



ATESS Enerclo

Enerclo User Manual

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1 Enerclo introduction to monitoring platform

1.1 Overview

The Enerclo monitoring platform mainly provides end users with remote monitoring and management of plant devices services. It can facilitate users to monitor equipment operation, fault and other data in real time, and understand and analyze equipment operation data more intuitively through charts and curves.

1.2 Function

- (1) Register/Login/Forget password
- (2) Plant management
- (3) Homepage data real-time monitoring
- (4) Plant devices management
- (5) Failure warning management
- (6) Account information management

2 Instructions

2.1 Platform access address

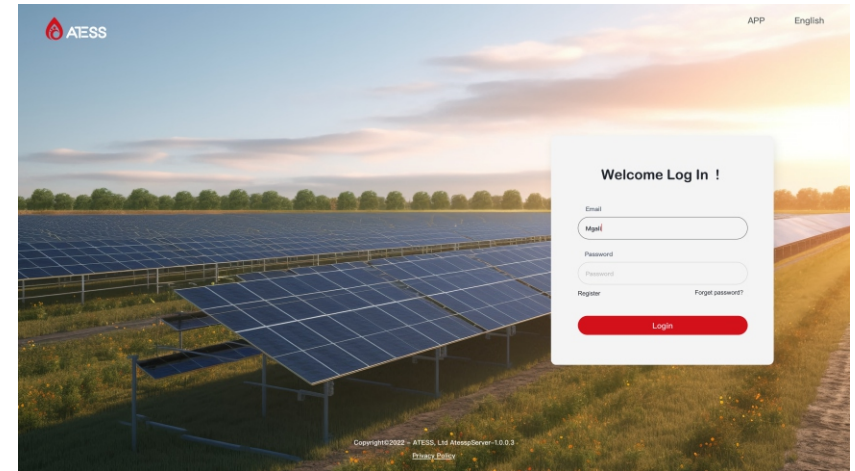
URL:www.enerclo-atesspower.com

2.2 Login page

2.2.1 Login

Enter the link address in the browser to access, enter your email account and password and click the [Login] button. The account number or password must be entered correctly.

If you have not registered an account, you need to register before you can login.



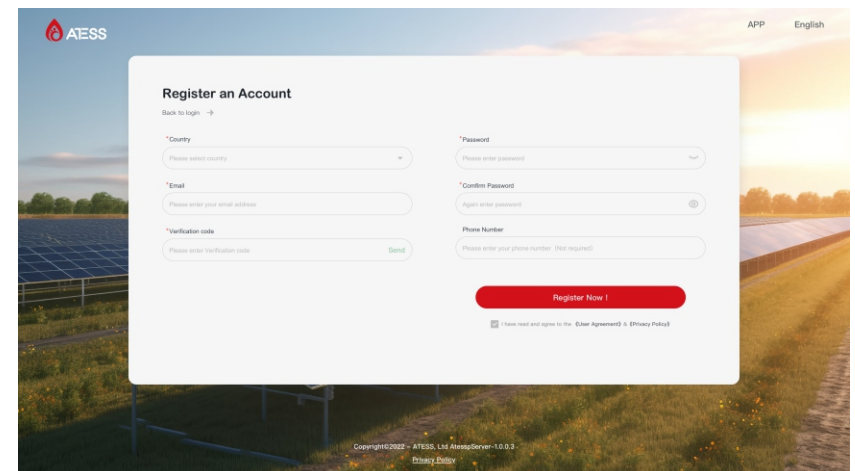
2.2.2 Register

Fields marked with "*" must be filled in, and the email address must be real and valid. After obtaining the verification code, it will be sent to the email address you filled in. The verification code must be filled in correctly;

The password format requires 8-16 digits + letters + special characters. The password must be the same twice;

