

IOT Terminal Management System

Operation Manual

GC series



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1. Log in

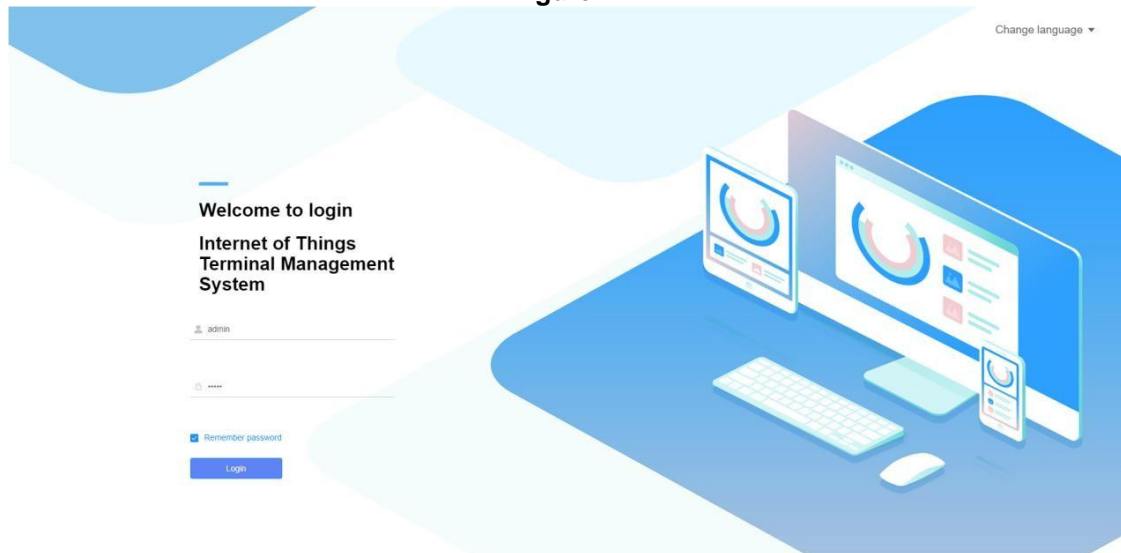
1.1. Log in

Enter the IP address or external mapping link in the browser (Google Chrome is recommended! If you use other browsers, there will be compatibility issues between different browsers!!!) to enter the login interface, click Login (the internal environment does not require the account and password to be entered for the time being) to enter the homepage of the IoT terminal management system.

Check Figure 1&Figure 2. On the home page, you can see the username of the currently logged in account.

The default IP address is 192.168.1.132. Default account: admin Default password:admin

Figure 1



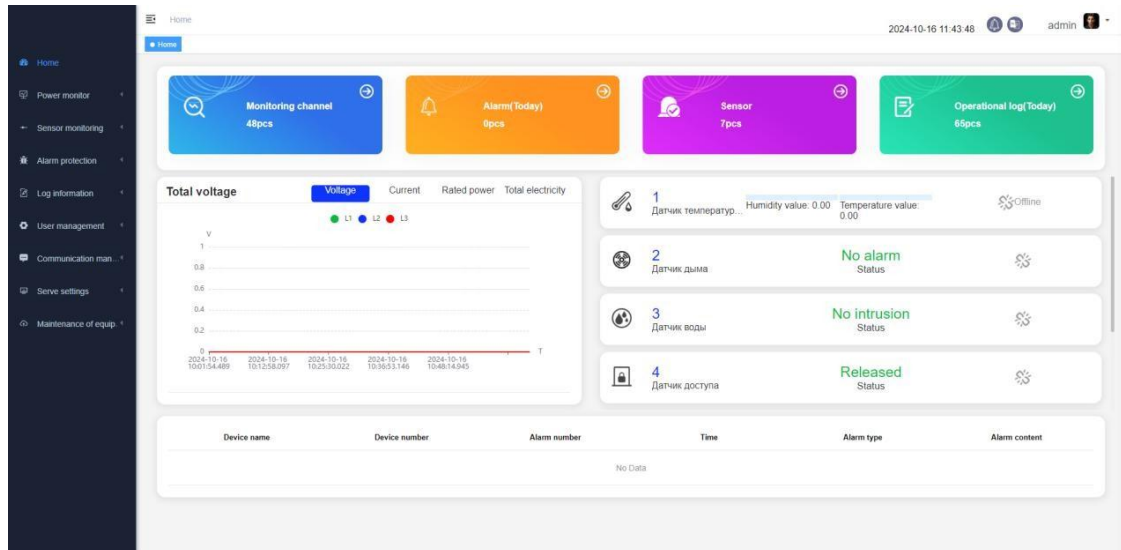
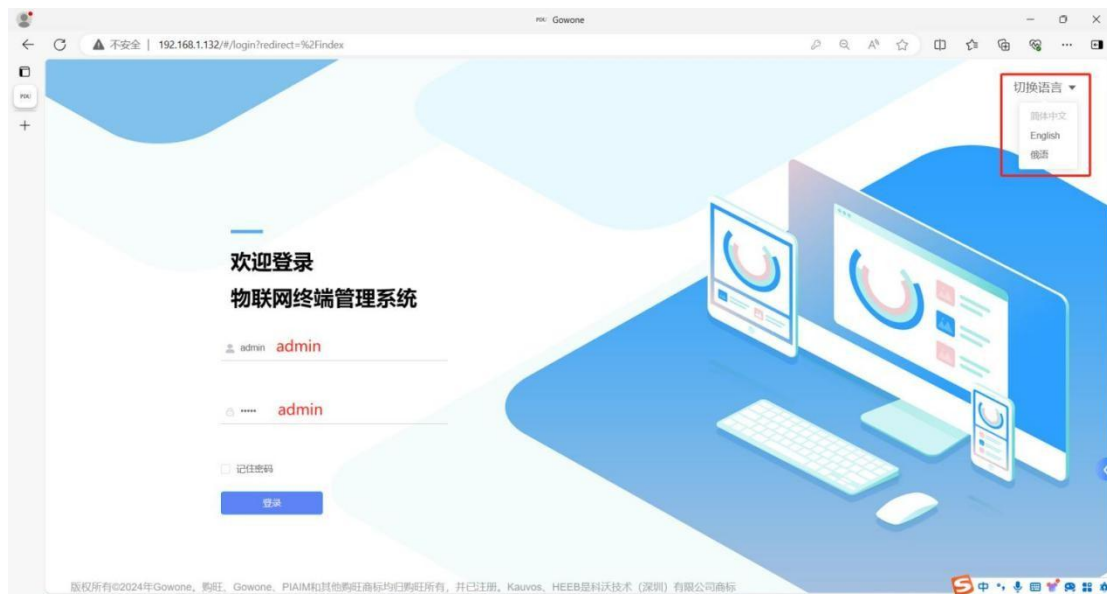


Figure 2

1.2. Change language

On the login interface, click the change language in the upper right corner to pop up a drop-down selection box of the current changable languages (Simplified Chinese, English); you can only select two languages other than the current language when changing languages, such as Figure 3 ;



1.2.1. Switch From Simplified Chinese To English

The current system language is Simplified Chinese. Click English in the language drop-down list in the upper right corner, and the management system language will switch to English normally, as shown in Figure 4.

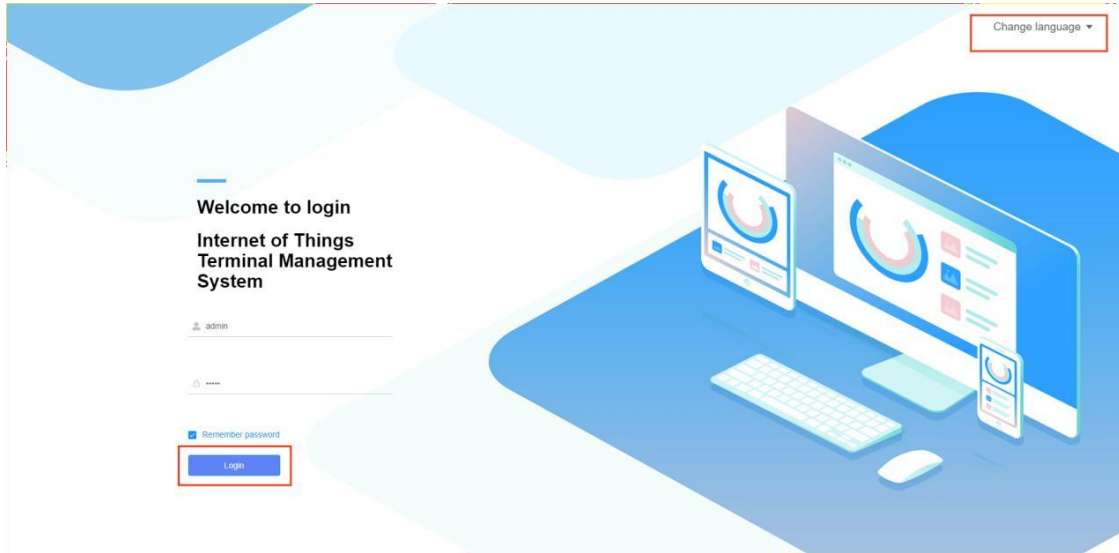


Figure 4

Click **login** again to log in to the homepage of the management system interface, where you can see all. If Chinese is on the left and English is on the right, please clear the browser cache first and then log in to the management system again, as shown in Figure 5.

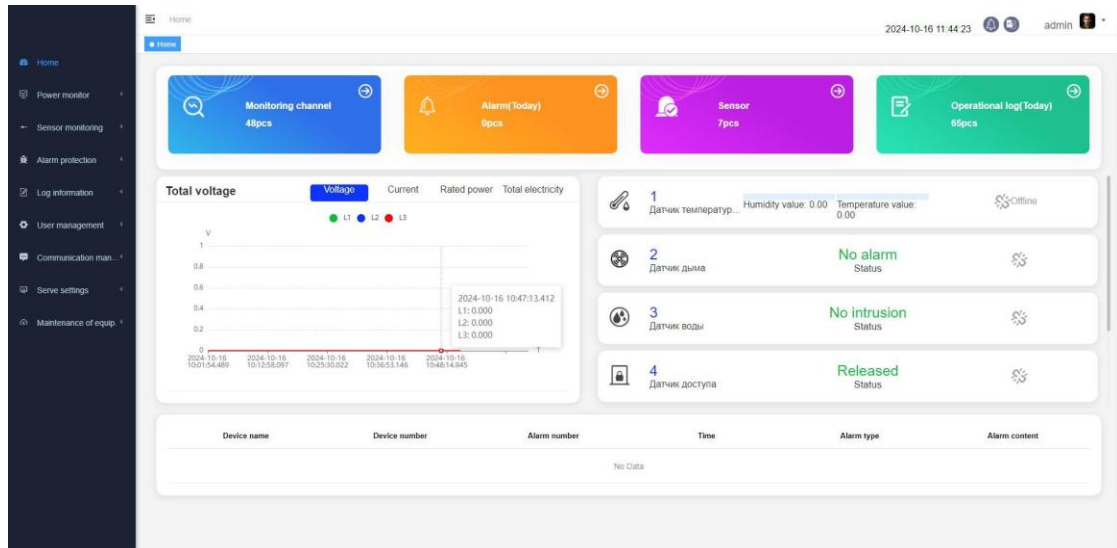


Figure 5

1.2.2. Switch From English To Simplified Chinese

After switching from English to Simplified Chinese, if the management system has language inconsistency issues, you must also clear the browser cache again.

1.2.3. Clear Your Browser Cache

Click on the browser settings to enter the settings interface, enter cache in the browser input box, click search, and select clear browsing data. In the clear browser data interface, select "any time" for the time range and click clear data. After the browser cache is cleared, re-enter the management system, switch the language, and enter the management system homepage. You can see the full English management system.

Figure 6, Figure 7, Figure 8.

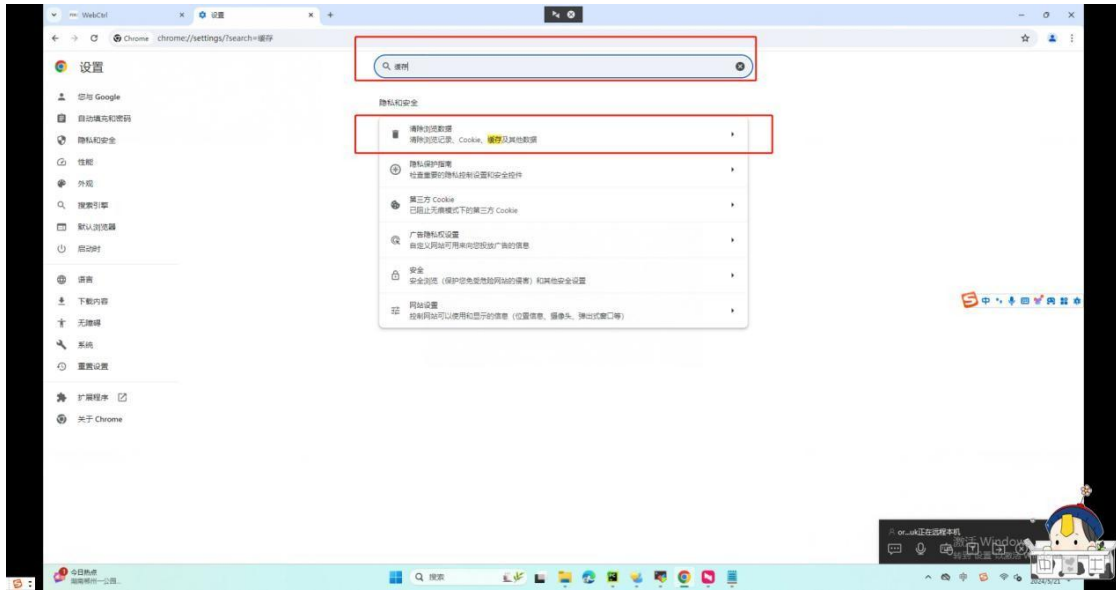


Figure 6

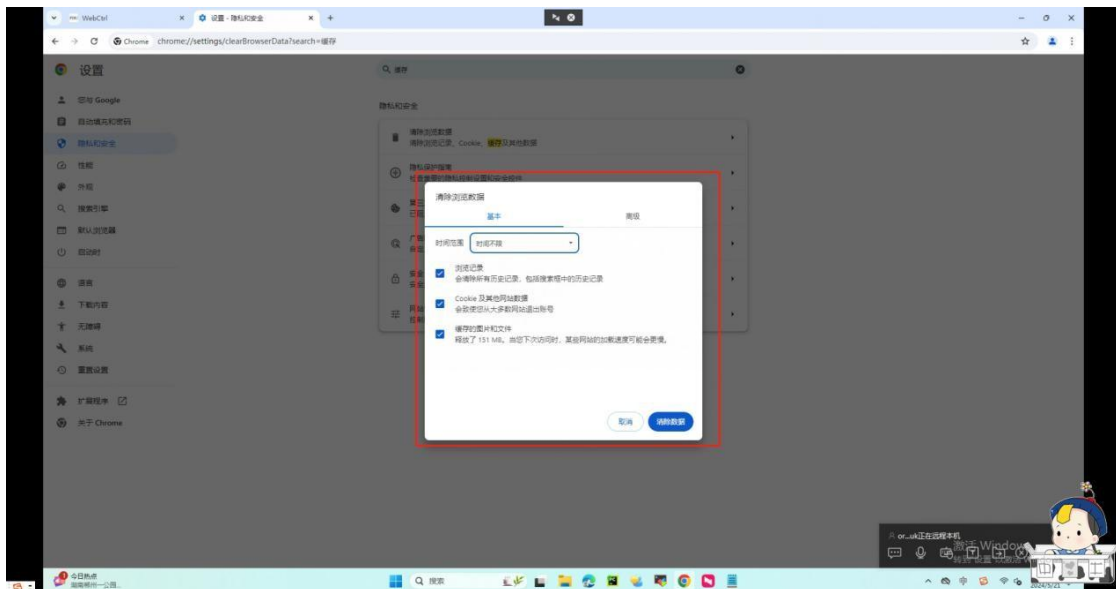


Figure 7

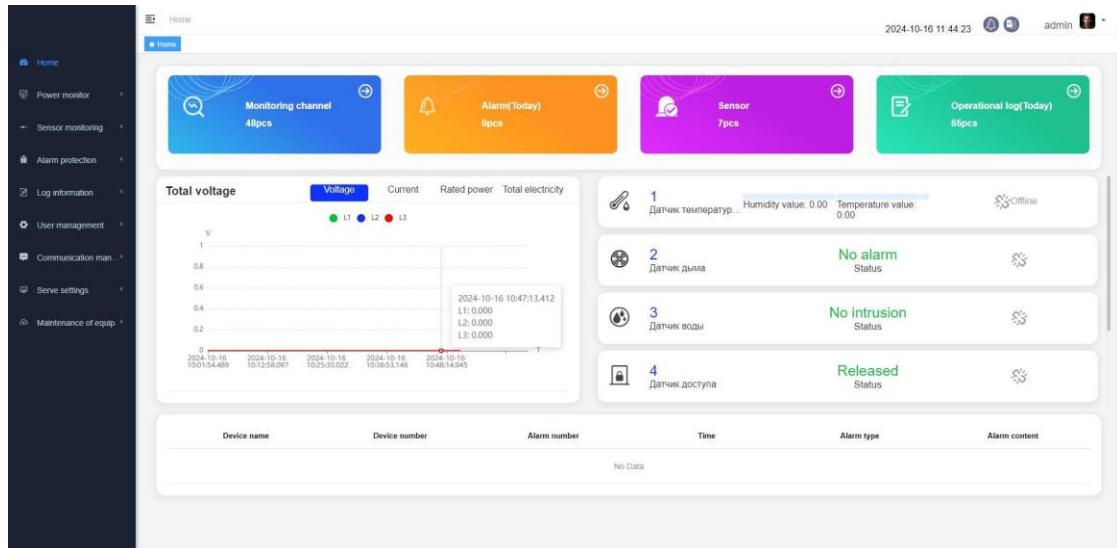


Figure 8

2. Front Page

2.1. Home Page Data Display

On the homepage of the management system, you can view the number of channels currently monitored by our equipment, the number of alarms for the equipment on that day, the number of external sensors on the equipment, the operation log for that day, the overall information of the equipment (voltage, current, rated power, accumulated power), the online and offline status of the external sensors, and the current status.

The information about the equipment that has triggered the alarm is displayed at the bottom. **Figure 9**

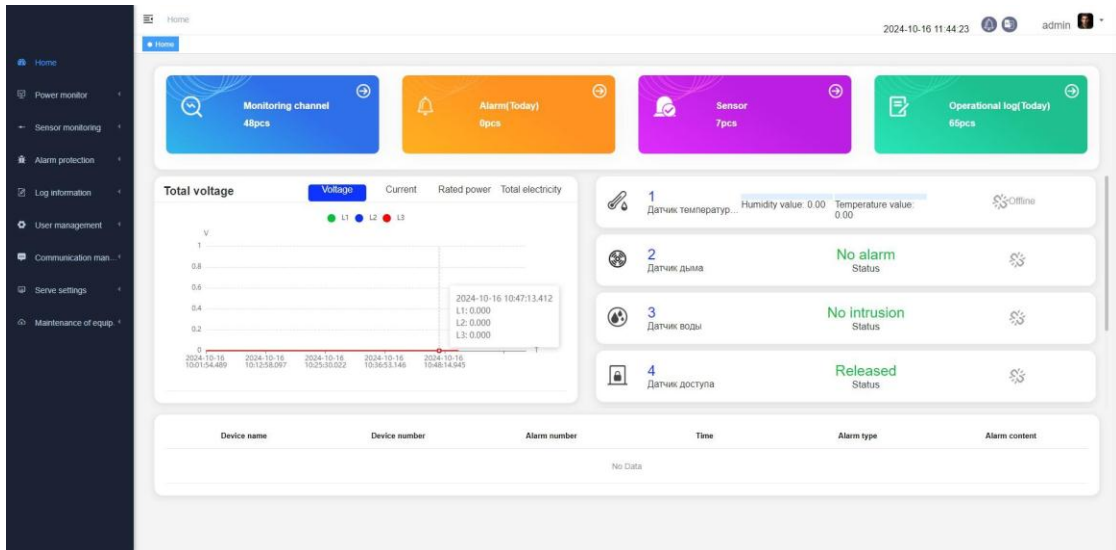
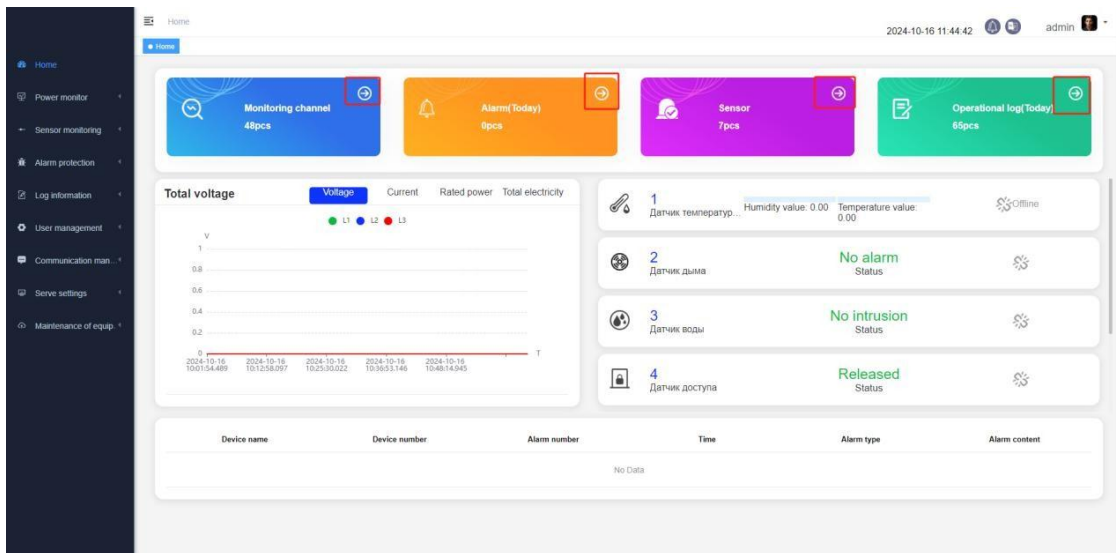


Figure 9

2.2. Home Page Function Jump

On the home page, click the upper right arrow button of monitoring channel, alarm (for the day), sensor, and operation log (for the day) to jump to the corresponding function sub-page, such as **Figure 10, Figure 11, Figure 12, Figure 13, Figure 14.**

Figure 10



Home / Power monitor / Device channel monitor 2024-10-16 11:45:01 admin

Home **Device channel monitor**

Device name: Smart PDU11 Query Check Reset Total on Total off

Device name	Channel name	Channel number	Phase sequence	Voltage(V)	Current(A)	Power(W)	Frequency (Hz)	Power consumption(kWh)	Status	Operation	output type	SET
Smart PDU11	CH1	1	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH2	2	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH3	3	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH4	4	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH5	5	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH6	6	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH7	7	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH8	8	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH9	9	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH10	10	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH11	11	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH12	12	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH13	13	L2	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify

