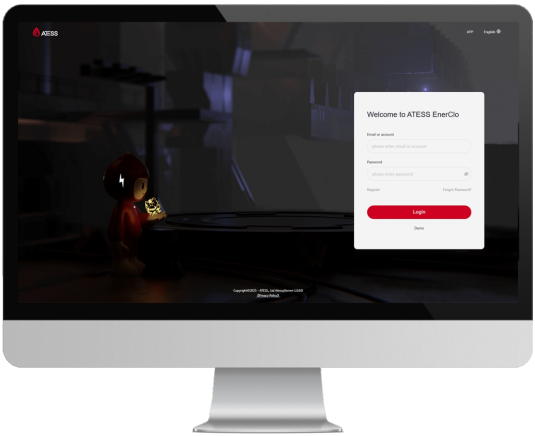

EnerClo Platform

User Manual

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Disclaimer

This platform is solely an auxiliary tool for equipment monitoring and operation & maintenance. The data provided is for reference only. Our company shall not be held responsible for any losses resulting from improper operation, equipment malfunction, etc. The intellectual property rights of this manual and the platform belong to Shenzhen Times Energy Innovation Technology Co., Ltd. Reproduction, alteration, or commercial use without permission is prohibited. Please read this manual carefully before using the product. The manual content is updated with platform iterations; users may download and review it periodically as our company will not provide separate notifications for updates.

1 Introduction to the EnerClo Monitoring Platform

1.1 Overview

EnerClo is a power plant and equipment management tool provided for end-users, with the following main functions:

Remote Monitoring: Remotely obtain key data such as the operational status and fault alarms of power plant equipment, allowing users to grasp equipment dynamics without on-site presence.

Data Visualization: Present equipment operational data intuitively through charts and curves, helping users quickly analyze data patterns and assisting in O&M decision-making.

Convenient Management: Support remote management operations for power plant equipment, simplifying O&M processes, and improving management efficiency.

Note: The data provided by the platform is for reference only. Actual equipment operation and maintenance should be combined with on-site conditions.

2 Operation Guide

2.1 Platform Access Address

Official Platform Access Address (URL): www.enerclo-atesspower.com

It is recommended to use mainstream browsers (such as Chrome, Edge, Safari, etc.) for access, ensuring a stable network environment for proper page loading and functionality usage.

2.2 Login Page

2.2.1 Login

① Access the Login Page: Enter the platform access address in your browser to enter the EnerClo login interface.

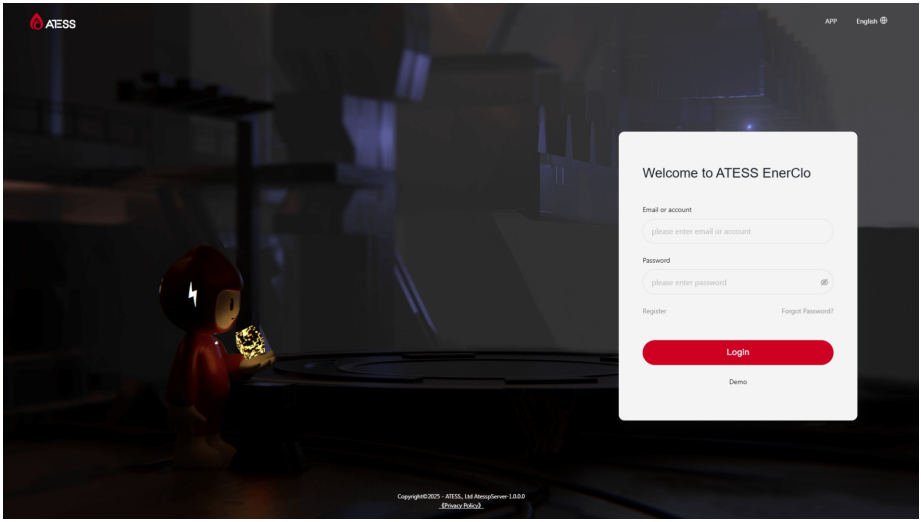
② Enter Account Information: Fill in the registered email/account in the "Email or account" field, and enter the corresponding password in the "Password" field (the account and password must be entered accurately, otherwise login will fail).

③ Complete Login: After confirming the information is correct, click the "Login" button to enter the platform.

④ Additional Notes:

● Users without a registered account need to first click "Register" to complete registration before logging in.

● You can use the "APP" entry in the upper right corner of the page to scan the QR codeand download the App for synchronized viewing of platform data.



2.2.2 Register

① Fill in Required Information: Fields marked with "*" on the page are mandatory and must be accurately filled:

Email Address: Enter a valid personal or corporate email address (used for receiving verification codes and subsequent login verification). Ensure the format is correct.

Get Verification Code: Click the "Send" button, and the system will send a verification code to the entered email. Please check your email (if not received, check the spam folder or resend).

Verification Code: Accurately enter the verification code received in the email into the corresponding field, avoiding input errors.

② Set Login Password:

Password: Enter an 8-16 character password, which must include numbers, letters, and special characters (e.g., "Abc123!@#") to ensure password strength.

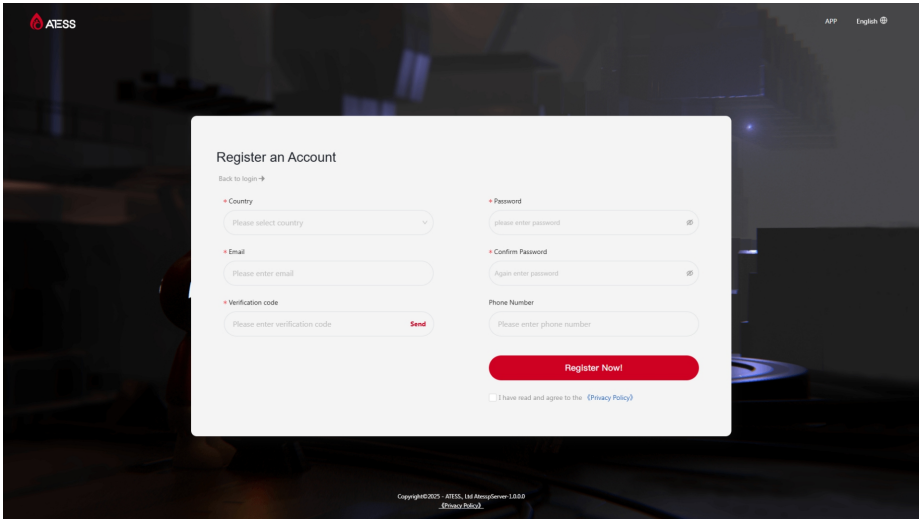
Confirm Password: Enter the same content as the "Password" again. The two entries must match exactly.

③ Complete Registration and Login:

Carefully review the agreement terms. If you agree, check the agreement box and confirm that all fields are completed. The system will automatically validate the information (such as verification code validity, password format, etc.). Validation success means registration is successful.

If registration fails, modify the corresponding fields according to the page prompts (e.g., "Password format does not meet requirements", "Verification code has expired"), then resubmit.

After successful registration, you can directly log in using the registered email account and the set password.