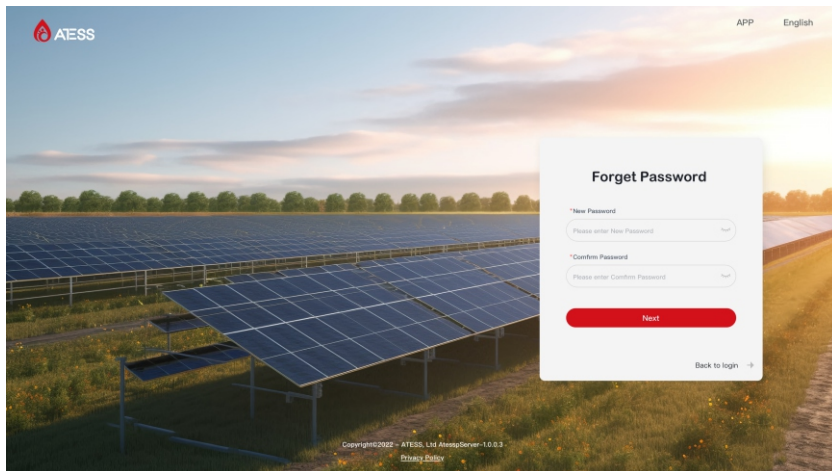
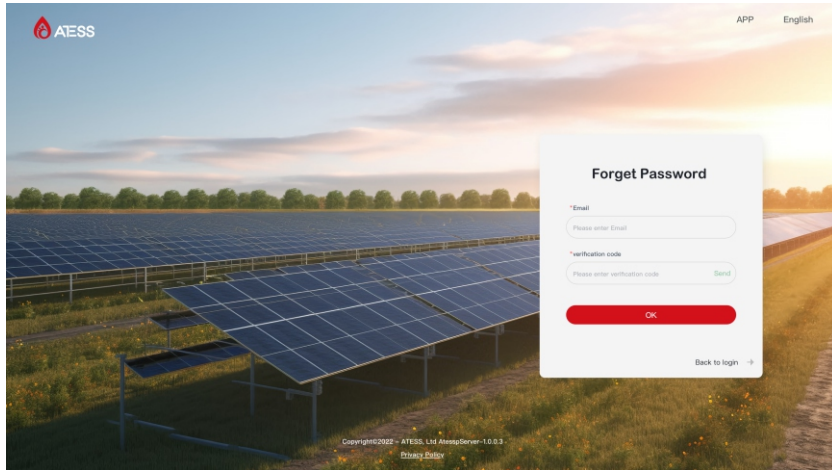
Registration can be successful after all fields are verified. If registration fails, please follow the prompts to modify it;

Registered email and password are used for login verification.



2.2.3 Forget the password

If you forget your password, you can click Forgot Password to enter the Forgot Password page; you need to enter your email address and the verification code you obtained. After the verification is passed, you can click Next to reset the password. The password format requires the same as the registration. After the reset is successful, a new one can be used. Password login;



2.3 Add plant

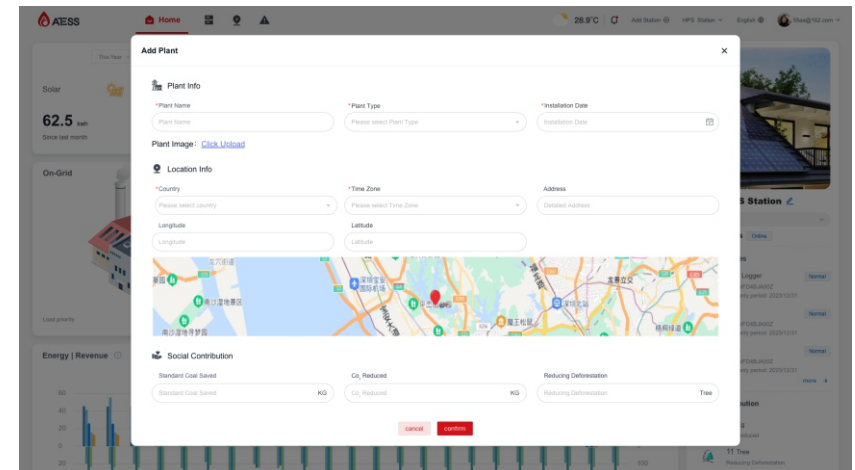
2.3.1 Add plant

After login for the first time, you need to create a power station first, and the fields marked with "*" must be filled in;

Country and time zone must be filled in correctly (Set according to the local time zone. In case of daylight saving time, please press the time zone setting after daylight saving time), otherwise, the device data statistics time will be incorrect;

It is recommended to fill in the longitude and latitude (the weather at the location of the power station will be displayed according to the longitude and latitude), which can be obtained through the map or by allowing the browser to obtain the current location information;

The social contribution value is filled in according to the conversion per kilowatt hour; after filling in, the cumulative social contribution value generated by the power station will be calculated.