Figure 11

Home / Alarm protection / System alarm 2024-10-16 11:45:12 admin

Home **System alarm**

startTime: 2024-10-09 11:45:11 endTime: 2024-10-16 11:45:11 Query

Power warning Sensor warning Network warning

Alarm number	Time	Alarm type	Device number	Device name	Alarm content
No Data					

10/page Go to 1

Figure 12

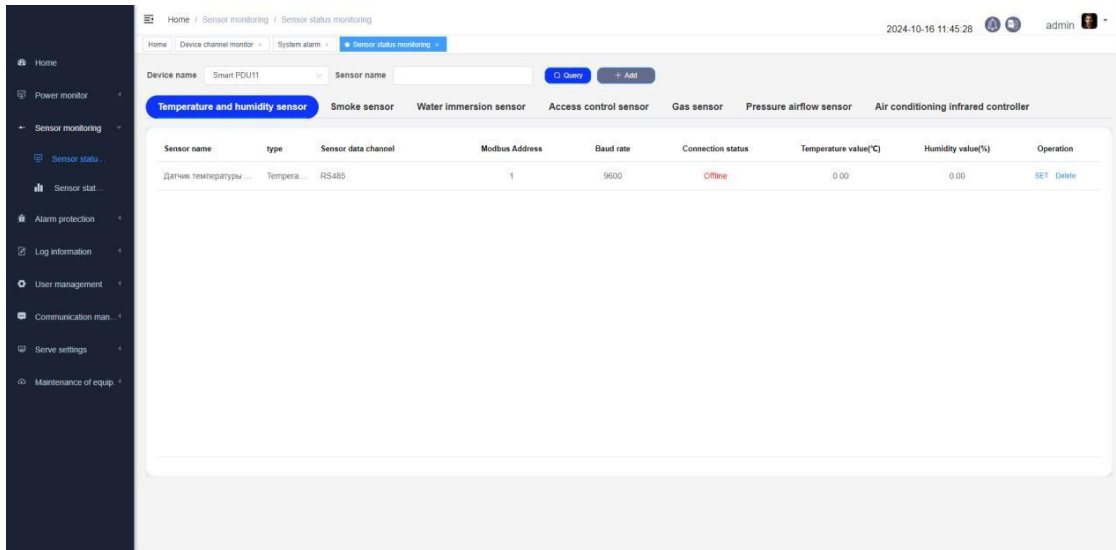


Figure 13

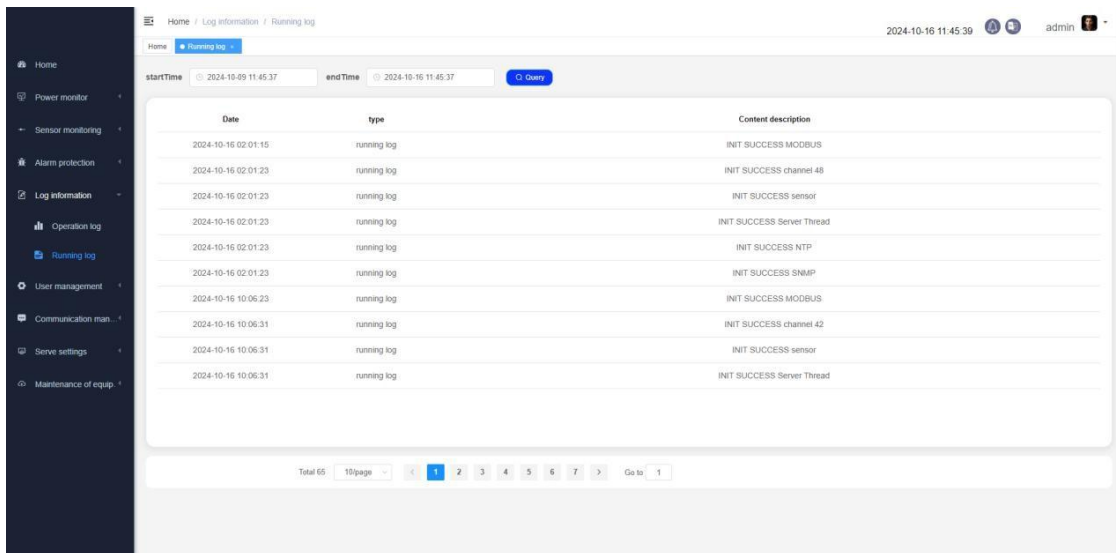


Figure 14

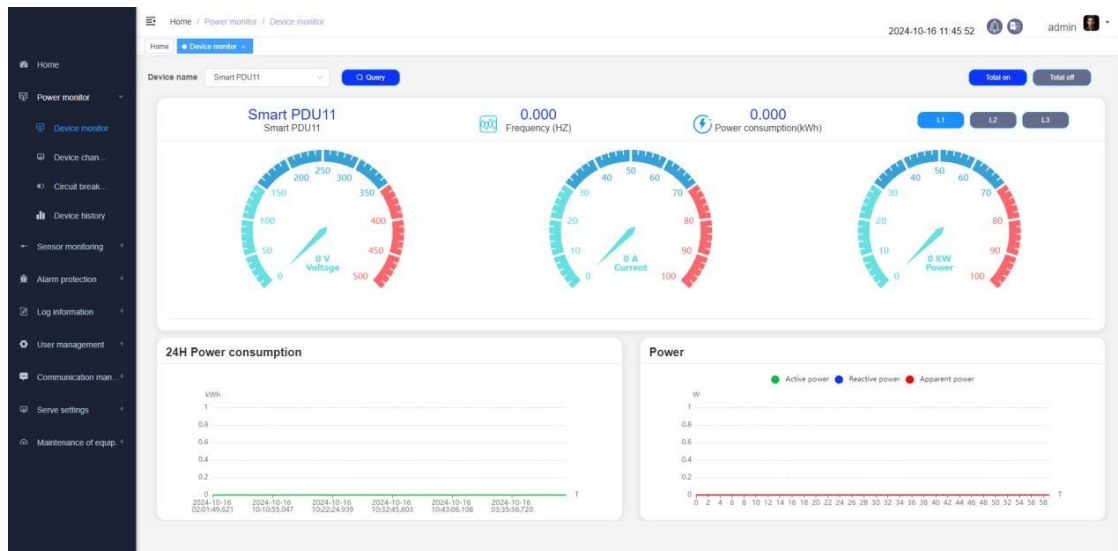
3. Power Monitoring

3.1. Overall Status Monitoring

In the overall status interface, you can view the overall information of the device (device name, frequency, power consumption, voltage, current, power). The voltage, current, and power information are displayed in real time in the form of a circular chart, such as Figure 15. The total power

consumption and power (reactive, active, and apparent) for 24 hours are displayed in a graph. In the overall status interface, you can control all channels of the connected devices to perform total on and off operations. In the overall status interface, you can view the total power data information (voltage, current, power, frequency, power consumption, power consumption data graph, power data graph) of all three-phase control boards ABC connected to the PDU, such as Figure 15, Figure 16, Figure 17.

Figure 15



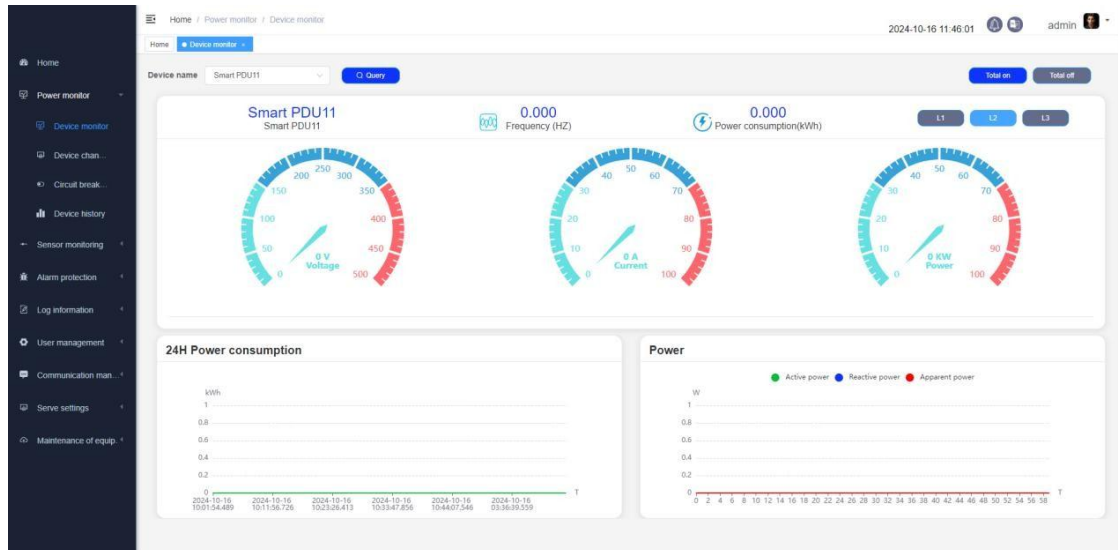


Figure 16

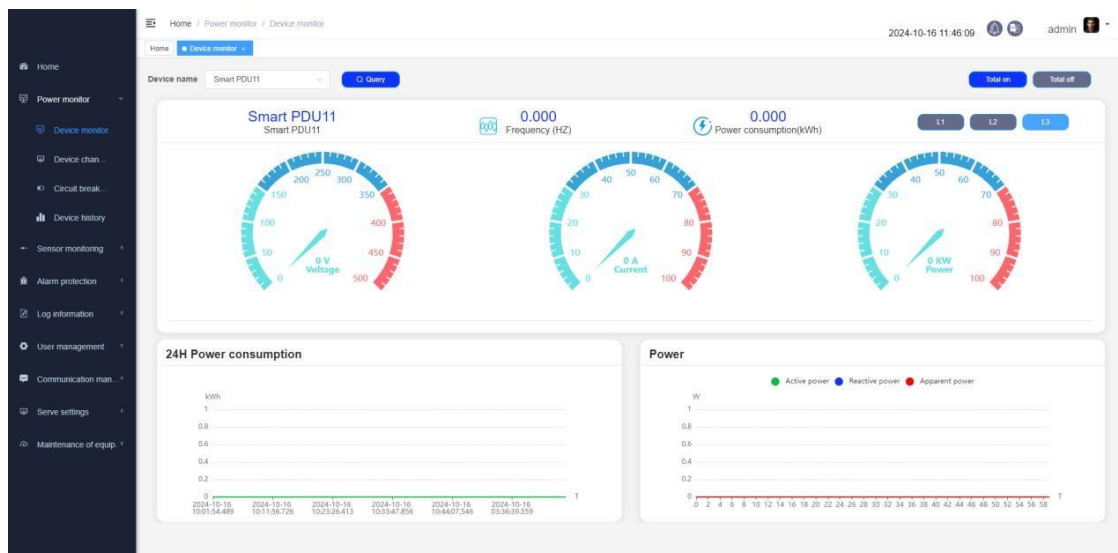
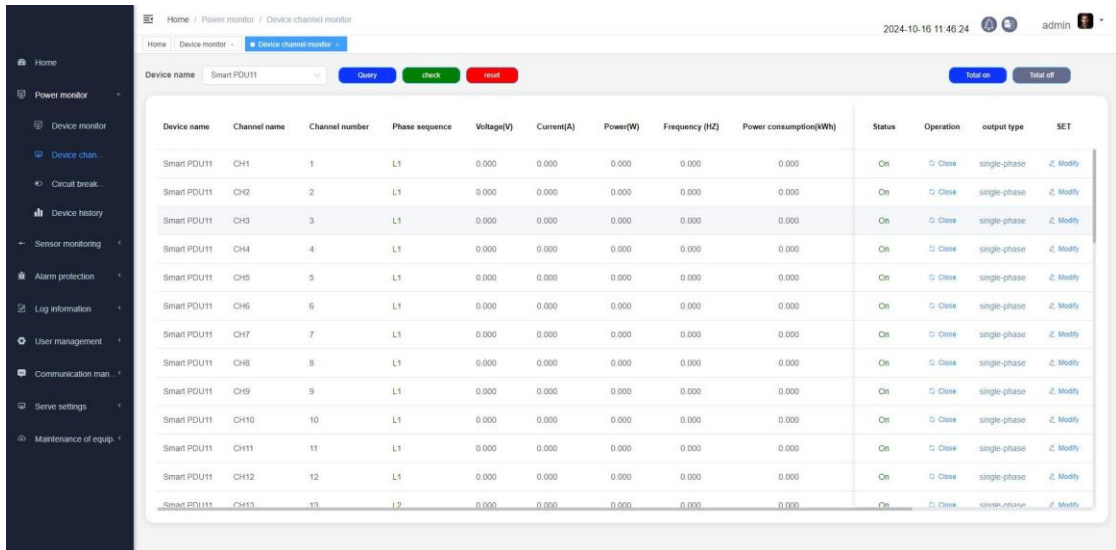


Figure 17

3.2. Channel Status Monitoring

3.2.1. Channel Status Information Overview

In the channel status monitoring interface, you can view the power data information of the three-phase ABC of each three-phase control board connected to the PDU, and you can also view the current channel switch status of each control board, such as **Figure 18**.



Device name	Channel name	Channel number	Phase sequence	Voltage(V)	Current(A)	Power(W)	Frequency (HZ)	Power consumption(kWh)	Status	Operation	output type	SET
Smart PDU11	CH1	1	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH2	2	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH3	3	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH4	4	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH5	5	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH6	6	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH7	7	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH8	8	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH9	9	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH10	10	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH11	11	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH12	12	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH13	13	L2	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify

Figure 18

3.2.2. Channel Total Open And Total Close

In the channel status monitoring interface, you can perform total on and total off operations on all control panel channels. After performing the total on operation, the channel status changes to on and the operation button changes to off , such as **Figure 19**. After executing the total closing operation, the channel status changes to disconnected and the operation button changes to open, such as **Figure 20**.

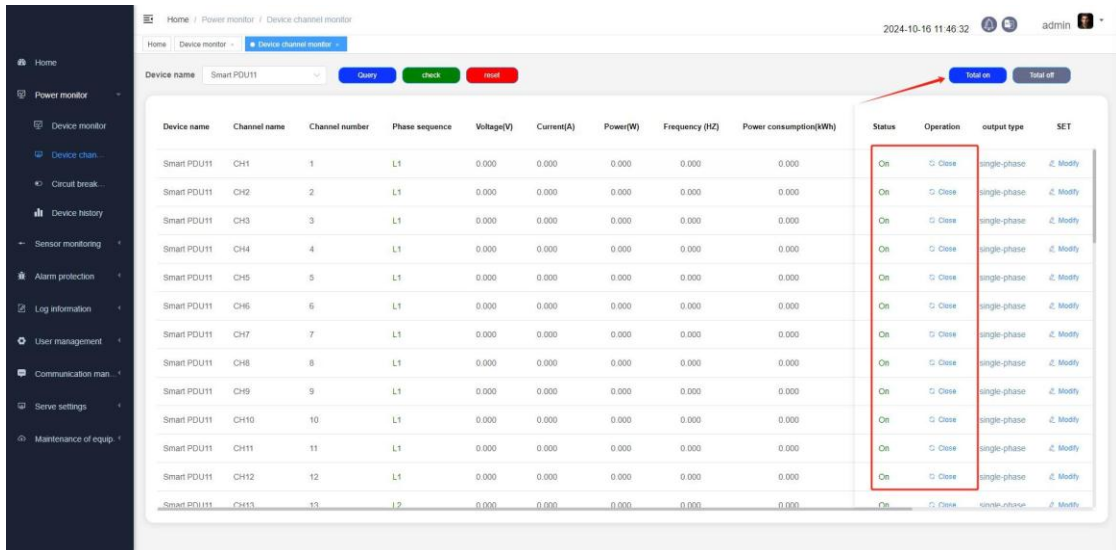


Figure 19

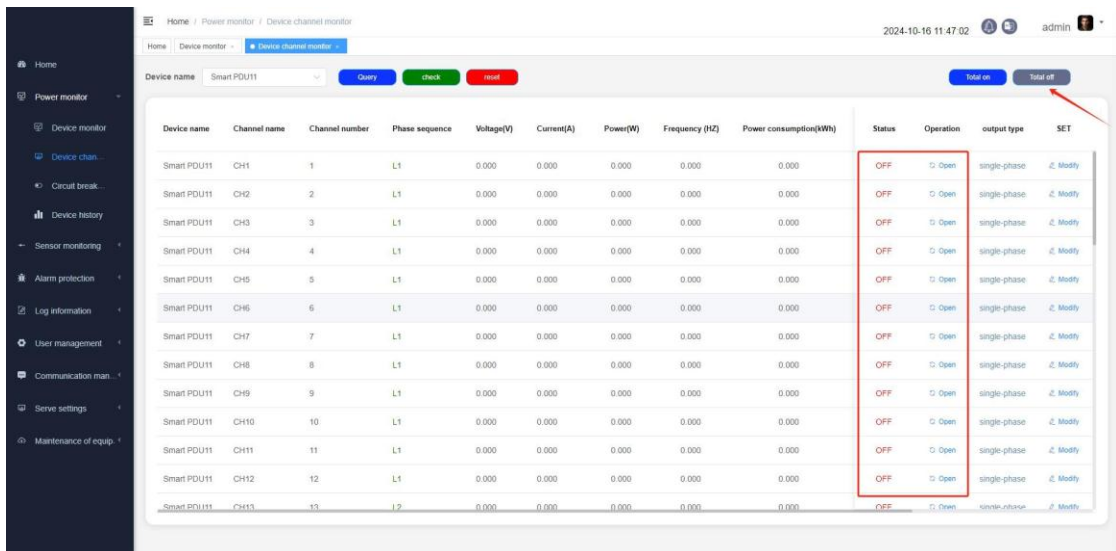


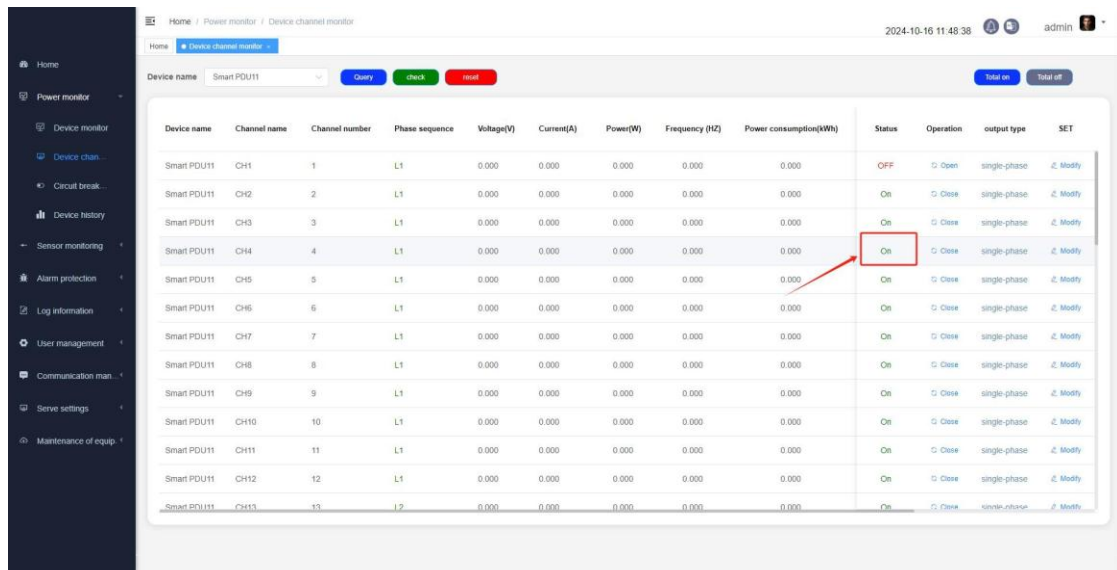
Figure 20

3.2.3. Channel Single Open And Single Close

In the channel status monitoring interface, you can also perform single-open and single-close operations on each channel of each control panel. After performing the single-open operation, the channel status changes to on and the operation button changes to off, such as **Figure 21**. After executing the single-off operation, the channel status changes to

disconnected and the operation button changes to open, such as **Figure 22**.

Figure 21



Device name	Channel name	Channel number	Phase sequence	Voltage(V)	Current(A)	Power(W)	Frequency (HZ)	Power consumption(kWh)	Status	Operation	output type	SET
Smart PDU11	CH1	1	L1	0.000	0.000	0.000	0.000	0.000	OFF	Open	single-phase	Modify
Smart PDU11	CH2	2	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH3	3	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH4	4	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH5	5	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH6	6	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH7	7	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH8	8	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH9	9	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH10	10	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH11	11	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH12	12	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH13	13	L2	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify

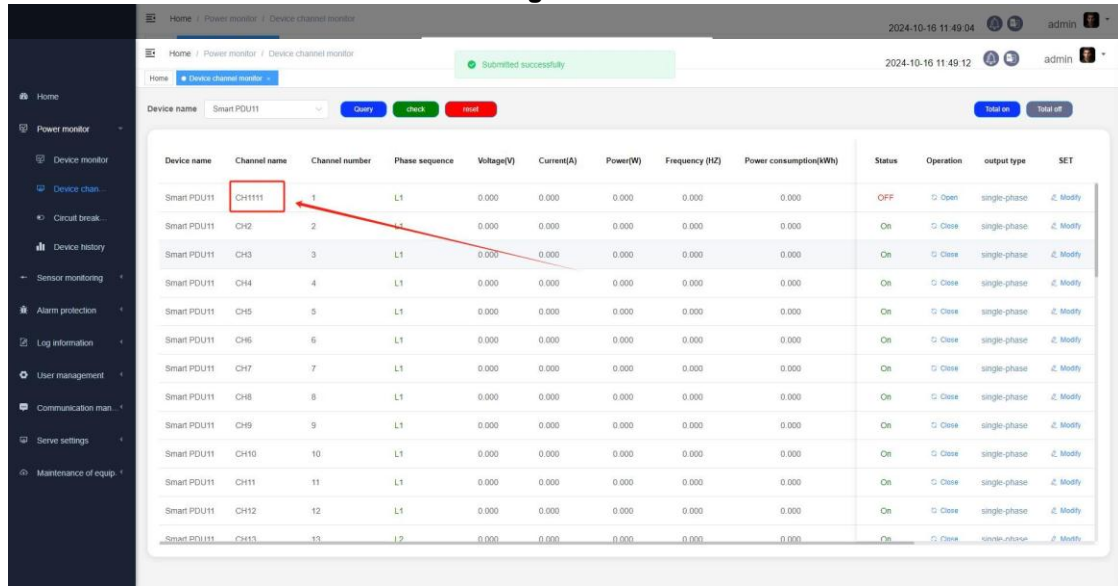
Figure 22

3.2.4. Modify Channel Information

In the channel status monitoring interface, you can also modify the name of each channel. Click the modify button at the end of each channel to

enter the modification interface, enter the new channel name, and click OK to successfully modify the channel name, such as **Figure 23**, **Figure 24**.

