RoyPow Monitoring Platform WEB User Manual

15kw

Document No: RD-JKPT-Y-014

Version: V1.0

Date: June 7, 2024

Contents

I. Manual Information

1.1 Copyright notice

The copyright of this User Manual belongs to HUIZHOU ROYPOW TECHNOLOGY CO., LTD., hereinafter referred to as "ROYPOW". Unauthorized excerption, reproduction, and distribution of any portion or entirety of the content in this User Manual is strictly prohibited without prior written consent from the Company. This includes the distribution of materials and publications in any format. The copyright of this User Manual is owned and retained by ROYPOW. ROYPOW reserves the right to the final interpretation of this User Manual. The pages and functions of this monitoring platform are subjected to constant improvement, and the latest information of the Company shall prevail, and no additional notice shall be rendered.
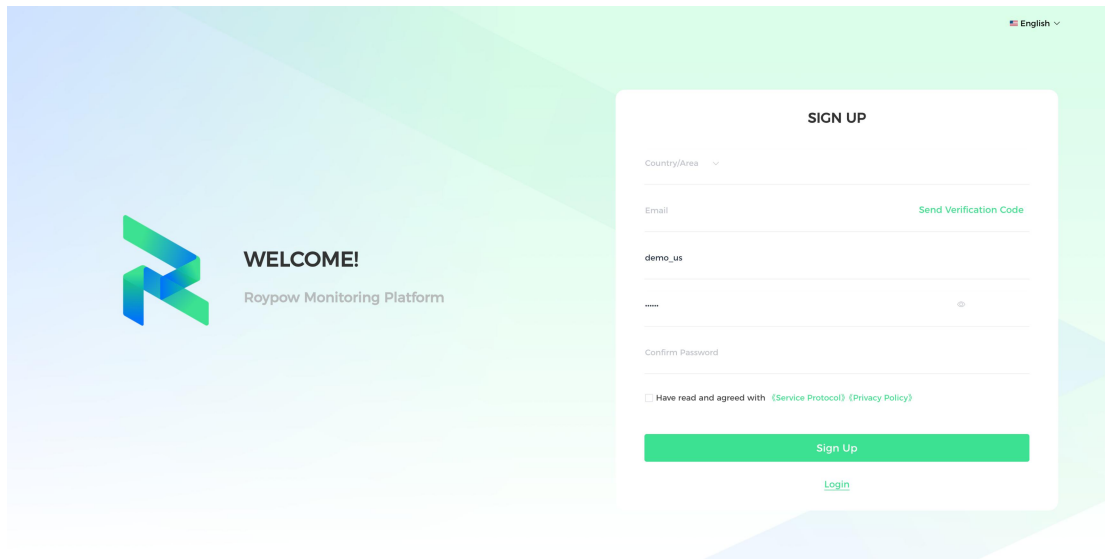
1.2 Function instruction

This monitoring platform is intended for all users of products offered by the Company, including high voltage US standard 15KW. Should you encounter any issues during usage, you may reach out for assistance by contacting our customer service through our after-sales system.

The website address of ROYPOW monitoring platform is: https://cloud.roypowtech.com/

II. User Registration and Login

2.1 User registration
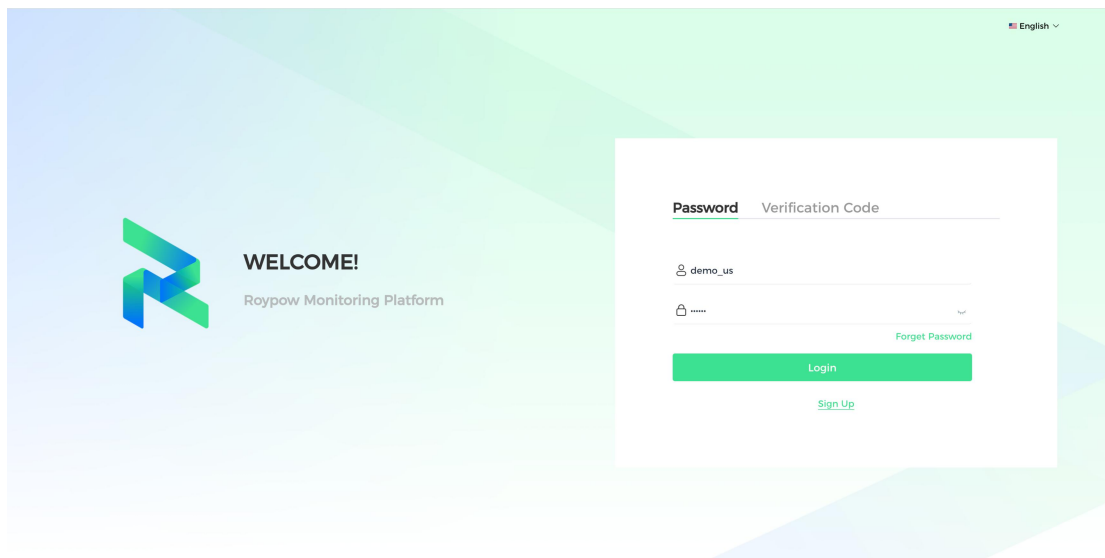
Open your web browser and visit the monitoring system website. Go to the background login page, and click the [Sign Up] button to be redirected to the signup page. Enter your email and click "Send Vevification Code." Enter the received code, and set your initial password.   Read and select the "Privacy Policy" checkbox. Click Sign Up to proceed with the account registration. Mandatory fields that are left unfilled upon submitting the registration information will be indicated with required prompts. The page layout is illustrated in the figure below:

User Registration

2.2 Log in

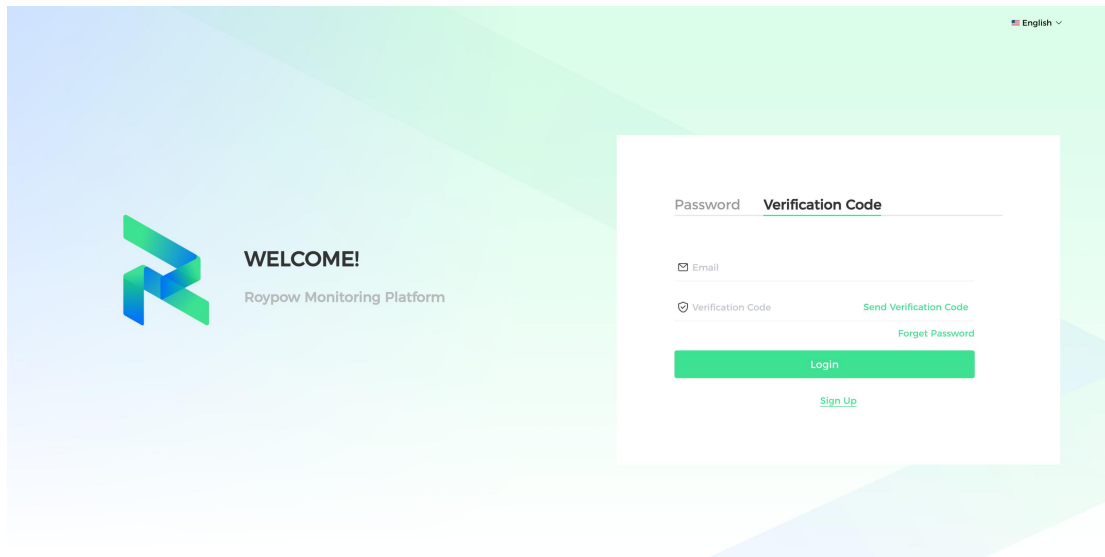After successful registration, users can click the "Login" link to navigate to the login page. They can either use their registered email and password for direct login or switch to the Vevification Code Login page and use their email along with the provided verification code for login, The two options are shown in the following figures:


Login with password

Login with Vevification Code

2.3 Log out

Once you've logged into the system and accessed the backend management page, click on your profile picture in the upper-right corner. This will open a dropdown menu. Click the [Log Out] button. You'll then be redirected to the login page. To assess again, make sure to enter the correct username and password. as shown in the figure below:
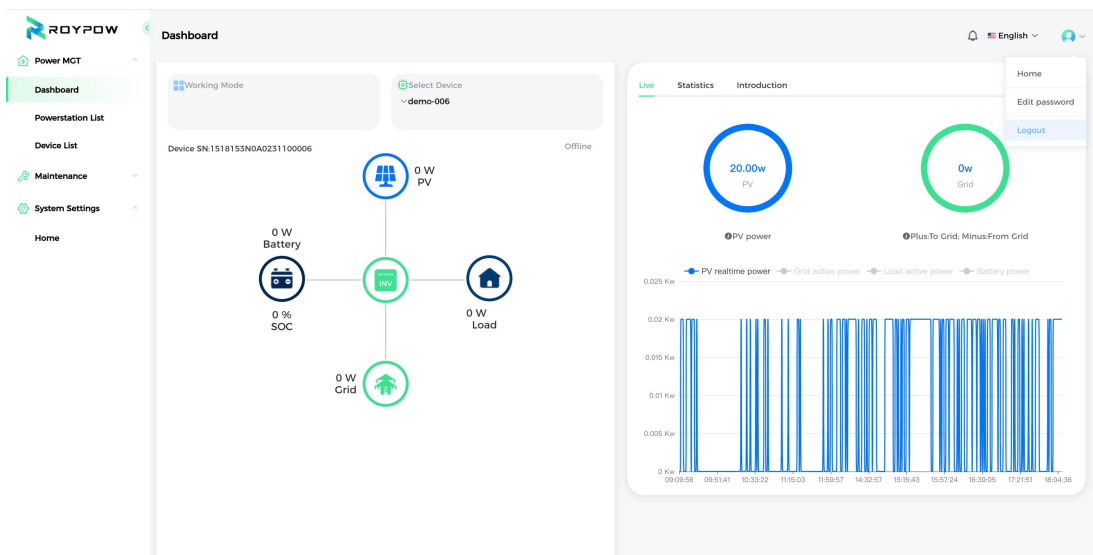
Logout from the system