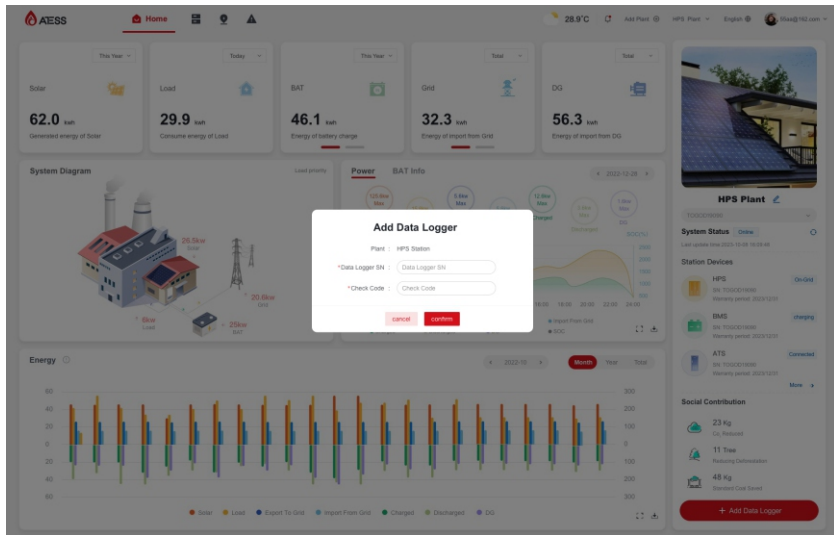
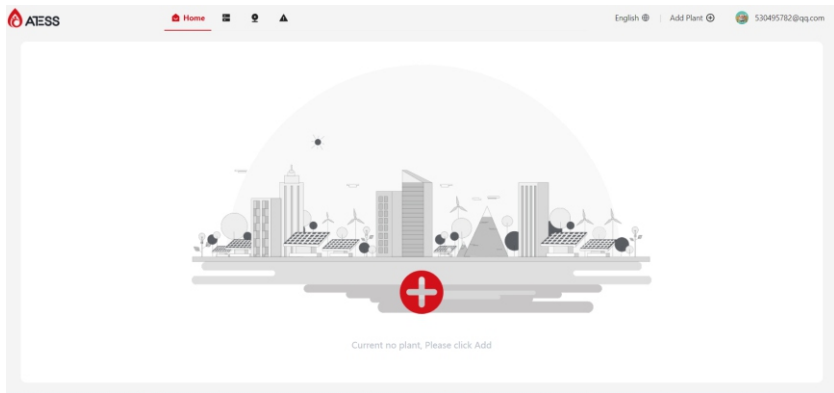


2.3.2 Add datalogger

After successfully adding the plant, you need to add a data logger and transmit the device data to the system through the data logger (the device is connected to the data logger through 485 and can be transferred normally after completing network configuration, adding devices, etc. on the data logger page).

Check the "Data logger SN number" and "Verification Code" on the outer packaging box or casing of the data logger to input and add. If the input is incorrect, the addition will fail.

For the configuration method of the data logger, please refer to the manual of the data logger.



2.4 Homepage

Monitor real-time data of power station system equipment;

Plant picture: Displays the picture uploaded when adding a power station. If no picture is uploaded, the default picture will be displayed;

Plant name: The name filled in when adding a power station is displayed. Click the "edit icon" on the right side of the name to modify the power station information;

Drop down options: It is the system SN. If there are multiple systems under the plant, you can switch the system SN, and the data on the right will switch and display according to the system; the system SN refers to the HPS or PCS device SN. In case of parallel operation, the host SN is displayed;

System status: Refers to the status of the HPS or PCS device. For example, in parallel mode, the host status is displayed; clicking the refresh button on the right will refresh the system data on the left (the system refreshes once every minute by default);

Last updated: Refers to the time when the HPS or PCS device last updated data to the server. In the case of parallel machines, the host time is displayed;

Plant devices: Display the device information of the same system under the plant. Click "More" to jump to the device list page;

Social Contributions: Statistics of the cumulative value of "CO₂ emission reduction", "reduce deforestation" and "saving standard coal" under the plant, the calculation formula = cumulative photovoltaic power generation under the plant * coefficient (the coefficient value filled in when adding the plant);

Solar: Count system today/this year/accumulated PV power generation (parallel sum);

Load: Count system today/this year/accumulated load power consumption (parallel sum);

BAT: Count system today/this year/accumulated battery charge and discharge capacity (parallel sum);