Figure 23



Device name	Channel name	Channel number	Phase sequence	Voltage(V)	Current(A)	Power(W)	Frequency (Hz)	Power consumption(kWh)	Status	Operation	output type	SET
Smart PDU11	CH1111	1	L1	0.000	0.000	0.000	0.000	0.000	OFF	Open	single-phase	Modify
Smart PDU11	CH2	2	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH3	3	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH4	4	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH5	5	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH6	6	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH7	7	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH8	8	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH9	9	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH10	10	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH11	11	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH12	12	L1	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify
Smart PDU11	CH13	13	L2	0.000	0.000	0.000	0.000	0.000	On	Close	single-phase	Modify

Figure 24

3.3. History Query

3.3.1. Overall Status History

In the overall status record interface, the overall information of the device within six hours of the current time (total voltage, current, power, power

consumption) is displayed by default. The overall information of the device is displayed in the form of a chart. You can see the overall information of the device within six hours, such as **Figure 25** ; In the history record interface, you can also select a time and view the overall information of the device, such as **Figure 26**.

Figure 25

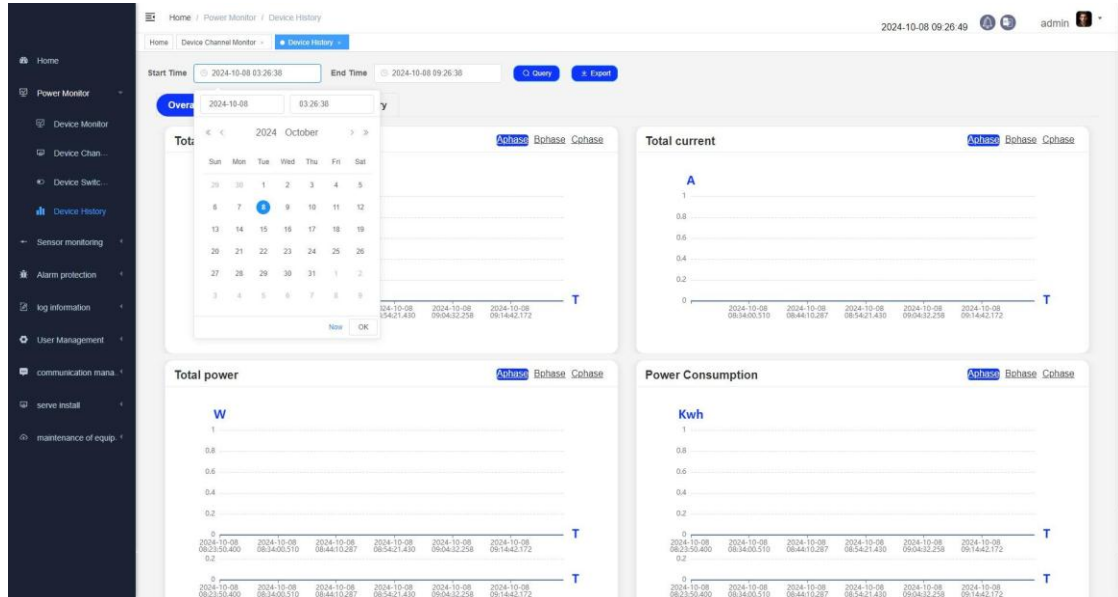


Figure 26

3.3.2. Channel Status History

In the channel status history interface, we can view the information of each channel of the device; the information in the channel status history interface also displays the information within 6 hours of the current time by default, and you can also choose the query time yourself; there is also an export function, such as **Figure 27**, **Figure 28**.

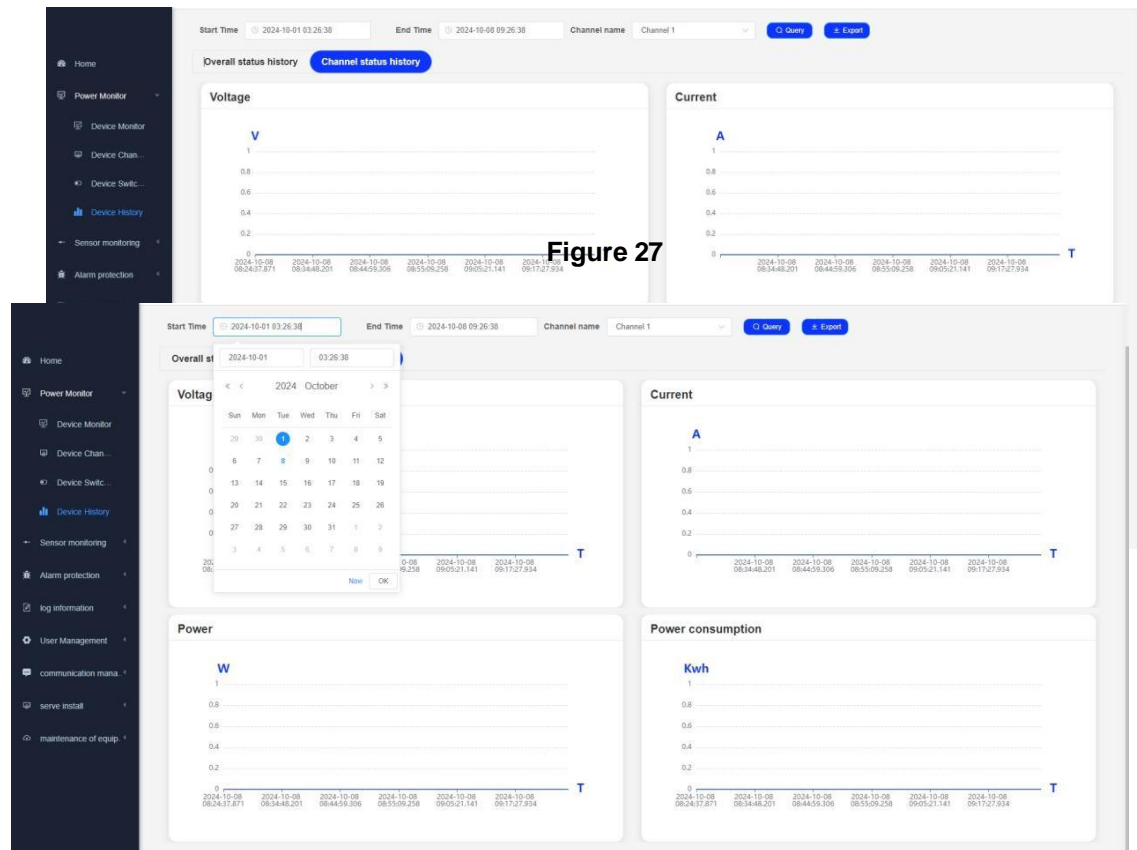


Figure 28

4. Sensor Monitoring

4.1. Sensor Status Monitoring

In the sensor status monitoring interface, you can view the temperature and humidity sensor data information. At the same time, you can also view the temperature and humidity sensor data information that is set up and connected on the home page, such as **Figure 29, Figure 30**.

Figure 29

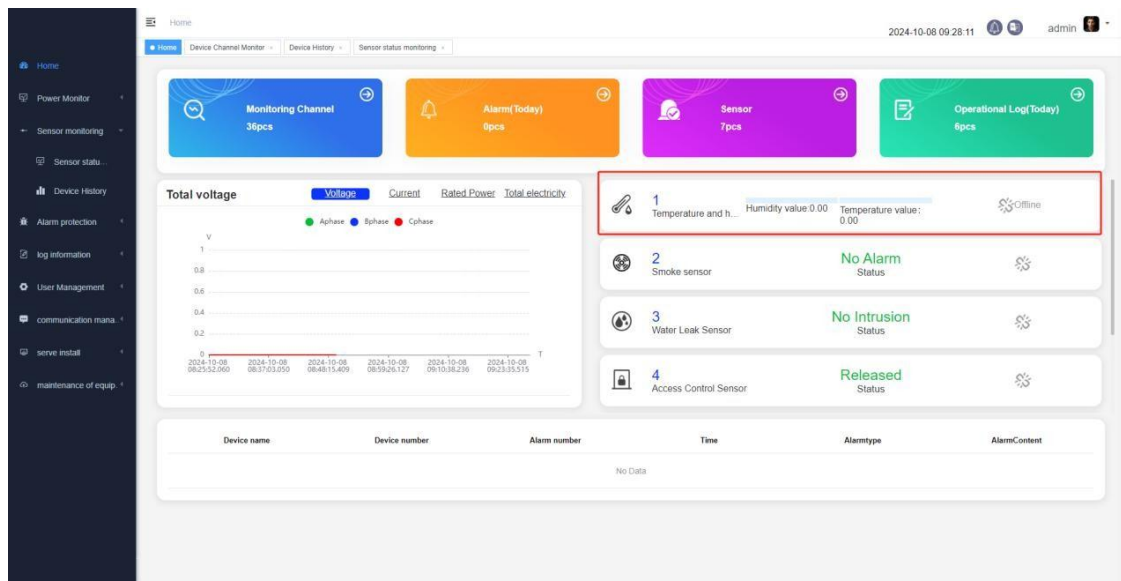


Figure 30

4.2. History Query

On the history query interface, you can view the history records of the temperature and humidity sensors, gas sensors, and air pressure and air flow sensors connected to the PDU, such as **Figure 31**, **Figure 32**, and **Figure 33**.

Figure 31

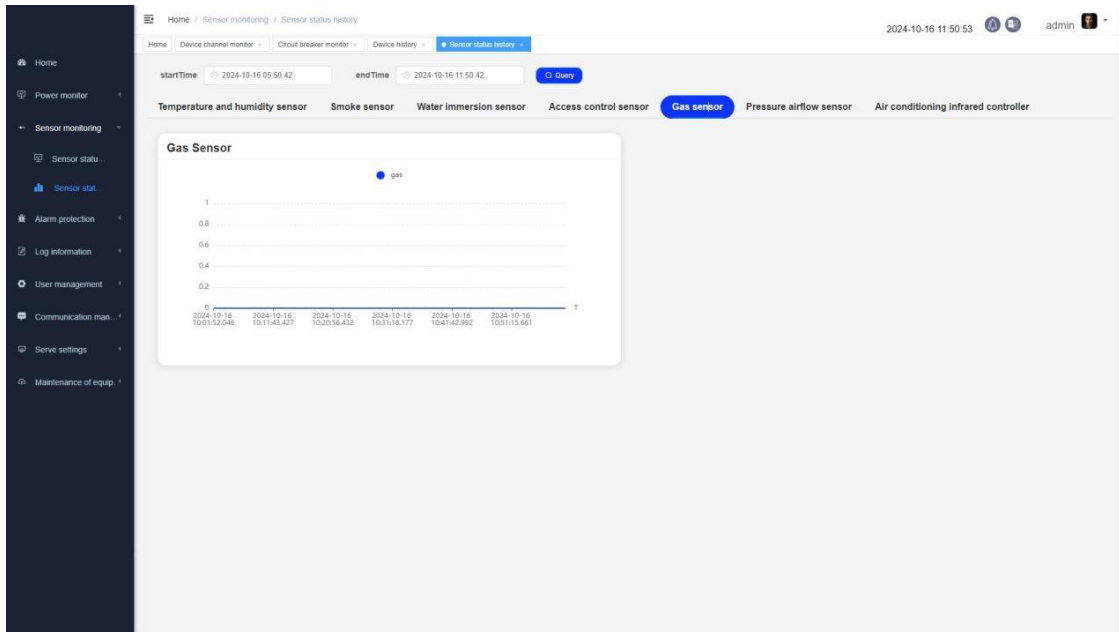


Figure 32

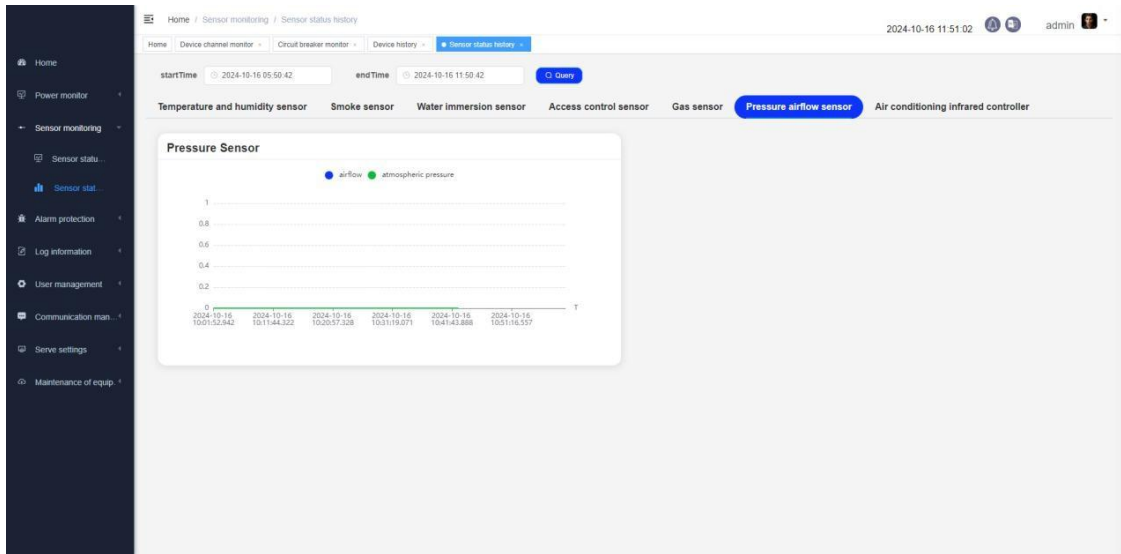


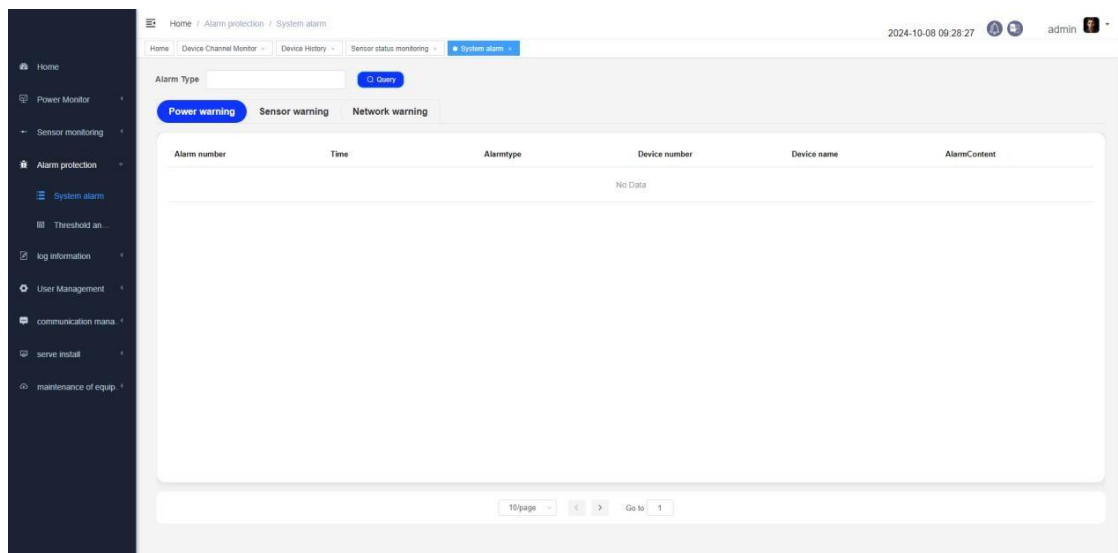
Figure 33

5. Alarm Protection

5.1. System Alarm

In the system alarm interface, there are three types of alarms: power alarms (current exceeds upper limit, voltage exceeds upper and lower limits, power exceeds upper limit, power consumption exceeds upper limit), sensor alarms (temperature exceeds upper and lower limits, humidity exceeds upper limit), and network alarms. At the bottom of the interface, there are functions for statistics, paging, and page turning of alarm information data, such as **Figure 34** and **Figure 35**.

Figure 34



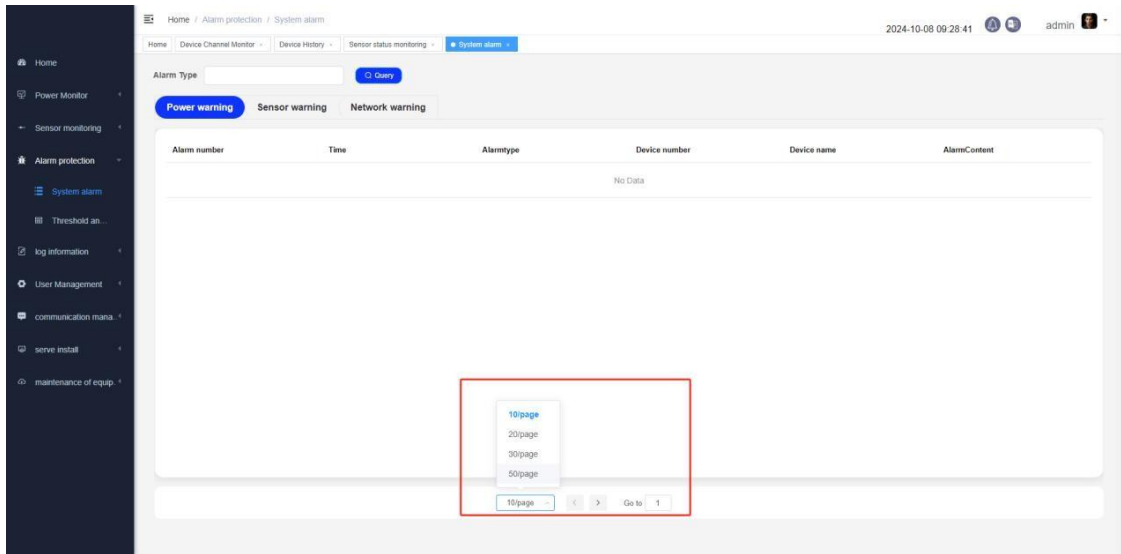


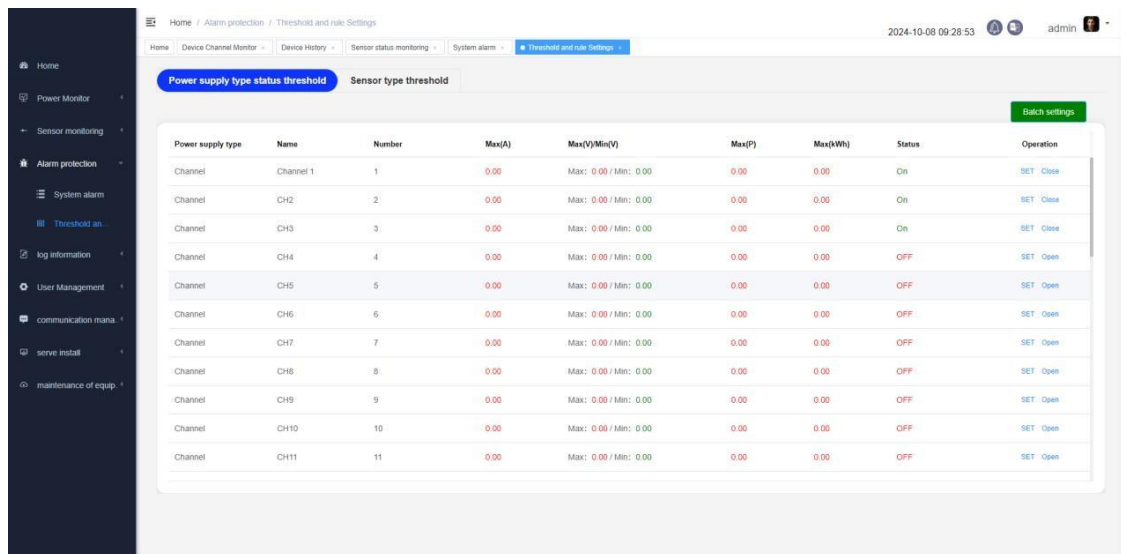
Figure 35

5.2. Threshold And Rule Settings

5.2.1. Power supply threshold alarm

In the power supply status threshold interface, you can set the device's current upper limit, voltage upper and lower limits (when setting the upper and lower values, the upper limit must be greater than the lower limit, otherwise the upper limit must be greater than the lower limit prompt will appear), power upper limit, and power consumption upper limit, as shown in **Figure 36**. When the power values of the device exceed the set thresholds and the alarm type is set to "alarm only", a power over-limit alarm will be generated. The alarm information can be viewed in the power supply alarm of the system alarm information, such as **Figure 37**, **Figure 38**, and **Figure 39**.

