "Personal Settings" > "Settings".
2. Modify the number display format, date format, temperature format, etc.
3. Click "Save" to complete the modification.



SEMS0117

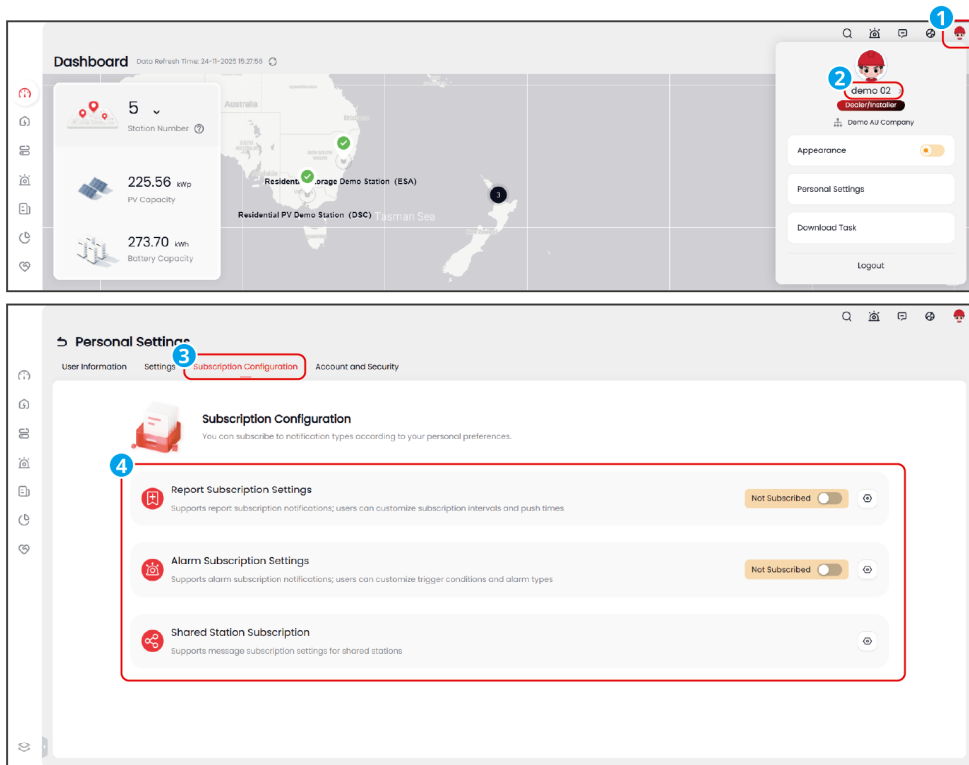
8.4 Set Subscription Information

Supports configuring Report Subscription, Alarm Subscription, and Shared Station Subscription information.

- Report Subscription: Supports customizing report information and push methods according to actual requirements.
 - Supports setting the report types to push, such as station statistical reports or inverter statistical reports.
 - Supports setting push channels, i.e., receiving notifications via Message Center, message pop-up, email, etc.
 - Supports setting when to push alarm notifications.
- Event Subscription: When enabled, users can receive notifications when device alarms, faults, or operating status changes occur. Supports setting the stations, alarm types, push time points, etc. for pushing alarms.
- Shared Station Subscription: When a station is shared by others, set the message

push channel for the shared station.

- **Tariff Expiration Reminder:** Disabled by default. After it is enabled, a notification will be sent when the tariff expires.



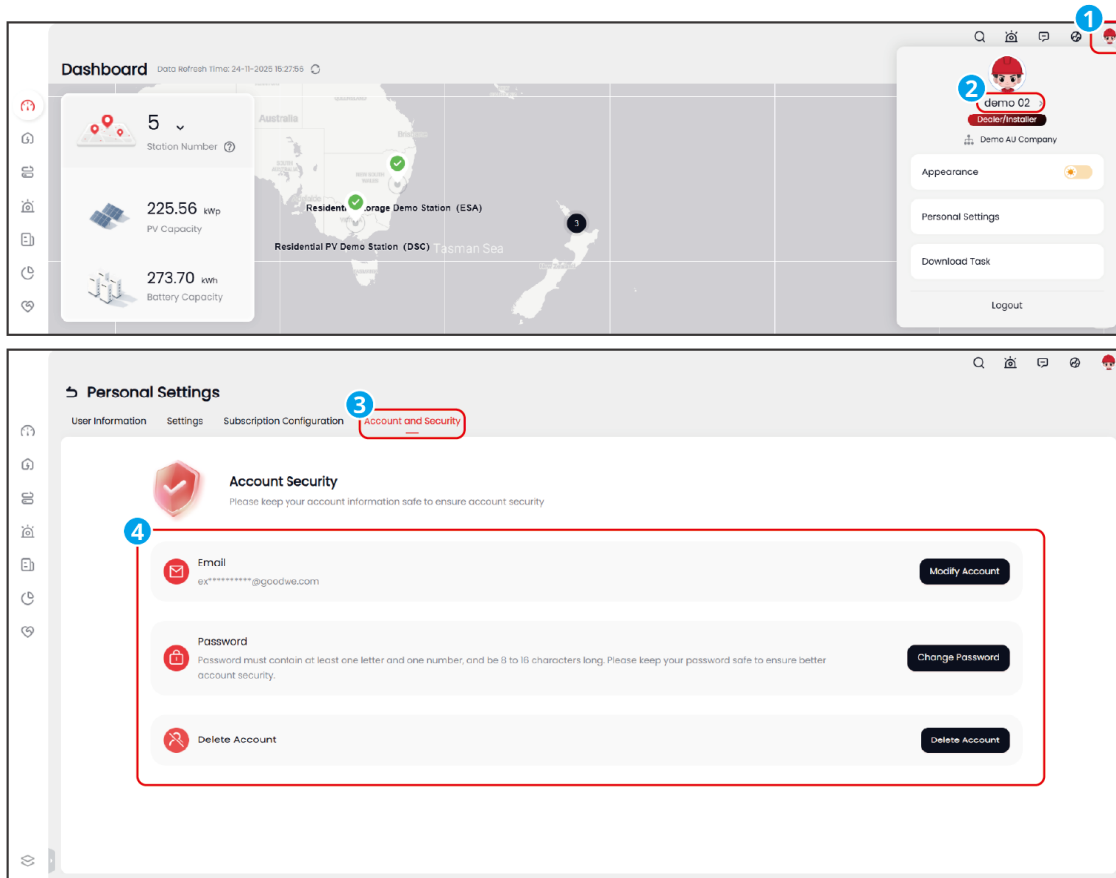
SEMS0118

8.5 Modify Account Information

Supports modifying the email bound to the account and the login password.

Procedure:

1. Click the account avatar in the upper right corner of the web interface > "Personal Settings" > "Account & Security".
2. Click "Modify Account" or "Change Password" as needed. After modification, click "Save".
3. After modification is complete, the interface automatically redirects to the login page. Please log in again.



SEMS0119

8.6 Set Monitoring Permissions

NOTE

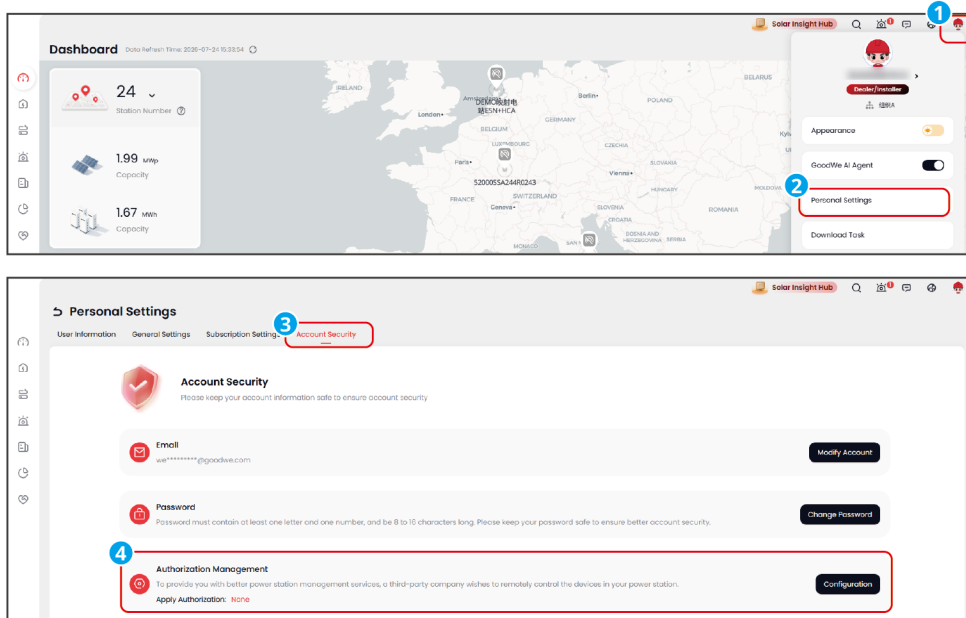
- Only applicable to European and Australian servers.
- If there is a third-party Remote Control requirement, please contact the manufacturer to add authorization, and fill in information such as battery capacity according to the interface prompts.
- Monitoring Authorization is only applicable to owner accounts. According to European GDPR regulations, owners can set monitoring permissions and Remote O&M permissions as needed. Except for the owner and authorized visitors, other accounts cannot monitor or perform O&M on this plant.

Procedure

1. Click the account avatar in the upper right corner of the web interface > "Personal

Settings" > "Account Security" > "Authorization Management" to enter the Authorization Management screen.