2.4 Password recovery

Access the system login page by entering the platform's URL in your web browser, click "Forgot Password" under the [Log In] button to open the Forgot Password page. Enter your registered email, and click "Send Vevification Code", as shown in the figure below:
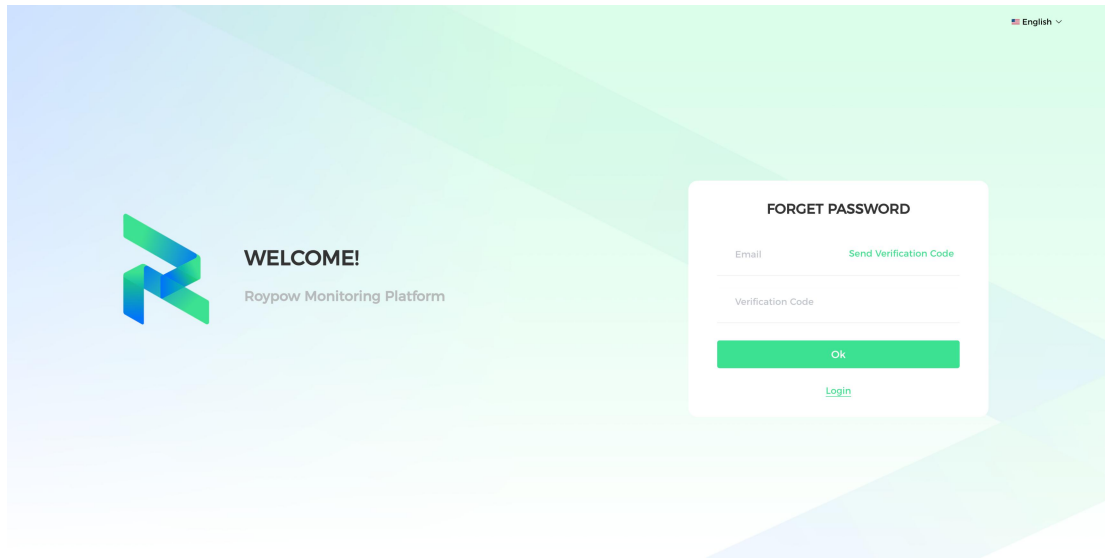
Forgot password

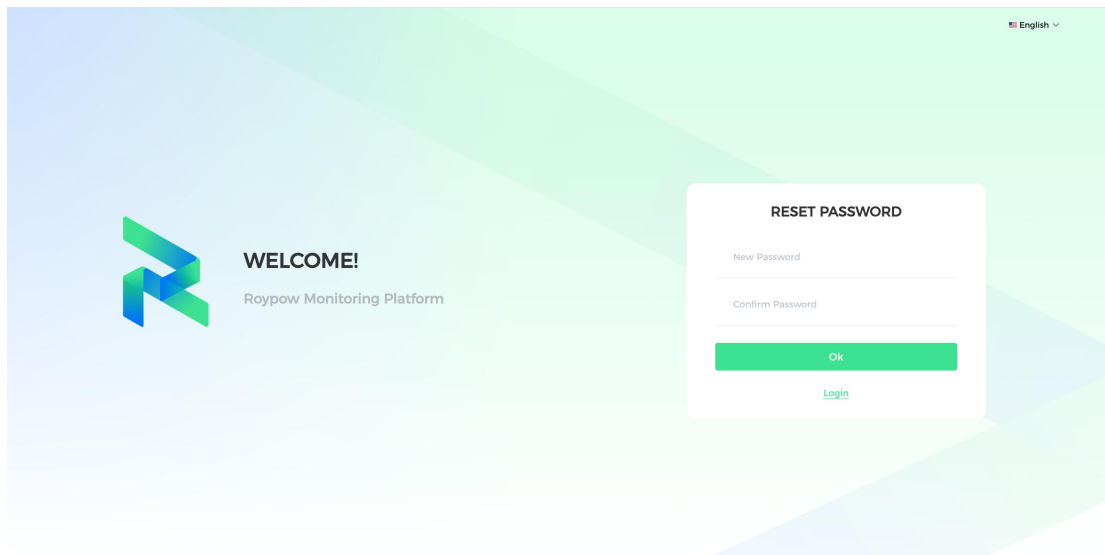Enter the verification code received in your email and click the [Ok] button to proceed to the Reset Password page. Enter your new password and confirm the password on the Reset Password page. Click the [Ok] button to reset your password. Once the change is complete, click [Login] to return to the login page, as shown in the figure below:

Reset password

III. Power Station Management

3.1 Add power station

After your initial successful login to the system, you need to add your power station

information. This step is necessary before you can carry out any other actions in the system; If you haven't added a power station after registering, the system will automatically direct you to the Powerstation List page during your next login.

Parameters for adding a power station:

Power station name: Enter a customized power station name

Time zone: Choose your time zone from the dropdown list. For example: [utc+08:00 Beijing, Urumqi, Hong Kong SAR]

Grid connection type: Select from the dropdown list: [On-grid] [off-grid].
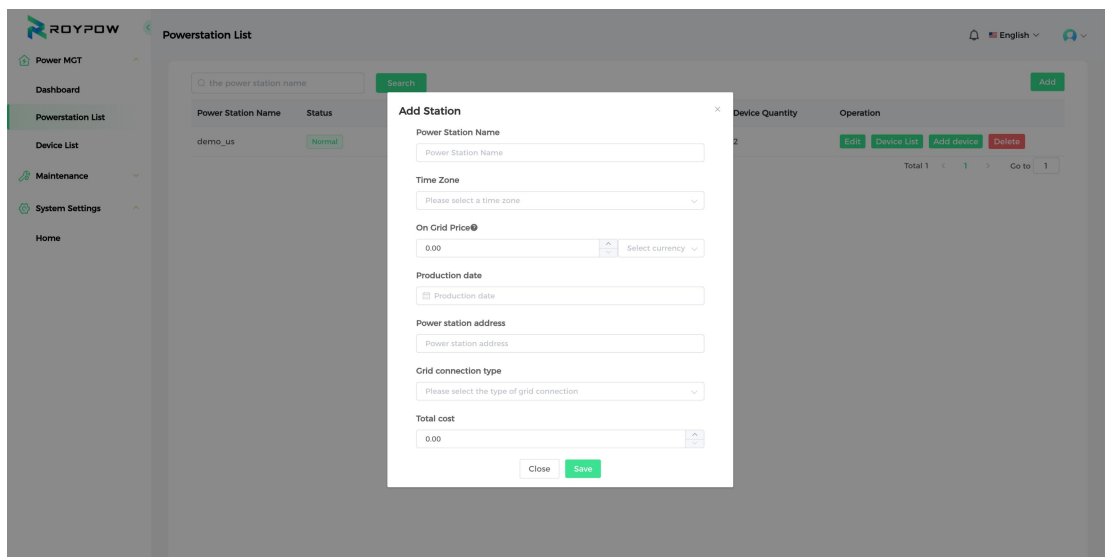
Production Date: Select the Production date
Power station address: Enter your address information

On Grid price/currency unit (CNY/kWh): Enter the electricity price, and then select the currency unit by clicking on the drop-down menu.

Total cost: Enter the total cost

Choose the currency unit from the dropdown list

Add power station

3.2 Power station list

Once you've successfully added a power station, you'll be automatically directed to the Power Station List page. Here, you can use keywords related to the power station name to perform searches. The operation buttons in the power station list include [Edit], [Delete], [Device list], and [Add Device]. Station information includes:

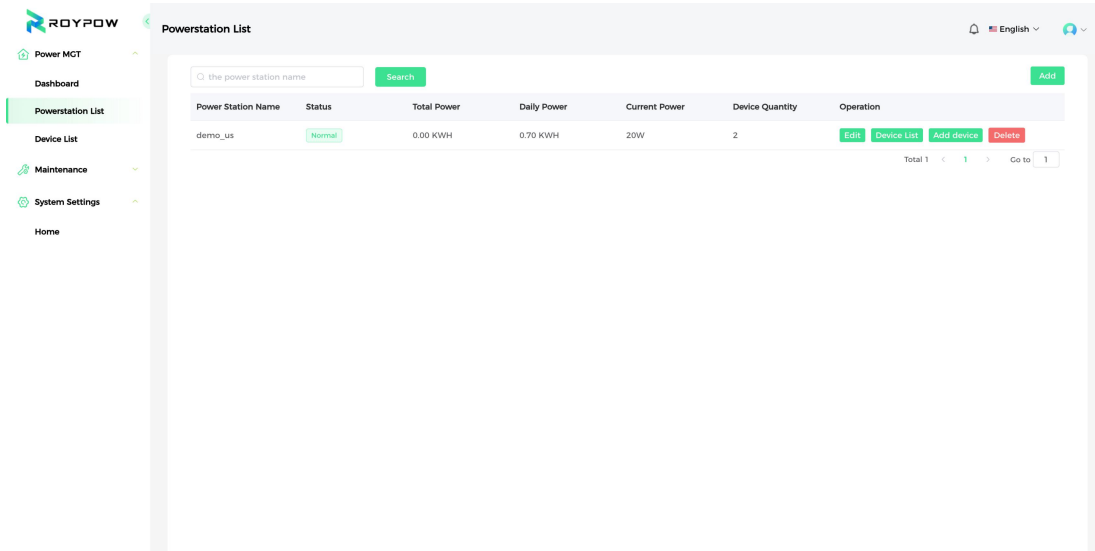Power station name: Current station name

Status: Current station status

Total power: Cumulative power generation of the current station

Daily power: Daily power generation of the current station

Current power: Current power of the current station

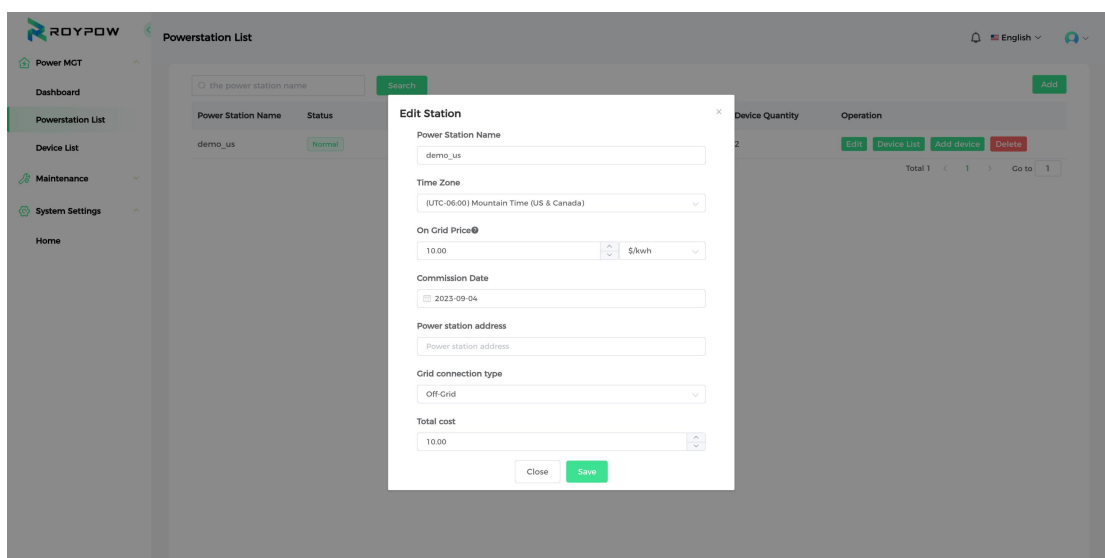Device quantity: The number of devices connected to the current power station

Power Station List

3.3 Edit power station information

Click the [Edit] button on the right of the list item on the Power Station List page. This will take you to the editing page, where you can change the information of the power station. Information in the editable fields is consistent with those input when the power station is added, as shown in the figure below.
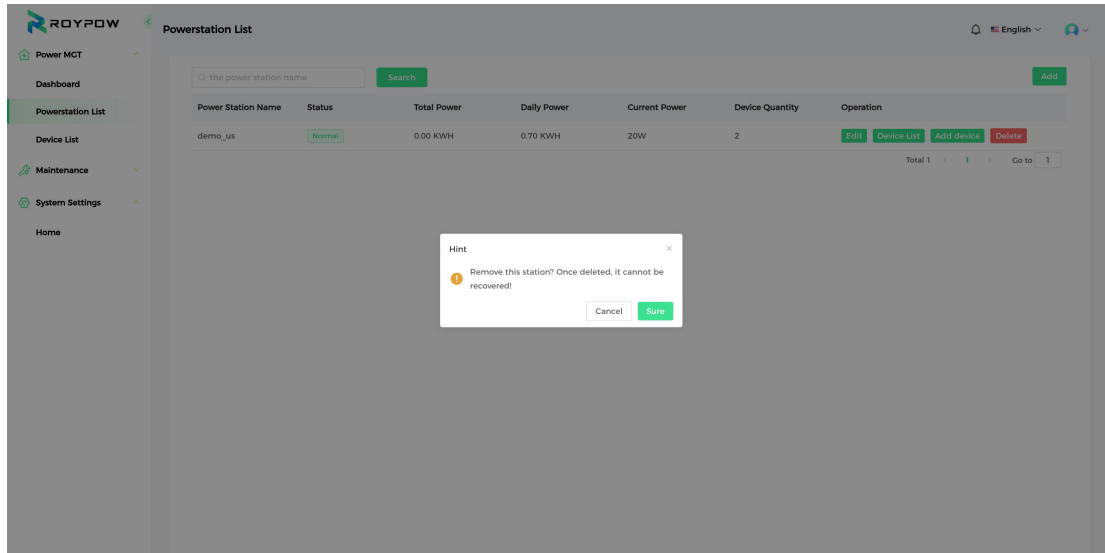

Editing power station information

3.4 Delete a power station

Click the [Delete] button on the right of the list item on the Power Station List page. A delete confirmation dialog box will pop up. Click the [Sure] or the [Cancel] button in the dialog box to proceed to the next step; you can only delete a power station if there are no devices connected to it.

Delete power station

3.5 Add device

After adding a power station, the next step is to add devices under the power station. Once you've added a power station, go to the Device List page click the [Device List] menu under [Power Station Management] on the left. Click [Add] to add devices, as shown in the figure below:
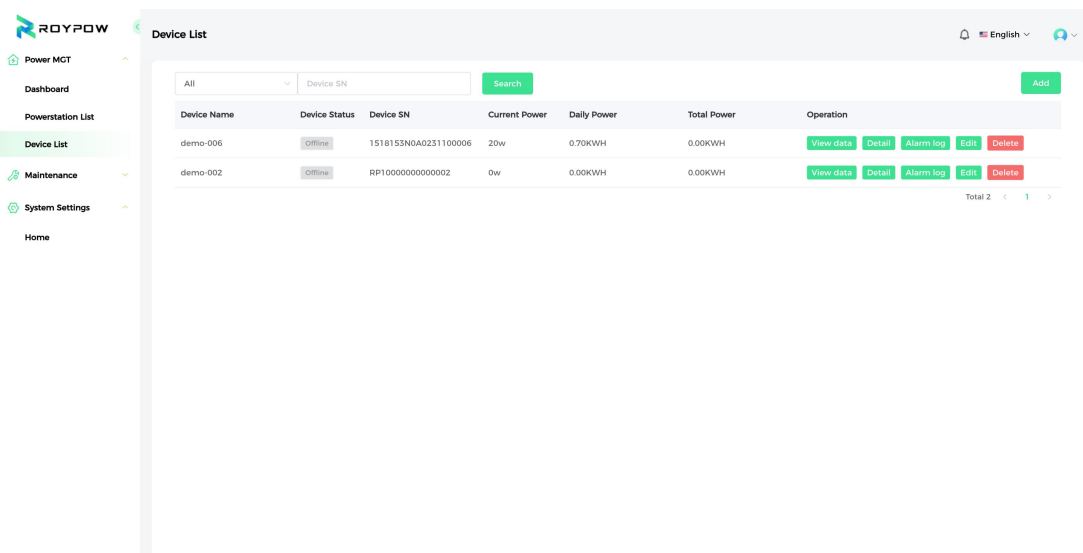
Device list

Adding device information includes:

Device SN: Enter serial number manually or search for a device

Inverter name: Input box

Power station name: Select from the dropdown list
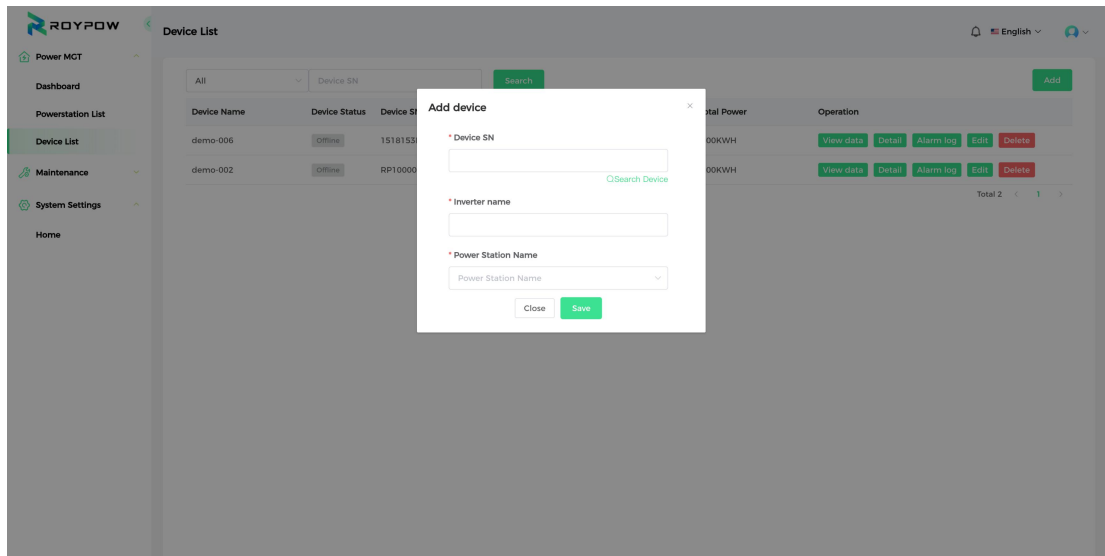
Add device