Figure 36



Power supply type	Name	Number	Max(A)	Max(V)/Min(V)	Max(P)	Max(kWh)	Status	Operation
Channel	Channel 1	1	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	On	SET Close
Channel	CH2	2	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	On	SET Close
Channel	CH3	3	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	On	SET Close
Channel	CH4	4	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	OFF	SET Open
Channel	CH5	5	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	OFF	SET Open
Channel	CH6	6	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	OFF	SET Open
Channel	CH7	7	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	OFF	SET Open
Channel	CH8	8	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	OFF	SET Open
Channel	CH9	9	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	OFF	SET Open
Channel	CH10	10	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	OFF	SET Open
Channel	CH11	11	0.00	Max: 0.00 / Min: 0.00	0.00	0.00	OFF	SET Open

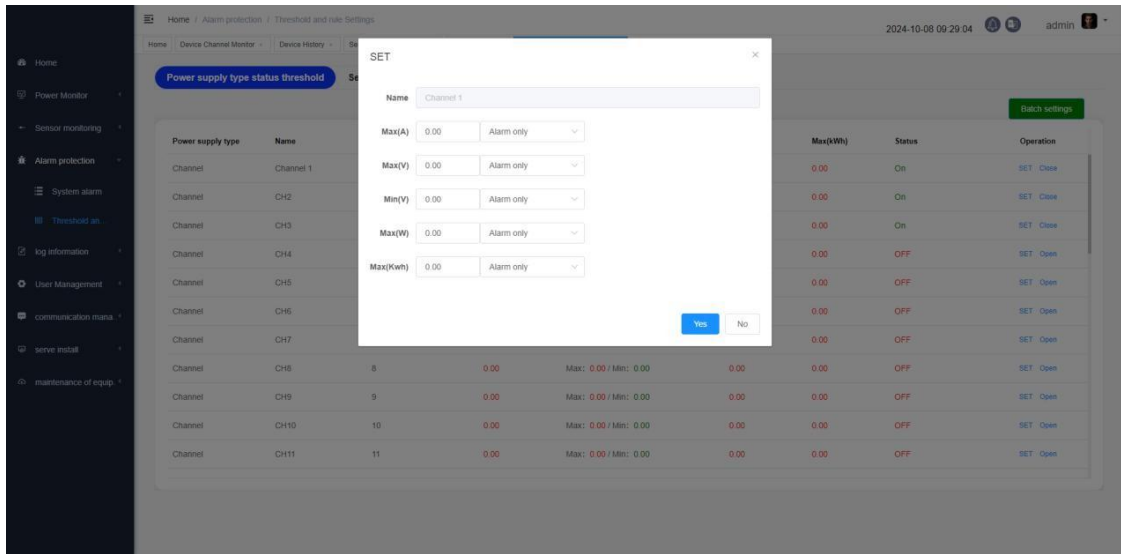


Figure 37

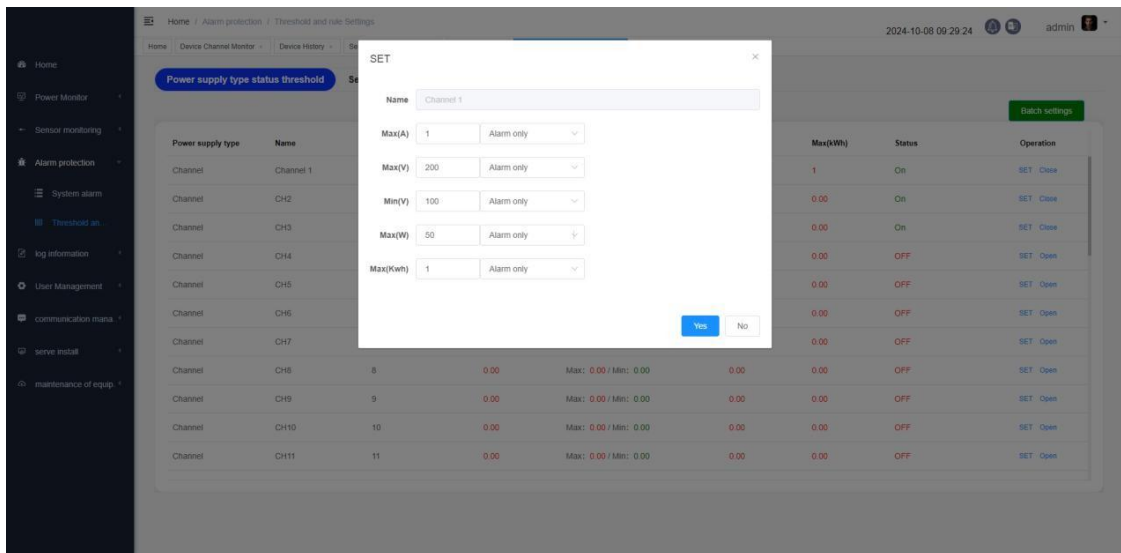


Figure 38

Home / Alarm protection / System alarm 2024-10-08 09:32:19 admin

Home System alarm Threshold and rule Settings

Alarm Type Query

Power warning Sensor warning Network warning

Alarm number	Time	Alarmtype	Device number	Device name	AlarmContent
1224	2024-10-08 09:30:34	Power alarm	SmartPDU	SmartPDU	channel Channel 1 voltage out of down limit channel CLOSE
1225	2024-10-08 09:30:36	Power alarm	SmartPDU	SmartPDU	channel Channel 1 voltage out of down limit channel CLOSE
1226	2024-10-08 09:30:37	Power alarm	SmartPDU	SmartPDU	channel Channel 1 voltage out of down limit channel CLOSE
1229	2024-10-08 09:31:14	Power alarm	SmartPDU	SmartPDU	channel CH2 voltage out of down limit channel CLOSE
1230	2024-10-08 09:31:15	Power alarm	SmartPDU	SmartPDU	channel CH2 voltage out of down limit channel CLOSE
1233	2024-10-08 09:31:50	Power alarm	SmartPDU	SmartPDU	channel CH3 voltage out of down limit

Total 6 10page 1 Go to 1

Figure 39

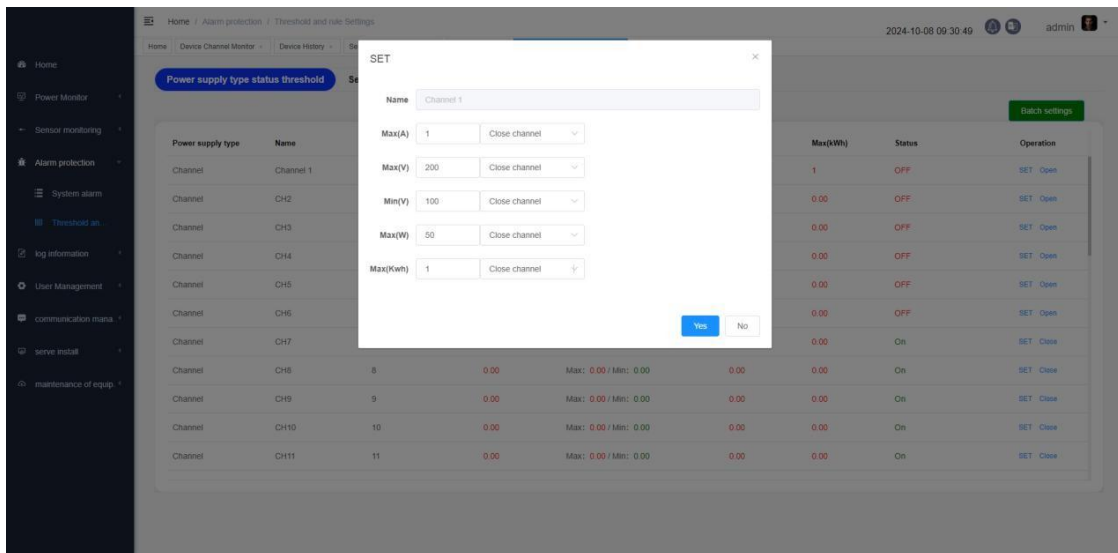
5.2.2. Power Alarm Closes Channel

In the power status threshold configuration interface, change the alarm type to "Close channel", click OK, and when the alarm is triggered, the channel with the alarm type set to "Close channel" will automatically close due to exceeding the threshold. When the channel triggers the alarm to close the channel and automatically closes, do not modify any threshold, re-enter the channel status monitoring interface, click to open the channel, and the channel will automatically close again due to overload, such as **Figure 40**.

Figure 40

5.2.3. Sensor Threshold Alarm

In the sensor threshold interface, you can set the upper and lower limits of the temperature and humidity of the temperature and humidity sensors. When



the sensor temperature and humidity are lower and higher than the set upper and lower limits, an over-limit alarm will be generated.

The alarm information can be viewed in the sensor alarm of the system alarm information, such as **Figure 41**, **Figure 42**, and **Figure 43**.

Figure 41

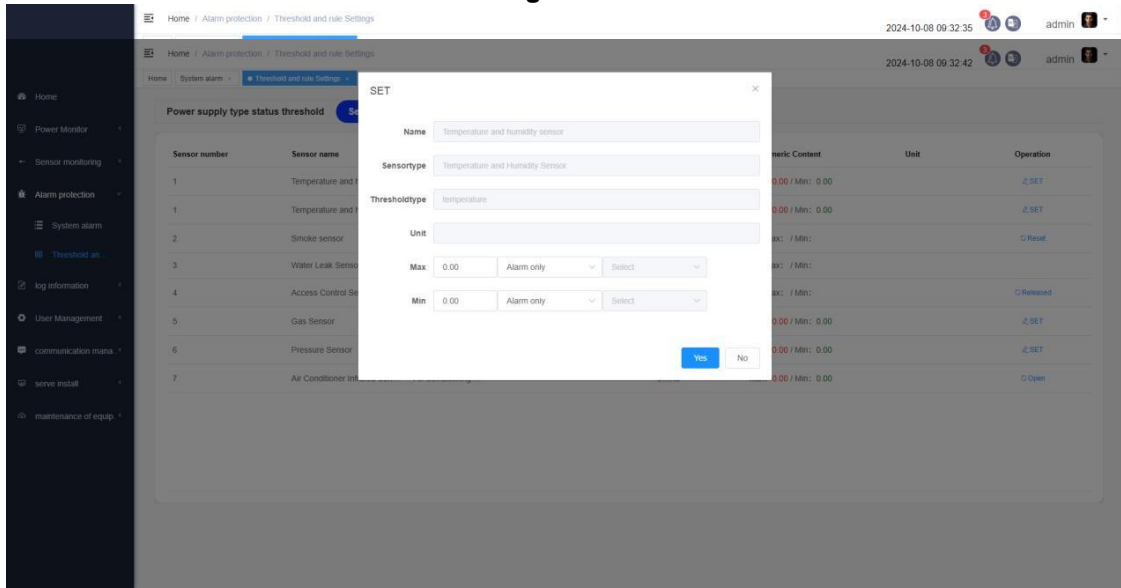


Figure 42

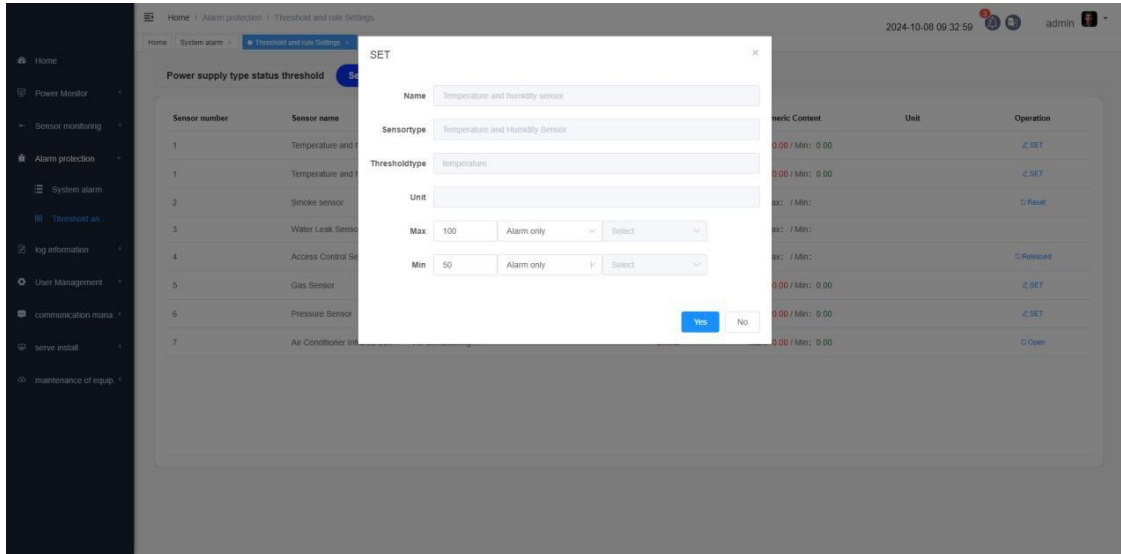
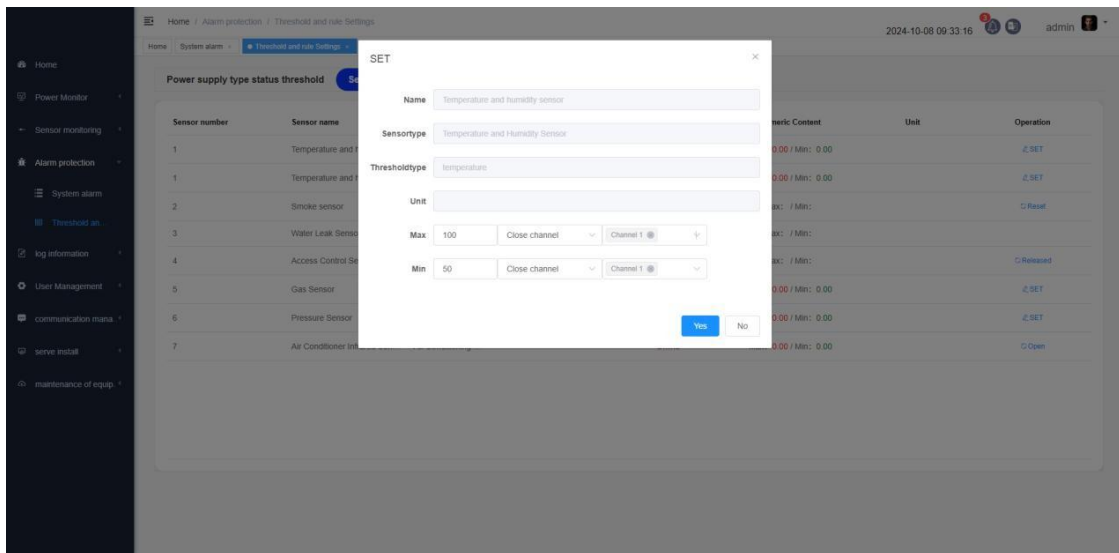


Figure 43

5.2.4. Sensor Alarm Closes Channel

In the sensor threshold configuration interface, after changing the alarm type to "close channel", you can choose to close the first channel or all channels, such as **Figure 44** and **Figure 45**; after clicking OK, when the alarm is triggered, the channel with the set threshold will automatically close. When the channel triggers the alarm to close the channel and automatically closes, do not modify any thresholds, re-enter the channel status monitoring interface, and click to open the channel, the channel will automatically close again due to overload.

Figure 44



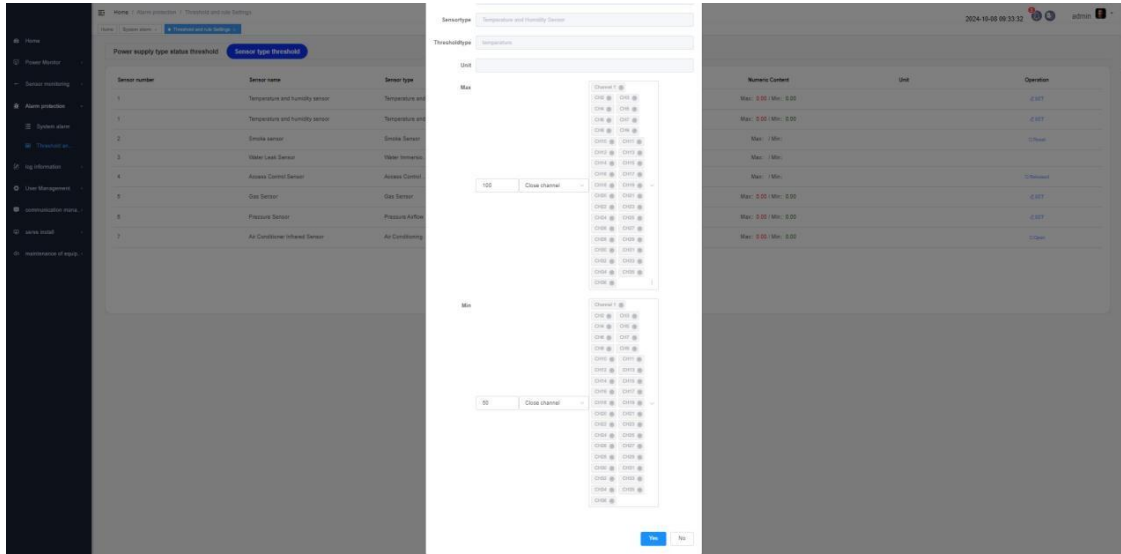


Figure 45

6. Log Information

6.1. Operation Log

On the Operation logs page, you can view user operation logs, including operation content and operation date. You can also view the total number of operation logs, page breaks, and page turning information, as shown in **Figure 46**, **Figure 47**, and **Figure 48**.

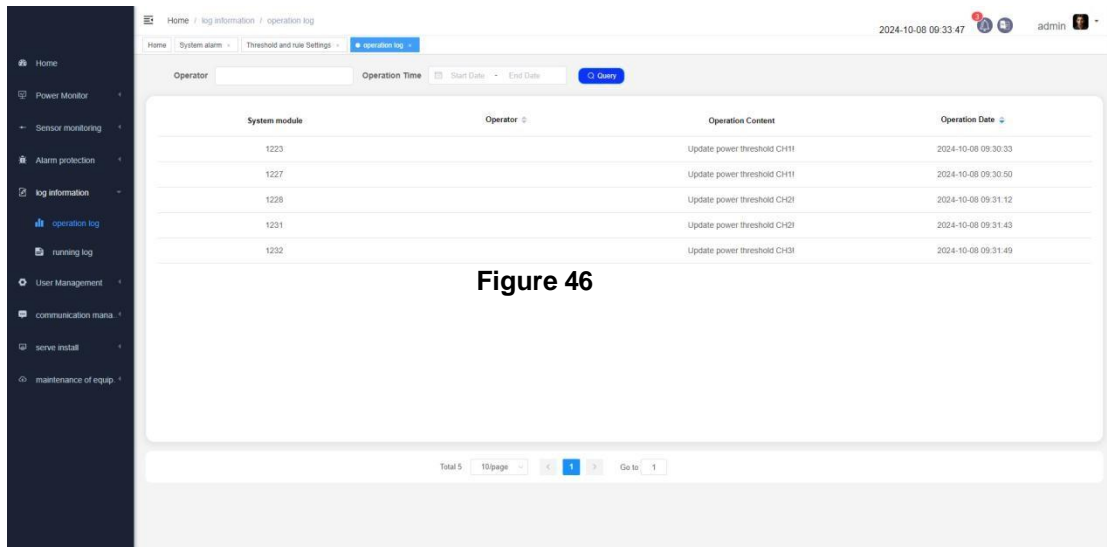


Figure 46

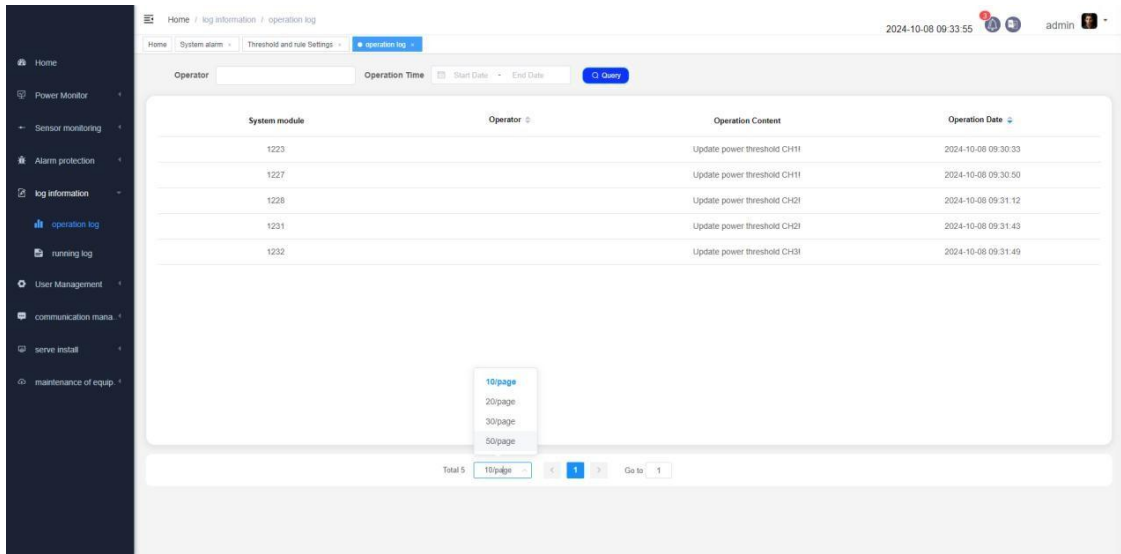


Figure 47

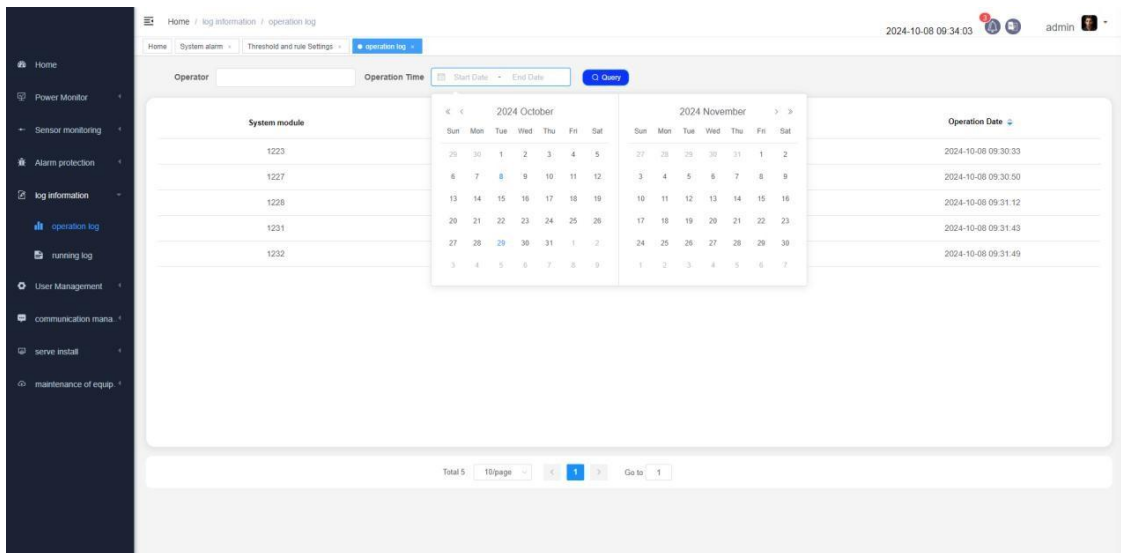
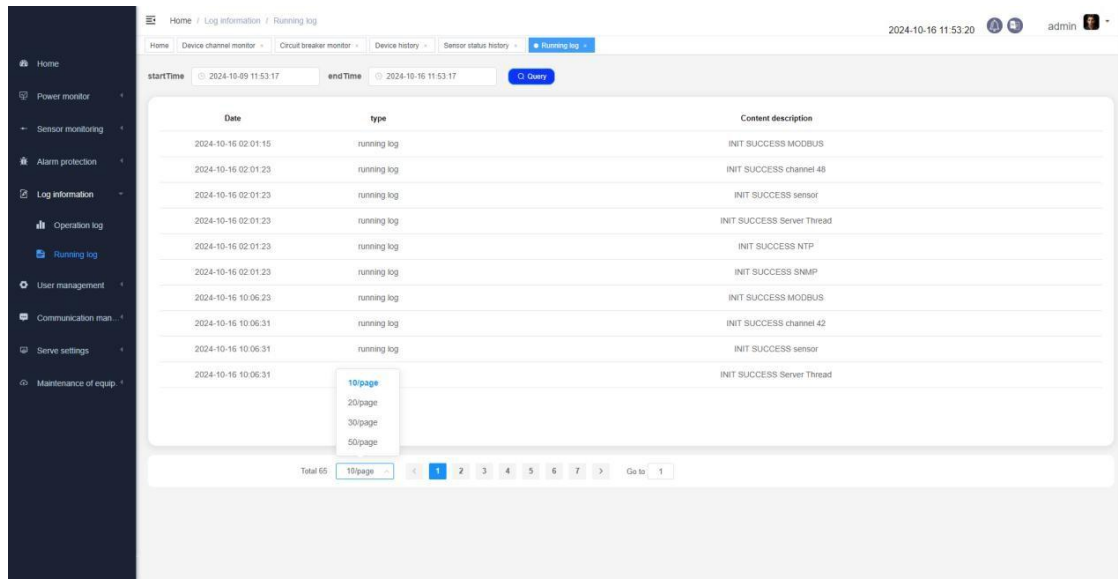


Figure 48

6.2. Operation Log

In the operation log interface, you can view the system operation log, which includes: date, type, content. You can also view the total number, paging, and page turning information of the operation log on this page, such as **Figure 49**, **Figure 50**, and **Figure 51**.