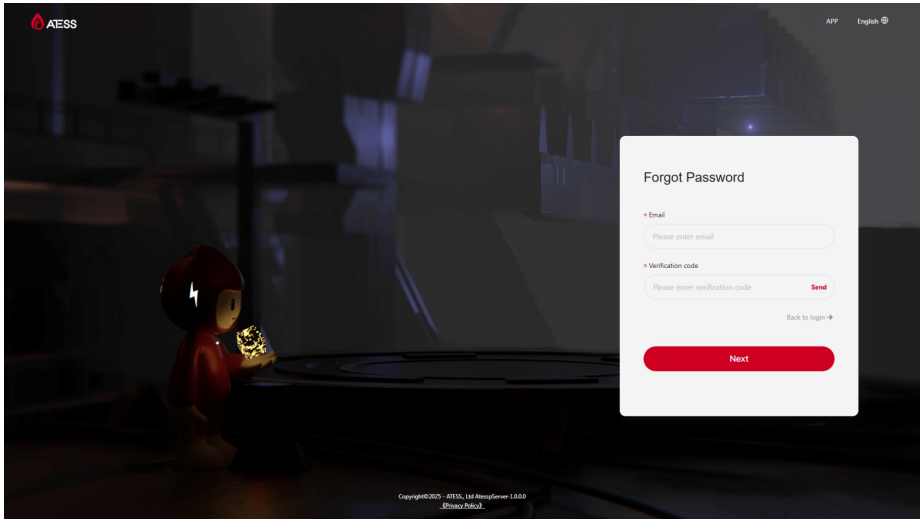
2.2.3 Forgot Password

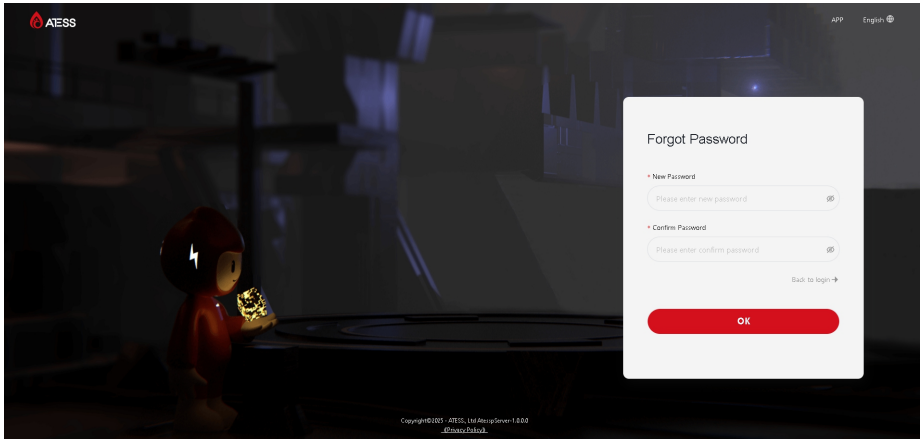
On the login page, click "Forgot Password" (below the password input field) to jump to the Forgot Password page.

① Identity Verification: Enter the email address bound during registration, click "Send", and enter the verification code (if not received, check the spam folder or resend).

② Reset Password: After verification is passed, click "Next", set a new password following the password format used during registration, and confirm it.

③ Complete Login: After successfully resetting the password, log in to the platform using the original email and the new password.





2.3 Adding a Power Plant

2.3.1 Add Power Plant

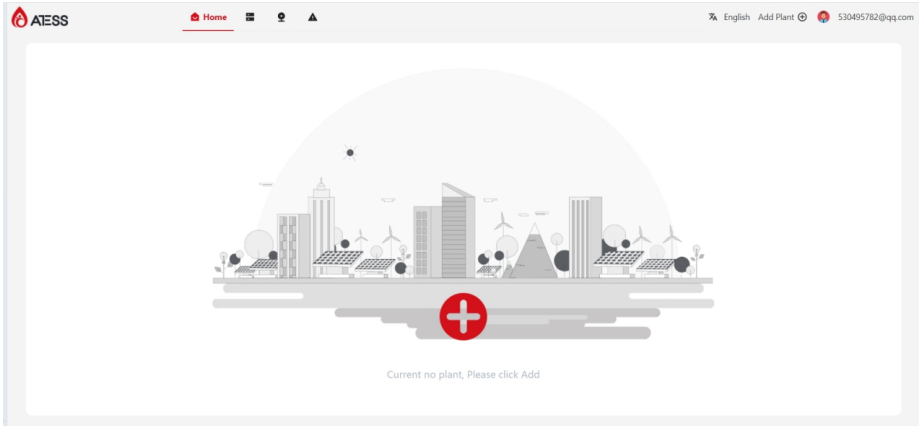
After the first login, click the "+" button in the page or at the top right to enter the power plant creation page.

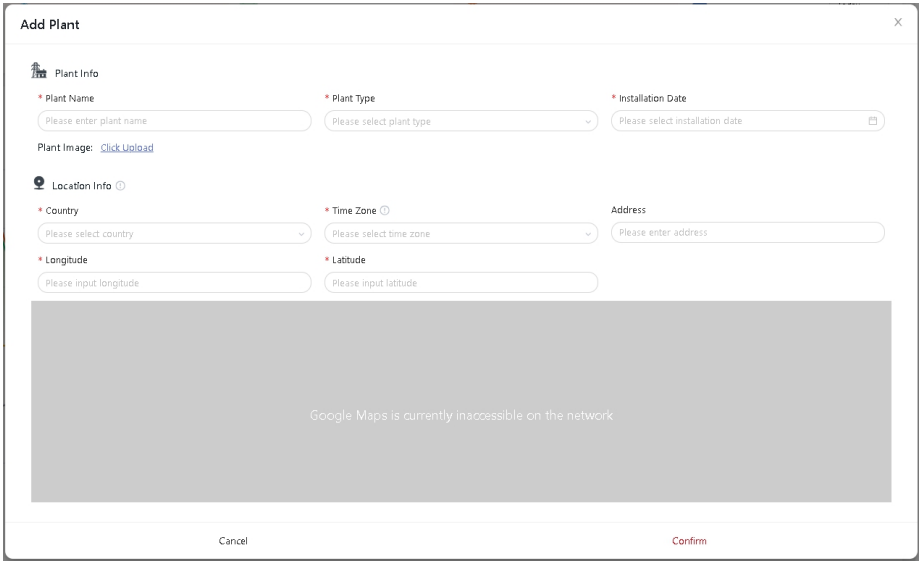
① Fill in Required Information: All fields marked with "*" (Power Plant Name, Power Plant Type, Installation Date, Country, Time Zone, Detailed Address, Latitude/Longitude) must be filled in.

② Country and Time Zone: Must be selected accurately (local time zone; set to Daylight Saving Time zone during DST period). Incorrect settings may cause errors in equipment data statistics time.

③ Social Contribution Value: Fill in the conversion value per kilowatt-hour. The system will calculate the cumulative social contribution of the power plant based on this.

④ Complete Creation: After all information is filled in, click the "Confirm" button at the bottom to complete the power plant creation.





2.3.2 Add Device

After the power station is successfully created, you need to add the collector device. Find the "Add" entry and enter the addition page.

① Fill in Information: Locate the "SN" and "Check Code" on the device packaging/body and accurately input the corresponding fields (incorrect input will result in addition failure).

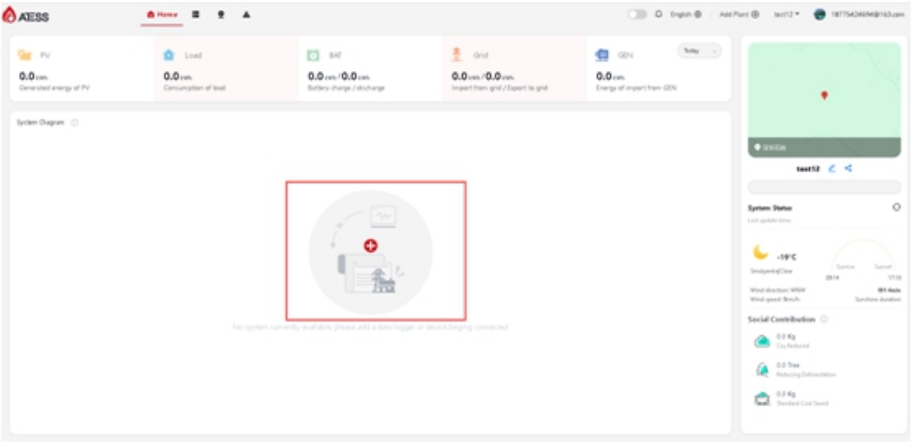
● Device SN: The unique identifier of the device (attached to the device body or packaging box).

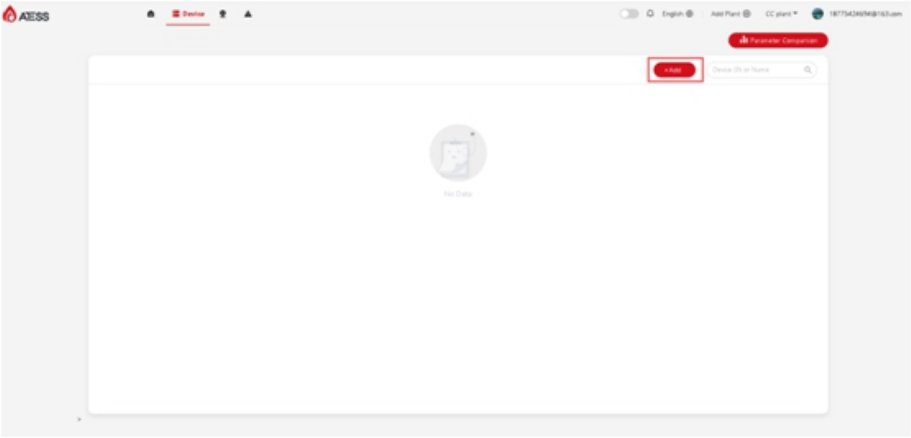
● Check Code: The verification code of the device (matching the SN for confirming the legitimacy of the device).