Grid: Count system today/this year/accumulates the amount of electricity fed into the grid and taken out of the grid (parallel summing);

DG: Count system today/this year/accumulated power consumption of oil generators (sum of parallel machines);

Today's power generation = today's latest cumulative power generation - yesterday's last cumulative power generation. If the device and server are disconnected for more than 1 day, take "today's latest cumulative power generation - today's first cumulative power generation" (calculated by the server);

This year's power generation = annual cumulative sum of power generation (calculated by the server);

Cumulative power generation = Get the cumulative power generation of the device (the server does not calculate it);

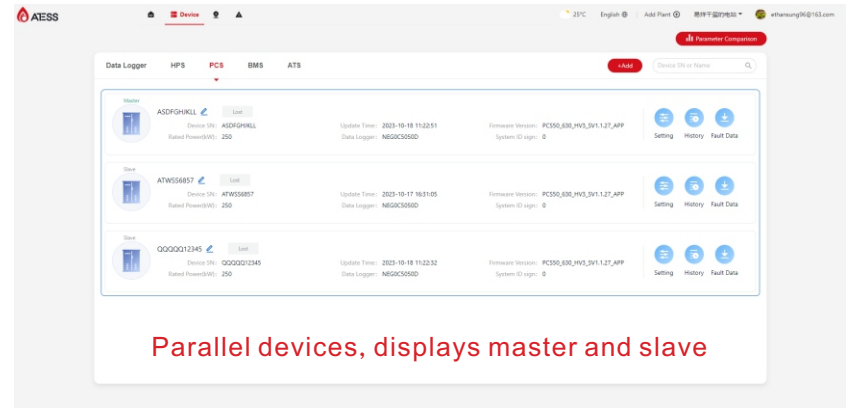
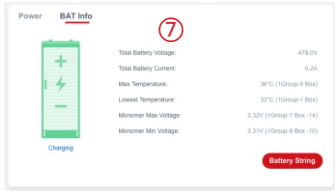
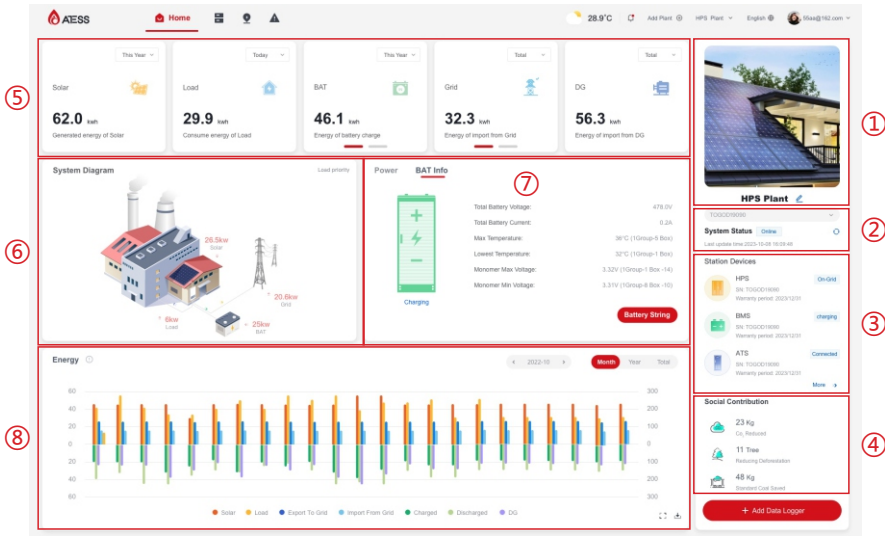
Note: If the server and device time are inconsistent, the data calculated by the server may be inconsistent with the device time, and the server data shall prevail;

System diagram: Displays the current energy trend of the system, and the upper right corner displays the current working mode of the system;

Power curve graph: Query the real-time power/SOC data trend of each system indicator on a daily basis, and support full-screen viewing and downloading of the day's power data;

Battery information: Display battery information data. Click "Battery String" to view the data of each battery string and the corresponding battery module and battery cell (outsourced batteries do not display battery string data);

Energy: Query the power generation of each indicator of the system by month/year/cumulative, and support full-screen viewing and downloading of data;



Note: In order to easily distinguish systems when accessing the server, please set the device flags of the same system to be consistent. Do not repeat the device flags of different systems;

Remote settings: HPS, PCS, PBD, and BMS equipment support remote parameter setting. You must agree to the "Disclaimer" before setting. Please try to operate under the guidance of professional personnel. Wrong settings may affect the equipment;