Figure 49



Date	type	Content description
2024-10-16 02:01:15	running log	INIT SUCCESS MODBUS
2024-10-16 02:01:23	running log	INIT SUCCESS channel 48
2024-10-16 02:01:23	running log	INIT SUCCESS sensor
2024-10-16 02:01:23	running log	INIT SUCCESS Server Thread
2024-10-16 02:01:23	running log	INIT SUCCESS NTP
2024-10-16 02:01:23	running log	INIT SUCCESS SNMP
2024-10-16 10:06:23	running log	INIT SUCCESS MODBUS
2024-10-16 10:06:31	running log	INIT SUCCESS channel 42
2024-10-16 10:06:31	running log	INIT SUCCESS sensor
2024-10-16 10:06:31	running log	INIT SUCCESS Server Thread

Figure 50

Home / Log information / Running log 2024-10-16 11:53:31 admin

Home **Running log**

startTime: 2024-10-09 11:53:17 endTime: 2024-10-16 11:53:17 [Query](#)

Date	Content description
2024-10-16 02:01:15	INIT SUCCESS MODBUS
2024-10-16 02:01:23	INIT SUCCESS channel 48
2024-10-16 02:01:23	INIT SUCCESS sensor
2024-10-16 02:01:23	INIT SUCCESS Server Thread
2024-10-16 02:01:23	INIT SUCCESS NTP
2024-10-16 02:01:23	INIT SUCCESS SNMP
2024-10-16 10:06:23	INIT SUCCESS MODBUS
2024-10-16 10:06:31	INIT SUCCESS channel 42
2024-10-16 10:06:31	INIT SUCCESS sensor
2024-10-16 10:06:31	INIT SUCCESS Server Thread

Total 65 15/page 1 2 3 4 5 6 7 Go to 1

Figure 51

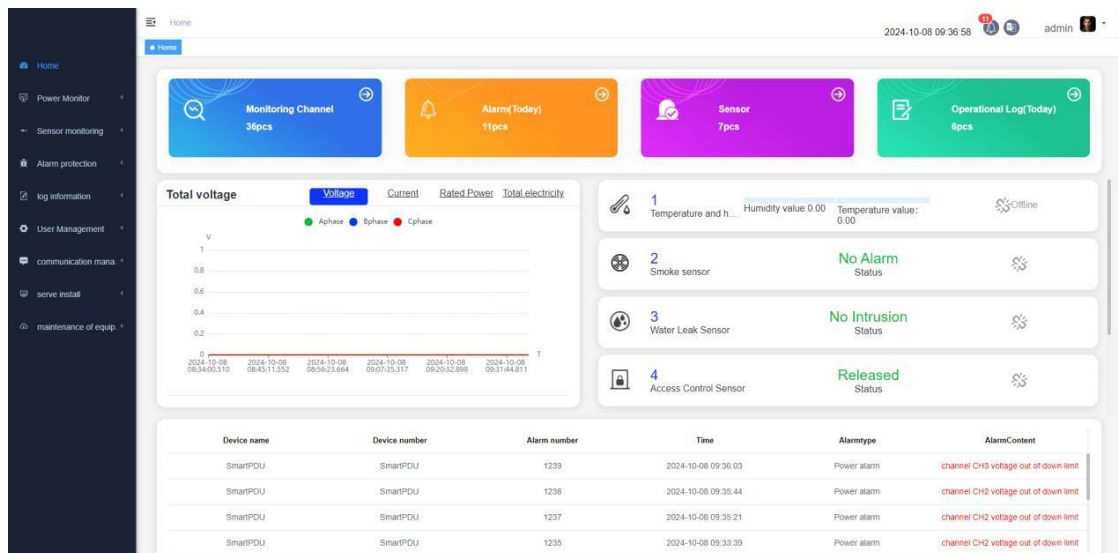
7. User Management

7.1. User Management

7.1.1. User Permission Level

The current user permission levels are divided into timeout administrator, administrator, and user; different levels of permissions have different web-based content that can be viewed. Super administrators have the operation rights of all pages; users only have the operation rights of the three pages of overall status monitoring, channel status monitoring, and sensor status monitoring, such as **Figure 52** and **Figure 53**; administrators have the operation rights of 11 pages including overall status monitoring, channel status monitoring, power history, sensor status monitoring, system alarms, threshold and rule settings, operation logs, user management, NTP settings, device restart, and about devices, such as Figure 54.

Figure 52



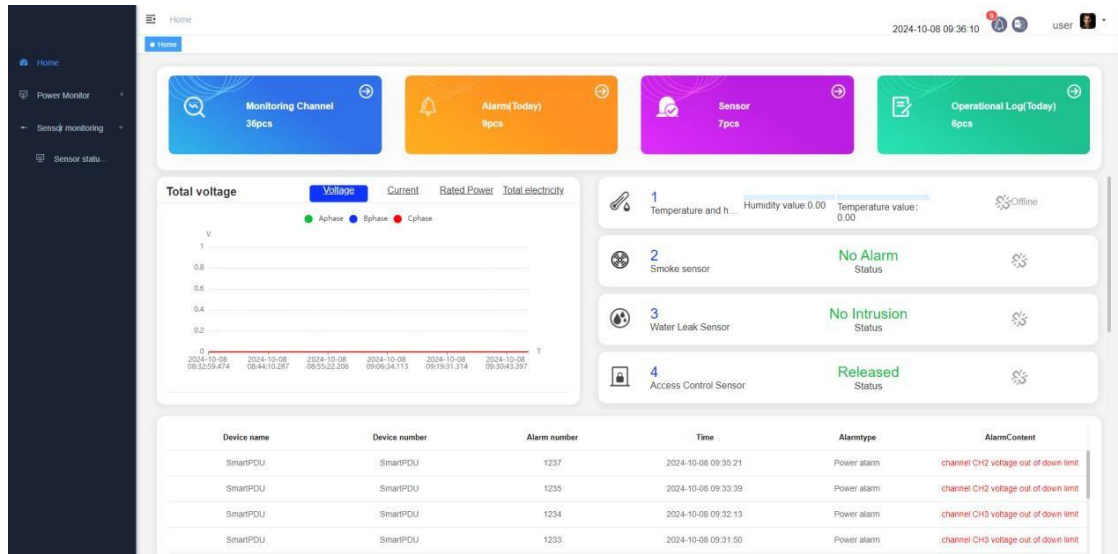


Figure 53

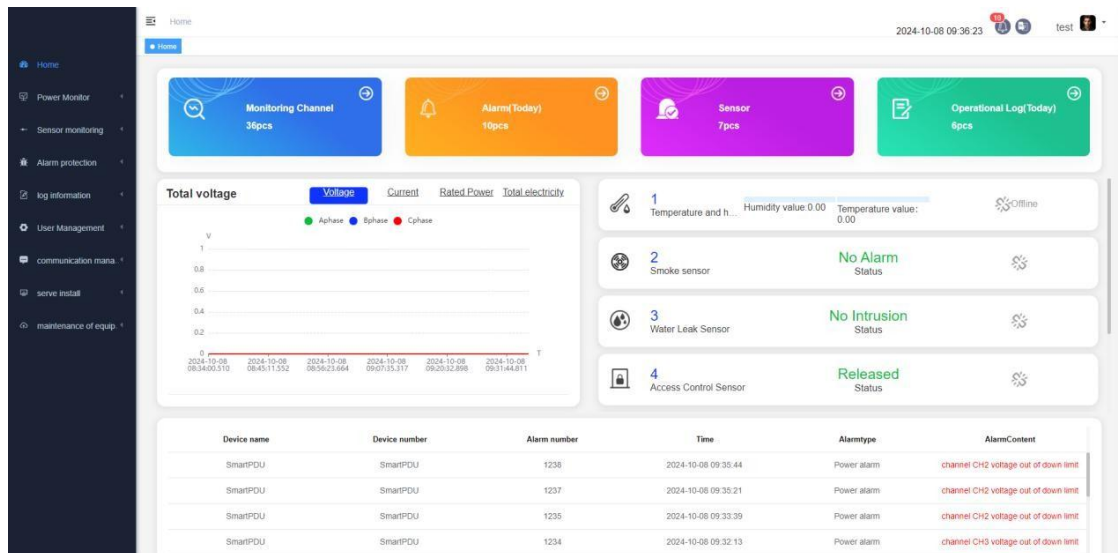


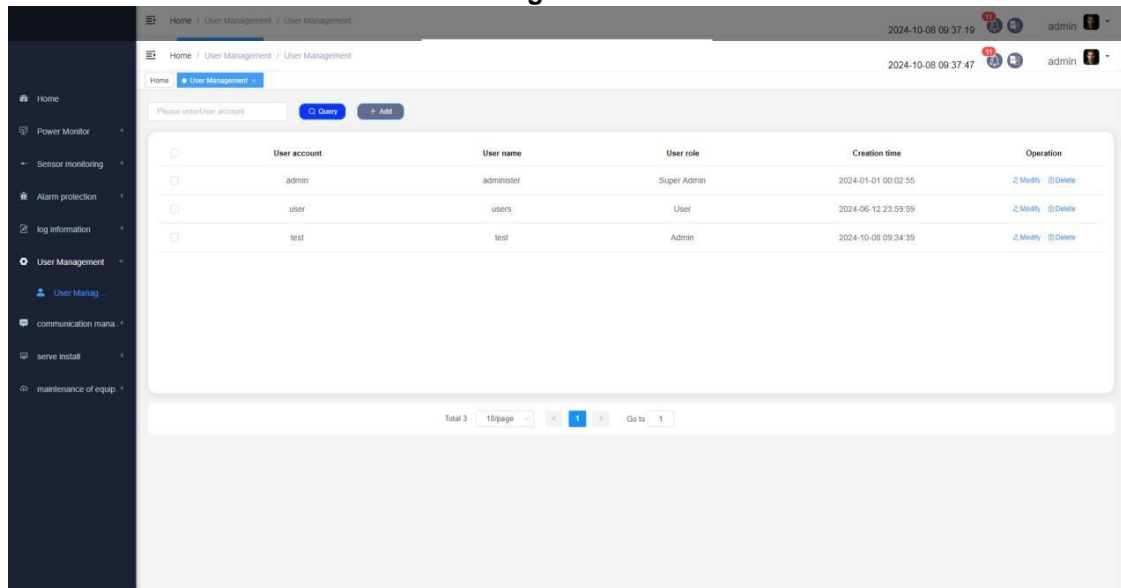
Figure 54

7.1.2. User Information Operation

In user management, you can add new user information. If the current login is a super administrator account, you can add the account information of super administrator, administrator, and ordinary user, such as **Figure 55** and **Figure 56**; if the current login is an administrator

account, you can add the account information of administrator and ordinary user, such as **Figure 57** and **Figure 58**;

Figure 55



The screenshot shows the 'User Management' page in the YURRO system. It features a dark sidebar on the left with navigation options like 'Home', 'Power Monitor', 'Sensor monitoring', 'Alarm protection', 'log information', 'User Management', 'communication mana.', 'serve install', and 'maintenance of equip.'. The main content area has a breadcrumb trail 'Home / User Management / User Management' and a search bar with 'Query' and 'Add' buttons. Below this is a table with the following data:

<input type="checkbox"/>	User account	User name	User role	Creation time	Operation
<input type="checkbox"/>	admin	administer	Super Admin	2024-01-01 00:02:55	Modify Delete
<input type="checkbox"/>	user	users	User	2024-06-12 23:59:59	Modify Delete
<input type="checkbox"/>	test	test	Admin	2024-10-08 09:34:39	Modify Delete

At the bottom of the table, there is a pagination control showing 'Total 3', '10/page', and 'Go to 1'.

Figure 56

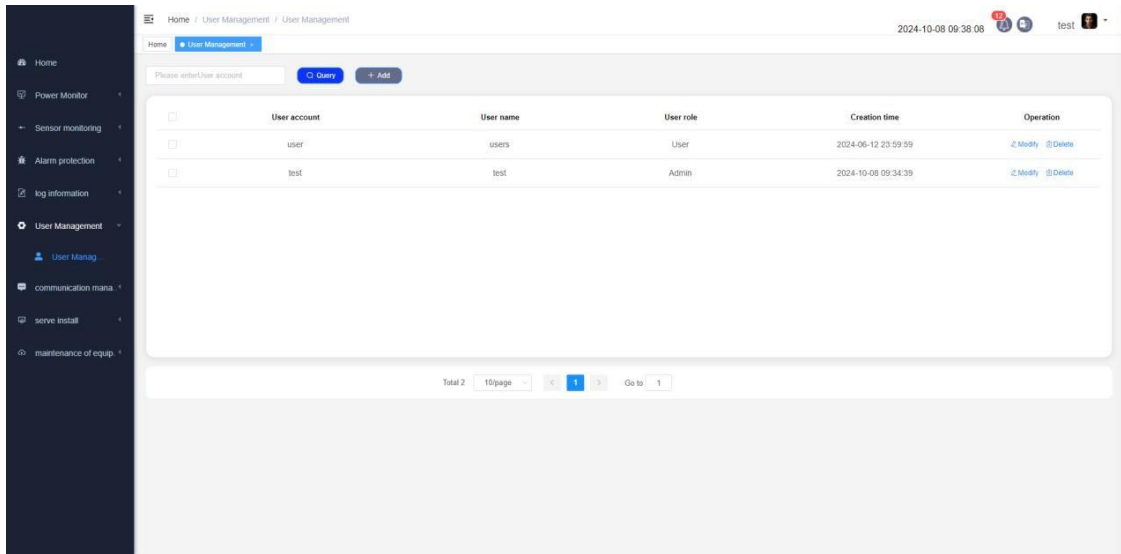


Figure 57

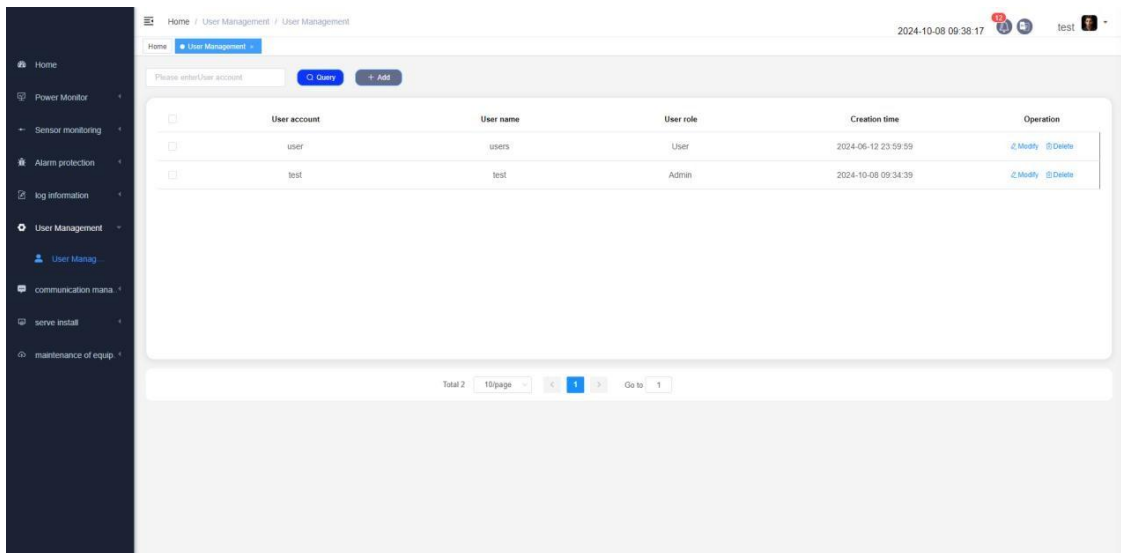
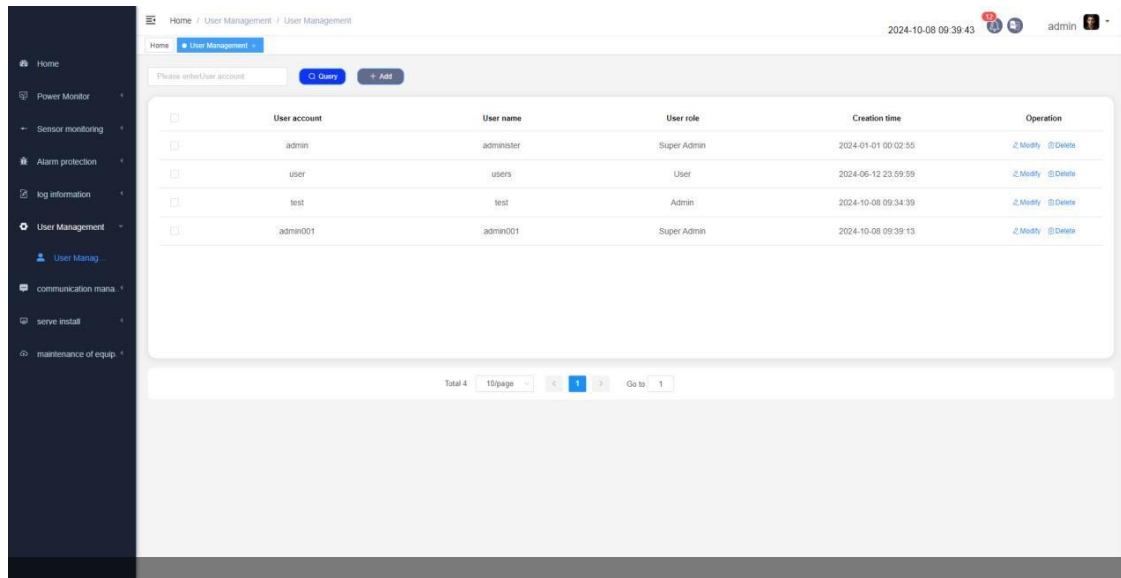


Figure 58

In the user management interface, you can also change the user information - user name, role permissions, password, as shown in **Figure 59** and **Figure 60**; you can also delete the user account information, such as **Figure 61** and **Figure 62**.

Figure 59



The screenshot shows the 'User Management' interface. On the left is a dark sidebar with navigation options: Home, Power Monitor, Sensor monitoring, Alarm protection, Log information, User Management (selected), User Manag, communication mana, serve install, and maintenance of equip. The main content area has a breadcrumb trail: Home / User Management / User Management. The top right shows the date and time '2024-10-08 09:39:43' and the user 'admin'. Below the breadcrumb is a search bar with the text 'Please enter user account' and buttons for 'Query' and 'Add'. The main area contains a table with the following data:

<input type="checkbox"/>	User account	User name	User role	Creation time	Operation
<input type="checkbox"/>	admin	administrator	Super Admin	2024-01-01 00:02:55	Modify Delete
<input type="checkbox"/>	user	users	User	2024-06-12 23:29:59	Modify Delete
<input type="checkbox"/>	test	test	Admin	2024-10-08 09:34:39	Modify Delete
<input type="checkbox"/>	admin001	admin001	Super Admin	2024-10-08 09:39:13	Modify Delete

At the bottom of the table, there is a pagination control showing 'Total 4', '10/page', and 'Go to 1'.

Figure 60

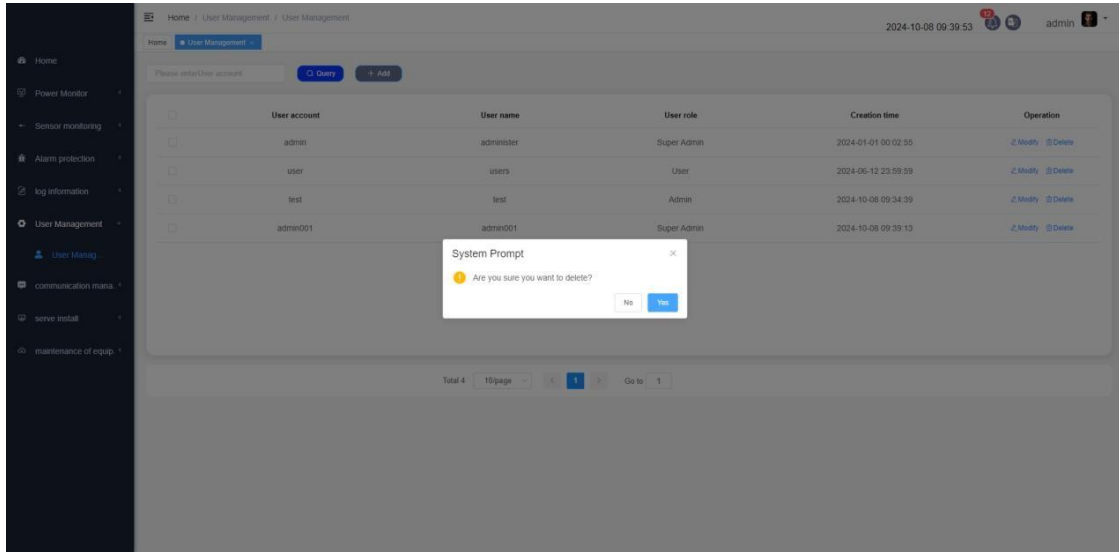


Figure 61

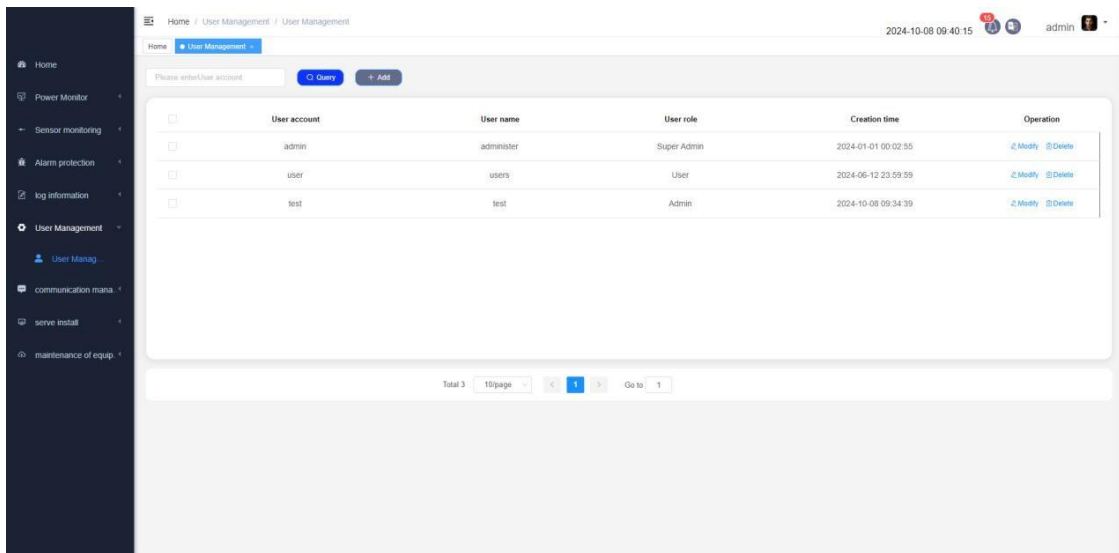


Figure 62

8. Communication Management

8.1. Network Port Settings

In the network port settings interface, you can manually/automatically configure the device's IPV4 information, such as Figure 63; in the network port device interface, after selecting manual configuration, enter the IP address, subnet mask, and gateway information in the IP address, subnet

mask, and gateway input fields, and click Success to complete the setting, such as Figure 64. If the current device network is DHCP, the selected mode will become automatic. Currently, only the automatic mode of IPV4 is supported, such as **Figure 65**.