② Complete Addition: After filling in the information correctly, click the "OK" button to complete the addition of the collector device.

③ Configuration Instructions: Specific configuration methods for the collector's network connection and device connections should be referred to in the accompanying manual for the corresponding type of collector (the Enerlog box manual is included with the packaging, and the built-in module manual can be found in the "Collector Module" section of the device's main manual).

Important Note: If the purchased device supports WiFi network configuration via Bluetooth or hotspot, it is recommended to complete both the device addition and corresponding WiFi configuration within the App. If you have any questions, please contact our after-sales technical support.





2.4Home Page

The core function of the Home Page is real-time monitoring of the operational data of the power plant system's equipment, covering key modules such as basic power plant information, system data switching, energy statistics, and social contribution.

① Basic Power Plant Information

● Power Plant Image: Priority is given to displaying the custom image uploaded when adding the power plant. If not uploaded, it defaults to showing a map of the power plant's location.

● Power Plant Name: Displays the name entered when adding the power plant. An edit icon (to modify power plant information) and a "Share Power Plant" icon (to share power plant data with other users for collaborative viewing) are located to the right of the name.

② System Switch (Dropdown): The dropdown options are the SNs of HPS/PCS devices. You can select and switch between parallel systems or single devices. The data on the left will update accordingly.

③ System Status: Displays the status of the HPS/PCS device (in a parallel scenario, the master device status is displayed by default).

④ Refresh and Update Time

● Refresh Button to the right of the status: Click to manually refresh the system data on the left (the system automatically refreshes every 1 minute by default).

● Last Update Time: Displays the last time the HPS/PCS device uploaded data to the server. In a parallel scenario, it takes the master device's update time.

⑤ Power Plant Weather: Based on the latitude and longitude entered when adding the

power plant, displays the current day's weather (e.g., sunny, rainy, cloudy), real-time temperature, sunshine duration, and other environmental information for the power plant's location, providing reference for photovoltaic power generation estimation.

⑥ Social Contribution: Statistics for the cumulative values of "CO_2 Reduction", "Forest Preservation", and "Coal Saving" for the power plant. Calculation formula = Cumulative photovoltaic power generation of the power plant * coefficient.

⑦ Core Energy Data Statistics: Statistics for system energy data at various stages are provided in three dimensions: "Today / This year / Total" (in parallel scenarios, values are sums of multiple devices). Specific indicators and calculation rules are as follows:

Indicator	Statistical Content	Remarks
PV	Photovoltaic power generated by the system	Reflects PV system generation capability
PV(INV)	Power generated by the PV inverter	Reflects inverter energy conversion efficiency
Load	Power consumption of the system load	Reflects overall powe consumption
Non-critical load	Power consumption of non-critical loads	Displays in meter mode
BAT	Battery system's charging and discharging amounts	Charging and discharging data are counted separately
Grid	Power fed into the grid / Power taken from the grid by the system	Distinguishes between "Feed-in" and "Take" directions
GEN	Power obtained by the system from the generator	Data for emergency power supply scenarios

Data Calculation Rules:

Today's Power Generation: By default, reads the device's own recorded value for today's power generation. For data logger versions 1.0.3.a and below, it is calculated by the server (latest cumulative generation for today - last cumulative generation for yesterday). There may be discrepancies with the device's local data.

This Year's Power Generation: Calculated by the server based on the calendar year dimension (Jan 1 - Dec 31), by accumulating daily power generation data.

Cumulative Power Generation: Directly reads the device's own recorded cumulative power value. The server does not perform secondary calculations, ensuring data consistency with the device's original records.

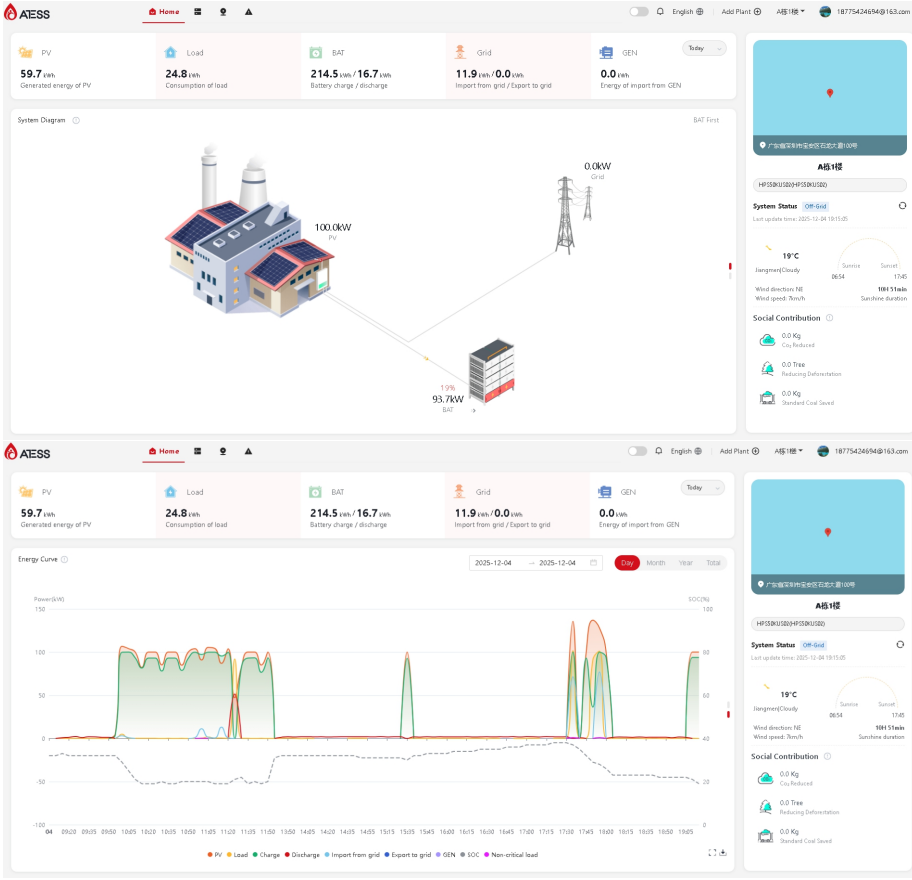
Important Note: The time displayed on the device screen must be consistent with the server's power plant time. If there is a deviation, it may cause daily power statistics to reset early or late, leading to inaccurate display of values on the server side.

⑧ System Diagram: Dynamically displays the energy flow trends of the current system through a visual system diagram (e.g., PV supplying power to loads/batteries, energy interaction between grid and system). The current operating mode (e.g., "Load First", "Battery First") is clearly marked at the top right of the diagram.

⑨ Data Charts: Supports querying power changes or energy data for various system indicators across four time dimensions: "Day / Month / Year / Total".

- Query by "Day": Displays real-time power and SOC trend curves for each parameter. Data within the past 7 days can be queried.
- Query by "Month / Year / Total": Displays power generation trend curves for each parameter.
- Supports clicking for full-screen viewing of chart details.

⑩ Environmental Monitor: If an environmental monitor device is connected to the system, an icon will appear in the lower right corner of the page. Click to view device data (not displayed if not connected).



2.5 Device List

2.5.1 Device List

Displays device information under the power plant, categorized by device type. Only actual connected device types are shown (limited to devices purchased from our company).

① Device Status Description:

- When a device is powered off or disconnected from the data logger, its status displays as "Lost". The server will then stop updating data for that device.
- When the device is online normally, its corresponding operational status is displayed.

② Search Function: Enter a "Device Name or SN" in the top search box to quickly locate the target device.

③ Parallel System: For devices with parallel configurations (e.g., multiple PCS units in parallel), the system will automatically mark master/slave relationships based on device feedback data:

- Master/Slave Identification: "Master" or "Slave" identifiers are displayed above the device icon, distinguishing device roles.
- Exception Handling: If the parallel devices are not correctly configured for master/slave, the server will default displaying them as "Standalone" without master/slave identifiers.

④ Battery Devices: Primarily displays three types of battery-related devices: MBMS, BCU, VoltStack BCU.

MBMS (Master Battery Management System): Responsible for controlling the operation of the entire battery system and enabling communication interaction with the inverter.

BCU (Battery Control Unit): Assists in monitoring local battery status, working in coordination with MBMS to ensure battery safety.