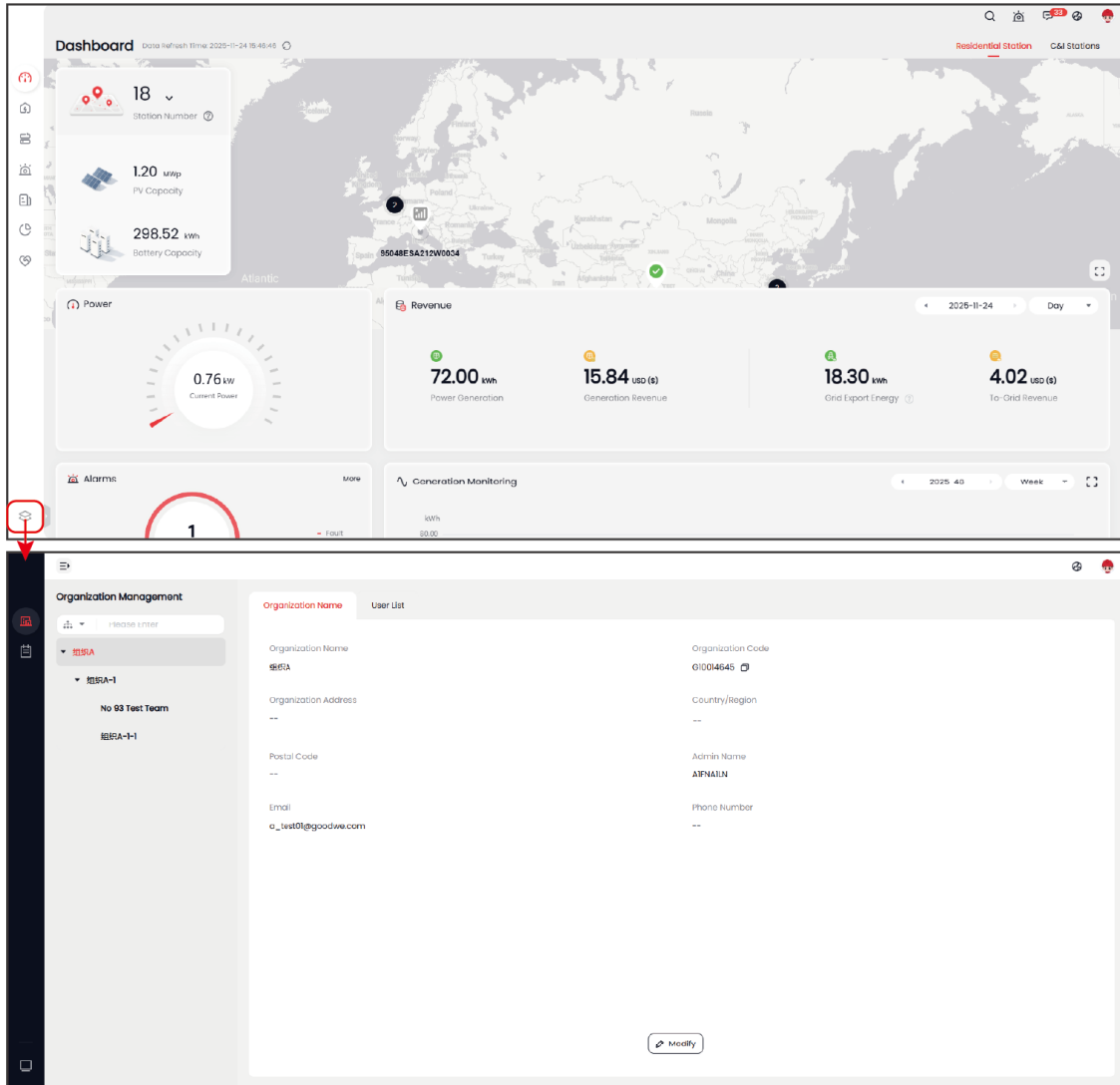
2. Set monitoring permissions according to actual requirements.



SEMS0194

9 Organization Management

Only applicable to administrator accounts.



SEMS0120

9.1 Manage Organization Information

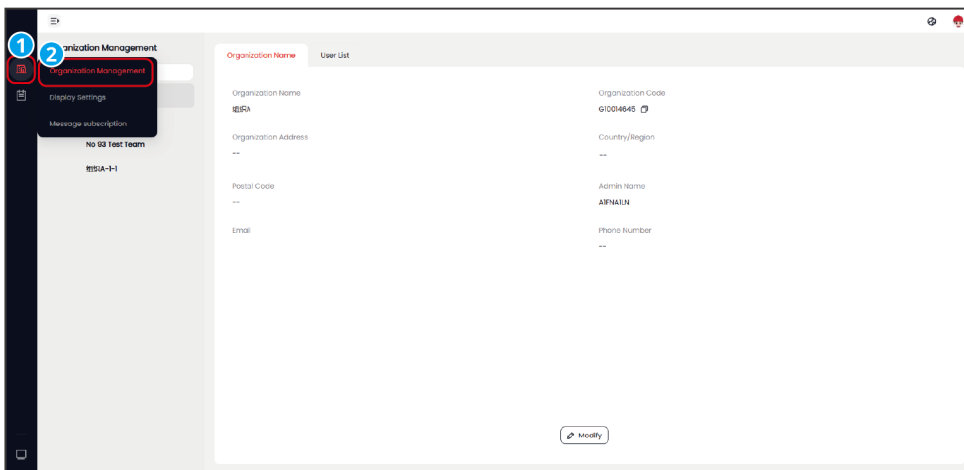
Procedure:

Click "Backend Management" > "Organization Management" > "Organization Management".

- Supports adding or deleting organizations. After the organization name, click "+" to create an organization. You can create up to 5 levels; click "...>🗑️" to delete the

organization.

- Supports modifying organization information. On the "Organization Information" screen, click "Modify" to modify it.
- Supports managing users under the organization. On the "User List" screen, click "New User" to add users under the organization; click  Reset Account Password; click  Edit User Information; click  Delete User.



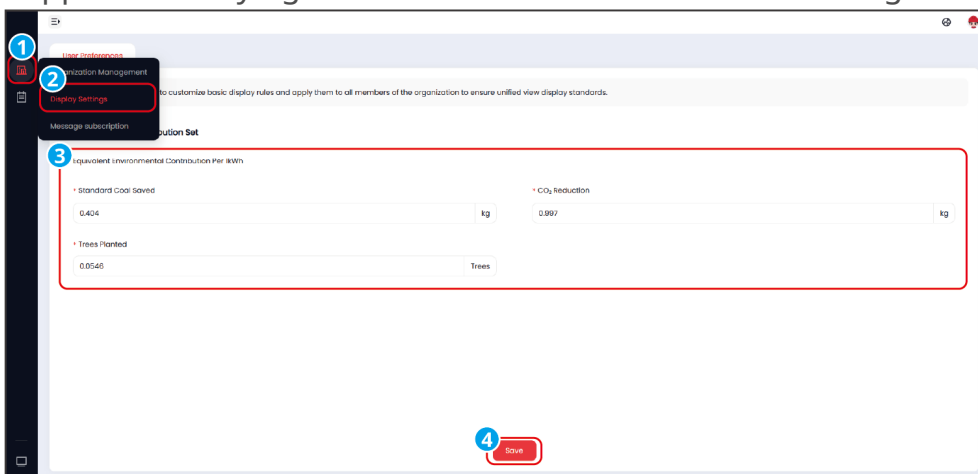
SEMS0121

9.2 Set Display Information

Procedure:

Click "Backend Management" > "Organization Management" > "Display Settings".

Supports modifying the Environmental Contributions configuration.



SEMS0122

9.3 Set Subscription Information

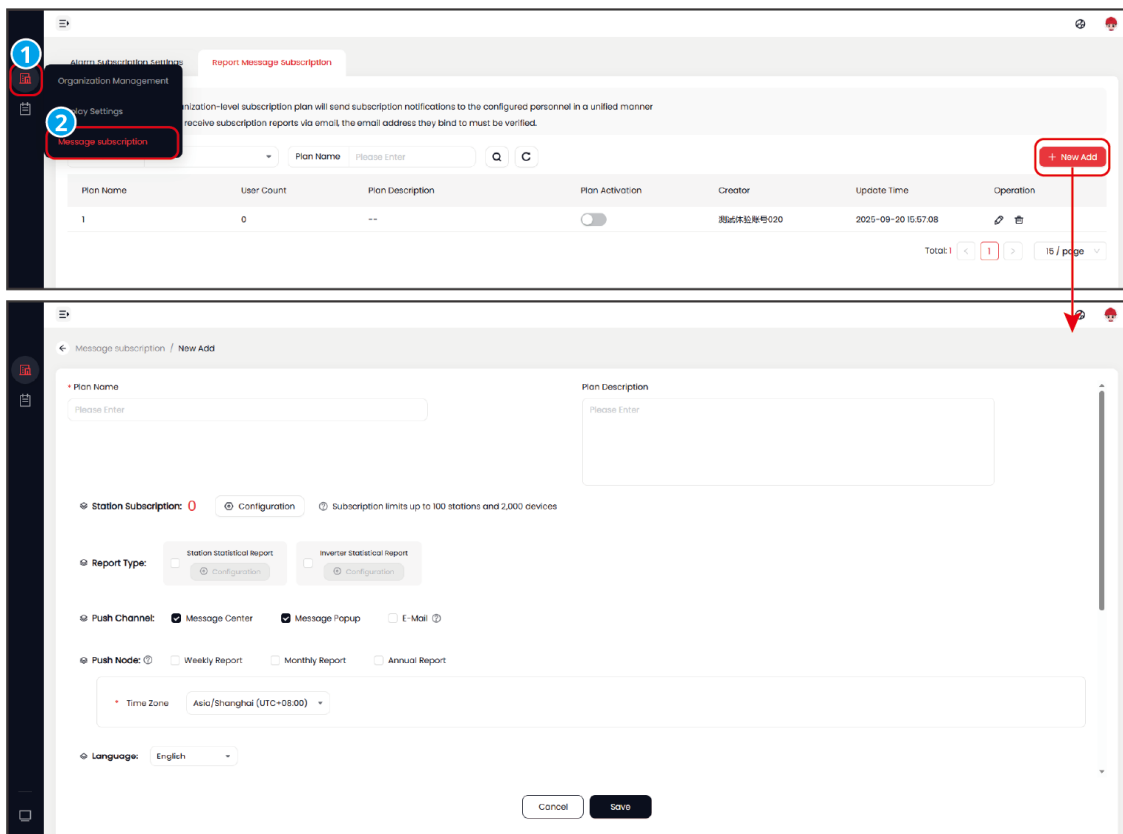
Supports setting organization-level subscription information. The organization-level alarm subscription scheme has a higher priority than the personal settings scheme.

Report Subscription: Supports customizing report information and push methods according to actual needs. Supports selecting the organization type, report type, push node, push channel, push users, etc. for report push.

Alarm Subscription: Customize alarm information and push methods according to actual needs. Supports selecting the plant, alarm type, push time point, push users, etc. for alarm push.

Procedure:

1. Click "Backend Management" > "Message Subscription" > "Add Scheme".
2. Set the subscription scheme according to actual needs.



SEMS0124

9.4 Manage Logs

Procedure:

Click "Backend Management" > "Log Management".

Organization Man...

Organization Management

Display Settings

Message subscription

Log Management

Monitoring Platform

Operator

Start Time → End Time

Operation Module

Operation Type

Q C

Operation Module	Operation Type	Operator	Operation Time	Operation
Login	Login		2026-01-26 14:29:08	
Login	Login		2026-01-26 06:38:06	
Login	Login		2026-01-26 09:29:25	
Login	Login		2026-01-26 09:13:10	
Login	Login		2026-01-23 11:18:40	
Login	Login		2026-01-22 18:28:03	
Logout	Logout		2026-01-22 13:55:42	
Login	Login		2026-01-22 13:54:46	
Logout	Logout		2026-01-22 13:54:30	
Login	Login		2026-01-22 13:54:02	

Total: 1973

1

2

3

4

5

...