Figure 63

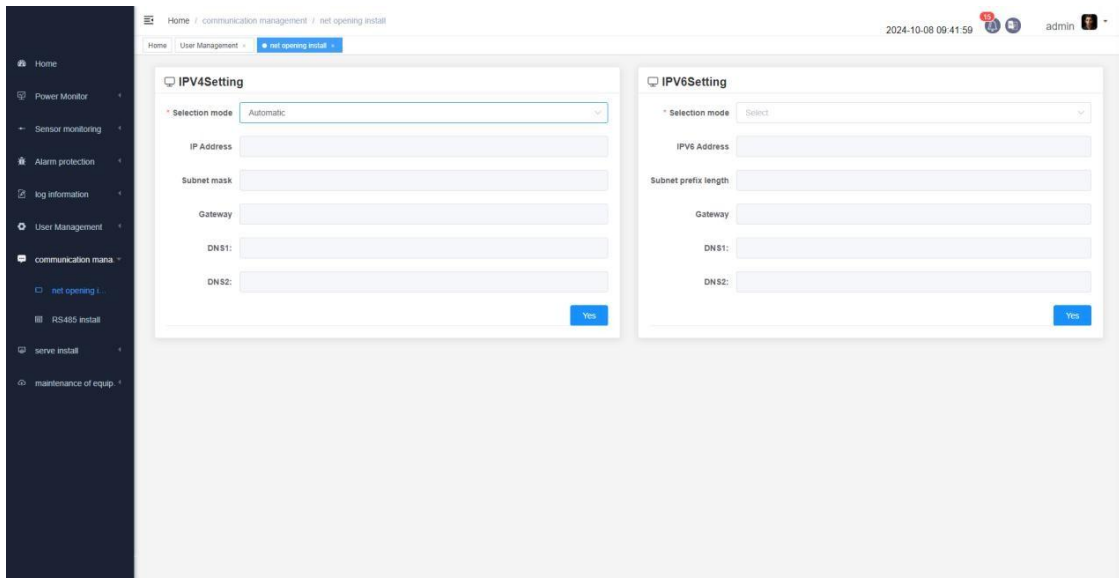


Figure 64

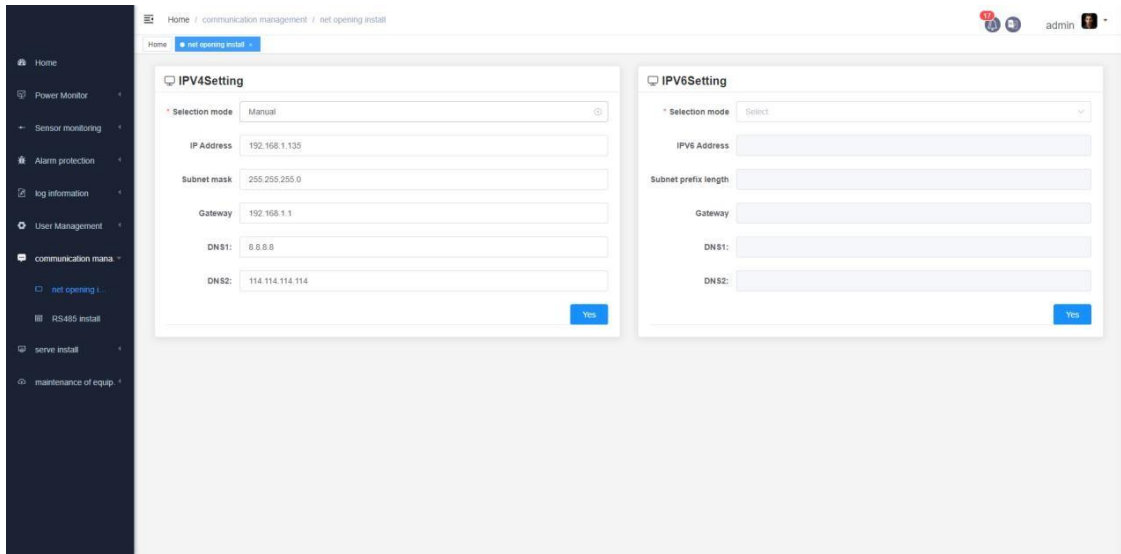
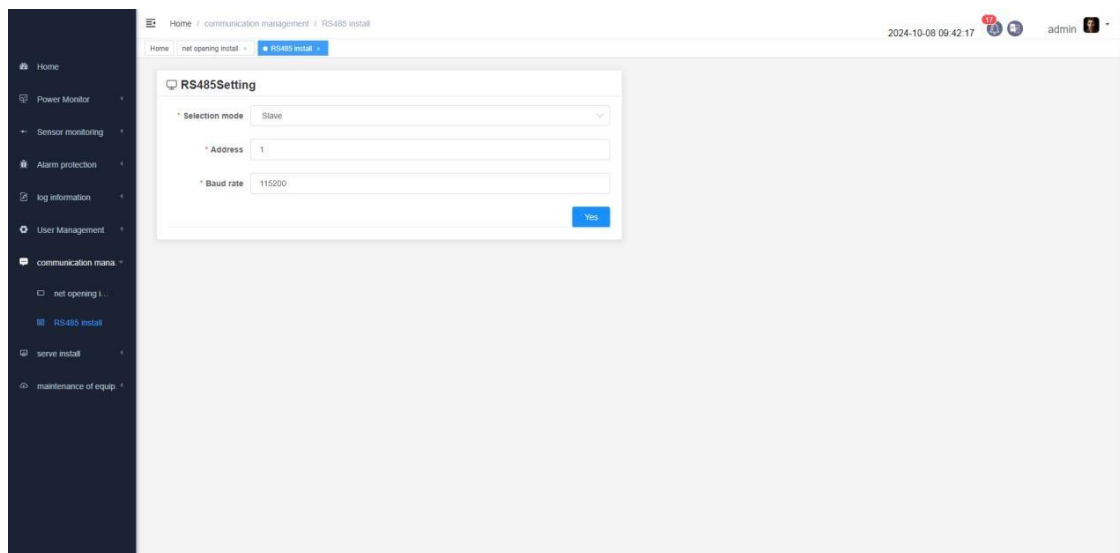


Figure 65

8.2. RS485 Settings

The RS485 settings interface is used for cascading between core boards; the configuration of the master device is -- select mode: host (when cascading core boards, there can only be one host. If multiple hosts are configured, these hosts cannot detect each other), address: 1, baud rate: 115200; the configuration of the slave device is: select mode: slave, address: 1 (the maximum configured address is 32, but if multiple headers are cascaded, the address must be unique), baud rate: 115200, such as **Figure 66**, **Figure 67**.

Figure 66



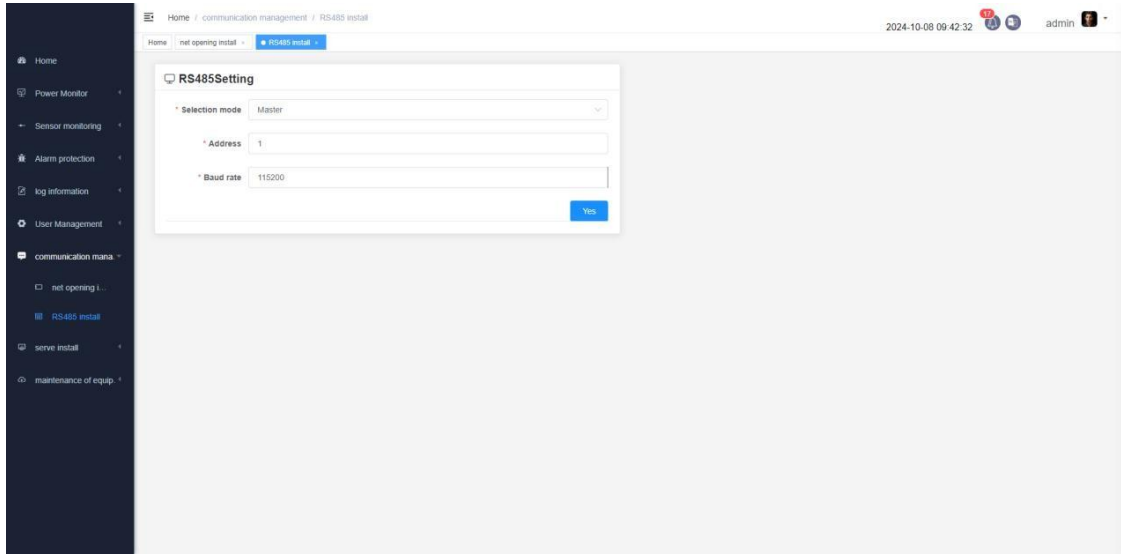


Figure 67

9. Service Management

9.1. SMTP Settings

9.1.1. SMTP Push Account Configuration

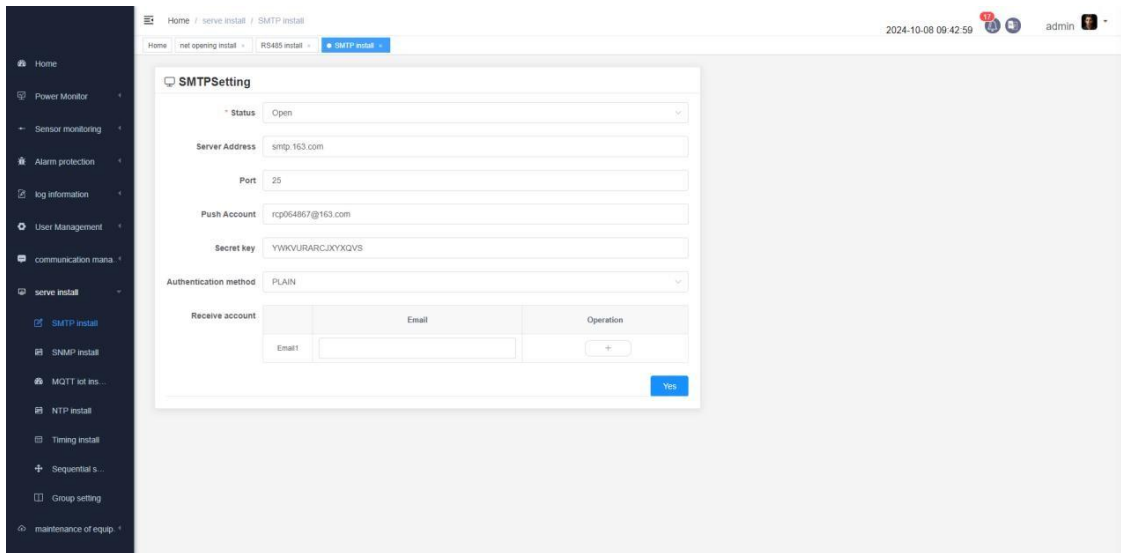
In the SMTP settings interface, you can set the mailbox to which the alarm information is pushed after the system alarm. After SMTP is turned on, you can configure the detailed information of the SMTP push account.

When configuring the SMTP push account, the mailbox must have the SMTP service turned on and the authorization key can be viewed, such as **Figure 68**.

- (1): Server domain name/address: The domain name/address of the SMTP service of each mailbox system
- (2): Port: The port of the SMTP service of QQ, sina, and 163 mailboxes is 25 (unencrypted)
- (3): Push account: Registered mailbox account
- (4): Password: The authorization code for the mailbox to turn on the SMTP service
- (5): Authentication method: Currently only PLAIN is supported
- (6) Push account: The push mailbox currently only supports domestic QQ, 163, sina and other mailboxes, and the push mailbox must be set to turn on SMTP and obtain the authorization key in the mailbox settings interface before it can be used as the push mailbox (see also for the steps to turn on the SMTP service of the mailbox).

(7) Receiving account: The receiving mailbox currently supports domestic QQ, 163, sina and other mailboxes, and foreign mailboxes such as outlook, hotmail, and Gmail (when pushing emails domestically, there will be a delay in receiving due to problems with the Gmail mailbox).

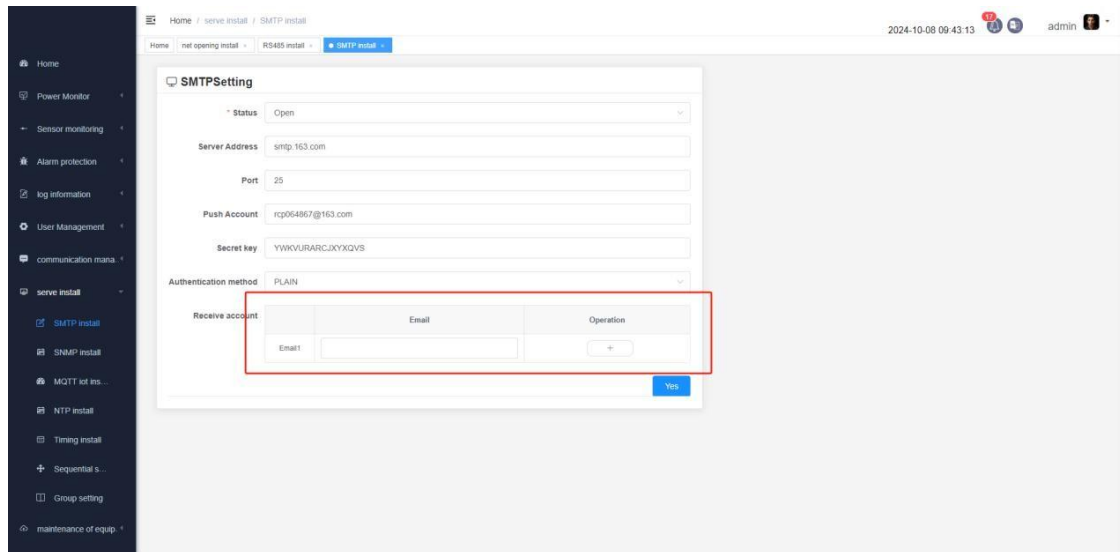
Figure 68



9.1.2. SMTP Receiving Account Configuration

After the SMTP service is enabled, if no receiving account is set, the alarm email cannot be sent after an alarm occurs. If a receiving account is added in the SMTP setting interface, when the device generates an alarm, the added email account can receive the alarm information email. The alarm email has nine types of alarms: current exceeds upper limit, voltage exceeds lower limit, voltage exceeds upper limit, power exceeds upper limit, power consumption exceeds upper limit, temperature exceeds lower limit, temperature exceeds upper limit, humidity exceeds lower limit, and humidity exceeds upper limit, such as **Figure 69**, **Figure 70**, and **Figure 71**.

Figure 69



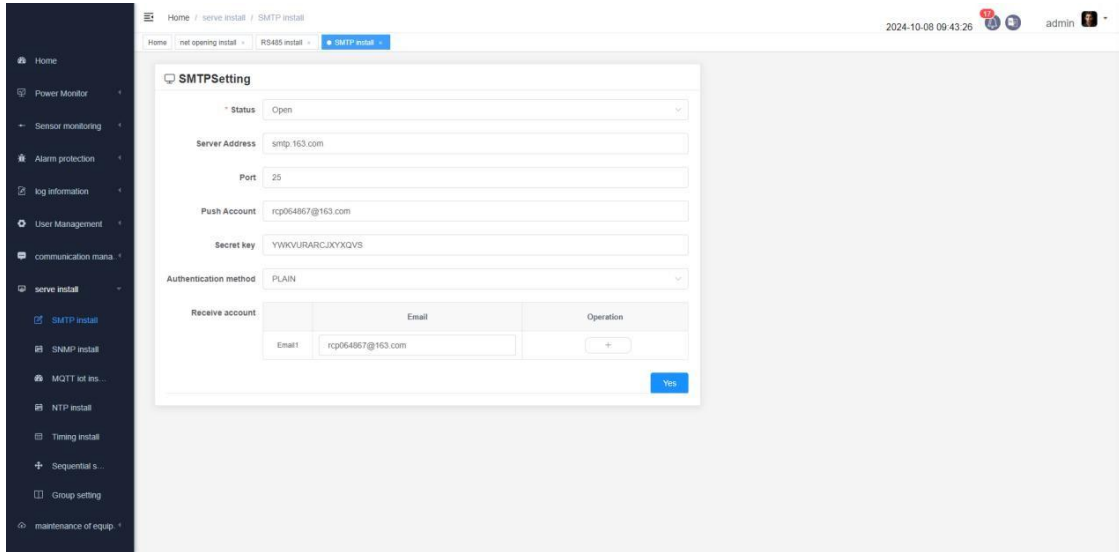


Figure 70

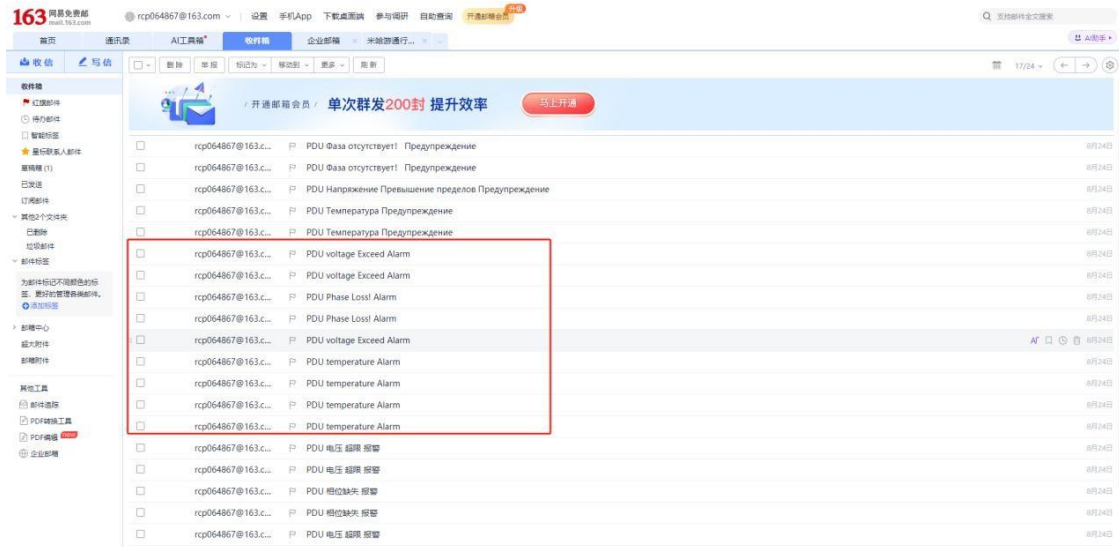


Figure 71

9.2. SNMP Settings

9.2.1. SNMP V2c

The SNMP status in the SNMP settings interface is enabled by default, and the protocol version is V2c. Use the SNMP test tool to select SNMP V2c and enter the OID of the SNMP access device name:

1.3.6.1.4.1.2024.1.1.2.0. Click Get to get the device name through the OID, such as **Figure 72** and **Figure 73**.

Figure 72

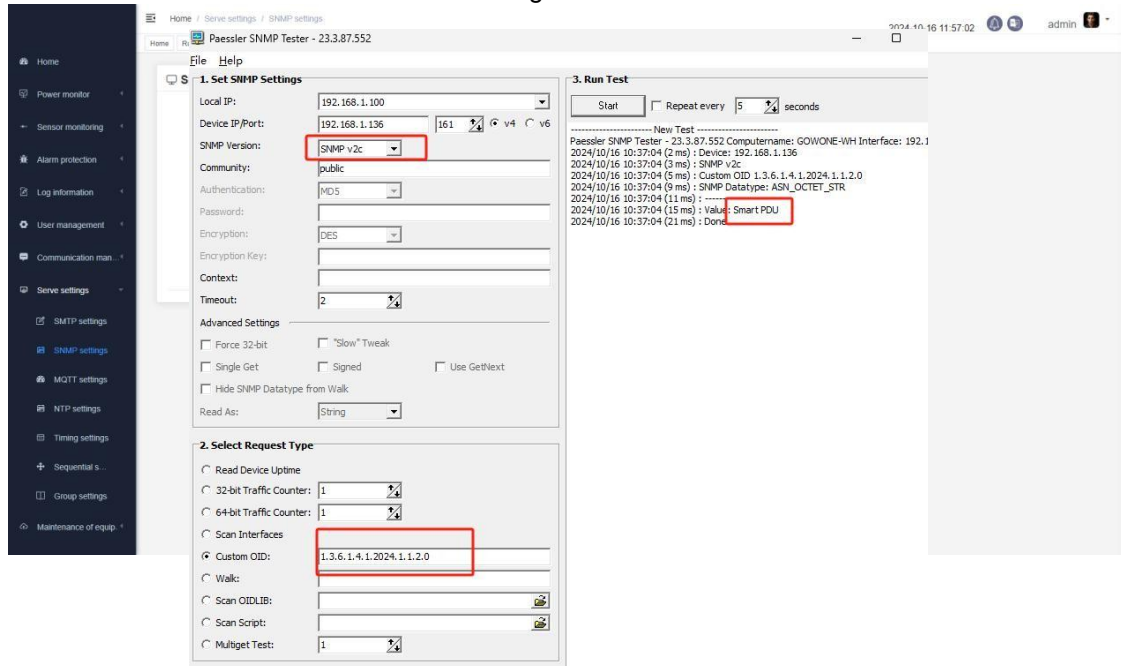


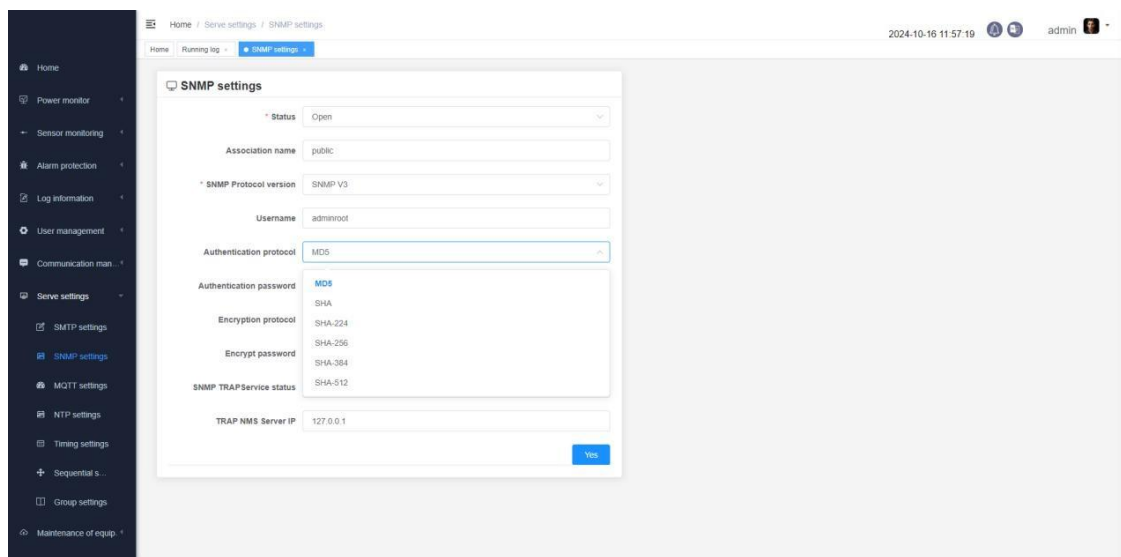
Figure 73

9.2.2. SNMP V3

The SNMP status in the SNMP setting interface is enabled by default. Select V3 as the protocol version, enter the user name (e.g. adminroot),

select MD5, SHA, SHA-224, SHA-256, SHA-384, SHA-512 as the authentication protocol and enter the authentication password; select DES or AES as the encryption protocol and enter the encryption password; use the SNMP test tool again to select SNMP V3, enter the user name, authentication protocol, authentication password, encryption protocol, encryption password entered in the SNMP setting interface, and SNMP OID: 1.3.6.1.4.1.2024.1.1.2.0 (the authentication protocol, authentication password, encryption protocol, and encryption password are consistent with the parameters configured in the Web setting), click Get, and you can get the device name through the OID, such as **Figure 74, Figure 75, and Figure 76.**