VoltStack BCU (Battery Control Unit): A control unit designed specifically for the VoltStack series batteries, capable of independent communication interaction with the inverter.

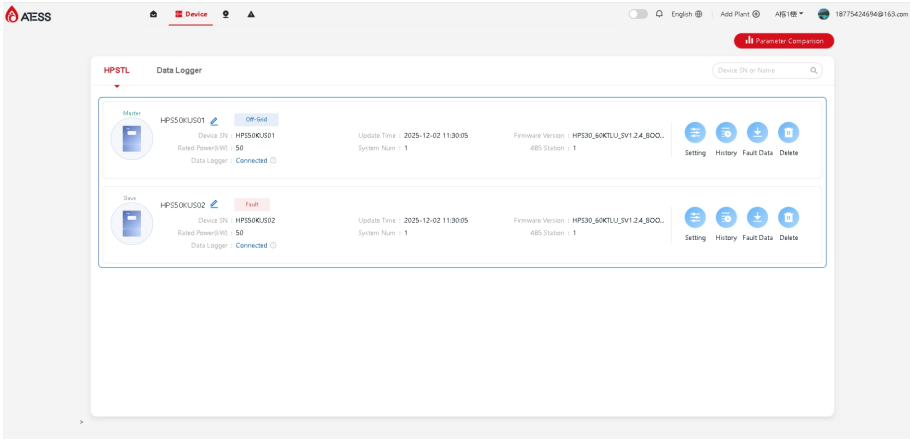
⑤ Application Scenarios and System Number Setting

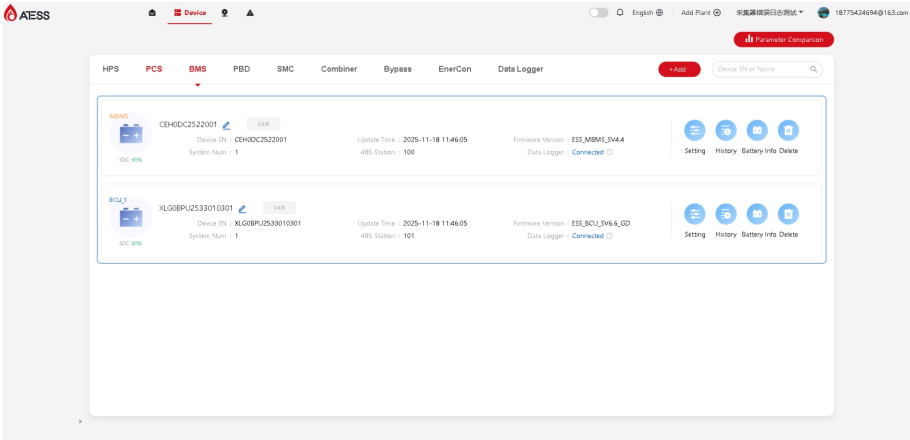
Shared Battery Scenario: When multiple inverters share a single battery system, set the "System Number" for the associated inverters and battery to the same value.

Dedicated Battery Scenario: When each inverter operates independently with its own dedicated battery, set the same "System Number" for each corresponding device pair.

Identification Rule: The server identifies inverters and batteries with the "same System Number" as belonging to the same group. The group association can be viewed in the device list via the number.

Multi-Device Adaptation: Besides battery devices, other device types like HPS and PCS also support grouping by "setting the same System Number" for easier collaborative management.





2.5.2 Remote Settings

The Remote Settings function supports remote configuration of parameters for HPS, HPSTL, PCS, PBD, RTF, and BMS devices. Operations must follow specifications to avoid device risks. Specific instructions are as follows:

① Prerequisites

- Must agree to the "Disclaimer" before entering the Remote Settings interface.
- It is recommended to operate under the guidance of professionals. Incorrect parameter settings may lead to device malfunction or performance anomalies.

② Regular Settings

● Use the top "Search keyword" field to search for a keyword, or find the target parameter in the left-side categories (Battery/Grid/ATS, etc.). Check the corresponding parameter item.

● Enter the password (password is the current date, formatted as YYYYMMDD, e.g., 20231009), then click the "Setting" button.

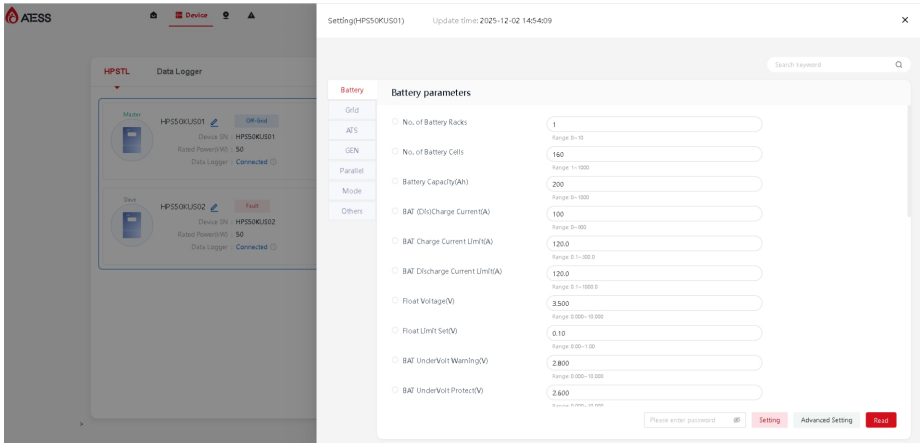
● Upon successful setting, the system will pop up a notification, and the corresponding parameter will take effect on the device side.

③ Advanced Settings: Click the "Advanced Setting" button in the lower right corner of the interface.

● Fill in the "Register Address" and corresponding "Value" that need to be modified.

● Enter the password and click "Setting". The parameter at the specified register address will be updated.

④ Parameter Reading: Click the "Read" button. The data logger will actively retrieve device parameters and synchronize them to the server.

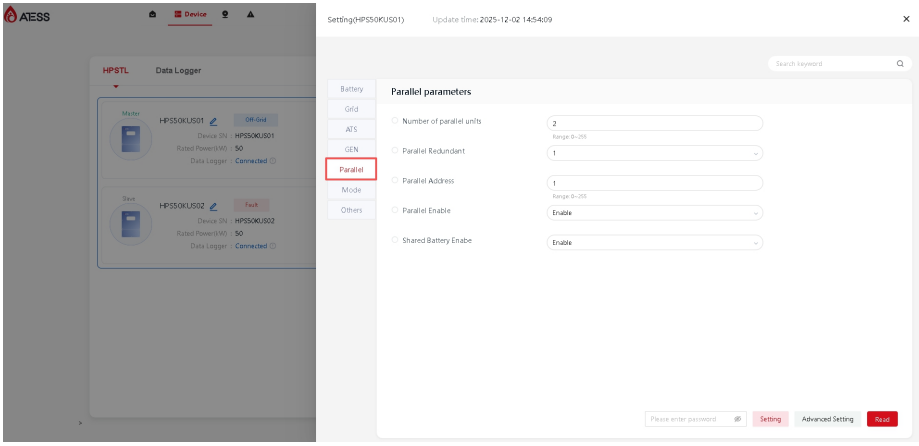


⑤ Parallel Settings

● The Parallel Enable parameter should be set to Enable; set to Disable for standalone operation.

● Set the Parallel Address: Master is set to 1, Slaves are set to numbers greater than 1 (only one master and multiple slaves can be set within a power plant; otherwise, the system will not recognize them and treat them as standalone).

● Set the Parallel Quantity according to the actual number of connected devices.

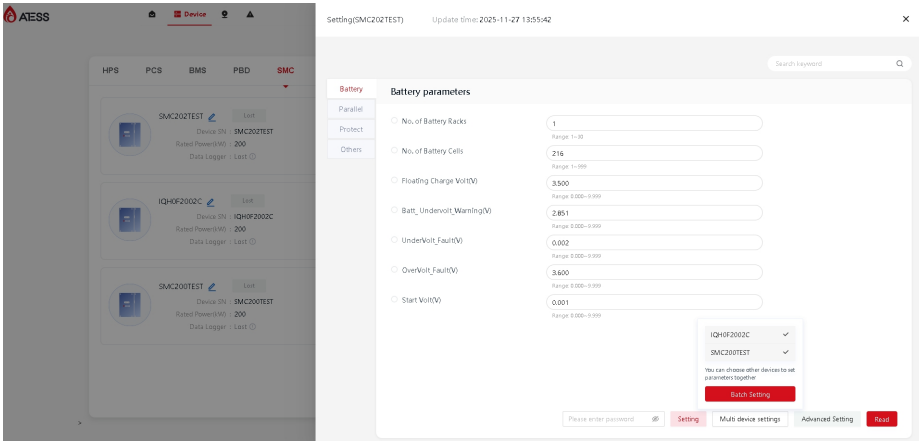


⑥ SMC Batch Settings

● If multiple SMC devices exist, batch settings can be applied to multiple devices. This is temporarily not supported for other device types.