You can enter the device serial number manually, or search and match by clicking the [Search Device] button on the pop-up page, as shown in the figure below:
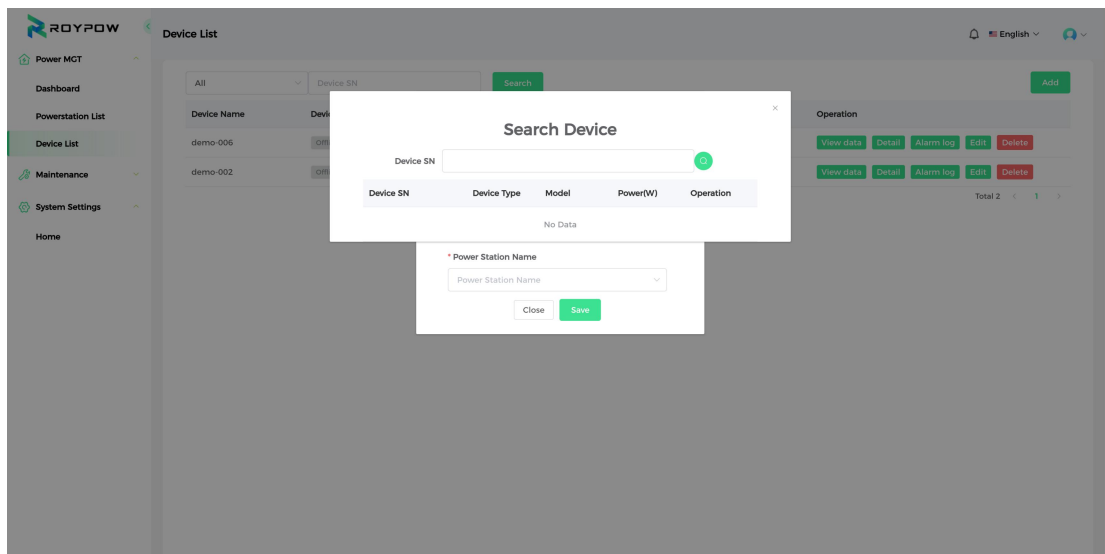
Search for a device

3.6 Device list

Once you've successfully added a device, the system will automatically redirect you to the Device List page. Here, you can search for devices using keywords related to the power station

name or the device serial number. The operation buttons in the device list include [View Data], [Detailed Parameters], [Alarm Log], [Edit], and [Delete]. Device list information includes:

Device name: Name of the current device
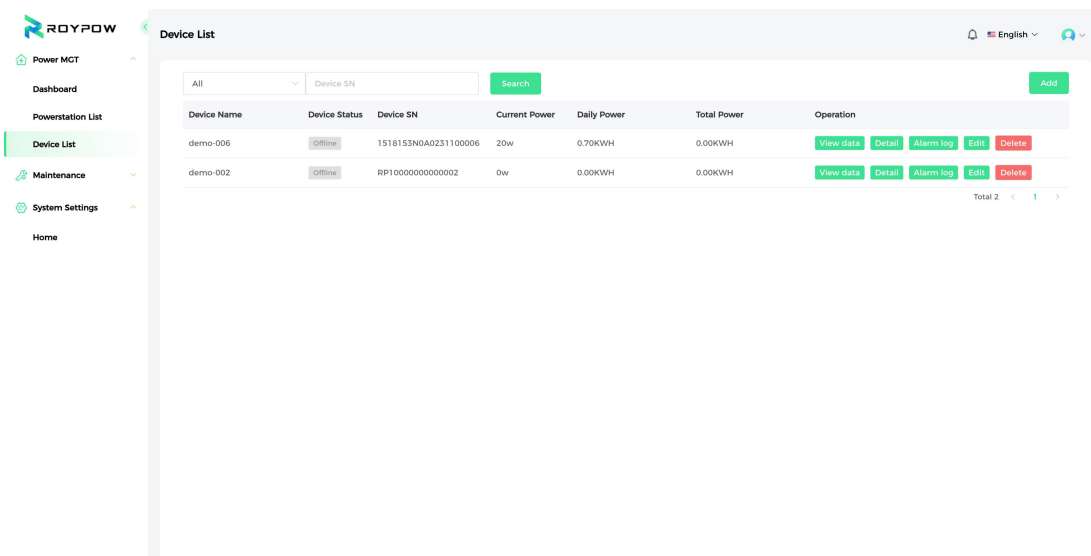
Device status (online/offline): The status (online/offline) of the current device

Device SN: Serial number of the current device

Current power: Current power of the current device

Daily power: Daily power generation of the current device

Total power: Cumulative power generation of the current device

Device list

3.7 Edit device information

Click the [Edit] button to the right of the list item on the Device List page to enter the Device Information Edit page. The device information is entered by default, you can only edit the device name, as shown in the figure below:
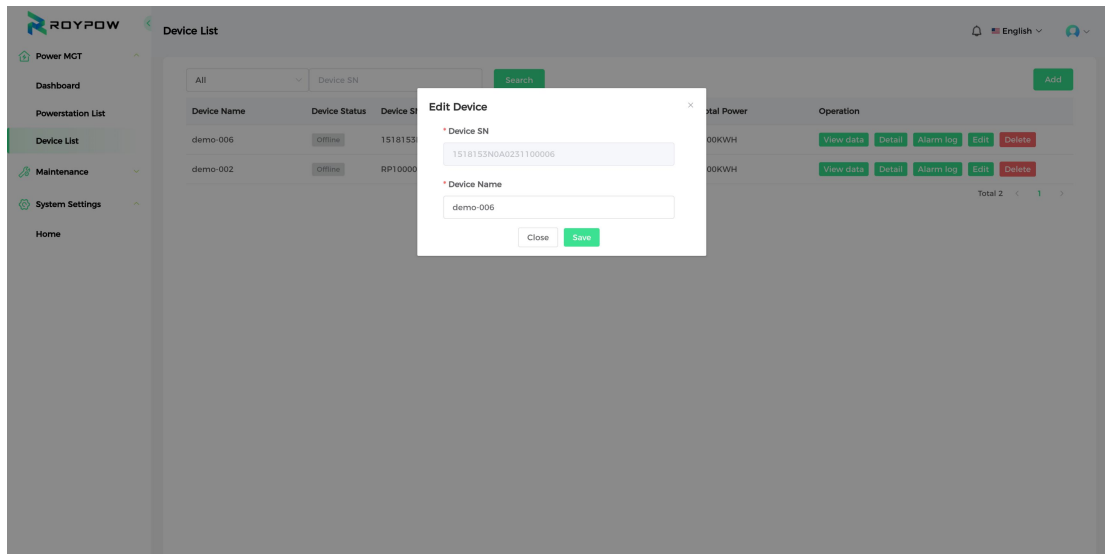
Editing device

3.8 Delete device

Click the [Delete] button on the right of the list item on the Device List page. A prompt message confirming the deletion will pop up. Click [Sure] to delete the device, and [Cancel] to cancel the deletion!
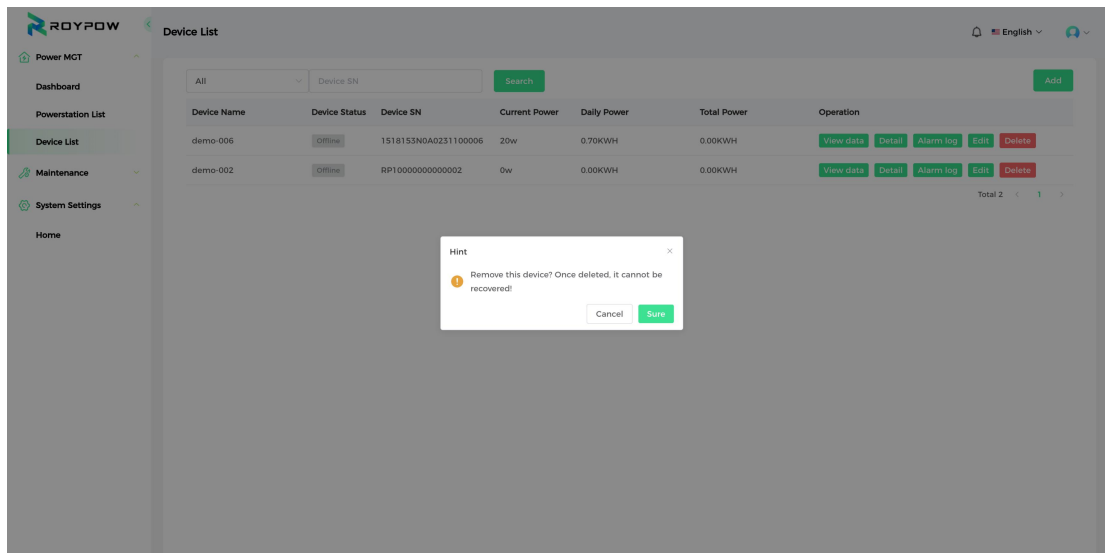
Deleting device

3.9 Device data

3.9.1 View detailed device data

From the Device List page, Click the [View data] button to the right of the list item, or click to go to the Data page, and the following data will be displayed:

Work mode: Display the current work mode. Clicking on this area allows you to set work mode and other parameters

Connection type: Display the current connection type

Select device: Use the dropdown list to switch to the specific device you wish to view

Device SN: Current Device Serial Number

Device Status: Display the status (online/offline) of the current device

Dynamic data graph Indicate the working status of the current device, including PV power , Battery power, Load power, and Grid power. Data generated will be dynamically displayed in the form of a flowing arrow.