198

10 / page

Go to

Page

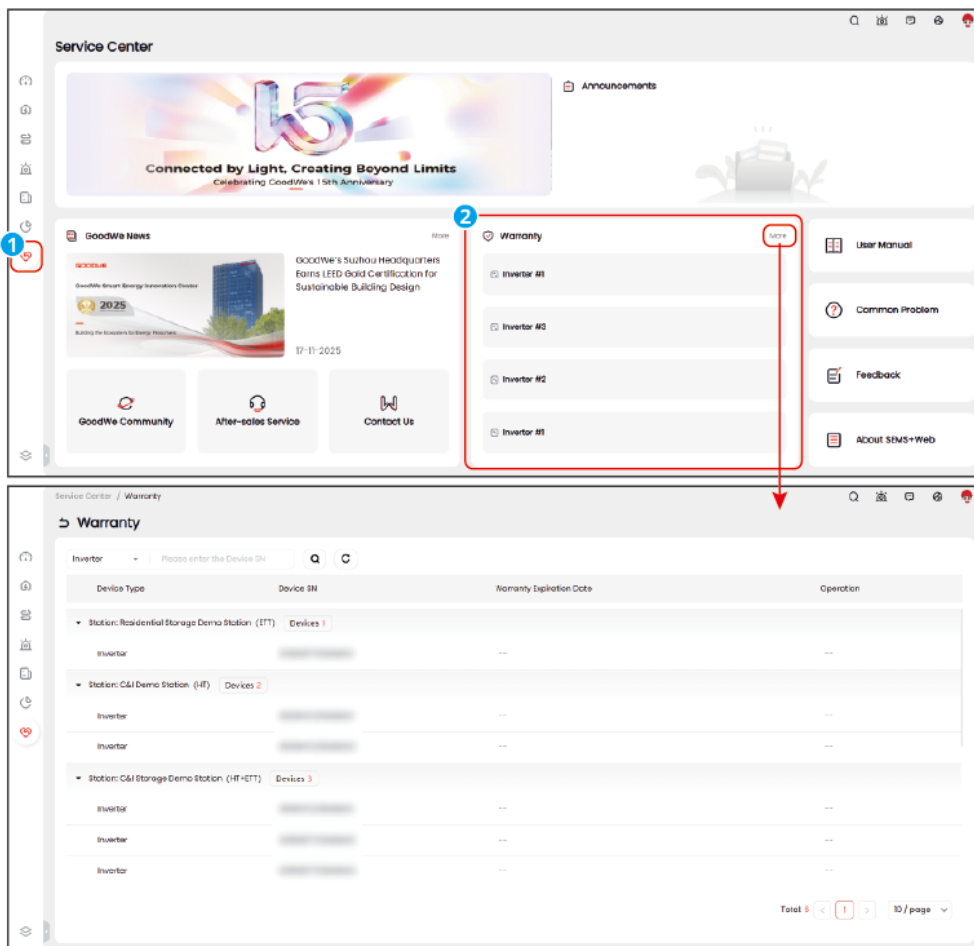
SEMS0125

10 FAQs

10.1 How to View Warranty Information

Procedure:

1. Click "Service Center"; in the "Warranty" module, you can view warranty information for some devices.
2. Click "More" to enter the warranty details screen. Enter the device SN in the search box to quickly locate the plant or device you need to query.
3. Click  to view warranty details, or  to download warranty information.

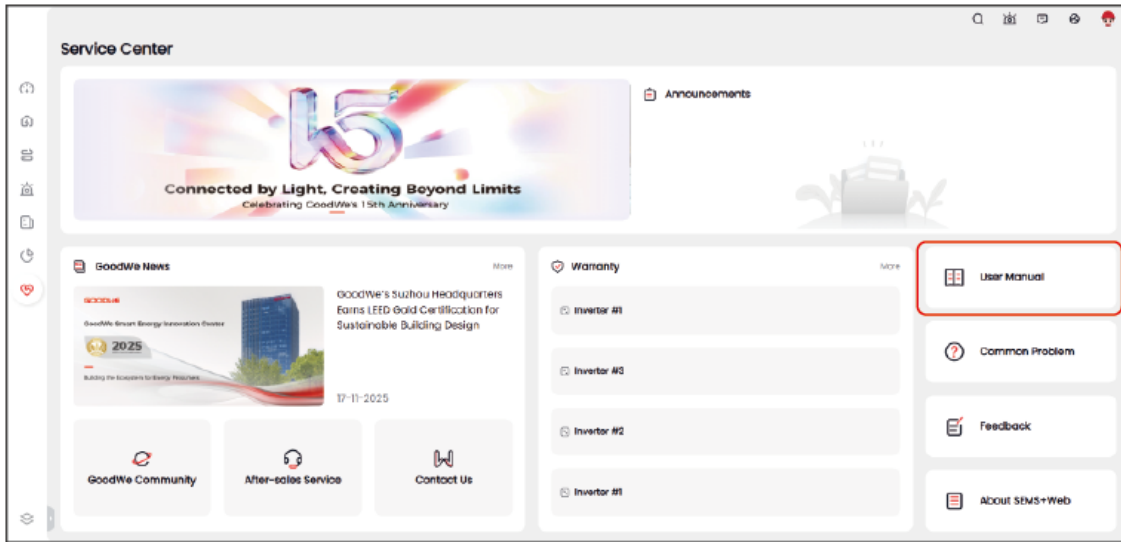


SEMS0126

10.2 How to View User Manual

Procedure:

Click "Service Center" > "Operation Manual" to view the user manual.



SEMS0127

11 Appendix

11.1 Safety Country

No.	Safety Name	No.	Safety Name
Europe			
1	IT-CEI 0-21	56	IE-LV-72A
2	IT-CEI 0-16	57	IE-ESB-C&D(< 110kV)
3	DE LV with PV	58	IE-EirGrid-110kV
4	DE LV without PV	59	PT-D
5	DE-MV	60	EE
6	ES-A	61	NO
7	ES-B	62	FI-A
8	ES-C	63	FI-B
9	ES-D	64	FI-C
10	ES-island	65	FI-D
11	BE	66	UA-A1
12	FR-LV	67	UA-A2
13	FR-island-50Hz	68	EN 50549-1
14	FR-island-60Hz	69	EN 50549-2
15	type A-PL_V.1.1	70	DK-West-B-MVHV
16	type B-LV-PL_V.1.1	71	DK-East-B-MVHV
17	type C-PL_V.1.1	72	DK-West-C-MVHV
18	type D-PL_V.1.1	73	DK-East-C-MVHV
19	NL-16/20A	74	DK-West-D-MVHV

No.	Safety Name	No.	Safety Name
20	NL-A	75	DK-East-D-MVHV
21	NL-B	76	FR-Reunion
22	NL-C	77	BE-LV (>30kVA)
23	NL-D	78	BE-HV
24	SE-A	79	CH-B
25	SE MV	80	NI-G99-A
26	SK-A	81	NI-G99-B
27	SK-B	82	NI-G99-C
28	SK-C	83	NI-G99-D
29	HU	84	IE-LV-170kVA
30	CH-A	85	IE-MV&HV-200kVA
31	CY	86	DE-HV
32	GR	87	FR-MV
33	DK-West-A	88	CZ-A1/A2-09
34	DK-East-A	89	DE-EHV
35	DK-West-B	90	IE-EirGrid-400KV
36	DK-East-B	91	IE-EirGrid-220KV
37	AT < 1kV	92	IE-EirGrid-66KV
38	AT > 1kV	93	IE-ESB-B
39	BG	94	IE-ESB-D(≥ 110 kV)
40	Czech	95	type B-MV-PL_V.1.1
41	CZ-A1-09	96	GB-G99-A HV
42	CZ-A2-09	97	GB-G99-B LV

No.	Safety Name	No.	Safety Name
43	CZ-B1/B2-09	98	GB-G99-C LV
44	CZ-C	99	UA-B
45	CZ-D	100	UA-C
46	RO-A	101	UA-D
47	RO-B	102	UK-G98
48	RO-D	103	UK-G99-A LV
49	GB-G98	104	UK-G99-B LV
50	GB-G99-A LV	105	UK-G99-C LV
51	GB-G99-B HV	106	CZ-A1
52	GB-G99-C HV	107	UK-A-MV
53	GB-G99-D	108	UK-B-MV
54	NI-G98	109	UK-C-MV
55	IE-LV-16/25A	-	-
Global			
1	60Hz-Default	6	IEC 61727-60Hz
2	50Hz-Default	7	Warehouse
3	127Vac-60Hz-Default	8	IEC61727-480Vac-60Hz
4	127Vac-50Hz-Default	9	IEC61727-480Vac-50Hz
5	IEC 61727-50Hz		
Americas			
1	Argentina-220V-LV	38	LUMAPR-2024-220Vac-3P
2	US-208Vac	39	LUMAPR-2024-240Vac-3P
3	US-240Vac	40	Cayman
4	Mexico-220Vac	41	Brazil-220Vac

No.	Safety Name	No.	Safety Name
5	Mexico-440Vac	42	Brazil-208Vac
6	US-480Vac	43	Brazil-230Vac
7	US-208Vac-3P	44	Brazil-240Vac
8	US-220Vac-3P	45	Brazil-254Vac
9	US-240Vac-3P	46	Brazil-127Vac
10	US-CA-208Vac	47	Brazil-ONS
11	US-CA-240Vac	48	Barbados
12	US-CA-480Vac	49	Chile-BT
13	US-CA-208Vac-3P	50	Chile-MT-A
14	US-CA-220Vac-3P	51	Chile MT-B
15	US-CA-240Vac-3P	52	Colombia
16	US-HI-208Vac	53	Colombia<0.25MW-208Vac-1P
17	US-HI-240Vac	54	Colombia<0.25MW-120Vac-3P
18	US-HI-480Vac	55	IEEE 1547-208Vac
19	US-HI-208Vac-3P	56	IEEE 1547-220Vac
20	US-HI-220Vac-3P	57	IEEE 1547-240Vac
21	US-HI-240Vac-3P	58	IEEE 1547-230Vac
22	US-Kauai-208Vac	59	Colombia<0.25MW-127Vac-3P
23	US-Kauai-240Vac	60	Colombia>5MW
24	US-Kauai-480Vac	61	Mexico-127V
25	US-Kauai-208Vac-3P	62	Mexico-240V
26	US-Kauai-220Vac-3P	63	US-O&R-208Vac
27	US-Kauai-240Vac-3P	64	US-O&R-240Vac

No.	Safety Name	No.	Safety Name
28	US-ISO-NE-208Vac	65	US-O&R-480Vac
29	US-ISO-NE-240Vac	66	US-O&R-208Vac-3P
30	US-ISO-NE-480Vac	67	US-O&R-220Vac-3P
31	US-ISO-NE-208Vac-3P	68	US-O&R-240Vac-3P
32	US-ISO-NE-220Vac-3P	69	Brazil-277Vac
33	US-ISO-NE-240Vac-3P	70	Chile-BT ≤9MW
34	LUMAPR-2024-208Vac	71	Chile-MT ≤9MW
35	LUMAPR-2024-240Vac	72	Chile > 9MW
36	LUMAPR-2024-480Vac	73	Mexico-277Vac
37	LUMAPR-2024-208Vac-3P		
Oceania			
1	Australia-A	4	Newzealand
2	Australia-B	5	Newzealand:2015
3	Australia-C	6	NZ-GreenGrid
Asia			
1	China A	33	Israel-MV
2	China B	34	Israel-HV
3	China Higher Voltage	35	Vietnam
4	China Highest Voltage	36	Malaysia-LV
5	China Power Station	37	Malaysia-MV
6	China Shandong	38	DEWA-LV
7	China Hebei	39	DEWA-MV
8	China PCS	40	Saudi Arabia-220V-LV
9	Taiwan	41	JP-690Vac-50Hz