● Enter the Remote Parameter Settings page for any SMC device, find the "Multi device settings" entry, and select the devices that need to be set together (password input required).

● Modify the corresponding parameters. The settings will be simultaneously pushed to other selected devices. If failures occur, you can use the retry button to resend.



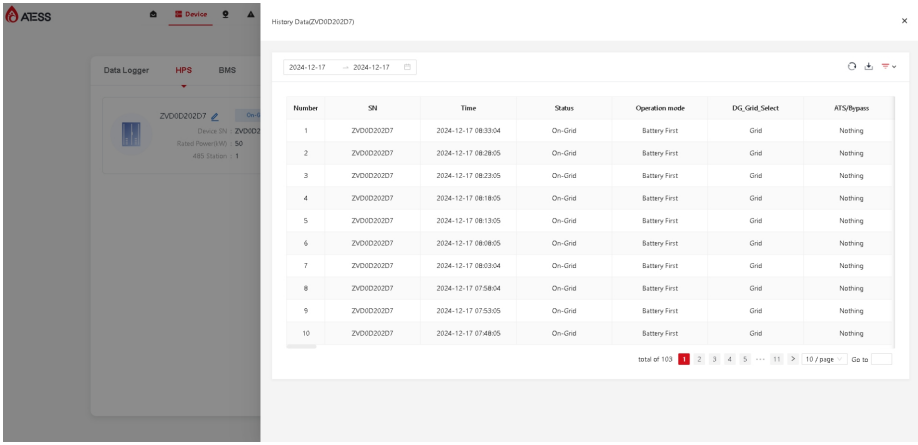
2.5.3 Historical Data

Used to query the operational records of devices, helping O&M personnel analyze long-term operational status, investigate abnormal fluctuations, trace device operation history, and provide data support.

① Collection Frequency: The data logger uploads device data to the server every 1~5 minutes, depending on the data logger's transmission interval.

② Query Method: Use the date selection box at the top of the page to select the target time period to view the corresponding historical records.

③ Data Download: Click the download button in the upper right corner of the page to export the historical data for the current query period locally, facilitating offline analysis or archiving.



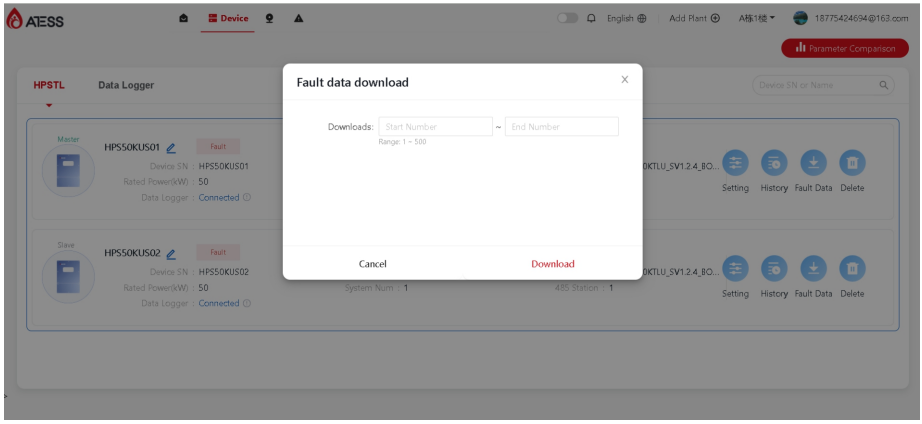
2.5.4 Fault Instantaneous Data

Used to obtain recorded data from the instant a device fault occurred, assisting in fault analysis and troubleshooting.

① Recording Logic: When a device fault occurs, the system automatically records the operational parameters at the fault instant, forming a fault data entry.

② Download Operation: Click the "Fault Data" button corresponding to the device. A "Fault data download" window will pop up. Enter the "Start number" and "End number", then click "Download" to download the fault data within that range locally.

③ The downloaded fault data can be used for offline fault cause analysis, helping O&M personnel locate the point of device anomaly and improving fault troubleshooting efficiency.



2.5.5 Battery Information

Used to monitor the overall status of the battery system and individual cell voltage data in real-time. The data viewed for MBMS and BCU devices differs:

- BMS Device: Views cell voltage and temperature data for all associated BCUs and their modules.
- BCU Device: Views cell voltage and temperature data for the modules managed by itself.

① Top Data

The top of the page presents battery system summary data in categorized cards, intuitively displaying the overall status.

Total Voltage/Total Current: Displays the overall voltage and current of the battery system.

Temperature Data: Displays the highest/lowest temperature of the battery system, indicating the corresponding BCU module.

Individual Cell Voltage: Displays the highest/lowest voltage of individual battery cells, indicating the corresponding BCU and module location.

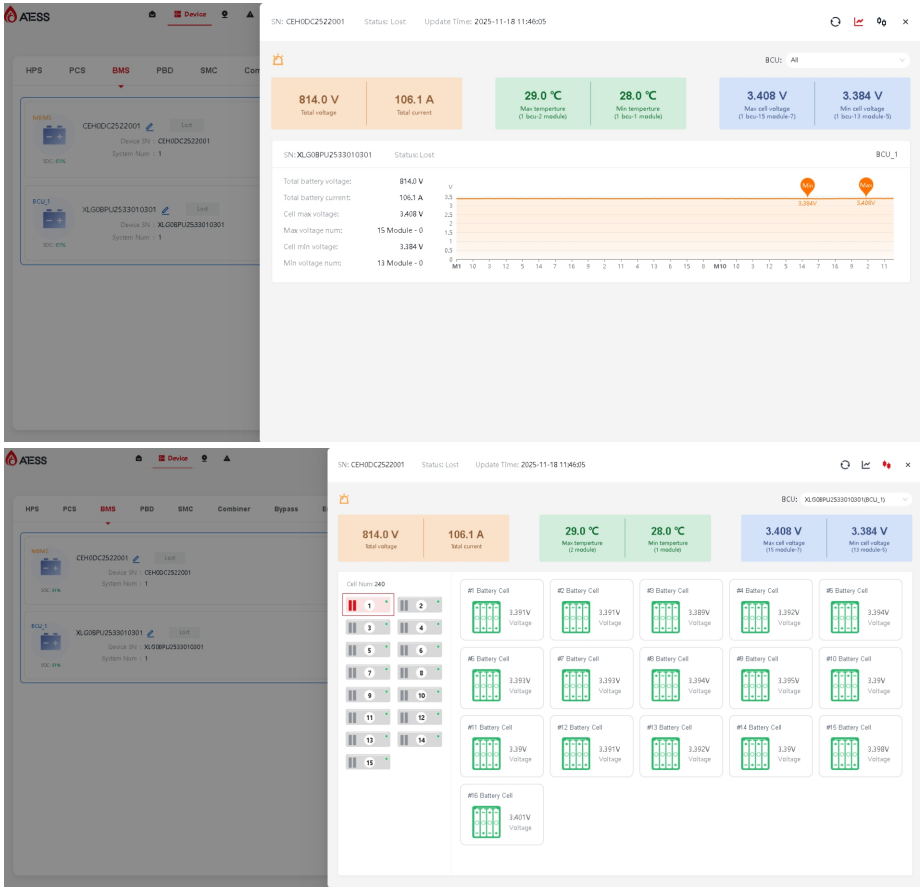
② Individual Cell Voltage Data

Supports viewing detailed voltage data for individual cells on a per-BCU basis, offering two view modes.

- Voltage Curve (First View Mode): Displays the voltage distribution of all individual cells under the current BCU as a trend chart. Curve height corresponds to voltage value, with "Max" and "Min" extremes marked along with their module locations. The curve fluctuations intuitively show the voltage consistency and variation among cells.
- Individual Voltage List (Second View Mode):

The left side allows switching between different battery modules via the "Module number".