Details about real-time data, statistical data and an overview of devices are described in the following sections.
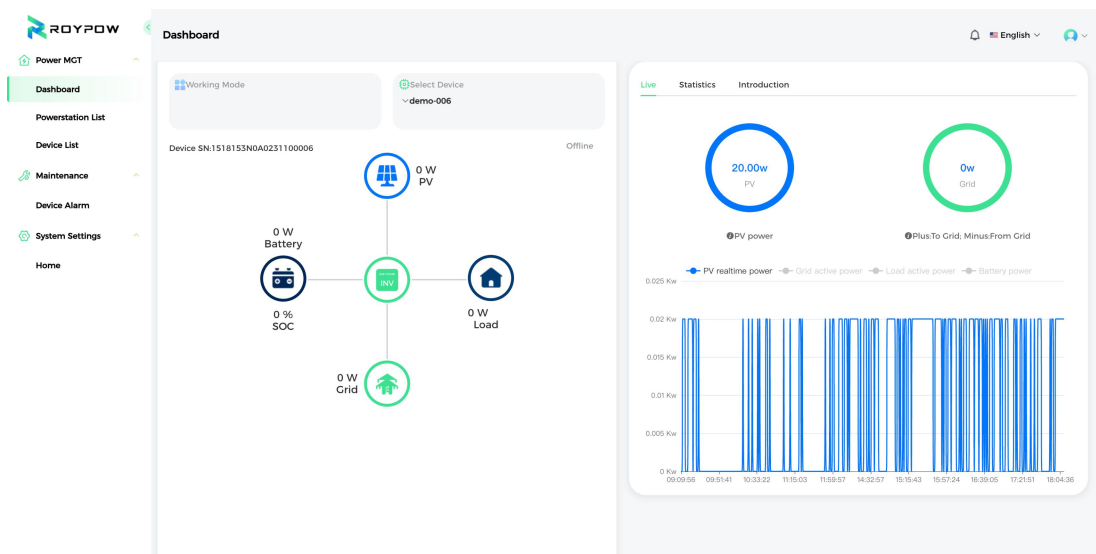
Device data

Click [Working Mode] to pop up the settings dialog box, in which users can set the PV connection mode and working mode;

PV connection modes are divided into independent, parallel (1 in 4), and parallel (2 in 2), and users can choose according to the situation.

Working modes are divided into four modes: FEED-IN PRIORITY, SELF USED, BACK-UP, and PEAK-SHIFT.

Users can choose one of the four modes. When users choose the PEAK-SHIFT mode, the

page displays the setting options for the charging and discharging time period, allowing users to set the charging and discharging time period by themselves. Users can add charging and discharging time periods and set them; using other application modes will hide the time period settings, as shown in the figure below:
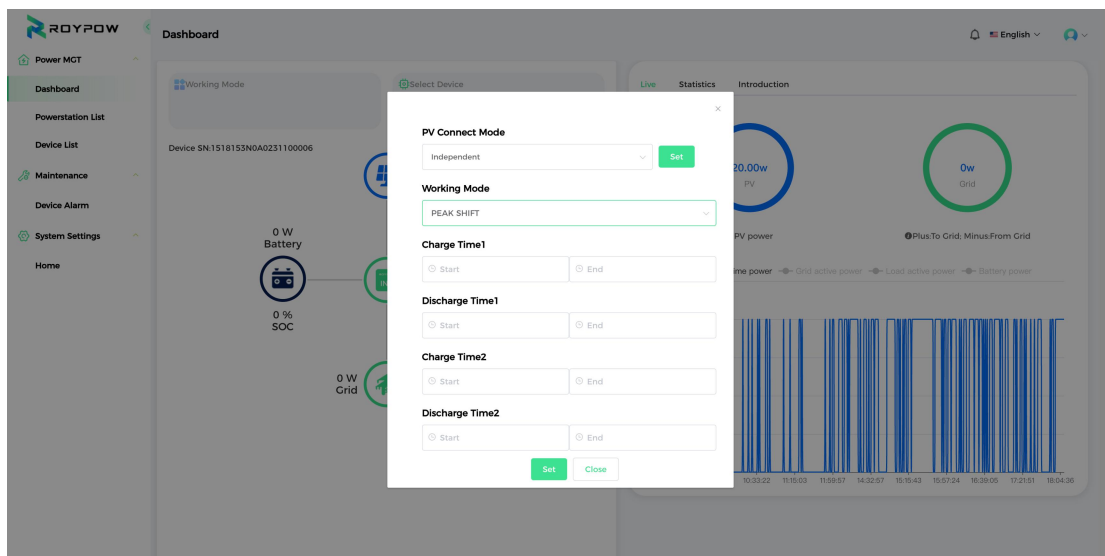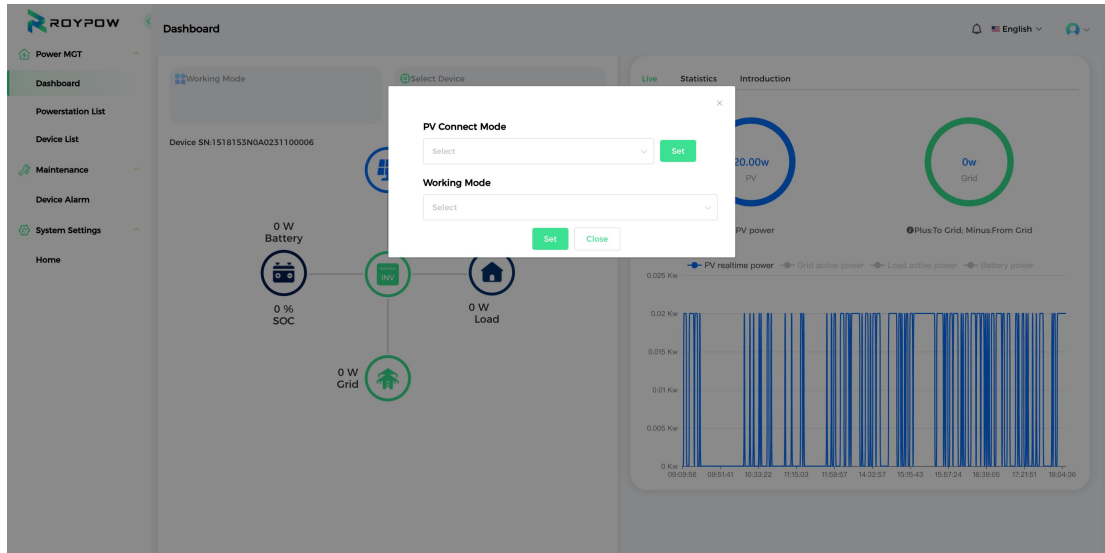
Set work mode

3.9.2 Device energy flow diagram

On the left side of the Data page, dynamic arrows are used to indicate the real-time dynamic energy flow, and the data and parameters displayed include PV power, load power, battery power, and grid power, as shown in the figure below.
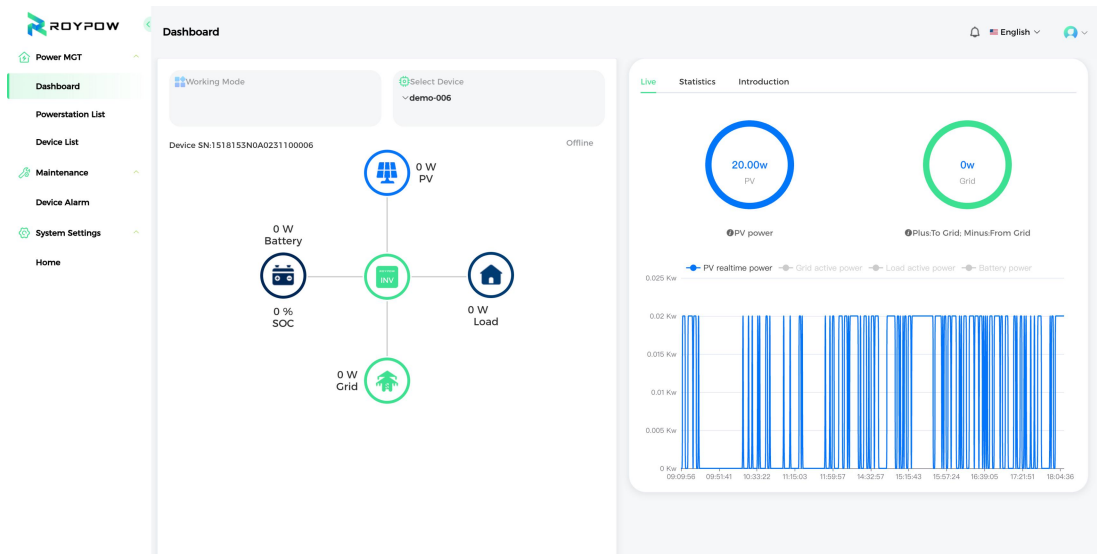
Energy flow diagram