No.	Safety Name	No.	Safety Name
10	Hong Kong	42	JP-690Vac-60Hz
11	China Northeast	43	Srilanka-MV/HV
12	Thailand-MEA	44	IEC 61727-127Vac-50Hz
13	Thailand-PEA	45	IEC 61727-127Vac-60Hz
14	Mauritius	46	JP-550Vac-50Hz
15	Korea	47	JP-550Vac-60Hz
16	India	48	India-Higher
17	India-CEA	49	JP-220Vac-50Hz
18	Pakistan	50	JP-220Vac-60Hz
19	Philippines	51	Saudi Arabia-127V-LV
20	Philippines-127Vac	52	Srilanka-LV >1MW
21	JP-200Vac-50Hz	53	China-YN
22	JP-200Vac-60Hz	54	GB/T 29319-LV
23	JP-440Vac-50Hz	55	GB/T 29319-MV
24	JP-440Vac-60Hz	56	Philippines-277Vac
25	JP-420Vac-50Hz	57	JP-360Vac-50Hz
26	JP-420Vac-60Hz	58	JP-360Vac-60Hz
27	JP-480Vac-50Hz	59	JP-320Vac-50Hz
28	JP-480Vac-60Hz	60	JP-320Vac-60Hz
29	Srilanka-LV<1MW	61	JP-340Vac-50Hz
30	Singapore	62	JP-340Vac-60Hz
31	Israel-OG	63	JP-380Vac-50Hz
32	Israel-LV	64	JP-380Vac-60Hz

No.	Safety Name	No.	Safety Name
Africa			
1	Mauritius	5	Ghana-LV
2	South Africa-LV	6	Ghana-HV
3	South Africa-B-MV	7	South Africa-A3-LV
4	South Africa-C-MV	8	Nigeria

11.2 Inverter Parameters

Communication Parameters

Parameter Name	Description
RS485 Settings	Set the inverter's host communication address. For a single inverter, set the communication address according to the actual situation; when multiple inverters are connected, the address of each inverter must be different, and no inverter can set its communication address to 247.
PLC	Only applicable to devices that communicate via PLC. Set according to the actual box-type transformer connected to the inverter.

Device Start/Stop Parameters

Parameter Name	Description
Start	Control device start, stop, and restart.
Stop	
Restart	

Environmental Control Parameters

Parameter Name	Description
Fan Control	
Fan reverses to remove dust	After being enabled, the fan will automatically reverse periodically to remove dust.
External Fan Start Temperature Setpoint	When the device temperature reaches the set value, the external fan starts running.
Fan Detection	Detects whether the fan can run normally.
Silent Mode	
Silent Mode	• Enabling Silent Mode can reduce device noise. • Before enabling Silent Mode, ensure that the device is connected to a stable and reliable power grid; otherwise, it will not take effect. • After Silent Mode is enabled, if the load power consumption in the system is too high and the Energy Generation cannot meet usage, the system may automatically purchase electricity from the grid to ensure load operation. • During use of Silent Mode, there may be some loss of PV Energy Generation. • Supports setting Silent Mode time periods according to actual requirements.

AC Side Settings Parameters

Parameter Name	Description
AC Port Connection Settings	• Select Load, Generator, Microgrid Device, etc., according to port characteristics and the actually connected devices. The displayed interface varies with inverter model; refer to the actual interface. • After port connection configuration is complete, set the port parameters according to actual conditions. For details, refer to 11.2.4.AC Port Parameters(Page 103).

Parameter Name	Description
Backup Function Settings	• Backup: After this function is enabled, when the power grid is disconnected, the loads connected to the inverter's BACK-UP port can be powered by the battery, ensuring uninterrupted power supply to the loads. • The following detection modes are supported: ◦ UPS Mode - Full-wave Detection: Detects whether the grid voltage is too high or too low. ◦ UPS Mode - Half-wave Detection: Detects whether the grid voltage is too low. ◦ EPS Mode - Low Voltage Ride Through Supported: Disables the grid voltage detection function. • Off-grid First Cold Start: Takes effect only once. After this function is enabled, the battery or PV can be used to output backup power in off-grid mode. • Off-grid Cold Start Holding: Takes effect multiple times. After this function is enabled, the battery or PV can be used to output backup power in off-grid mode. • Clear Overload Fault: When the load power connected to the inverter's BACK-UP port exceeds the Rated Load Power, the inverter will restart and detect the load power again. If not handled in time, the inverter will restart multiple times and perform load detection, and the interval between each restart will continue to increase. After the load power of the BACK-UP port decreases to within the Rated Power range, you can click this switch to clear the inverter restart interval, and the inverter will restart immediately.

Parameter Name	Description
Parallel Management	- When the inverter is connected in parallel via RS485, set the Parallel Management parameters. - Manually set the inverter master or slave attributes, and set the slave address and other information. - Through self-networking, it automatically forms a parallel or single-phase/three-phase system. - When the inverter implements parallel operation through the Ezlink3000 Intelligent communication stick, the number of parallel units in the system needs to be set.
Type of Electrical Supply System	Select single-phase, split-phase, or two-phase grid according to the Type of Electrical Supply System actually adapted by the inverter.
Output Method	When the connected grid is a three-phase grid, select three-phase three-wire or three-phase four-wire according to the grid type actually connected to the inverter.
Three-phase Unbalanced Output	When a three-phase inverter is connected to an unbalanced load, such as when L1, L2, and L3 are respectively connected to loads of different power, the three-phase unbalanced output function needs to be enabled.
Unbalanced Phase Voltage Function	After it is enabled, the inverter will perform power Derating or power distribution according to the grid voltage value of each phase to maximize power utilization.

PV Parameter Settings

Parameter Name	Description
PV Access Mode	For some models, the PV string access mode of the inverter MPPT ports can be manually set to avoid incorrect identification of the string access mode. Supported: • Independent access: external PV strings are connected to the PV input ports on the inverter side in a one-to-one correspondence. Do not connect multiple PV strings to a single MPPT port. • Partial parallel access: every two PV input ports on the inverter side are connected to PV strings from the same source; for an odd number of ports, the last port can be connected to a PV string independently. All ports must be connected at the same time; do not leave ports empty. • Parallel access: when external PV strings are connected to the PV input ports on the inverter side, multiple PV strings are connected through Y terminals and then divided into multiple paths connected to multiple PV input ports. All ports must be connected at the same time; do not leave ports empty.
PID Settings	• During operation of PV modules, due to the potential difference between the output electrodes and the grounded frame of the module, over the long term, the power generation Efficiency of the module may degrade, which is the potential-induced degradation (PID) effect. • The PID function of the product suppresses PID by raising the voltage difference between the PV module and the frame to make it a positive voltage difference (called positive voltage rise), which is applicable to P-type modules and N-type modules that require a positive voltage rise to suppress the PID effect. For N-type modules that require reducing negative voltage to suppress the PID effect, it is recommended to disable this function. Please consult the module supplier to determine whether N-type modules belong to the type that requires a positive voltage rise for PID suppression.

Parameter Name	Description
Shadow Scanning Function	When PV modules are severely shaded, enabling the shadow scanning function can optimize the inverter's power generation Efficiency.

Battery Settings

Parameter Name	Description
Battery Activation	If an inactivated battery is purchased, an activation code needs to be entered to activate the battery function.
BAT Connection Configuration	According to the actual battery connection status, select the battery Access Mode.

Protection Parameters

Parameter Name	Description
Electrical Protection	
Lightning Protection Alarm	After the lightning protection alarm function is enabled, when an abnormality occurs in the lightning protection module, an alarm will indicate the abnormality.
AFCI Detection	- After the AFCI Detection function is enabled, the device can be monitored for arc fault hazards. - Click "Arc Failure Self-test" to start the self-test of the Arc Detection module and confirm whether its status is normal. Check the result via "AFCI Detection Status". - If the inverter triggers an Arc Failure alarm <5 times within 24 hours, the alarm can be automatically cleared. After the 5th Arc Failure alarm, the inverter will shut down for Protection. You must click "Clear Arc Alarm" to clear the fault before the inverter can operate normally.

Parameter Name	Description
Backup N-PE Relay Switch	According to the grid standard requirements of some countries or regions, during off-grid operation, it is necessary to ensure that the internal relay of the BACK-UP port remains closed, thereby connecting the N and PE lines.
DC Tripping Detection	After this function is enabled, in the event of a device fault, the inverter's DC Switch can automatically trip and disconnect.
On-Grid Point Rated Current Protection	To prevent the inverter's grid purchase and Export Energy current from being too high and causing damage to or tripping of the household circuit breaker, set the On-Grid Point Rated Current to limit the input and output current values.
Grid/On-Grid Protection	
Anti-islanding Protection	Enable or disable the Anti-islanding Protection function according to actual requirements.
NS Protection	Enable or disable the NS Protection Function according to the standard requirements of some countries or regions.
Safety Regulations	
Grid Standard Code	Select the Grid Standard Code according to the country or region where the inverter is located.
Safety Parameter Settings	Grid code parameters must be set according to power grid company requirements. If changes are required, consent from the power grid company must be obtained.

General Settings Parameters

Parameter Name	Description
Device Self-test	Start the device status self-test.
Restore Factory Settings	Restore some functions to factory settings.

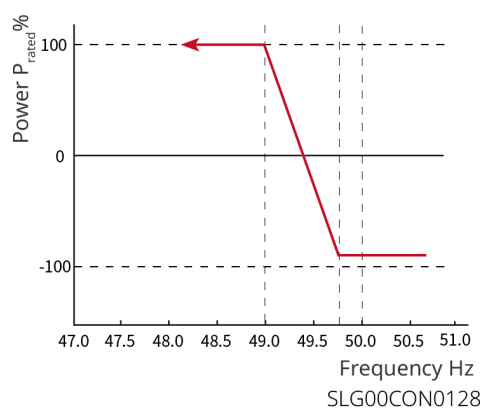
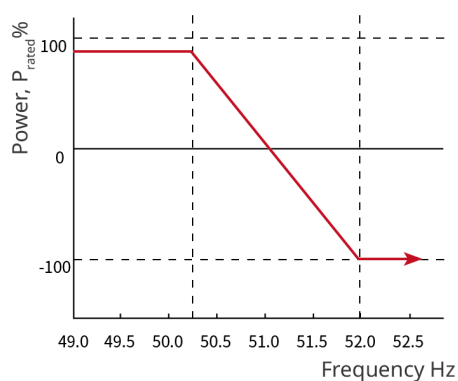
11.2.1 Custom Safety Parameters

NOTE

Grid code parameters must be set according to power grid company requirements. If changes are required, consent from the power grid company must be obtained.

Active Power Mode

P(F) Curve



P(U) Curve

Parameter Name	Description
Output Active Power Setting	Set the inverter output power limit.
Power Change Gradient	Set the slope for active power output increase or decrease.
Overfrequency Derating	
P(F) Curve	According to the grid code requirements of certain countries or regions, enable this function when the P(F) curve needs to be set.