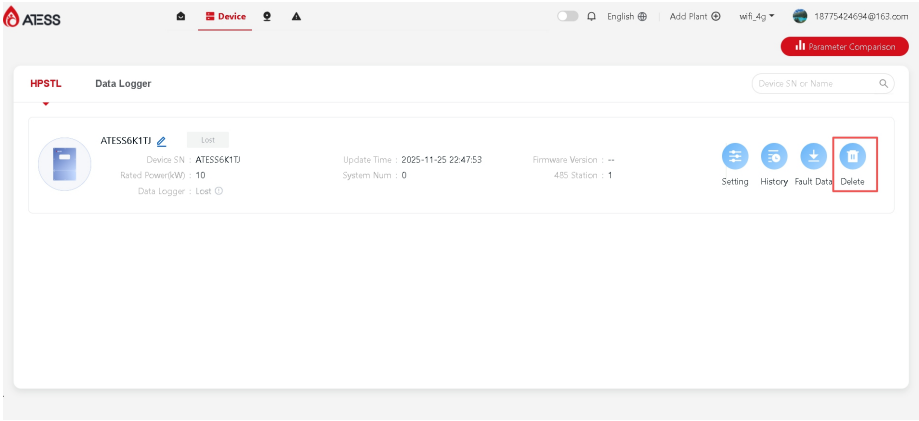
The right side displays the voltage values for each cell within the corresponding module, facilitating the location of abnormal battery cells.


AESS
Device
HPS
PCS
BMS
PBD
SMC
CEH0DC2522001
XLG08PU2533010301
814.0 V
Total voltage
106.1 A
Total current
29.0 ℃
Max temperture
(1 bcu-2 module)
28.0 ℃
Min temperture
(1 bcu-1 module)
3.408 V
Max cell voltage
(1 bcu-15 module-7)
3.384 V
Min cell voltage
(1 bcu-13 module-5)
Total battery voltage: 814.0 V
Total battery current: 106.1 A
Cell max voltage: 3.408 V
Max voltage num: 15 Module - 0
Cell min voltage: 3.384 V
Min voltage num: 13 Module - 0
Combiner
Bypass
Cell Num: 240

2.5.6 Delete Device

The Device List is equipped with a "Delete" function button used to remove devices from the list. Deletion can only be performed when the device is offline (indicated by the "Lost" status on the page), to avoid accidentally deleting an operational device.

Click "Delete" and confirm. The device will be removed from the current device list.



2.5.7 Device Parameter Comparison

Used to visually display multi-dimensional operational parameter curves for devices, making it easier to intuitively compare the operational trends of multiple parameters across devices.

① Select target devices from the list on the left (multiple selections possible).

② Select a date range. Data from up to the past 7 days can be queried.

③ For each device, select the parameter types to be compared.

④ Curve Display: Presents real-time changes of the selected parameters as trend charts, facilitating intuitive comparison of relationships between parameters.

2.6 Power Plant List

Used to centrally manage the basic information and core data of all power plants, supporting multi-dimensional operations.

① Power Plant Information

● Top tabs support filtering power plants by status for quick location.

● Core Data: Displays power plant name, status, installation date, and key cumulative data such as total PV power generation, battery charge/discharge amounts, grid feed-in/take amounts, and load power consumption.

● Sharing Identifier: Power plants marked with "Sharing" are shared power plants, allowing only data preview without operation permissions.

② Operational Functions

● View: Jumps to the system Home Page of that power plant to view system operational data.

● Share Power Plant: Allows sharing power plant data with other users. Shared users can preview or operate the power plant's device data based on assigned permissions.

● Modify: Click to enter the power plant information editing page to adjust basic configurations like name, address, latitude/longitude.

● Delete: Allows deletion of idle, obsolete, or mistakenly created power plants.

③ Status Description:

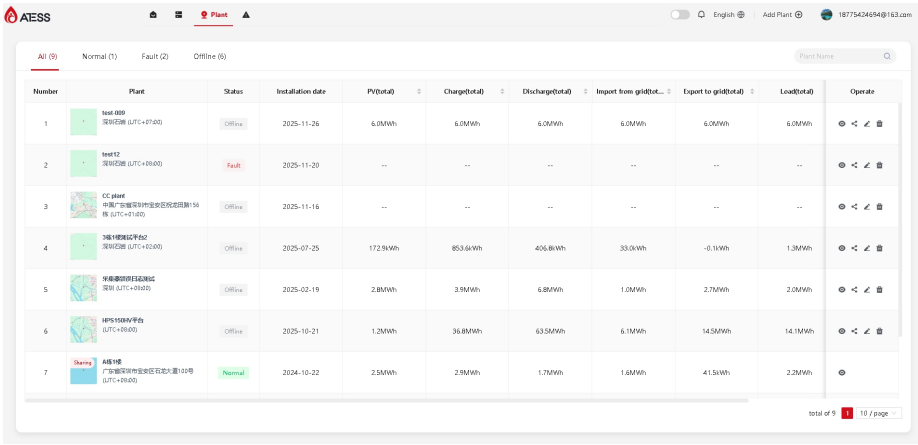
● Power plant statuses are "Normal", "Fault", "Offline".

● Normal: At least one system (HPS/PCS system) is operating normally.

● Fault: All systems are in a fault state.

● Offline: All systems are offline.

④ System Limitation: A single power plant does not support multiple parallel systems. Multiple parallel systems require creating separate power plants for management.



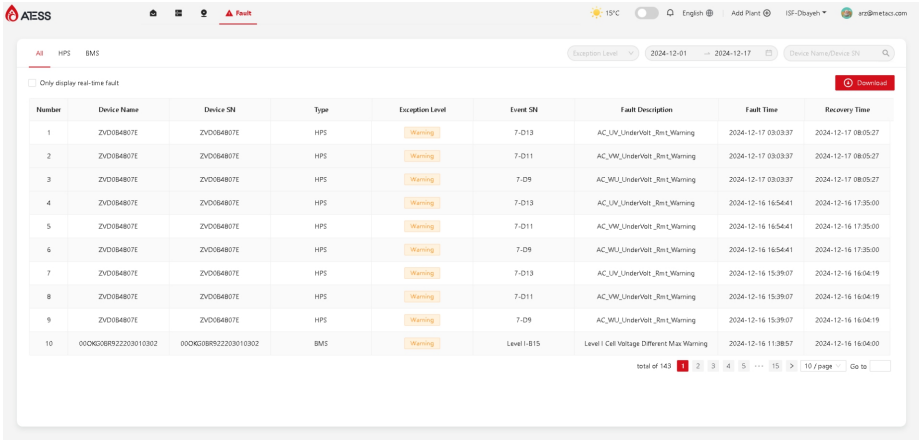
2.7 Fault Information

This page centrally manages fault data for all devices under the power plant.

① Fault information is displayed categorized by device type (e.g., HPS, BMS). Each fault entry includes device SN, event SN, fault type, occurrence time, etc.

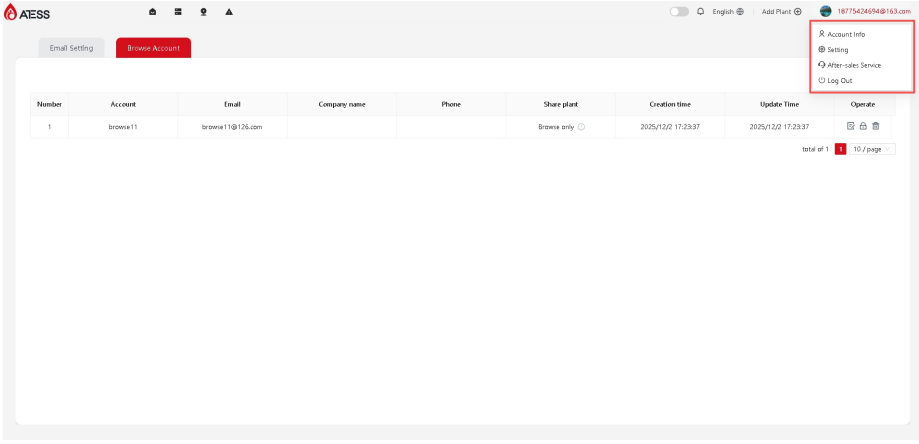
② When the "Recovery Time" field is empty, it indicates the fault is currently active. A specific time displayed means the fault has been recovered.

③ Enter a "Device Name or SN" in the top search box to quickly filter target fault information based on conditions.



2.8 My Account

Hover the mouse over the "Account Avatar" at the top of the page. A menu with four types of operations will pop up (Account Information, Setting, After-sales Service Center, Log Out).