General settings: You can search by keyword or find the parameters that need to be set in the category. Select the password (the password is: today's date, such as 20231009) and click [Settings]. If the setting is successful, a prompt will be returned, and the corresponding parameters of the device will also be Setup successful; (setup)

Advanced Settings: Click [Advanced Settings], enter the register address and value that needs to be modified, enter the password and click the [Set] button, and the value corresponding to the register address can be set successfully;

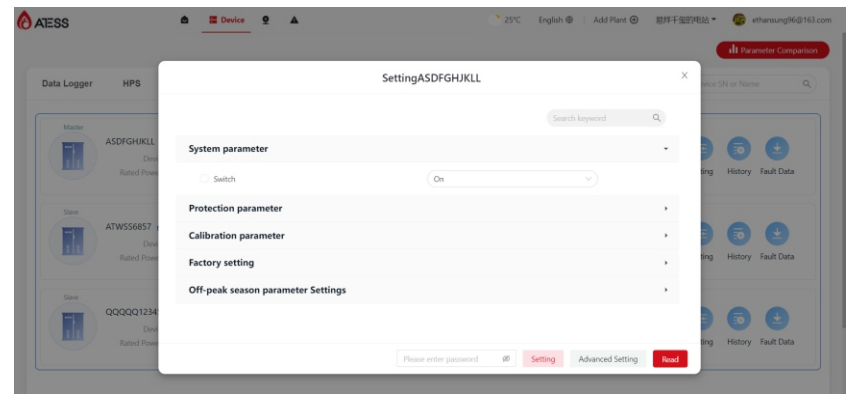
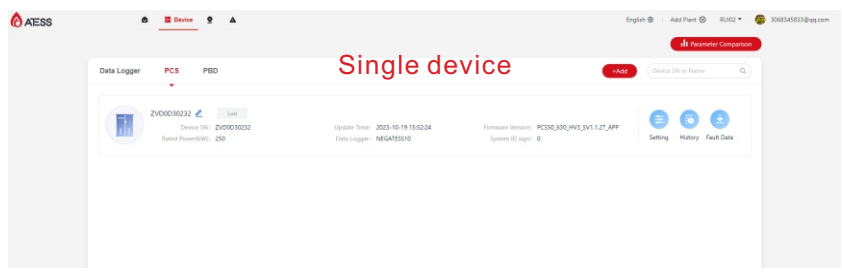
Read: Click the [Read] button, and the collector will obtain the latest data of device parameters and update them to the server;

Currently, data is only acquired to the server every time the collector is powered on. Parameters modified on the device will not be automatically updated to the server. If there are changes or modifications on the device, it is recommended to disconnect the collector and power on again or click [Read] button to get the latest data;

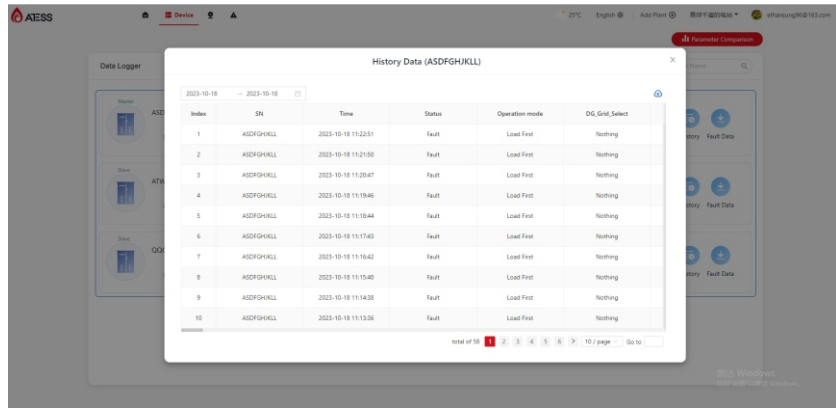
2.4 Device list

2.4.1 Device list

Displays devices information under the plant according to device type classification; device includes eight types: HPS, PCS, PBD, BMS, Combiner, ATS, Bypass, and Data Logger. It is displayed according to the actual connected equipment. The corresponding types of unconnected equipment are not displayed;



History data: HPS, PCS, PBD, BMS, and Combiner devices support viewing historical data. The collector uploads data to the server every minute. Corresponding recorded data can be queried by time period. Data can be downloaded to the local for viewing and analysis;



Fault history: Record the data recorded at the moment when the device fails. If you need to analyze it, you can click to download it and view it locally;

The screenshot shows a 'Fault' window with a table of 10 fault records. Each record includes an index, Device Name, Device SN, Type, Event SN, Fault Description, and Fault Time.