Figure 74



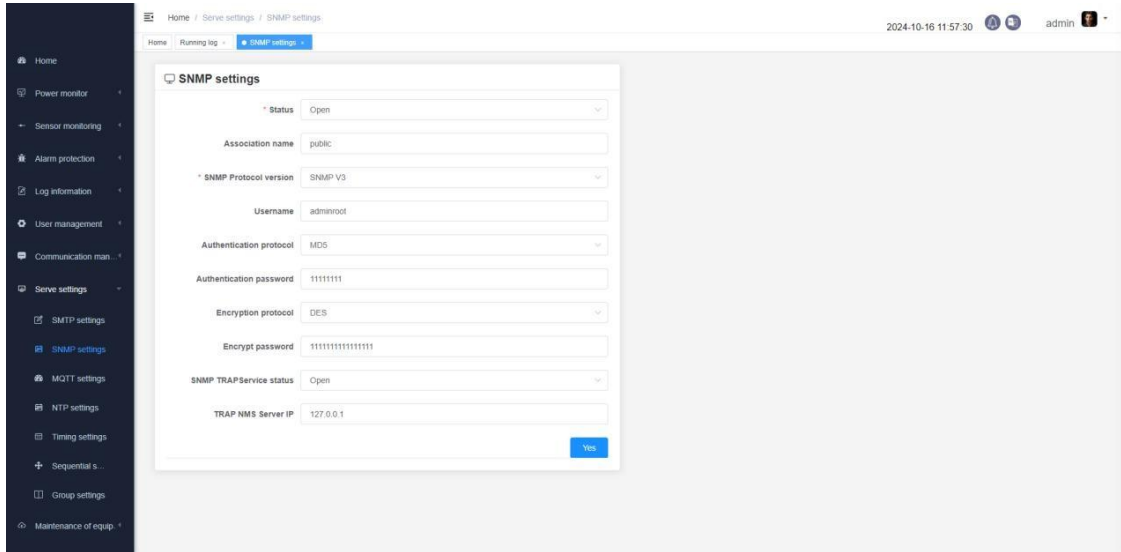


Figure 75

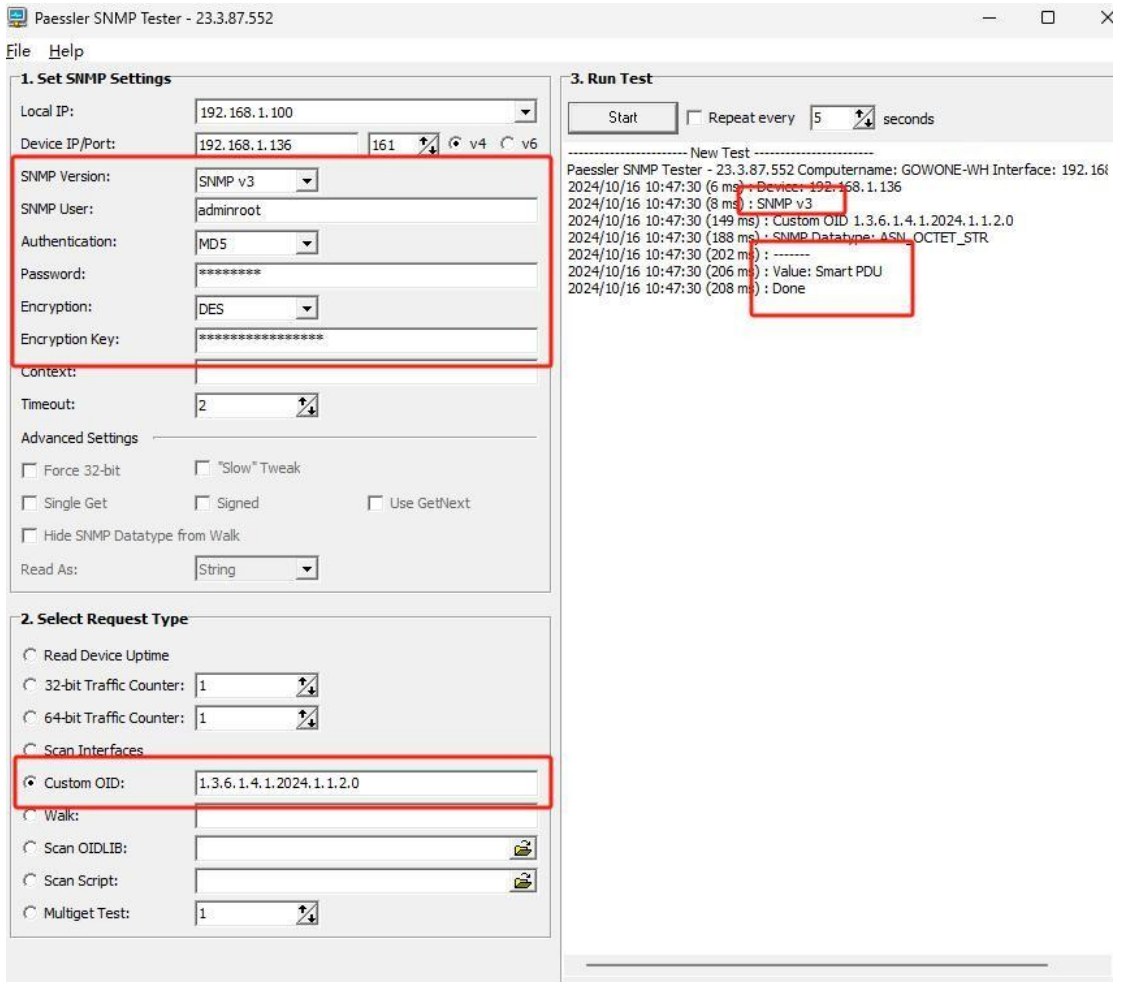


Figure 76

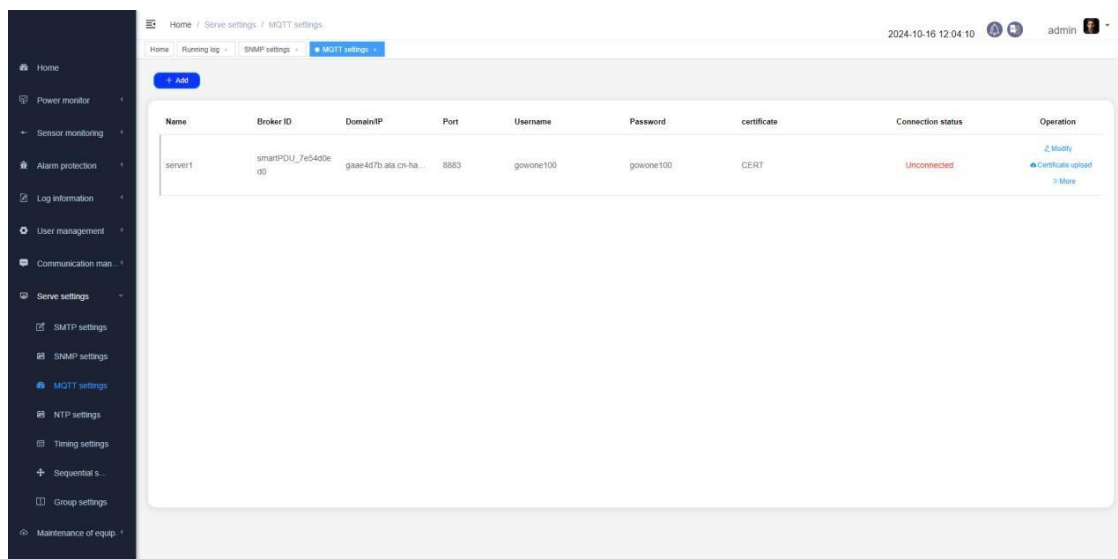
9.3. MQTT IoT Settings

Currently, MQTT only supports emqx service and does not support overseas connections

9.3.1. Enable MQTT Service

In the MQTT IoT settings interface, an emqx service is enabled by default. In the "More" drop-down list, click Enable to enable the MQTT service, such as **Figure 77, Figure 78, Figure 79.**

Figure 77



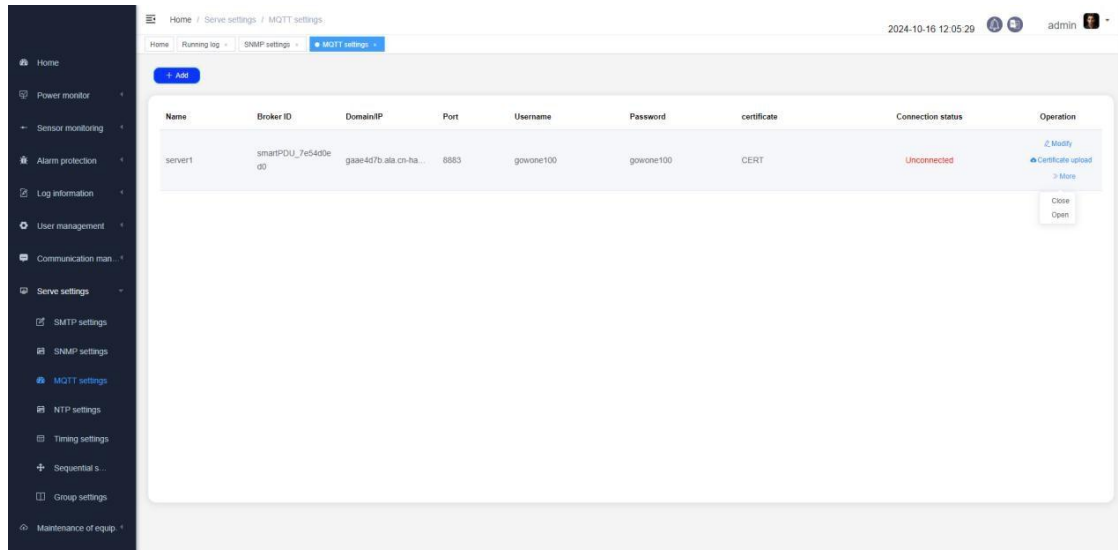


Figure 78

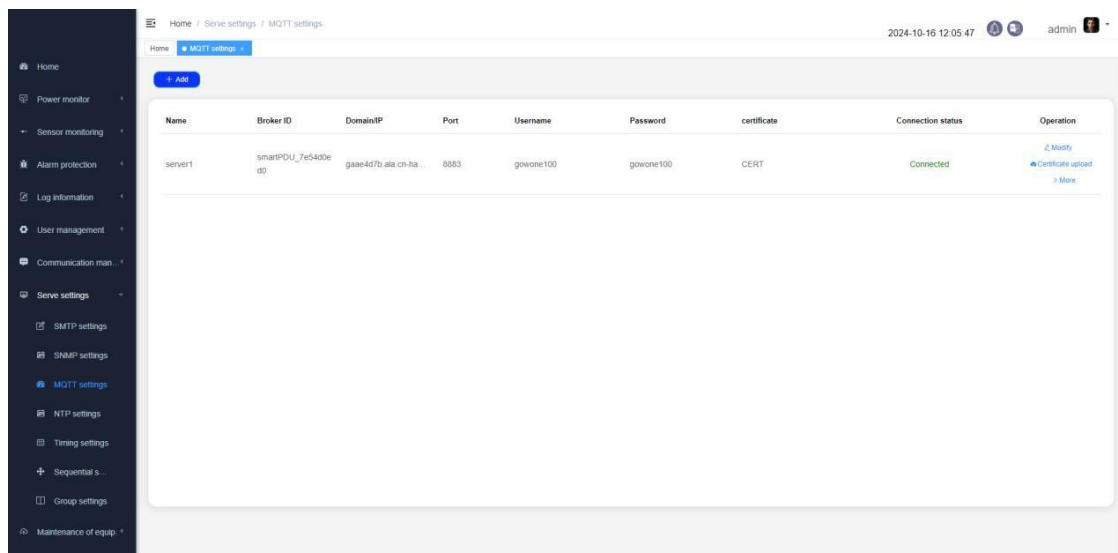


Figure 79

9.3.2. Use third-party Software To connect To MQTT Service

After the MQTT IoT service is enabled, you can use the MQTXX software to test the MQTT service. Click "+" and select "New Connection". Enter the data in the editing interface (name, Client ID, server address, port, user name, password are consistent with the background MQTT service

configuration information) and click the connect button to connect to the MQTT service, such as **Figure 80**, **Figure 81**, and **Figure 82**.

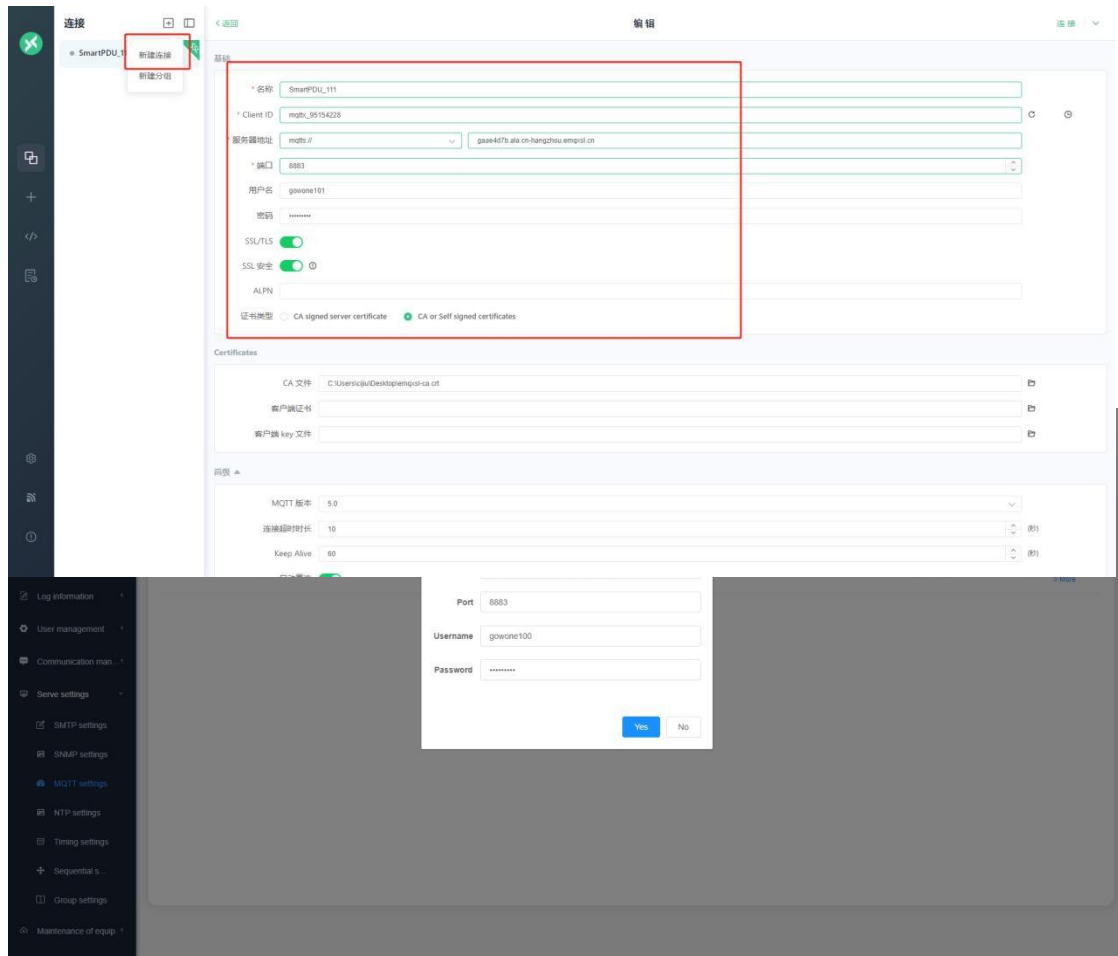


Figure 81

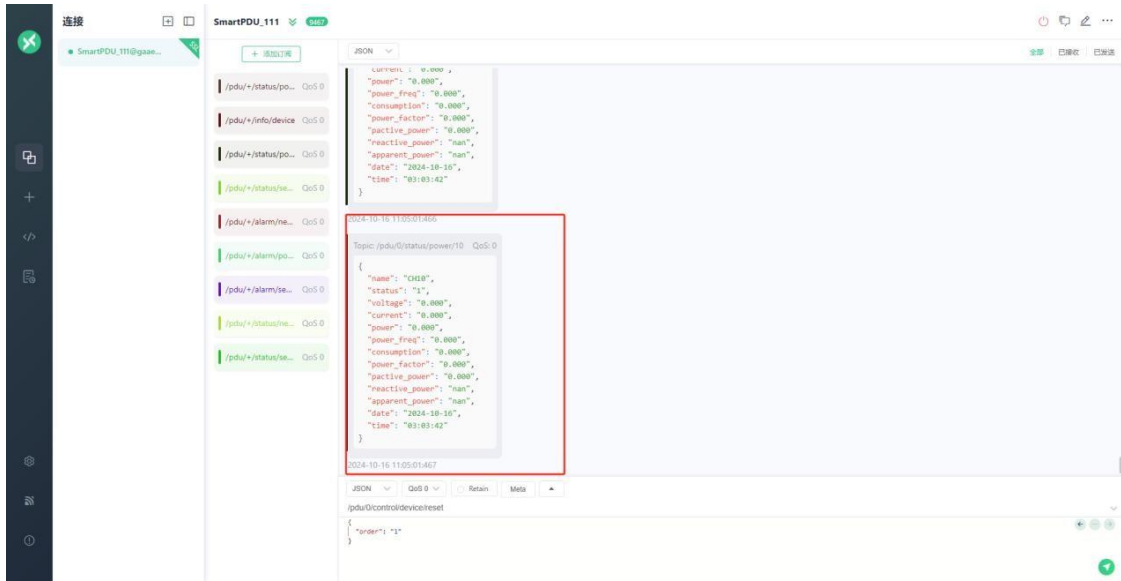
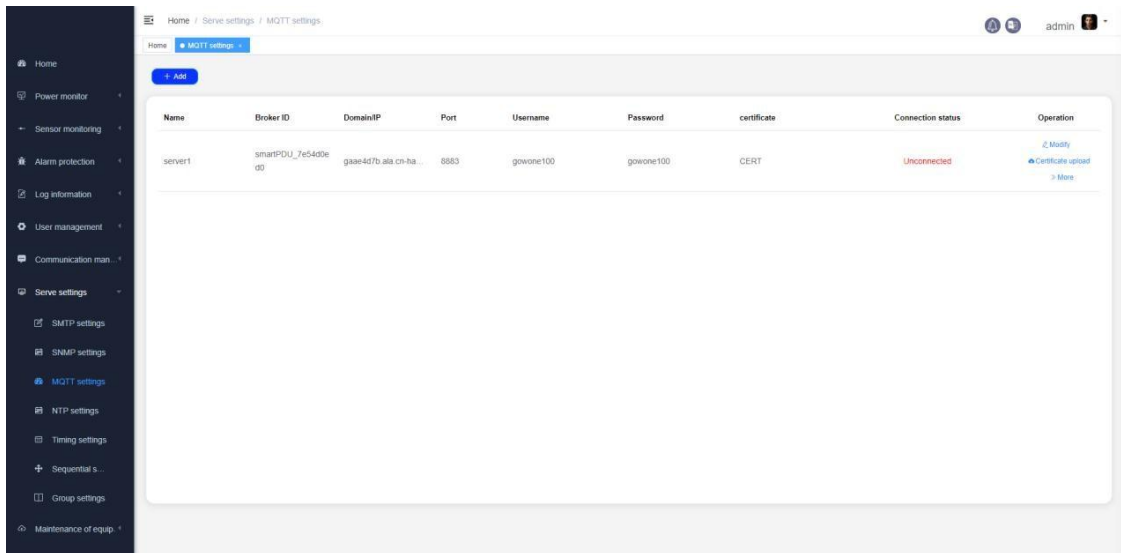


Figure 82

9.3.3. Turn off The MQTT Service

In the MQTT IoT settings interface, in the "More" drop-down list, click Turn off to turn off the MQTT service. The connection status of the interface will become "Not Connected", such as **Figure 83**.

Figure 83



9.4. NTP Settings

In the NTP settings interface, you can set the system time. After clicking to select this moment in the date column, the current time will be automatically displayed. After clicking OK, the system time setting will be completed, such as **Figure 84** and **Figure 85**.