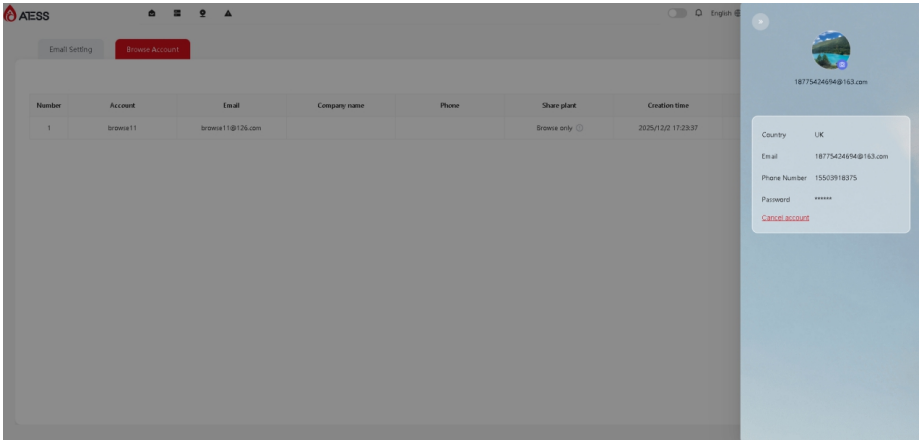


2.8.1 Account Information

Hover the mouse over the "Account Avatar" at the top of the page. In the pop-up menu, click "Account Info". A sidebar will expand on the right side of the page, displaying basic information of the current account (e.g., account name, email, country).

In the sidebar, you can modify the account's password, country, phone number, etc. Submit changes to make them effective.

If the account is no longer needed, you can find the "Cancel account" button in the sidebar to perform account cancellation. After cancellation, the account and its associated information such as power plants will be cleared.



2.8.2 Email Settings

Hover the mouse over the "Account Avatar" at the top of the page. In the pop-up menu, click "Setting". The system will by default jump to the "Email Settings" page.

Set up email addresses to receive fault notifications, monthly reports, quarterly reports, and annual reports. Supports adding, modifying, and deleting operations. Data will be pushed to the corresponding email when the reception type is checked.

Report Push Rules

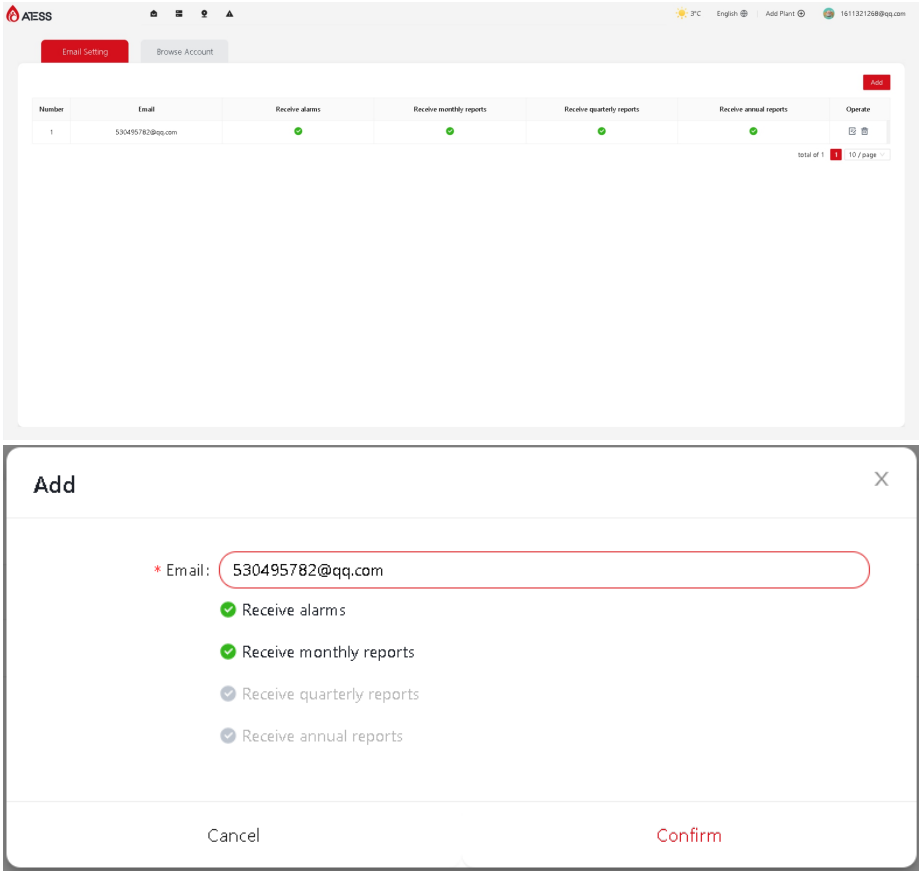
① The push time for various reports follows server time (UTC+8, i.e., Beijing Time).

② Monthly Report: Pushed at 20:00 on the 1st day of the next month, containing a summary of the power plant's operational data for the past month.

③ Quarterly Report: Pushed at 20:00 on the 1st day of the next quarter, containing a summary of the power plant's operational data for the past quarter.

④ Annual Report: Pushed at 20:00 on the 1st day of the next year, containing a summary of the power plant's operational data for the past year.

⑤ Fault Notification: When a device triggers a fault, the system will push fault information (such as faulty device, fault description, occurrence time) in real-time to emails that have "Fault Notification" checked, facilitating timely troubleshooting.



2.8.3 Browse Accounts

Hover the mouse over the "Account Avatar" at the top of the page. In the pop-up menu, click "Setting", and switch to the Browse Accounts page. This page is mainly used to manage all browse-type accounts within the system, enabling hierarchical access to power plant data and operational control through permission configuration.

① Operational Functions

Add: Create a new browse account, configuring basic information and shared power plant permissions to meet new users' data access needs.

Modify: Adjust the basic information or permission configuration of an existing browse account.

Delete: Remove idle, expired, or non-compliant browse accounts to reduce interference from invalid accounts on system management.

Reset Password: When an account user forgets their password, the master account can perform this operation to reset the password, ensuring normal account usage.

② Account Permissions

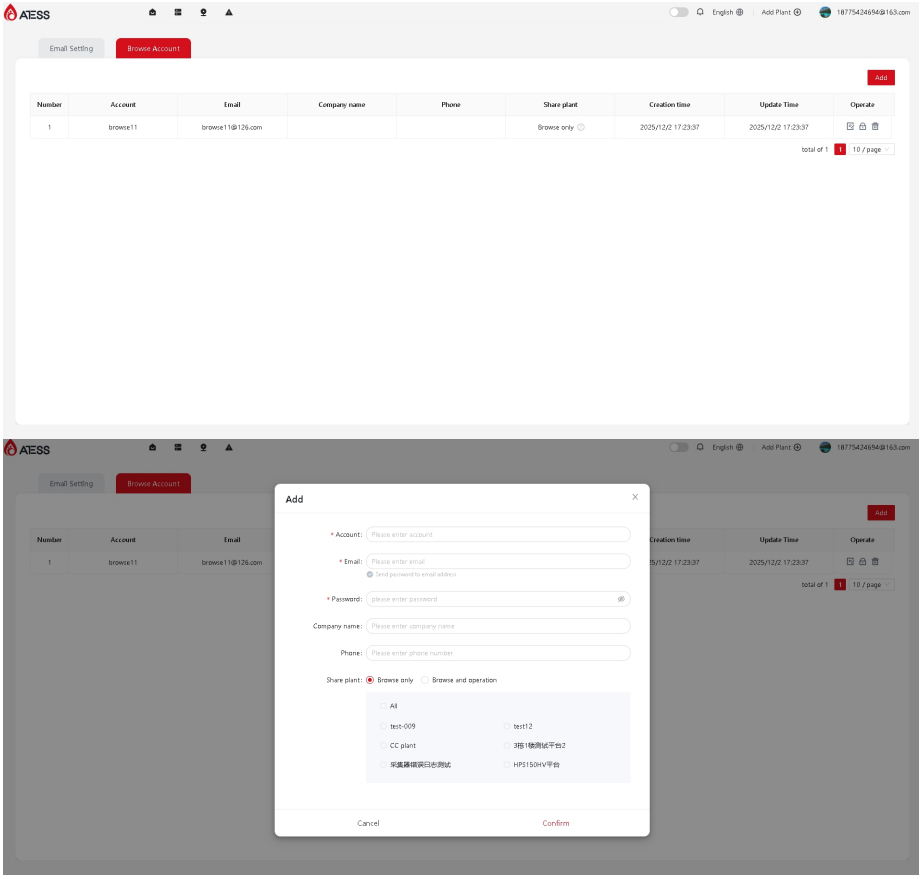
Browse only: The account can only view power plant data.