Index	Device Name	Device SN	Type	Event SN	Fault Description	Fault Time
1	YKD00617D	YKD00617D	HPS	BM51-D13	Reserved	2023-10-19 16:02:25
2	ATESSMBMS2023082211	ATESSMBMS2023082211	BMS	Level-1-813	Cell voltage high	2023-10-19 15:50:36
3	ATESSMBMS2023082211	ATESSMBMS2023082211	BMS	Level-1-813	Cell voltage high	2023-10-19 15:18:35
4	YKD00617D	YKD00617D	HPS	BM51-D13	Reserved	2023-10-19 15:18:12
5	YKD00617D	YKD00617D	HPS	BM51-D13	Reserved	2023-10-19 14:46:37
6	ATESSMBMS2023082211	ATESSMBMS2023082211	BMS	Level-1-813	Cell voltage high	2023-10-19 14:05:49
7	YKD00617D	YKD00617D	HPS	BM51-D13	Reserved	2023-10-19 14:14:46
8	ATESSMBMS2023082211	ATESSMBMS2023082211	BMS	Level-1-813	Cell voltage high	2023-10-19 14:13:48
9	YKD00617D	YKD00617D	HPS	BM51-D13	Reserved	2023-10-19 13:42:57
10	ATESSMBMS2023082211	ATESSMBMS2023082211	BMS	Level-1-813	Cell voltage high	2023-10-19 13:42:48

2.4.2 Devices parameter comparison

It can monitor the power, electricity, voltage and other parameter curves of a single device, and supports full-screen and downloaded data viewing;

2.5 Plant list

Manage all plant data and perform operations such as modifying, deleting, and viewing charts on the plant.:

Solar: Count the sum of the cumulative value of photovoltaic power generation of all power stations;

Load: Count the sum of the cumulative power consumption values of all power station loads;

BAT: Count the sum of the cumulative charging and discharging values of batteries in all power stations;

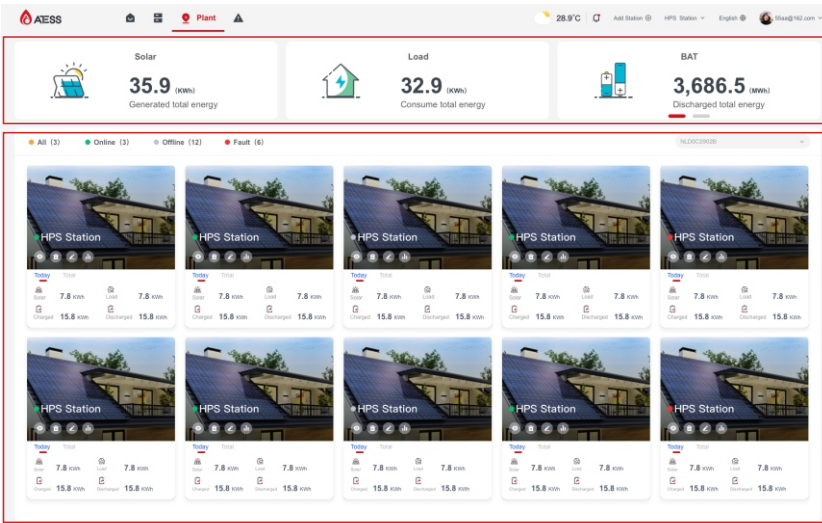
Plant status: Online, offline, fault; if one system under the power plant is online, it is in the online state; if all systems are offline, the plant status is offline; if all systems fail, the plant status is fault state; (the system refers to the HPS/PCS system)

List: Sort in reverse order of the time when the power station was created, and perform operations such as modifying, deleting, and viewing charts on the plant;

Solar: Count the total PV power generation of all systems under the plant today and the cumulative value;

Load: Count the total power consumption of all system loads under the plant today and the cumulative value;

BAT: Count the total battery charging and discharging power today and the cumulative value of all systems under the plant;



2.6 Fault information

Manage the data information of all equipment failures under the plant. It supports search and query by time period and devices, and can also be downloaded and viewed locally;