Parameter Name	Description
Overfrequency Derating Mode	Set the overfrequency derating mode according to actual requirements. • Slope mode: adjust power based on the overfrequency point and derating slope. • Stop mode: adjust power based on the overfrequency start point and overfrequency end point.
Overfrequency Start Point	When the grid frequency is too high, the inverter's output active power decreases. When the grid frequency is greater than this value, the inverter output power starts to decrease.
Buy Energy/Export Energy Transition Frequency	When the set frequency value is reached, the system switches from Export Energy to Buy Energy.
Overfrequency End Point	When the grid frequency is too high, the inverter's output active power decreases. When the grid frequency is greater than this value, the inverter output power will not continue to decrease.
Overfrequency Power Slope Reference Power	Adjust the inverter's output active power based on Rated Power, current power, Apparent Power, or maximum active power.
Overfrequency Power Slope	When the grid frequency is higher than the overfrequency point, the inverter output power decreases according to the slope.
Silence Time	When the grid frequency is higher than the over-frequency point, the delay response time of the inverter output power change.
Hysteresis Function Enable	Enable the hysteresis function.

Parameter Name	Description
Frequency Hysteresis Point	During over-frequency Derating, if the frequency decreases, the power is output at the lowest point of the Derating power until the frequency is less than the hysteresis point, and then the power recovers.
Hysteresis Waiting Time	For over-frequency Derating, when the frequency decreases, when the frequency is less than the hysteresis point, the waiting time for power recovery, that is, a certain time must be waited before the power recovers.
Hysteresis Power Recovery Slope Reference Power	For over-frequency Derating, when the frequency decreases, when the frequency is less than the hysteresis point, the reference for power recovery, i.e., power recovery is performed according to the recovery slope * the change rate of the reference power. Supported: Pn Rated Power, Ps Apparent Power, Pm Current Power, Pmax Max. Power, Power Difference (ΔP).
Hysteresis Power Recovery Slope	For over-frequency Derating, when the frequency decreases, when the frequency is less than the hysteresis point, the power change slope during power recovery.
Under-frequency Loading	
P(F) Curve	According to the grid code requirements of certain countries or regions, enable this function when the P(F) curve needs to be set.
Under-frequency Loading Mode	Set the under-frequency loading mode according to actual requirements. • Slope mode: Adjust power based on the under-frequency point and loading slope. • Stop mode: Adjust power based on the under-frequency start point and under-frequency end point.

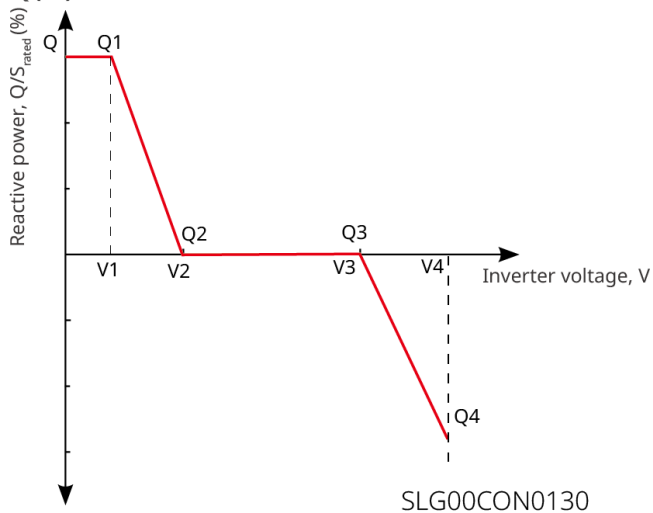
Parameter Name	Description
Under-frequency Start Point	When the grid frequency is too low, the active power output of the inverter increases. When the grid frequency is less than this value, the inverter output power starts to increase.
Buy Energy/Export Energy Transition Frequency	When the set frequency value is reached, the system switches from Export Energy to Buy Energy.
Under-frequency End Point	When the grid frequency is too low, the active power output of the inverter increases. When the grid frequency is less than this value, the inverter output power does not continue to increase.
Overfrequency Power Slope Reference Power	Adjust the inverter's output active power based on Rated Power, current power, Apparent Power, or maximum active power.
Under-frequency Power Slope	When the grid frequency is too low, the active power output of the inverter increases. The slope when the inverter output power rises.
Silence Time	When the grid frequency is lower than the under-frequency point, the delay response time of the inverter output power change.
Hysteresis Function Enable	Enable the hysteresis function.
Frequency Hysteresis Point	During under-frequency loading, if the frequency increases, the power is output at the lowest point of the loading power until the frequency is higher than the hysteresis point, and the power recovers.
Hysteresis Waiting Time	For under-frequency loading, when the frequency increases, when the frequency is higher than the hysteresis point, the waiting time for power recovery, that is, a certain time must be waited before the power recovers.

Parameter Name	Description
Hysteresis Power Recovery Slope Reference Power	For under-frequency loading, when the frequency increases, when the frequency is higher than the hysteresis point, the reference for power recovery, i.e., power recovery is performed according to the recovery slope * the change rate of the reference power. Supported: Pn Rated Power, Ps Apparent Power, Pm Current Power, Pmax Max. Power, Power Difference (ΔP).
Hysteresis Power Recovery Slope	For under-frequency loading, when the frequency increases, when the frequency is higher than the hysteresis point, the power change slope during power recovery.
P(U) Curve Enable	According to the grid code requirements of certain countries or regions, enable this function when the P(U) curve needs to be set.
Vn Voltage	The ratio of the actual voltage at point Vn to the Nominal Voltage, n=1, 2, 3, 4. For example, when set to 90, it indicates: $V/V_{rated}\%=90\%$.
Vn Active Power	The ratio of the active power output by the inverter at point Vn to the Apparent Power, n=1, 2, 3, 4. For example, when set to 48.5, it indicates: $P/P_{rated}\%=48.5\%$.
Output Response Mode	Set the active power output response mode. Supported: • First-order low-pass filtering: within the response time constant, output regulation is implemented according to the first-order low-pass curve. • Slope dispatch: output regulation is implemented according to the configured power change slope.
Power Change Gradient	When the output response mode is set to slope dispatch, Active Dispatch is implemented according to the power change gradient.

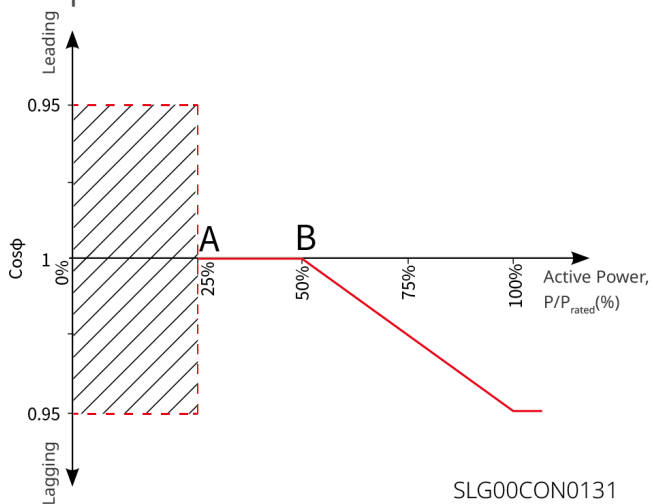
Parameter Name	Description
First-Order Low-Pass Filter Time Parameter	When the output response mode is set to first-order low-pass filtering, the time constant when active power changes according to the first-order low-pass filter curve.
Overload Function Switch	After it is enabled, the maximum active power output is 1.1 times the Rated Power; otherwise, the maximum active power output is consistent with the Rated Power value.

Reactive Power Mode

Q(U) Curve



Cosφ Curve



Parameter Name	Description
Fixed PF	
Fixed PF	According to the grid code requirements of certain countries or regions, enable this function when a fixed PF value is required. After the parameters are set successfully, the Power Factor remains unchanged during inverter operation.
Under-excitation	According to the grid code requirements of the country or region and actual usage requirements, set the Power Factor to a positive or negative value.
Over-excitation	
Power Factor	Set the Power Factor according to actual needs; the range is -1 to -0.8 and +0.8 to +1.
Fixed Q	
Fixed Q	According to the grid code requirements of certain countries or regions, enable this function when Fixed Reactive Power is required.
Over-excitation/Under-excitation	According to the grid code requirements of the country or region and actual usage requirements, set the reactive power to inductive reactive power or capacitive reactive power.
Reactive Power	Set the ratio of reactive power to Apparent Power.
Q(U) Curve	
Q(U) Curve	When the grid code requirements of certain countries or regions require the Q(U) curve to be set, enable this function.
Mode Selection	Set the Q(U) curve mode; basic mode and slope mode are supported.
Vn Voltage	Ratio of the actual voltage at point Vn to the Nominal Voltage, n=1, 2, 3, 4.
	For example, when set to 90, it indicates: $V/V_{rated}\% = 90\%$.
Vn Reactive Power	Ratio of the reactive power output by the inverter at point Vn to the Apparent Power, n=1, 2, 3, 4. For example, when set to 48.5, it indicates: $Q/S_{rated}\% = 48.5\%$.

Parameter Name	Description
Voltage Deadband Width	When the Q(U) curve mode is set to slope mode, set the voltage deadband. Within the deadband range, there is no reactive power output requirement.
Overexcitation Slope	When the Q(U) curve mode is set to slope mode, set the power change slope to a positive or negative value.
Underexcitation Slope	
Vn Reactive Power	Ratio of the reactive power output by the inverter at point Vn to the Apparent Power, n=1, 2, 3, 4. For example, when set to 48.5, it indicates: $Q/S_{rated}\% = 48.5\%$.
Q(U) Curve Response Time Constant	The power must reach 95% within 3 response time constants according to a first-order low-pass curve.
Extended Function Enable	Enable the extended function and set the corresponding parameters.
Entry Curve Power	When the ratio of the inverter output reactive power to the Rated Power is between the Entry Curve Power and the Exit Curve Power, the Q(U) curve requirements are met.
Exit Curve Power	
cosφ(P) Curve	
cosφ(P) Curve	When the Cosφ curve needs to be set according to the grid code requirements of certain countries or regions, select this function.
Mode Selection	Set the cosφ(P) curve mode; basic mode and slope mode are supported.
Power at Point N	Percentage of active power output by the inverter at point N to Rated Power. N=A, B, C, D, E.
cosφ Value at Point N	Power Factor at Point N. N=A, B, C, D, E.

Parameter Name	Description
Overexcitation Slope	When the $\cos\varphi(P)$ curve mode is set to slope mode, set the power change slope to a positive or negative value.
Underexcitation Slope	
Power at point n	Percentage of inverter output active power to Rated Power at point N. N=A, B, C.
$\cos\varphi$ value at point n	Power Factor at point N. N=A, B, C.
Response time constant of the $\cos\varphi(P)$ curve	The power must reach 95% within 3 response time constants according to a first-order low-pass curve.
Extended Function Enable	Enable the extended function and set the corresponding parameters.
Curve entry voltage	When the grid voltage is between the curve entry voltage and the curve exit voltage, the voltage meets the $\text{Cos}\varphi$ curve requirements.
Curve exit voltage	
Q(P) curve	
Q(P) curve enable	According to the grid code requirements of certain countries or regions, enable this function when the Q(P) curve needs to be set.
Mode Selection	Set the Q(P) curve mode. Basic mode and slope mode are supported.
Power at point Pn	Ratio of reactive power at point Pn to Rated Power, n=1, 2, 3, 4, 5, 6. For example: when set to 90, it indicates: $Q/P_{rated}\%=90\%$.
Reactive power at point Pn	Ratio of active power at point Pn to Rated Power, n=1, 2, 3, 4, 5, 6. For example: when set to 90, it indicates: $P/P_{rated}\%=90\%$.