Browse and operation: The account can view and operate power plant device data.

③ Account Verification:

● The system checks if the "Account" and "Email" are already in use to avoid conflicts and data confusion.

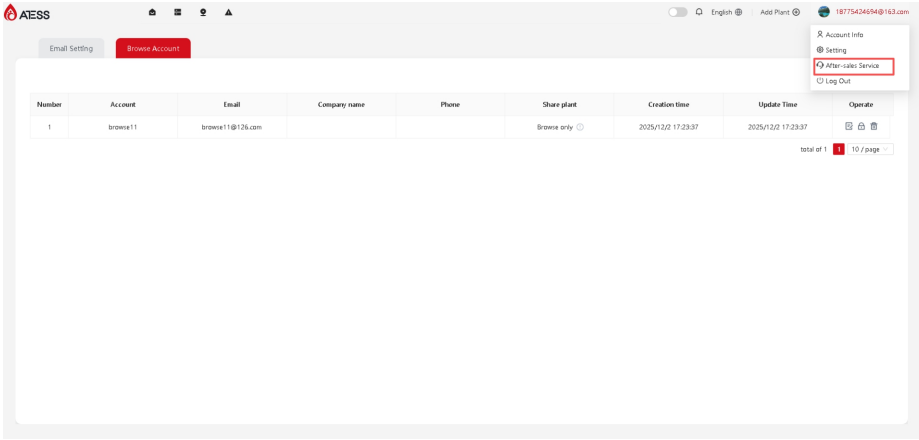
● If the master account is canceled, all browse accounts under its name will be automatically cleared by the system. This prevents invalid accounts from occupying system resources and ensures data security.



2.8.4 After-sales Service Center

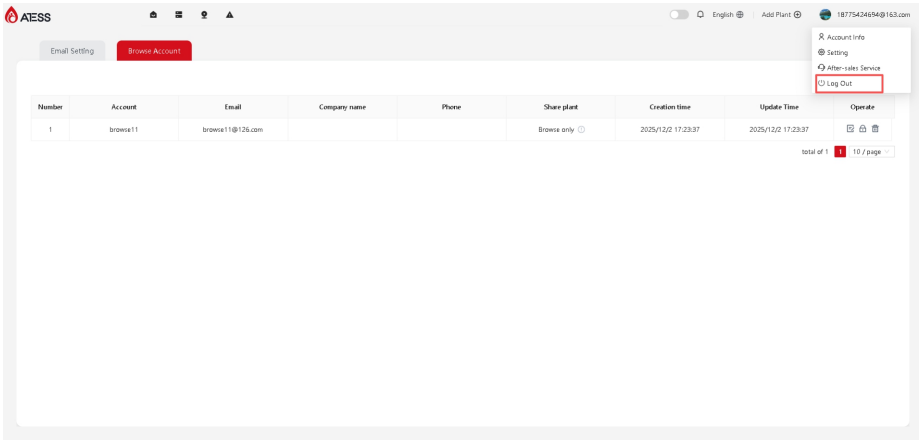
Hover the mouse over the "Account Avatar" at the top of the page. In the pop-up menu, click "After-sales Service". You will be redirected to the After-sales Service Center page.

This page is the entry point for obtaining official after-sales support, providing services such as after-sales service application and application progress inquiry.



2.8.5 Log Out

Hover the mouse over the Account Avatar and click "Log Out". The current account will immediately log out of the system, and the page will jump to the login page. After logging out, you need to re-enter the account password to enter the system again.



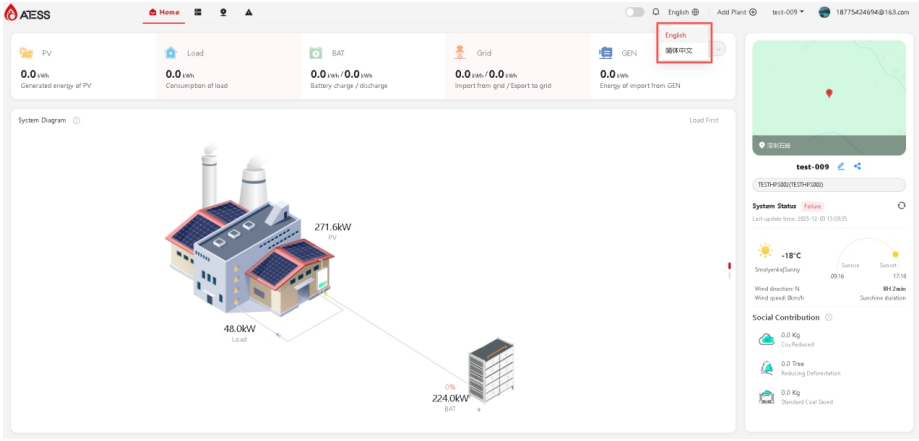
2.9 Navigation

2.9.1 Switch Power Plant

At the top of the page, you can click to switch between power plants to view the system operational data for the selected power plant.

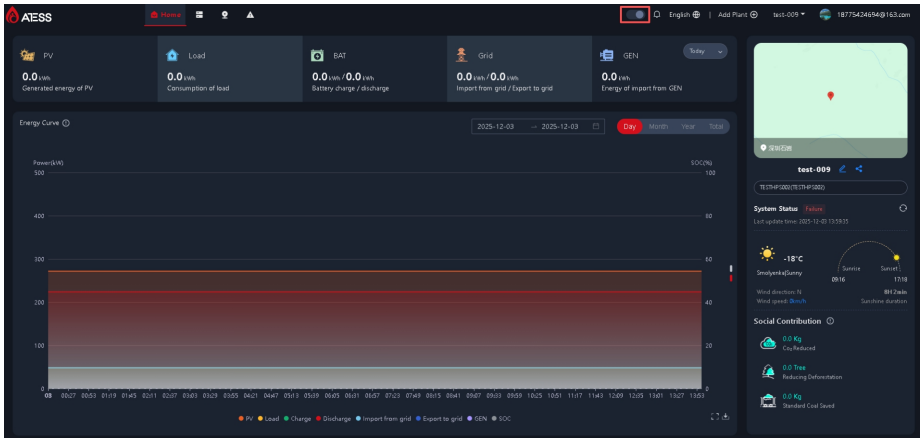
2.9.2 Switch Language

At the top of the page, you can click to switch the language. Select the desired language from the pop-up language list. After selection, the platform will immediately update to the set language, and all subsequent operations will be displayed in that language.



2.9.3 Switch Theme

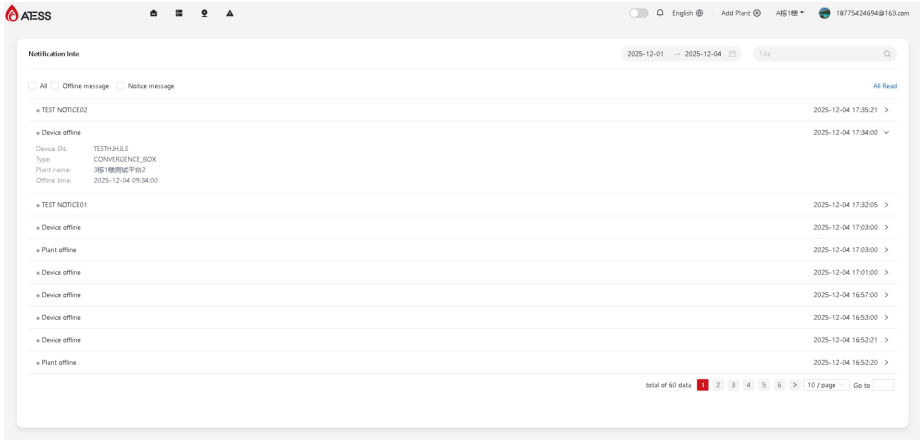
At the top of the page, you can click to switch the system appearance, adapting to the visual preference needs of different users.



2.9.4 My Messages

At the top of the page, you can click the message icon to enter the Messages page and view them.

The Message Center contains two types of notifications. Click to expand and view details.

① Offline Messages: When a device or power plant status changes from "Online" to "Offline", the system automatically pushes this type of message to notify of the status change.

② Announcement Messages: Official messages released by the platform, such as product usage instructions, service adjustments, and activity notifications.