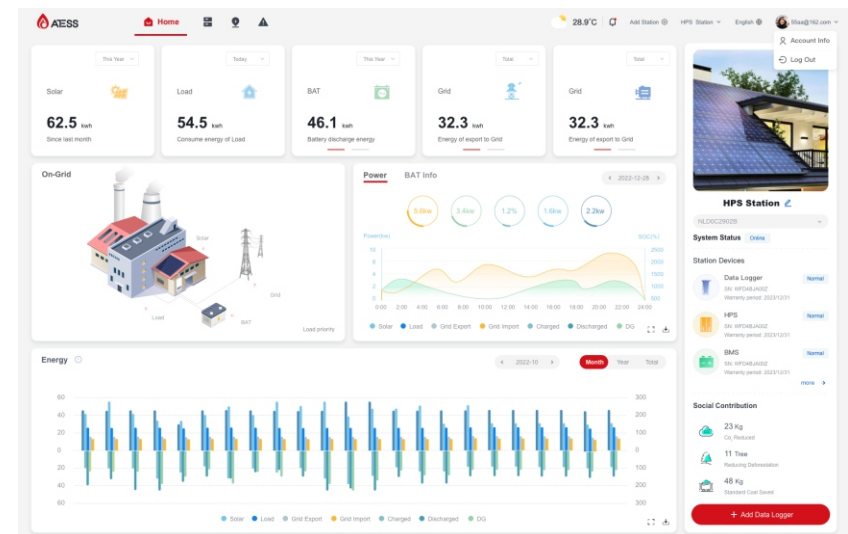
Index	Device Name	Device SN	Type	Event SN	Fault Description	Fault Time
1	YKDD061TD	YKDD061TD	HPS	BMS1-D13	Reserved	2023-10-19 16:02:25
2	ATESMBAHJ022082211	ATESMBAHJ022082211	BMS	Level-I-B13	Cell voltage high	2023-10-19 15:50:36
3	ATESMBAHJ022082211	ATESMBAHJ022082211	BMS	Level-I-B13	Cell voltage high	2023-10-19 15:18:35
4	YKDD061TD	YKDD061TD	HPS	BMS1-D13	Reserved	2023-10-19 15:18:12
5	YKDD061TD	YKDD061TD	HPS	BMS1-D13	Reserved	2023-10-19 14:46:37
6	ATESMBAHJ022082211	ATESMBAHJ022082211	BMS	Level-I-B13	Cell voltage high	2023-10-19 14:45:49
7	YKDD061TD	YKDD061TD	HPS	BMS1-D13	Reserved	2023-10-19 14:14:46
8	ATESMBAHJ022082211	ATESMBAHJ022082211	BMS	Level-I-B13	Cell voltage high	2023-10-19 14:13:48
9	YKDD061TD	YKDD061TD	HPS	BMS1-D13	Reserved	2023-10-19 13:42:57
10	ATESMBAHJ022082211	ATESMBAHJ022082211	BMS	Level-I-B13	Cell voltage high	2023-10-19 13:42:48

2.7 Navigation

2.7.1 My account

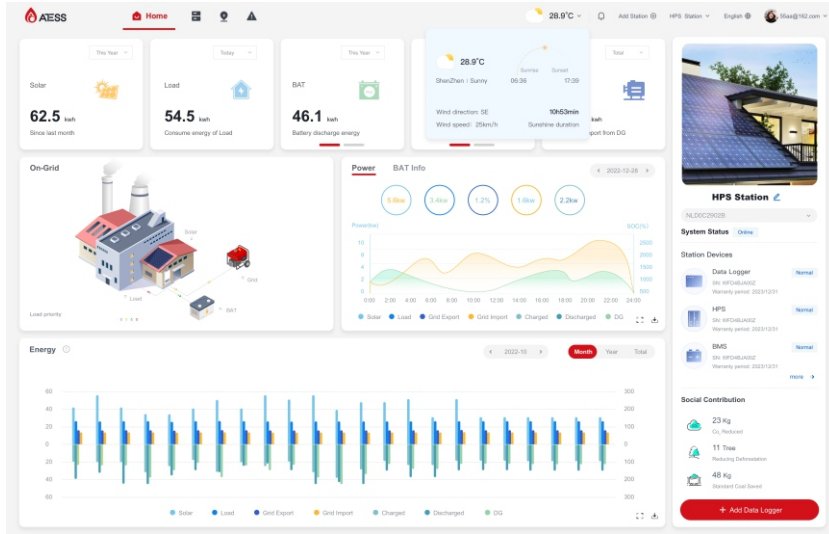
Move the mouse to the account avatar and click "Account Information". The account information will be expanded in the sidebar on the right, and the password, country and phone number can be modified;