3.9.3 Real-time device data

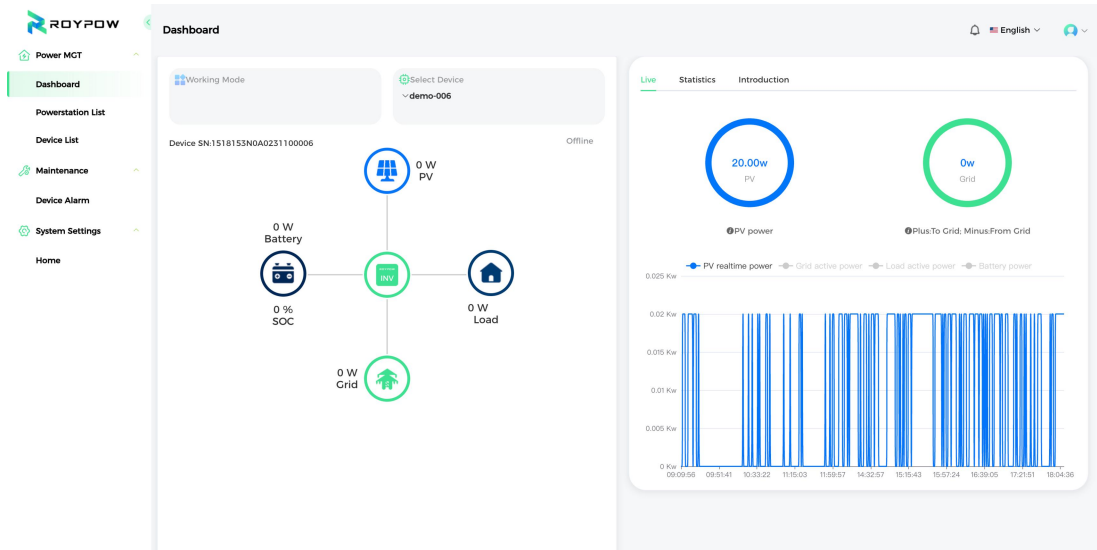On the first tab located on the right side of the Data page, line charts are used to display the real-time data of the power station, including PV real-time power, grid active power, load active power, and battery power. Click the corresponding tab to hide or display the curves.

Real-time data

3.9.4 Device statistical data

The data to be collected and calculated include generation power, load power, consumption power, generation power, energy storage charging power, energy storage discharging power. The data is visualized using both bar charts and pie charts, with the option to choose various timeframes for calculation.
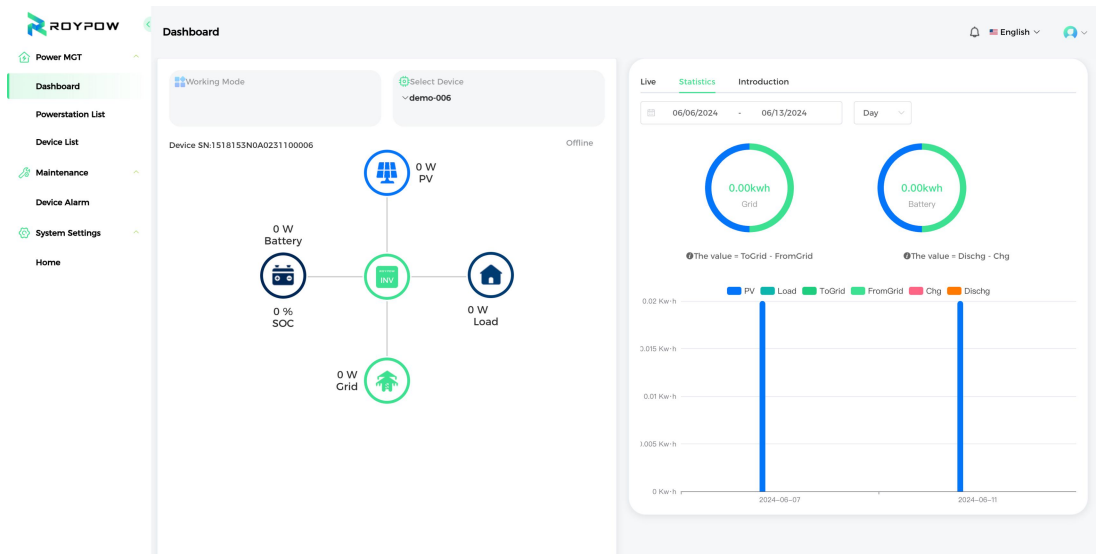
Statistical data

3.9.5 Power station overview

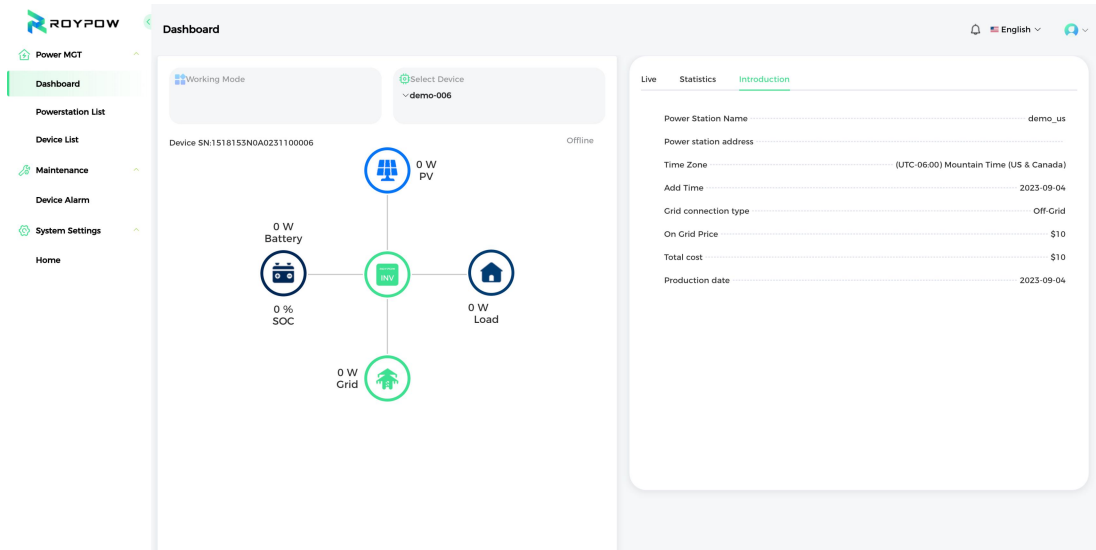Display the detailed information about the power station to which the device belongs, including: Power station name,Power station address, time zone,Add Time,Grid connection type,On Grid Price,Total cost,Production date.

Power station overview

3.9.6 View detailed device parameters

Click [Details] on the Device List page to enter the Details page to view the values of each parameter of the device. The detailed operating parameters of devices are shown in the table below:

Type	Item	Unit/Value
PV	PV1 voltage	V
	PV1 current	A
	PV1 power	W
	PV2 voltage	V
	PV2 current	A
	PV2 power	W
	PV3 voltage	W
	PV3 current	A
	PV3 power	W
	PV4 voltage	V
	PV4 voltage	A
	PV4 power	W
	PV total power	W
	PV total current	A
Inv	Working mode	-
	PV input mode	-
	Grid connection standard	-
	MCU version	-
	PMU version	-
	BMS version	-
	DCAC temperature	℃
	DCDC temperature	℃
	Inside temperature	℃
Electricity	Annual generation	KWH
	Annual Sell	KWH
	Annual Get	KWH
	Annual Consume	KWH
	Monthly Generation	KWH
	Monthly Sell	KWH
	Monthly Get	KWH
	Monthly Consume	KWH
	Daily Generation	KWH
	Daily Sell	KWH
	Daily Get	KWH
	Daily Consume	KWH
	Total Generation	KWH
	Total sell	KWH
	Total Get	KWH
	Total Consume	KWH
Grid	L1 Voltage	V

	L1 Current	A
	L1 Power	W
	L1 Frequency	HZ
	L2 Voltage	V
	L2 Current	A
	L2 Power	W
	L2 Frequency	HZ
Battery	SOC	%
	Battery Temperature	℃
	Battery Power	W
	Battery Capacity	AH
	Battery Voltage	V
	Battery Current	A
	Battery DOD	%
	Battery Type	-
Load	L1 Voltage	V
	L2 Voltage	V
	L1 Current	A
	L2 Current	A
	L1 Power	W
	L2 Power	W