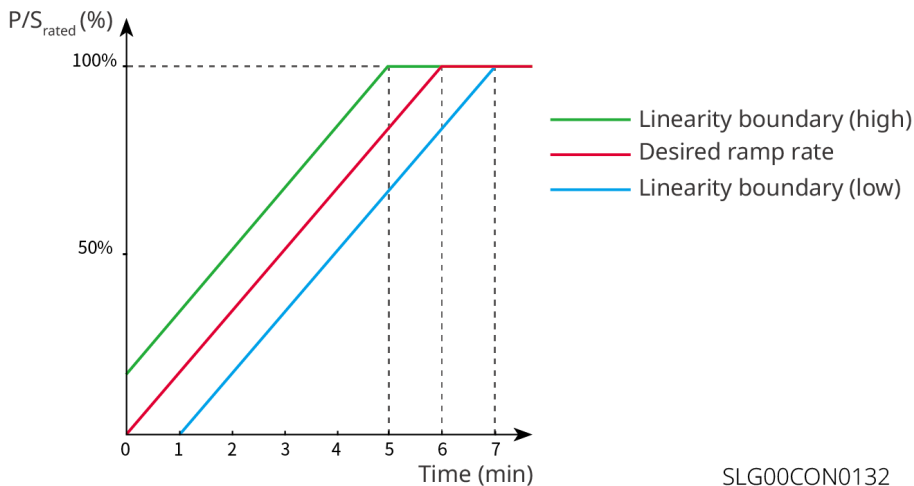
Parameter Name	Description
Overexcitation Slope	When the Q(P) curve mode is set to slope mode, set the power change slope to a positive or negative number.
Underexcitation Slope	
Power at point Pn	Ratio of reactive power at point Pn to Rated Power, n=1, 2, 3. For example: when set to 90, it indicates: Q/Prated%=90%.
Reactive power at point Pn	Ratio of active power at point Pn to Rated Power, n=1, 2, 3. For example: when set to 90, it indicates: P/Prated%=90%.
Response time constant	The power must reach 95% within 3 response time constants according to a first-order low-pass curve.

Grid Protection Parameters

Parameter Name	Description
Overvoltage trigger n-stage value	Set the grid overvoltage trigger n-stage Protection point, n=1, 2, 3, 4.
Overvoltage trigger n-stage trip time	Set the grid overvoltage trigger n-stage trip time, n=1, 2, 3, 4.
Undervoltage trigger n-stage value	Set the grid undervoltage trigger n-stage Protection point, n=1, 2, 3, 4.
Undervoltage trigger n-stage trip time	Set the grid undervoltage trigger n-stage trip time, n=1, 2, 3, 4.
10min Over-voltage Trigger Value	Set the 10min Over-voltage Trigger Value.

Parameter Name	Description
10min Over-voltage Trip Time	Set the 10min Over-voltage Trip Time.
Over-frequency Trigger Stage n Value	Set the grid over-frequency trigger stage n Protection point, n=1, 2, 3, 4.
Over-frequency Trigger Stage n Trip Time	Set the grid over-frequency trigger stage n trip time, n=1, 2, 3, 4.
Under-frequency Trigger Stage n Value	Set the grid under-frequency trigger stage n Protection point, n=1, 2, 3, 4.
Under-frequency Trigger Stage n Trip Time	Set the grid under-frequency trigger stage n trip time, n=1, 2, 3, 4.

Grid Connection Parameters



Parameter Name	Description
Startup On-Grid	
Connection Voltage Upper Limit	When the inverter is first connected to the grid, if the grid voltage is higher than this value, the inverter will be unable to connect to the grid.

Parameter Name	Description
Connection Voltage Lower Limit	When the inverter is first connected to the grid, if the grid voltage is lower than this value, the inverter will be unable to connect to the grid.
Connection Frequency Upper Limit	When the inverter is first connected to the grid, if the grid frequency is higher than this value, the inverter will be unable to connect to the grid.
Connection Frequency Lower Limit	When the inverter is first connected to the grid, if the grid frequency is lower than this value, the inverter will be unable to connect to the grid.
Grid Connection Waiting Time	When the inverter is first connected to the grid, the waiting time before connecting to the grid after the grid voltage and frequency meet the grid-connection requirements.
Soft Ramp Up Slope Enable	Enable the startup slope function.
Soft Ramp Up Slope	According to the standard requirements of certain countries or regions, the percentage of power increment that the inverter can output per minute when it is first started up.
Fault Reconnection	
Connection Voltage Upper Limit	When the inverter reconnects to the grid after a fault, if the grid voltage is higher than this value, the inverter will be unable to connect to the grid.
Connection Voltage Lower Limit	When the inverter reconnects to the grid after a fault, if the grid voltage is lower than this value, the inverter will be unable to connect to the grid.
Connection Frequency Upper Limit	When the inverter reconnects to the grid after a fault, if the grid frequency is higher than this value, the inverter will be unable to connect to the grid.
Connection Frequency Lower Limit	When the inverter reconnects to the grid after a fault, if the grid frequency is lower than this value, the inverter will be unable to connect to the grid.

Parameter Name	Description
Grid Connection Waiting Time	After the inverter reconnects to the grid following a fault, the waiting time for grid connection after the grid voltage and frequency meet the grid-connection requirements.
Reconnect Ramp Rate Enable	Enable the startup slope function.
Reconnect Ramp Rate	According to the standard requirements of certain countries or regions, when the inverter is not connecting to the grid for the first time, the percentage of power increment that can be output per minute. For example, when set to 10, it indicates the reconnect ramp rate is: 10%P/Srated/min.

Voltage Fault Ride-Through Parameters

Parameter Name	Description
Low Voltage Ride-Through	
UVn Point Voltage	During low voltage ride-through, the ratio of the ride-through voltage at the LVRT characteristic point to the Nominal Voltage. n=1, 2, 3, 4, 5, 6, 7.
UVn Point Time	During low voltage ride-through, the ride-through time at the LVRT characteristic point. n=1, 2, 3, 4, 5, 6, 7.
LVRT Entry Threshold	When the grid voltage is between the LVRT entry threshold and the LVRT exit threshold, the inverter does not immediately disconnect from the grid (Grid Power Outage).
LVRT Exit Threshold	
Slope K1	During low voltage ride-through, the K-value coefficient for reactive power support.
Zero Current Mode Enable	After being enabled, during low voltage ride-through, the system outputs zero current.
Entry Threshold	The threshold for entering Zero Current Mode.
High Voltage Ride-Through	

Parameter Name	Description
OVn Point Voltage	During high voltage ride-through, the ratio of the ride-through voltage at the HVRT characteristic point to the Nominal Voltage. n=1, 2, 3, 4, 5, 6, 7.
OVn Point Time	During high voltage ride-through, the ride-through time at the HVRT characteristic point. n=1, 2, 3, 4, 5, 6, 7.
HVRT Entry Threshold	When the grid voltage is between the HVRT entry threshold and the HVRT exit threshold, the inverter does not immediately disconnect from the grid (Grid Power Outage).
HVRT Exit Threshold	
Slope K2	K-value coefficient for reactive power support during high voltage ride-through.
Zero Current Mode Enable	During high voltage ride-through, the system outputs zero current.
Entry Threshold	The threshold for entering Zero Current Mode.

Frequency Fault Ride-Through Parameters

Parameter Name	Description
Frequency Ride-Through Enable	Enable the frequency ride-through function.
UFn Point Frequency	Set the frequency of under-frequency point n. n=1, 2, 3.
UFn Point Time	Set the under-frequency time of under-frequency point n. n=1, 2, 3.
OFn Point Frequency	Set the frequency of over-frequency point n. n=1, 2, 3.
OFn Point Time	Set the over-frequency time of over-frequency point n. n=1, 2, 3.

11.2.2 On-Grid Power Dispatch Parameters

If no meter device is detected in the system, this function cannot be enabled.

On-grid Power Limit (General)

Parameter Name	Description
On-grid Power Limit	According to the grid standard requirements of certain countries or regions, enable this function when an Output Power Limit is required.
Power Limit	Set according to the actual Max. Power that can be fed into the grid.

On-grid Power Limit (Australia)

Parameter Name	Description
Software Power Limit	According to the grid standard requirements of certain countries or regions, enable this function when an Output Power Limit is required.
Power Limit	• Set according to the actual Max. Power that can be fed into the grid. • Supports setting a fixed power value or a percentage. The set percentage is the percentage of the power limit relative to the inverter Rated Power. • After a fixed value is set, the percentage automatically changes accordingly; after a percentage is set, the fixed value automatically changes accordingly.
Hardware Power Limit	After this function is enabled, when the feed-in energy to the grid exceeds the limit value, the inverter will automatically disconnect from the grid.

On-grid Power Limit (UK)

Parameter Name	Description
On-grid Power Limit	According to the grid standard requirements of certain countries or regions, enable this function when an Output Power Limit is required.

Parameter Name	Description
Mode Selection	- For some models, a current limit mode must be selected. Supported: per-phase current, total current. - When set to per-phase current, the current of each phase is limited; when set to total current, the total current of the three phases is limited.
Current Limit	Set according to the actual maximum current that can be fed into the grid.

On-grid Power Limit (Brazil)

In Brazil and other regions, users are allowed to set different power limits for different time periods to meet grid requirements.

Download the template as prompted on the interface to configure power limit information for different time periods. After completing the template, upload it to the App to complete time-of-use power limiting.

Power Dispatch

Parameter Name	Description
Active Power Dispatch	
Active Dispatch Mode	According to the requirements of the grid company in the country/region where the inverter is located, active power is controlled according to the selected dispatch mode. Supported: - Disabled: Active Dispatch is not enabled. - Active Power (W): Dispatch according to a fixed value. - Active Power (%Pn): Dispatch according to the percentage of active power relative to Rated Power.
Reactive Power Dispatch	

Parameter Name	Description
Reactive Dispatch Mode	According to the requirements of the power grid company in the country/region where the inverter is located, control reactive power according to the selected dispatch mode. Supported: • Disabled: Do not enable reactive power dispatch. • Reactive Power (Var): Dispatch according to a fixed value. • Reactive Power (%Pn): Dispatch according to the percentage ratio of reactive power to Rated Power. • PF Compensation.
Nighttime Reactive Power	
Nighttime Reactive Power Enable	Enable the nighttime reactive power function.
Nighttime Reactive Dispatch Mode	According to the requirements of the power grid company in the country/region where the inverter is located, control nighttime reactive power according to the selected dispatch mode. Supported: • Disabled: Do not enable reactive power dispatch. • Nighttime Reactive Dispatch (Var): Dispatch according to a fixed value. • Nighttime Reactive Dispatch (%Pn): Dispatch according to the percentage ratio of reactive power to Rated Power.