Move the mouse to the position of the account avatar and click "Log out". The account will log out of the system and return to the login page;



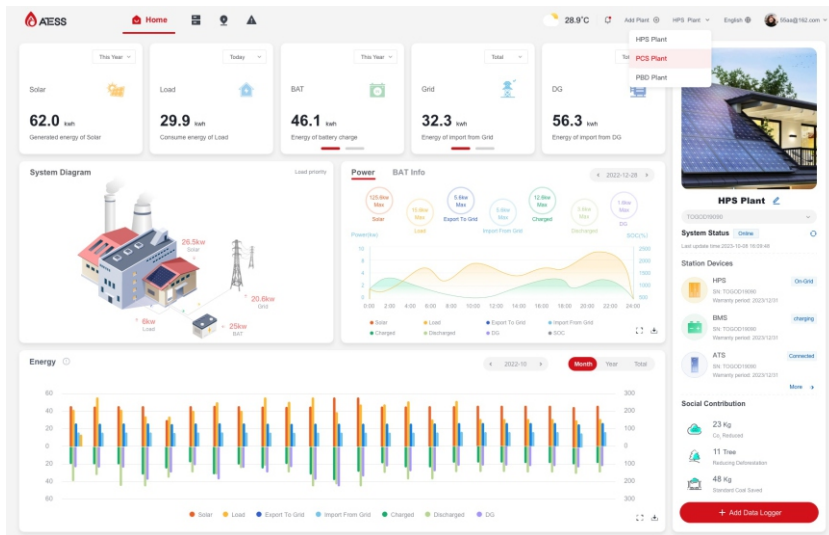
2.7.2 Weather

When the mouse is moved in, the weather conditions will be expanded. The weather will be displayed based on the location of the power station. It is recommended to fill in the longitude and latitude when adding a power station or allow the browser to obtain the current location so that you can check the weather conditions of the day;



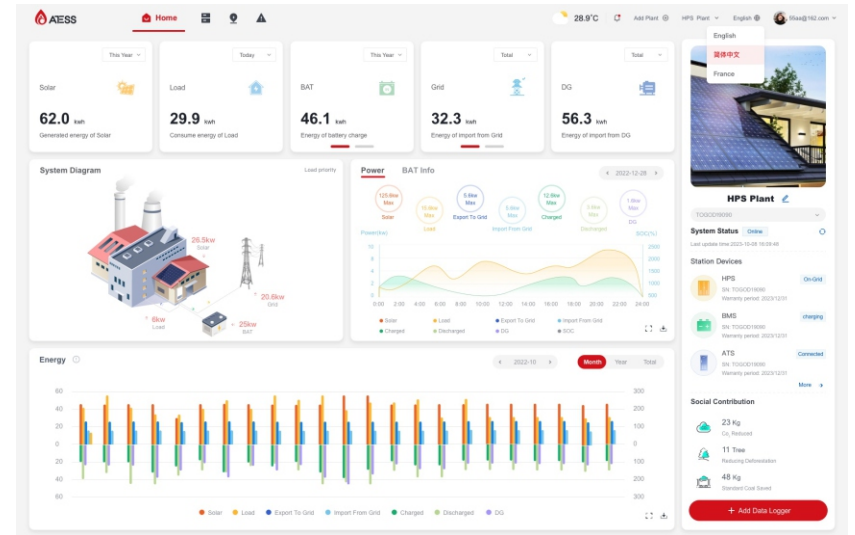
2.7.3 Plant selectio

If you have added multiple plants, you can switch the power stations to view the corresponding data;



2.7.4 Language selection

Currently the system only supports English and Chinese, and that will be expanded to multiple languages in the future;



2.8 Data logger upgrade process

1. Copy the data logger program that needs to be upgraded to the USB flash drive;



2. Insert the U disk into the USB port, and then power on (if it is already powered on, you need to power of f and then on again);



3. All indicator lights flash on to indicate that the upgrade is in progress, and of f to indicate that the upgrade is complete;



4. Unplug the USB flash drive, power of f and then on again. The upgrade process is completed;
5. After the upgrade is completed, you can confirm the version number on the web page;



2.9 About ATESS

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