Pages and parameters are displayed as follows:
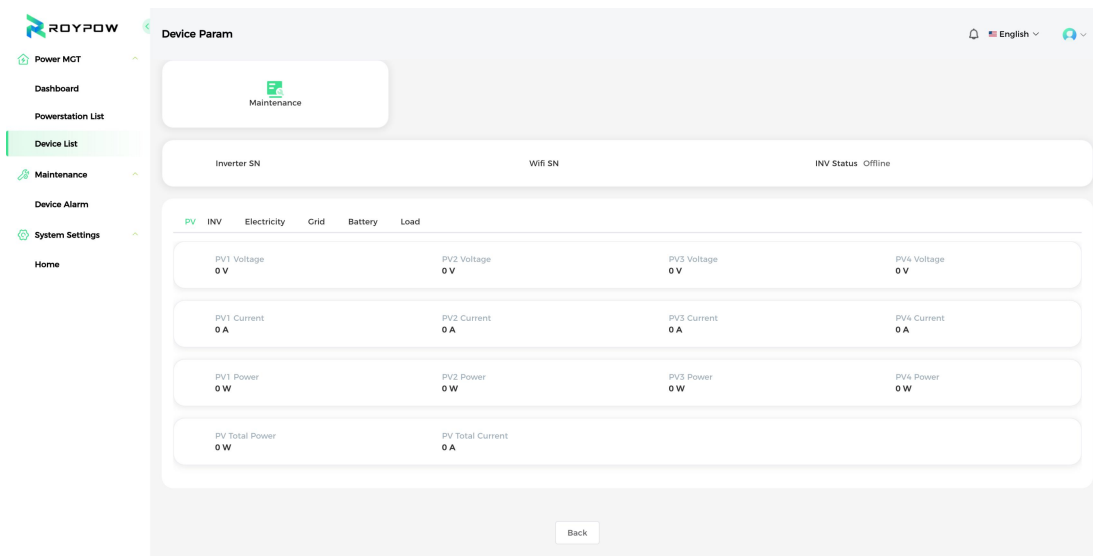
Device parameters

The upper part of the Details page contains basic information about the device, including: Inverter SN, WIFI SN, INV Status (online/offline), etc.

# IV. Device Operation and Maintenance

Click different menu buttons on the Device Details page to enter the corresponding device operation and maintenance settings pages.

4.1 Device maintenance

Click the [Maintenance] button to enter the Device Maintenance page, and the device operation and maintenance parameters are as follows:

Clear Fault Record
Clear Electric Statistics
Restore Default Setting
Turn On/Off
Data Time
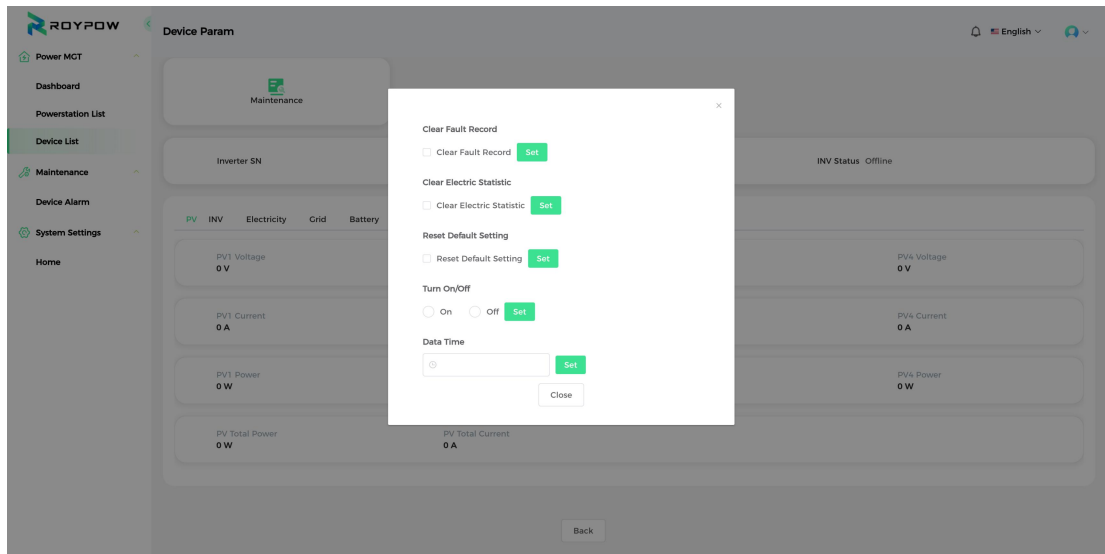
Maintenance Settings

Click the "Set" button after "Clear Fault Record" to pop up a confirmation box. After confirmation, the history record will be cleared. Click Cancel to not perform any operation.

Click the "Set" button after "Clear Electric Statistics" to pop up a confirmation box. After confirmation, the power clearing operation will be performed. Click Cancel to not perform any operation.

Click the "Set" button after "Restore Default Setting" to pop up a confirmation box. After confirmation, the device will be restored to the default settings. Click Cancel to not perform any operation.

Select the [On] or [Off] option, click the "Set" button, and the system will send a power on/off command to the device.

Click the time control to select the data time, and click the [Set] button to set the data time to the selected time.

Note: Remote operation does not involve software upgrades.

V. Device Alarm

5.1 Device alarm list

From the Device List page, you can access the device log list page by clicking the [Alarm Log] button, or expanding the [Maintenance] menu, clicking the [Device Alarm] menu, or clicking the warning icon (bell) on the right side of the navigation bar on the top, which includes the following information:
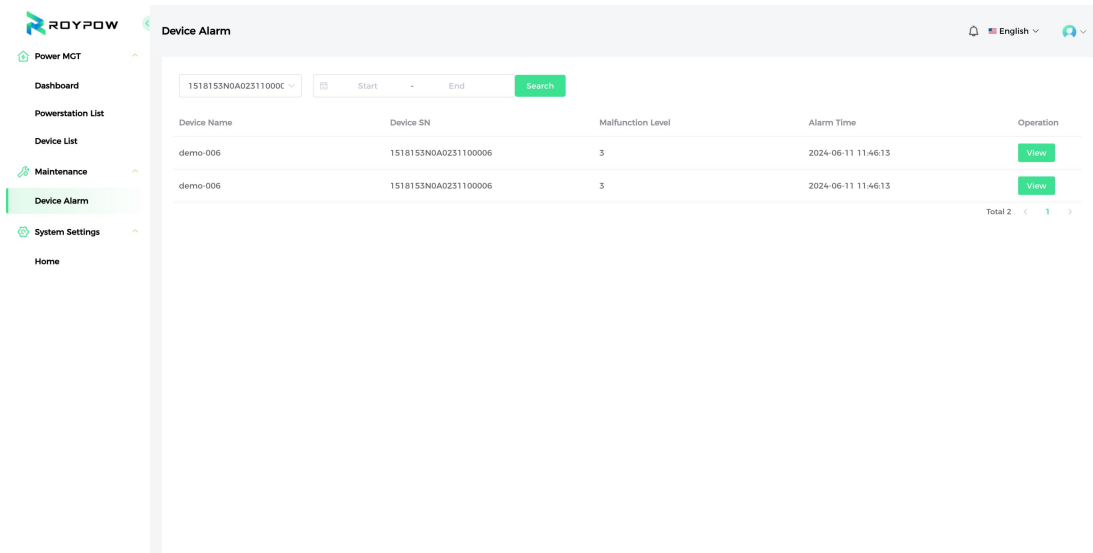
The condition search zone includes:

Select device: Select the required device from the dropdown list;

Alarm time: Time period when the alarm was triggered;

Alarm List displays the following information:

Device name,Device SN,Malfunction level,Alarm time;

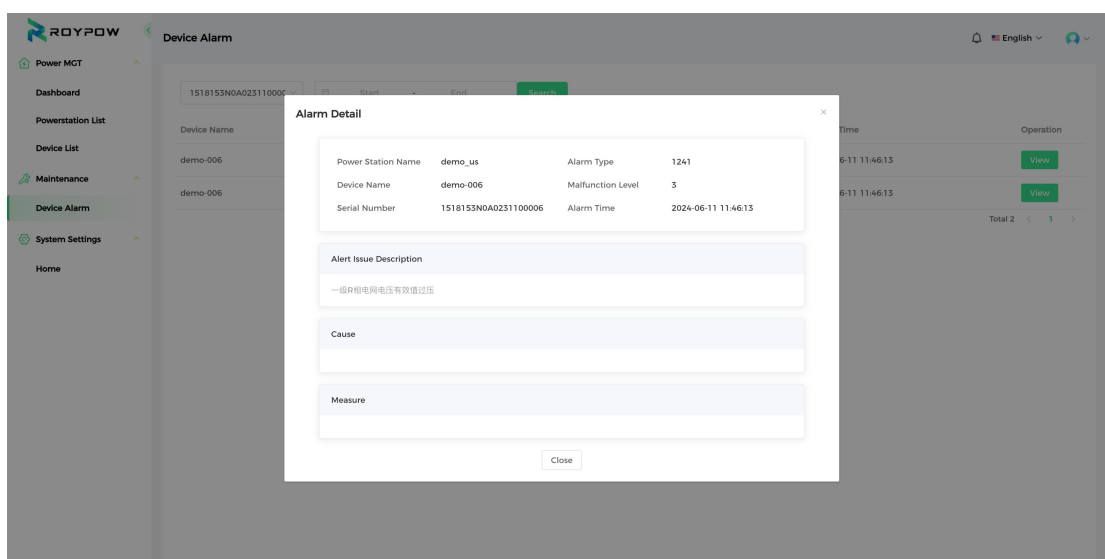You can filter the log list based on different search conditions, and the Log List is shown below:

Device Alarm List

5.2 Device alam details

Click the [View] button in the log list to view the detailed log information. Detailed log information includes:

Power station name, alarm type, device name, malfunction level, serial number, alarm time, as well as alert issue description, cause and measure:

Device Alarm Details

Ⅵ.Top Navigation Bar:

The top navigation bar contains the following functions:

Alarm list: Redirects to the Alarm Log List;

Language: Switching system language;

In the personal profile picture area, click the dropdown icon to unfold the menu, which includes:
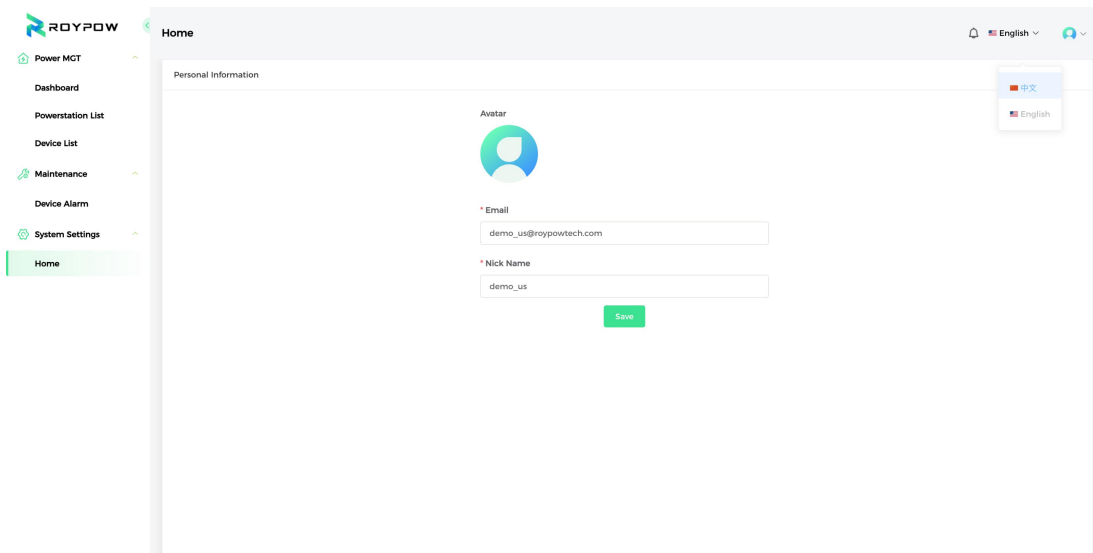
Home: Click to jump to the profile page;

Change Password: Change the password of the current login user;

Log out: Log out and return to the login page;

6.1 Language selection

Language can be selected on the right side of the top navigation bar of the browser.
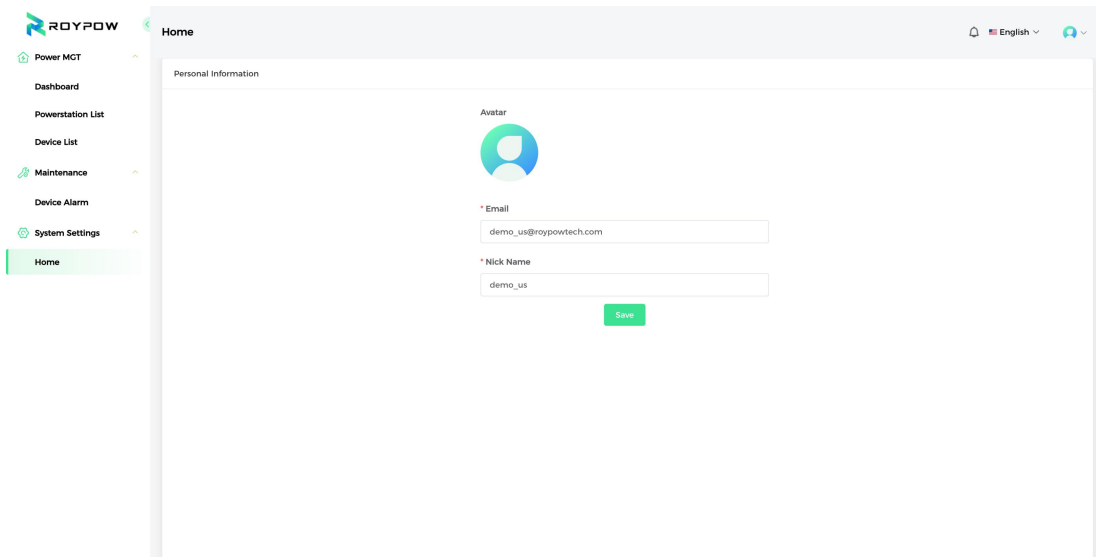

Language selection

6.2 Change password

Click Change Password from the dropdown box, This will open a window where you can enter your current password and set a new password. After confirming the new password, click Confirm to complete the process. Once the password change is successful, you'll be logged out of the system. To continue using the system, you'll need to login again, as follows:
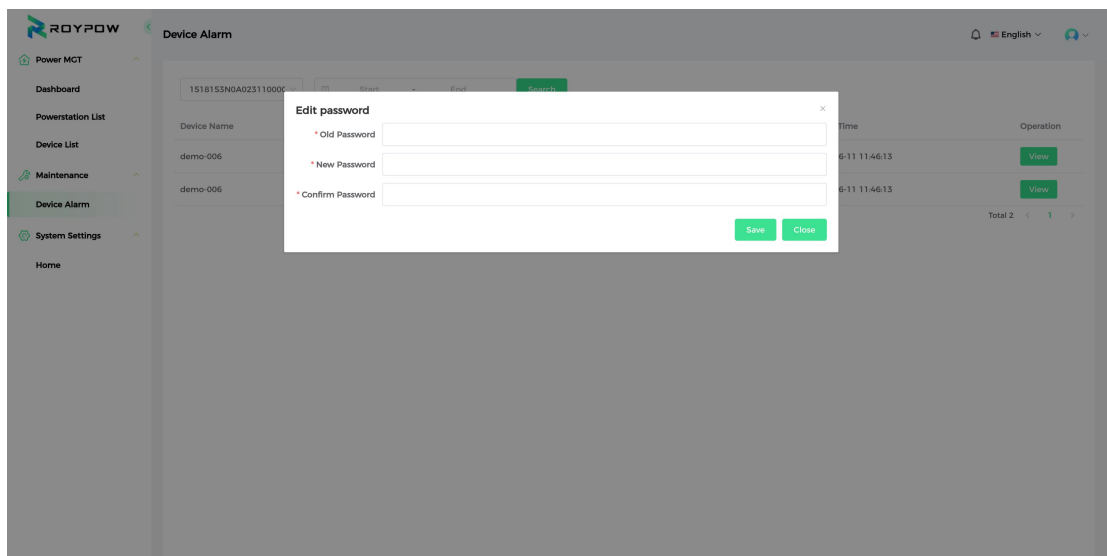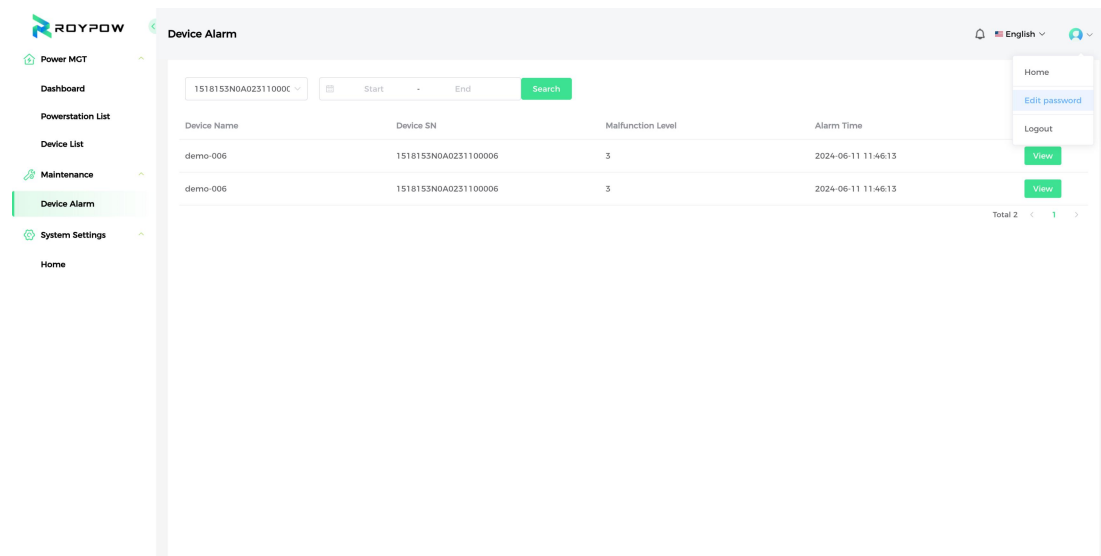
Change Password

6.3 Home page

Click the [Home] from the dropdown box in the profile picture area in the upper right corner of the browser to access the profile page. You can change your profile picture, Email address, user nickname and other information, as follows:

ROYPOW

| Home | | 🔔 🇺🇸 English ⌄ 👤 ⌄ |

Personal Information

Avatar

* Email

demo_us@roypowtech.com

* Nick Name

demo_us

Save

Home

THANKS!

Huizhou RoyPow Technology Co., Ltd.

Email:

sales@roypow.com

service@roypow.com

marketing@roypow.com

Web: www.roypow.com

Add: ROYPOW Industrial Park.Intersection of Dongsheng South Road and Zhihui Avenue,Chenjiang Street, Zhongkai High-Tech District. Huizhou City. Guangdong Province. China