Power Dispatch Response Parameters

Parameter Name	Description
Active Power Dispatch Response	Achieve the active power dispatch value through the dispatch response method. Supported: • First-order low-pass filtering, i.e., implement Active Dispatch according to a first-order low-pass curve within the response time constant, and set the time constant when active power changes according to the first-order low-pass filtering curve. • Slope mode, i.e., implement Active Dispatch according to the power change slope, and set the active power dispatch change slope.
Reactive Power Dispatch Response	Achieve the reactive power dispatch value through the dispatch response method. Supported: • First-order low-pass filtering, i.e., implement Reactive Dispatch according to a first-order low-pass curve within the response time constant, and set the time constant when reactive power changes according to the first-order low-pass filtering curve. • Slope mode, i.e., implement Reactive Dispatch according to the power change slope, and set the reactive power dispatch change slope.

11.2.3 Grid Remote Dispatch Parameters

According to the grid code requirements of certain countries or regions, a third-party dispatch device needs to be connected to implement the remote dispatch function for the PV system.

- Remote Shutdown: The Remote Shutdown function is implemented through the signal control port. When an accident occurs, the device can be controlled to stop operating.
- DRED (Demand Response Enabling Device): Through DRED signal control port to control the device, meeting Australia and other regions' DRED Certification requirements.

- RCR (Ripple Control Receiver): ThroughRCRsignal control port to control the device, meeting the grid dispatch requirements of Germany and other regions.
- EnWG (Energy Industry Act) 14a: All controllable loads must accept emergency dimming from the grid. The grid operator can temporarily reduce the maximum grid purchase power of controllable loads to 4.2kW。

11.2.4 AC Port Parameters

Load Control Parameters

When the inverter supports the load control function, loads can be controlled through the App.

For ET40-50kW series inverters, the load control function is supported only when the inverter is used with an STS. The inverter supports load control for the GENERATOR port or the BACKUP LOAD port.

- Dry Contact Mode: When the switch status is set to ON, power supply to the load starts; when the switch status is set to OFF, power supply to the load stops. Please set the switch status to ON or OFF according to actual needs.
- Time Mode: Within the set time period, the load will automatically be powered or de-energized. Standard Mode or Smart Mode can be selected.

Parameter Name	Description
Standard Mode	Power will be supplied to the load within the set time period.
Smart Mode	Within the set time period, when the surplus energy generated by PV exceeds the preset Rated Power of the load, power supply to the load starts.
Start Time	Time Mode will be enabled during the period between the Start Time and the End Time.
End Time	
Repeat	Set the repetition frequency.
Minimum Load Operating Time	Applicable only to Smart Mode. This is the minimum operating time after the load is turned on, to prevent the load from frequently switching on and off due to energy fluctuations.

Parameter Name	Description
Load Rated Power	Applicable only to Smart Mode. When the surplus energy generated by PV exceeds the Rated Power of this load, power supply to the load starts.

- SOC Mode: The inverter's built-in relay dry contact control port (for ET40-50kW series inverters, it is the STS built-in control port) can control whether to supply power to the load. In off-grid mode, if Overload is detected at the BACK-UP port or GENERATOR port, or the battery SOC Protection Function is triggered, power supply to loads connected to the port can be stopped.

Diesel Generator Control Parameters

When the inverter supports the Diesel Generator Control function, the diesel generator can be controlled through the App.

For ET40-50kW series inverters, connecting and controlling a diesel generator is supported only when the inverter is used with an STS.

For ET50-100kW series inverters, connecting and controlling a diesel generator is supported only when the inverter is used with an STS.

- Diesel Generator Not Connected: When no diesel generator is connected to the energy storage system, select Diesel Generator Not Connected.
- Manual Diesel Generator Control (dry node connection not supported): The diesel generator must be started and stopped manually; the inverter cannot control diesel generator start/stop.
- Automatic Diesel Generator Control (Dry Contact Connection Supported): When the diesel generator has a dry contact control port and is connected to the inverter, set the inverter's Diesel Generator Control Mode to Switch Control Mode or Automatic Control Mode in the App.
 - Switch Control Mode: When the switch status is on, the diesel generator operates; after the diesel generator has operated for the set running time, it can automatically stop.
 - Automatic Control Mode: The diesel generator is prohibited from operating during the set prohibited working time period and operates during the Running Time Period.

Parameter Name	Description
Dry Node Control Method	Switch Control Mode/Automatic Control Mode.
Switch Control Mode	
Diesel Generator Dry Node Switch	Applicable only to Switch Control Mode.
Running Time	Continuous running time of the diesel generator; after this time is reached, the diesel generator stops running.
Automatic Control Mode	
Prohibited Working Time	Set the Prohibited Generator Running Time Period.
Running Time	The continuous running time after the generator starts. When the time is reached, the generator stops running. If the generator running time after startup includes a Prohibited Working Time, the generator stops running during this period; after the Prohibited Working Time, the generator restarts running and timing again.

Parameter Name	Description
Generator Information Settings	
Rated Power	Set the Rated Power for generator operation.
Running Time	Set the continuous running time of the generator. After the continuous running time ends, the generator is shut down.
Voltage Upper Limit	Set the Voltage Range for generator operation.
Voltage Lower Limit	
Frequency Upper Limit	Set the Frequency Range for generator operation.

Parameter Name	Description
Frequency Lower Limit	
Preheating Time	Set the generator no-load preheating time.
Diesel Generator Battery Charging Setting	
Switch	Select whether to use the generator to charge the battery.
Max. Charging Power (%)	Charging power when the generator is used to charge the battery.
Start Charging SOC	When connected to a lithium battery, set the SOC threshold for starting the generator. When the battery SOC is lower than the set value, start the generator to charge the battery.
Stop Charging SOC	When connected to a lithium battery, set the SOC threshold for shutting down the generator. When the battery SOC is higher than the set value, shut down the generator to stop charging the battery.
Start Charging Voltage	When connected to a lead-acid battery, set the voltage threshold for starting the generator. When the Battery Voltage is lower than the set value, start the generator to charge the battery.
Stop Charging Voltage	When connected to a lead-acid battery, set the voltage threshold for shutting down the generator. When the Battery Voltage is higher than the set value, shut down the generator to stop charging the battery.

Micro-grid Control Parameters

Parameter Name	Description
Battery Charging Maximum SOC	When the Battery Type is lithium battery, set the Charging SOC upper limit, and stop charging after reaching the upper limit.
Battery Maximum Charging Voltage	When the Battery Type is lead-acid battery, set the charging voltage upper limit, and stop charging after reaching the upper limit.

Parameter Name	Description
Microgrid Forced Charging Start	- When the grid fails, if the battery level is low, it cannot support the energy storage inverter's off-grid operation. Click this button to forcibly start the energy storage inverter to output voltage to the grid-connected inverter, thereby starting the grid-connected inverter. - Takes effect once.
On-the-Hour Trigger	- When the grid fails, if the battery level is low, it cannot support the energy storage inverter's off-grid operation. After this function is enabled, the system will forcibly start the energy storage inverter to output voltage to the grid-connected inverter at a fixed time, thereby starting the grid-connected inverter. - Takes effect multiple times.
Grid Power Limit Offset Value	Set the adjustable range of the actual Max. Power that the device can import from the grid.

11.3 Battery Parameters

Parameter Settings - Information Configuration

According to the actually connected Battery Type, select the battery model. When the device is installed in regions such as California, fill in the plant battery capacity information according to local regulatory requirements to complete JA12 Certification.

Parameter Settings - Lead-Acid Settings

When a lead-acid battery is connected, the lead-acid battery parameters need to be set.

Parameter Name	Description
Battery Parameters	

Parameter Name	Description
Battery Capacity	Set the battery capacity according to the actual parameters.
Battery Internal Resistance	Set the battery internal resistance according to the actual parameters.
Temperature Compensation	- When the battery temperature changes, the battery charging voltage will be affected. With 25°C as the reference, for each degree of battery temperature change, the charging voltage upper limit is adjusted according to the set value. - For example, if the charging temperature influence coefficient is set to 10, when the battery temperature rises to 26°C, the charging voltage upper limit decreases by 10 mV.
Discharge Parameters	
Discharge Parameters	Set the parameters for battery discharge according to actual requirements.
Charging Parameters	
Constant Charging Voltage	Set the voltage value for constant charging of the battery according to actual requirements.
Float Charging Voltage	Set the voltage value for float charging of the battery according to actual requirements.
Float Charging Current	The maximum Charging Current after the battery charging mode switches from constant charging/equalization charging to float charging.
Switch to Float Charging Mode	The duration required for the battery charging mode to switch from constant charging/equalization charging to float charging.
Equalization Cycle	Set the number of days between battery equalization charges.

Parameter Settings - Lithium Battery Settings

When a lithium battery is connected, the lithium battery parameters need to be set.

Parameter Name	Description
Maximum Charging Current	Applicable to some models. Set the maximum Charging Current for battery charging according to actual requirements.
Maximum Discharge Current	Applicable to some models. Set the maximum discharge current during battery discharge according to actual requirements.
Battery Heating	• Optional for some products. When a battery supporting the heating function is connected, this option is displayed on the interface. After the battery heating function is enabled, when the battery temperature does not support battery startup, PV power generation or purchased electricity will be used to heat the battery. • The Heating Mode temperatures corresponding to different battery models are different; please refer to actual conditions. • Enabling the battery heating function will consume part of the system power. When the battery heating function is enabled, it runs in Low Power Mode by default. If needed, it can be switched to other power modes. • The start and stop of the battery heating function are automatically controlled by BMS according to ambient temperature. Therefore, differences in device installation environment and location will affect the start and stop of the heating function. • The heating time period can be set according to actual requirements, but within the time period, the heating function is still affected by ambient temperature and automatically starts/stops. • If PV and AC power only meets the load demand, and the battery level is insufficient to support self-heating, the heating function cannot be enabled.

Parameter Name	Description
Battery Wake-up	• After it is enabled, when the battery is shut down due to undervoltage Protection, the battery can be awakened. • Only applicable to lithium batteries without a circuit breaker. After enabling, the output voltage of the battery port is approximately 60 V.
Breathing Light	• Only applicable to ESA 3-10kW/ESA ATHENA series inverters. • Set the duration for the device Breathing Light to flash. • In default mode, the light turns on after power-on, and automatically turns off after three minutes.

Protection Parameters - Limit Protection

Parameter Name	Description
SOC Upper Limit	The upper limit for battery charging; charging stops after the battery SOC reaches the SOC upper limit.
SOC Protection	After it is enabled, when the battery capacity is lower than the set depth of discharge, the Protection Function can be enabled for the battery.
Grid-connected SOC Lower Limit	The minimum SOC that the battery needs to maintain when the inverter is operating in grid-connected mode.
Off-grid SOC Lower Limit	The minimum SOC that the battery needs to maintain when the inverter is operating in off-grid mode.
Backup SOC Maintenance	To ensure that the battery SOC is sufficient to maintain normal system operation during off-grid operation, when the system is operating in grid-connected mode, the battery will purchase electricity from the grid to charge to the set SOC Protection value.

Parameter Name	Description
Off-grid Recovery SOC	When the inverter is operating in off-grid mode, if the battery SOC drops to the SOC lower limit, the inverter stops output and is used only to charge the battery until the battery SOC recovers to the Off-grid Recovery SOC value. If the SOC lower limit value is higher than the Off-grid Recovery SOC value, charge until SOC lower limit + 10%.
Energy-saving mode	• Only applicable to balcony micro-storage series products. • ESA ATHENA series: To save power, when the device is grid-connected and 5 minutes have passed after the battery level reaches the SOC lower limit, or when it is off-grid with no load for 2 consecutive hours, it automatically enters standby mode. After entering standby, the screen turns off, and the App cannot monitor it temporarily. It can be woken up when PV generation is higher than the device's Start-up Voltage or the device button is toggled once. • ESA ATHENA S3 series: To save power, when the device is off-grid and has no load for 2 consecutive hours, it automatically enters standby mode. After entering standby, the screen turns off, and the App cannot monitor it temporarily. It can be woken up when any of the following conditions is met: PV generation is higher than the device's Start-up Voltage, the AC grid-connected port is connected to a normal grid, or the device button is toggled once.

Immediate Charging Parameters

Parameter Name	Description
Immediate Charging	Once enabled, the grid will immediately charge the battery. This takes effect only once.
Stop Charging SOC	When the battery SOC reaches the Immediate Charging SOC upper limit, battery charging will stop.

Parameter Name	Description
Immediate Charging Power	When Immediate Charging starts, the charging power as a percentage of the inverter Rated Power. For example, for an inverter with a Rated Power of 10 kW, when set to 60, the charging power is 6 kW.
Start	Start Charging immediately.
Stop	Immediately stop the current charging task.
Preparation for Trip	• Applicable to ESA ATHENA S2 series products. • After this function is enabled, the residential energy storage all-in-one unit battery (excluding expansion batteries) can be quickly fully charged at the maximum charging rate.

JA12 Certification

Only applicable to California.

Parameter Name	Description
Certification Capacity	Maintain the certified battery capacity according to actual needs and JA12 Certification requirements.
Current Battery System Capacity	Total battery capacity currently installed in the system.

11.4 Meter Parameters

Parameter Name	Description
Meter Binding	- When both grid-tied inverters and energy storage inverters are used in the PV system to implement coupling or microgrid functions, dual meters may be used in the system. Please set the Meter Binding information according to actual usage. - Only applicable to GoodWe meters.
Meter/CT Auxiliary Detection	Using this function, you can detect whether the meter CT is connected correctly and the current operating status.
External Meter CT Ratio	Set the ratio of the primary-side current to the secondary-side current of the external meter CT.

11.5 Intelligent Communication Stick Parameters

NOTE

When the communication module connected to the inverter is different, the communication configuration interface may differ. Please refer to the actual interface.

Communication Parameters

Parameter Name	Description
WLAN/LAN	
WLAN Control	Disabled by default. After this function is enabled, when the App and the device are on the same LAN, they can connect through WLAN; otherwise, even if they are on the same LAN, they cannot connect.
Modbus TCP	After this function is enabled, a third-party platform can access the inverter through the Modbus TCP protocol to implement monitoring.

Parameter Name	Description
LAN	Automatically identify the LAN network to which the device is connected.
WLAN	According to the actual situation, select the WiFi network to which the device is connected, and enable communication between the device and the router or switch.
4G	
APN Settings	• APN settings are only applicable to configuring SIM card information for 4G communication devices. • If the 4G module does not provide a Bluetooth signal, first configure the APN parameters through the Bluetooth module or WiFi module to enable 4G communication.
Bluetooth	
Bluetooth Stays On	Disabled by default. After this function is enabled, Bluetooth Stays On for the device, maintaining the connection with the App. Otherwise, the device's Bluetooth will turn off after 5 minutes, disconnecting from the App.
WLAN Networking	
WLAN Networking	• Only applicable to microinverters. • It is recommended to use the inverter with high RSSI in the network as the master node.

Password

Supports modifying the password for logging in to the App during Local Access. When Local Access is performed via WiFi, supports modifying the hotspot password of the WiFi communication stick.

Control/Enable Parameters

Parameter Name	Description
FTP	After this function is enabled, system operation data can be uploaded to a specified server via FTP protocol to implement remote monitoring.
Remote Maintenance	After this function is enabled, remote maintenance of the device is supported, such as remote upgrades.
Restore Factory Settings	Restore the factory settings of the Intelligent communication stick, including password, network configuration information, etc.

11.6 Home Energy Management Device Parameters

NOTE

Please set the parameters according to local laws and regulations and grid standard requirements.

Grid Control Parameters

No.	Parameter Name	Description
1	Enable Function	According to the grid standard requirements of certain countries or regions, enable this function when an Output Power Limit is required.
2	Power Limit	According to the requirements of certain countries or regions, set the Max. Power that the device can actually feed into the grid.

No.	Parameter Name	Description
3	Power Limited Type	Select the method for controlling the device output power according to actual conditions. • Total power: Control the total power at the grid connection point so that it does not exceed the output power limit. • Per-phase power: Control the power of each phase at the grid connection point so that none exceeds the output power limit.
4	Grid-connected Power Limit Offset	Set the adjustable range of the Max. Power that the device can actually feed into the grid. Max. Power Delivered to Grid = Max. Feed-in Grid Power + Max. Feed-in Grid Power Offset Value.
5	Reverse Current Protection Handling Method	When a reverse current condition occurs in the system for longer than the maximum Protection time (default: 5s), the following Protection measures can be taken: • Power limit: The device continues to operate at a percentage of Rated Power. • The device disconnects from the grid.
6	Power Limit Protection Handling	The device continues to operate at a percentage of Rated Power.
7	Meter Communication Abnormality Handling	Enable this function; when communication between the meter and the device is abnormal, Protection measures will be taken.

No.	Parameter Name	Description
8	Meter Abnormality Handling Method	When a meter communication abnormality occurs in the system, the following Protection measures can be taken: • Power limit: The device continues to operate at a percentage of Rated Power. • The device disconnects from the grid.
9	Meter Handling Power Limit	The device continues to operate at a percentage of Rated Power.

Power Control Parameters

No.	Parameter Name	Description
RCR: According to standards requirements in Germany and other regions, the device must provide an RCR (Ripple Control Receiver) signal control port to meet grid dispatch requirements.		
1	RCR	Enable or disable the RCR function.
2	Active Dispatch	• According to the requirements of the power grid company and the RCR fixture type, select one or more DI ports and set the corresponding percentage. The percentage refers to the percentage of system output power relative to Rated Power. • Supports configuration of 16 levels of percentage values. Set them according to the actual requirements of the power grid company. • Do not repeatedly set the same status combination for DI1-DI4; otherwise, the function cannot be executed normally. • If the actual wiring of the connected DI port does not match the set value, the operating status cannot take effect.

No.	Parameter Name	Description
3	Reactive Dispatch	• According to utility company requirements and the RCR fixture type, select one or more DI ports and set the corresponding PF value. • Supports configuration of 16 levels of Power Factor; set according to actual utility company requirements. • PF value range requirement: [-100, -80] or [80,100]; [-100, -80] corresponds to Corresponding Power Factor lagging [-0.99, -0.8], and [80,100] corresponds to Corresponding Power Factor leading [0.8,1]. • Do not repeatedly set the same status combination for DI1-DI4; otherwise, the function cannot be executed normally. • If the actual wiring of the connected DI port does not match the set value, the operating status cannot take effect.
RCR&EnWG 14a: • According to standards in Germany and other regions, the device must provide an RCR (Ripple Control Receiver) signal control port to meet grid dispatch requirements. • For regions subject to EnWG 14a regulations, all controllable loads must accept emergency dimming from the grid. The grid operator may temporarily reduce the maximum grid import power of controllable loads to 4.2 kW.		
4	RCR&EnWG 14a	Enable or disable the RCR&EnWG 14a function.
5	Import Power Limit	Set the upper limit of power imported from the grid according to local grid regulations.

No.	Parameter Name	Description
6	Active Dispatch	• DI4 port is fixed for EnWG 14a. • According to the requirements of the power grid company and the RCR fixture type, select one or more DI ports and set the corresponding percentage. The percentage refers to the percentage of system output power relative to Rated Power. • Supports configuration of 8 levels of percentage values; set according to actual utility company requirements. • Do not set duplicate state combinations for DI1-DI3; otherwise, the function cannot execute normally. • If the actual wiring of the connected DI port does not match the set value, the operating status cannot take effect.
7	Reactive Dispatch	• DI4 port is fixed for EnWG 14a. • According to utility company requirements and the RCR fixture type, select one or more DI ports and set the corresponding PF value. • Supports configuration of 8 levels of Power Factor; set according to actual utility company requirements. • PF value range requirement: [-100, -80] or [80,100]; [-100, -80] corresponds to Corresponding Power Factor lagging [-0.99, -0.8], and [80,100] corresponds to Corresponding Power Factor leading [0.8,1]. • Do not set duplicate state combinations for DI1-DI3; otherwise, the function cannot execute normally. • If the actual wiring of the connected DI port does not match the set value, the operating status cannot take effect.
Remote Shutdown: According to the requirements of certain countries or regions, the device must provide a Remote Shutdown function to control the device to stop operation in an emergency.		
8	Remote Shutdown	Enable or disable the Remote Shutdown function.

No.	Parameter Name	Description
9	Recovery On-Grid Immediate	If the device needs to restore the grid-connected state after shutdown, first manually power on the device, then click Recovery On-Grid Immediate.

Other Parameters

No.	Parameter Name	Description
Meter Settings		
1	Select Meter	Select the model of the meter actually connected.
2	Wiring Mode	Set the wiring mode of the meter. Supported: • Single-phase Two-wire • Three-phase Three-wire • Three-phase Four-wire
3	CT Ratio	• Set when the meter model is GM330. • Set the CT ratio value of the meter.
Antenna Settings		
4	Select Antenna	Select the built-in antenna or external antenna according to actual conditions.
Time Settings		
5	Network Time Synchronization	After enabling, select a time synchronization server to synchronize time based on the selected time source.

No.	Parameter Name	Description
6	Time Server	Set the time synchronization server. Supports: - time.google.com - pool.ntp.org - ntp.aliyun.com

Export Logs

Supports exporting device operation logs. Before exporting logs, make sure the HEMS and phone are connected to the same router.

11.7 EV Charger Parameters

Parameter Name	Description
Plug and Play	- After enabling Plug and Play, insert the charging gun into the vehicle to Start Charging. - If charging is interrupted, please unplug and replug the charging gun again or manually start charging.
Scheduled Charging	Set the scheduled Charging Time according to actual needs; single-session charging or multi-cycle charging can be selected.
Distance per kWh Setting	Set the energy-to-distance conversion ratio.

11.8 Operation and Maintenance Parameters

Parameter Name	Description
Firmware Upgrade	• Supports viewing or upgrading device firmware versions, including DSP, ARM, BMS, AFCI, STS, and communication module versions. • Supports viewing firmware upgrade records. • Firmware upgrade methods: one-click upgrade of all firmware, single firmware upgrade, and manual firmware import upgrade. The supported upgrade methods vary by device; please refer to the actual device. • Some devices do not support upgrading the software version via the App; please refer to the actual device.
Log Export	• Supports exporting, downloading, and sharing logs. • Supports exporting different types of logs, such as communication module logs and inverter logs. • For some models, after selecting the safety country, safety parameter files can be exported.
Grid	
Auto Test	According to the grid standard requirements of certain countries or regions, enable this function when an automatic grid-connection test needs to be configured.

12 Contact Information

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