Figure 84

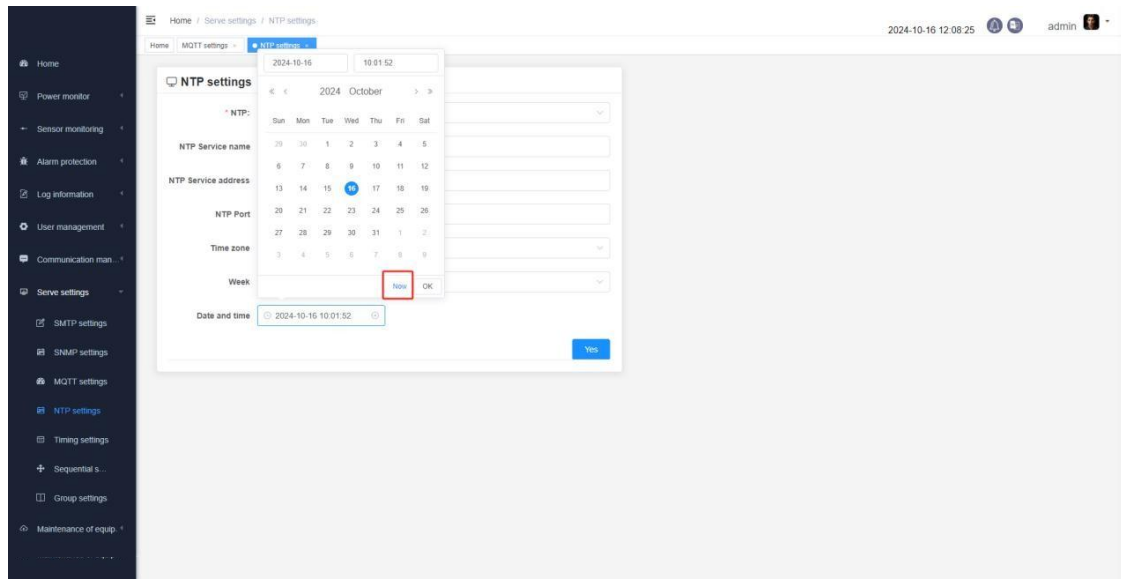


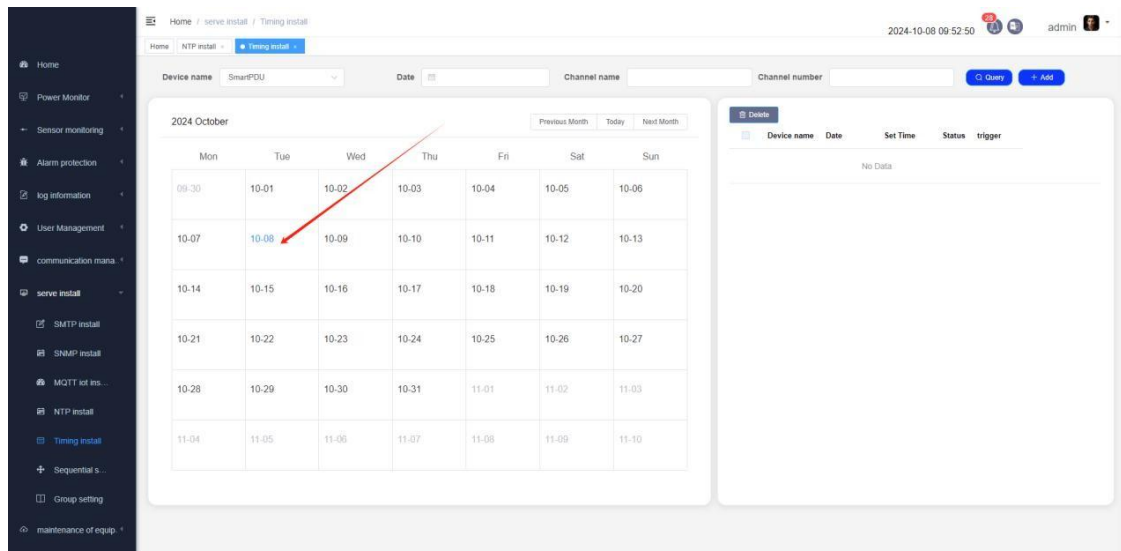
Figure 85

9.5. Timing Settings

9.5.1. Adding A Scheduled Task

Enter the timing settings interface, click the Add button or click a date in the calendar, such as **Figure 86** and **Figure 87**, to enter the scheduled task adding interface; in the adding interface, you can select the control panel channel to execute the scheduled task, the channel status, the start date, the end date, and the specific execution time of the task, such as Figure 88 and Figure 89; click OK to successfully generate the scheduled task, and the trigger status is not triggered, such as **Figure 90**.

Figure 86



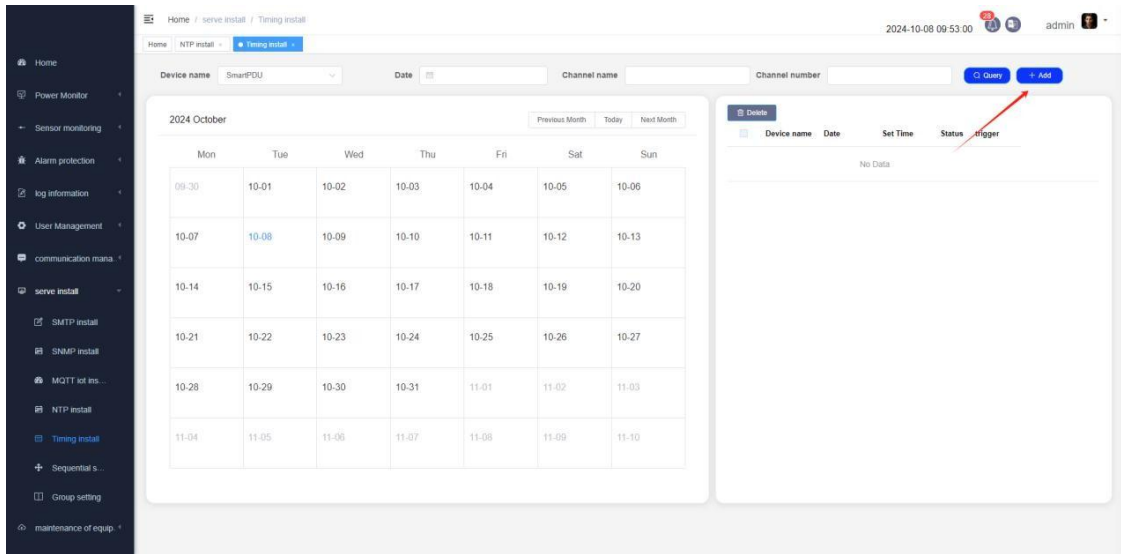


Figure 87

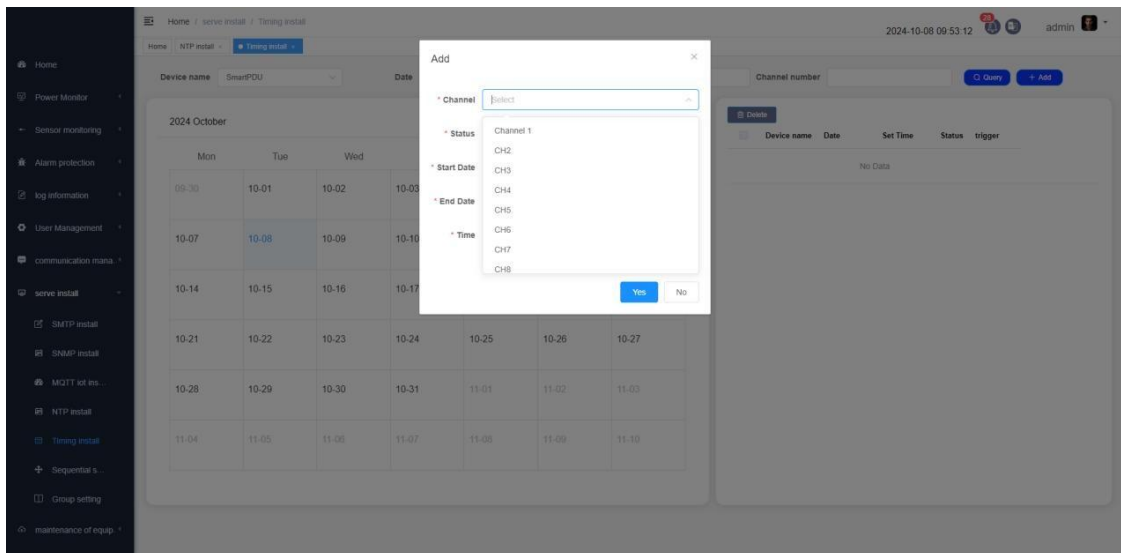


Figure 88

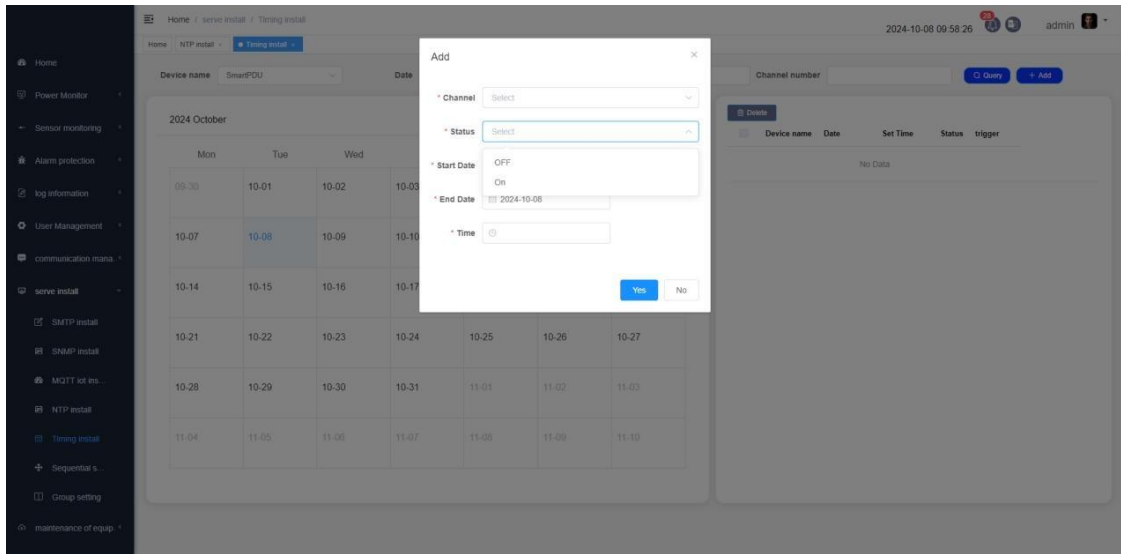


Figure 89

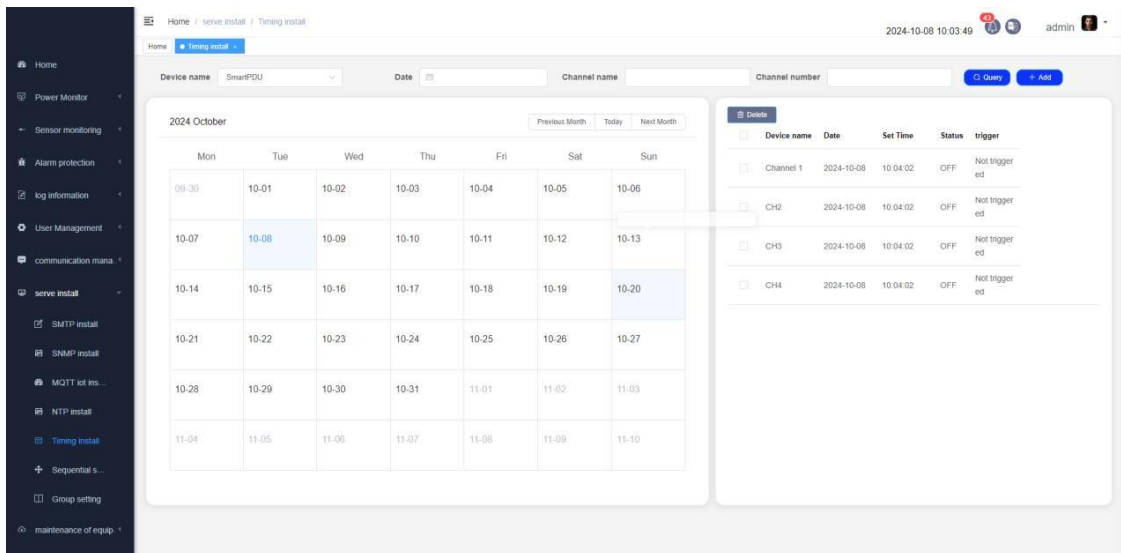


Figure 90

When the newly added scheduled task is triggered, the channel is automatically closed and the trigger status changes to Triggered, such as Figure 91.

The screenshot displays the 'Timing install' configuration page in the YURRO Rack PDU Solution web interface. The page includes a sidebar with navigation options such as 'Home', 'Power Monitor', 'Sensor monitoring', 'Alarm protection', 'Log information', 'User Management', 'communication mana', 'serve install', 'SMTP install', 'SNMP install', 'MQTT int. ins...', 'NTP install', 'Timing install', 'Sequential s...', 'Group setting', and 'maintenance of equip.'. The main content area features a calendar for '2024 October' and a table of triggered events. The table has columns for 'Device name', 'Date', 'Set Time', 'Status', and 'trigger'. A red box highlights the 'trigger' column, which shows 'Triggered' for all listed channels.

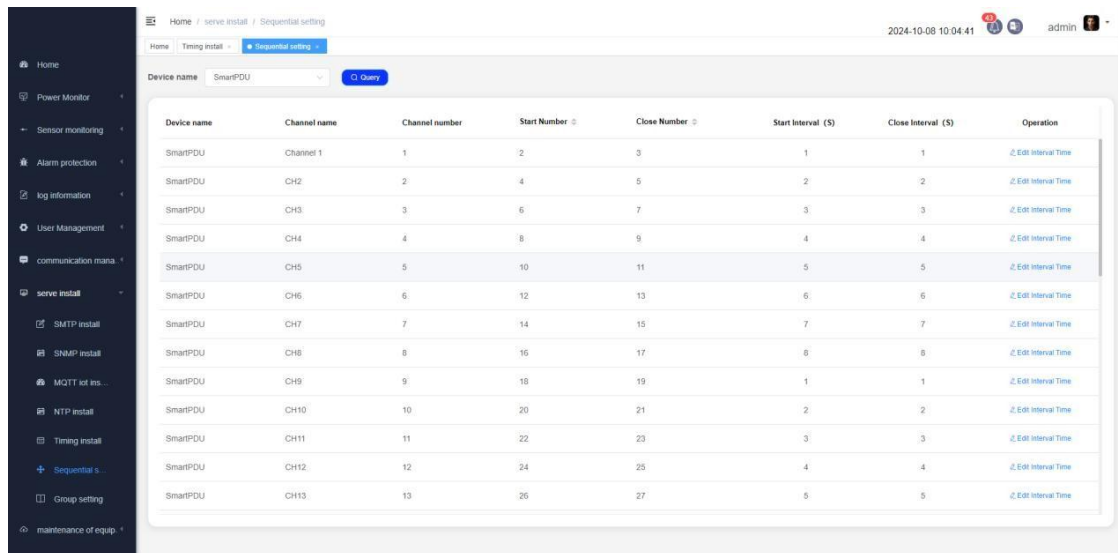
Device name	Date	Set Time	Status	trigger
Channel 1	2024-10-08	10:04:02	OFF	Triggered
CH2	2024-10-08	10:04:02	OFF	Triggered
CH3	2024-10-08	10:04:02	OFF	Triggered
CH4	2024-10-08	10:04:02	OFF	Triggered

Figure 91

9.6. Timing Setting

The timing setting can set the opening and closing time sequence of all control panel channels connected to the PDU, such as **Figure 92**; click "Edit Interval Time" to enter the configuration interface, where you can set the channel opening and closing time, such as **Figure 93**, **Figure 94**; click OK to successfully set the channel opening and closing time. The channel opening and closing time of the timing setting and channel status monitoring is the configured time, such as **Figure 95**, **Figure 96**.

Figure 92



Device name	Channel name	Channel number	Start Number	Close Number	Start Interval (S)	Close Interval (S)	Operation
SmartPDU	Channel 1	1	2	3	1	1	Edit Interval Time
SmartPDU	CH2	2	4	5	2	2	Edit Interval Time
SmartPDU	CH3	3	6	7	3	3	Edit Interval Time
SmartPDU	CH4	4	8	9	4	4	Edit Interval Time
SmartPDU	CH5	5	10	11	5	5	Edit Interval Time
SmartPDU	CH6	6	12	13	6	6	Edit Interval Time
SmartPDU	CH7	7	14	15	7	7	Edit Interval Time
SmartPDU	CH8	8	16	17	8	8	Edit Interval Time
SmartPDU	CH9	9	18	19	1	1	Edit Interval Time
SmartPDU	CH10	10	20	21	2	2	Edit Interval Time
SmartPDU	CH11	11	22	23	3	3	Edit Interval Time
SmartPDU	CH12	12	24	25	4	4	Edit Interval Time
SmartPDU	CH13	13	26	27	5	5	Edit Interval Time

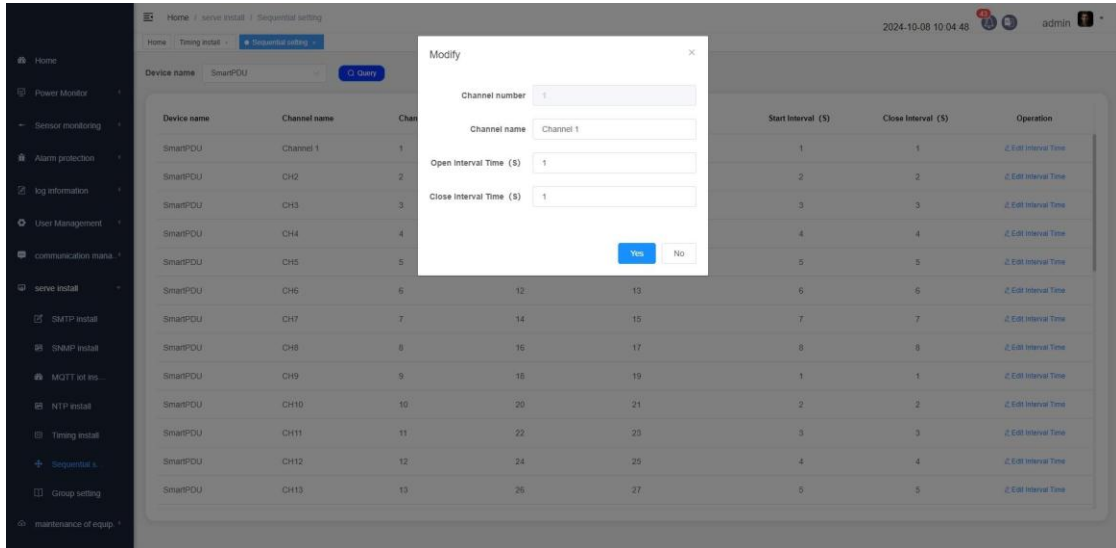


Figure 93

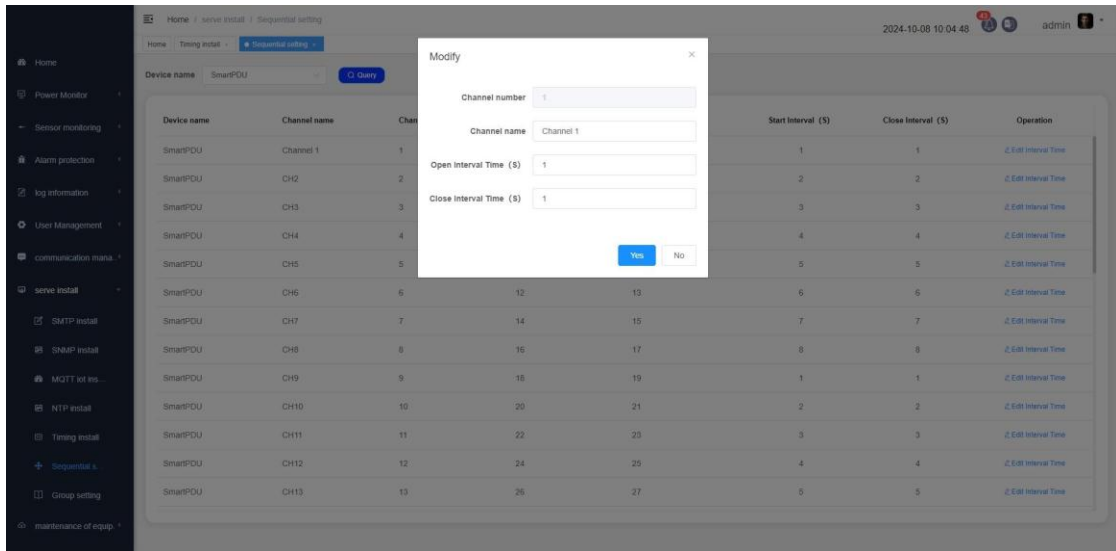
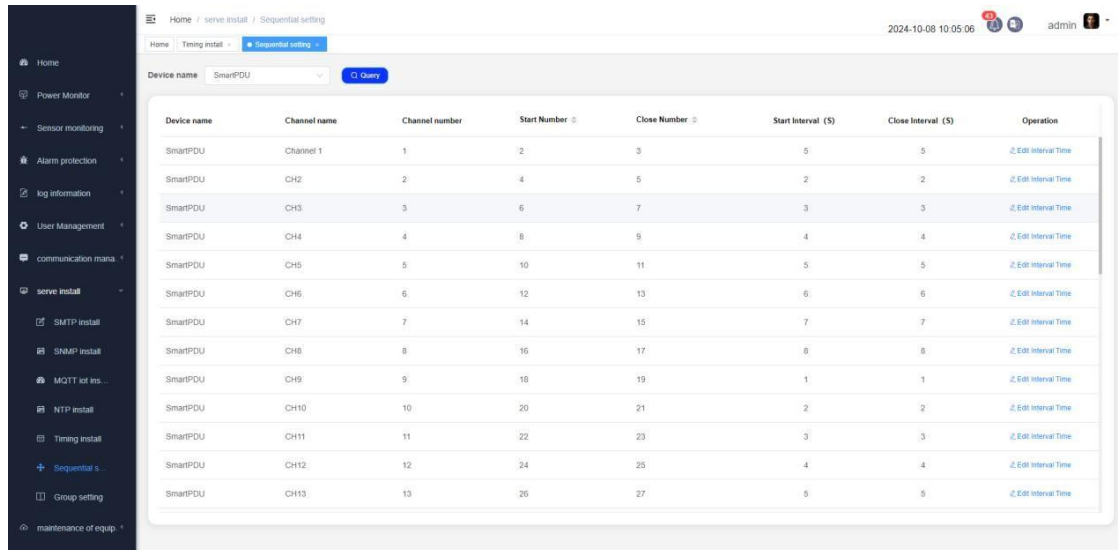
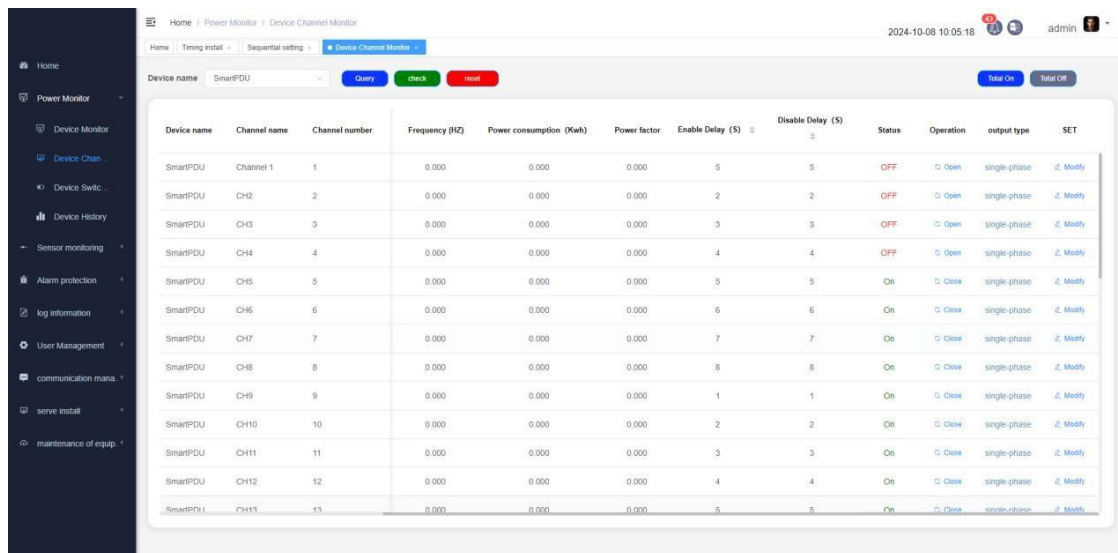


Figure 94



Device name	Channel name	Channel number	Start Number	Close Number	Start Interval (S)	Close Interval (S)	Operation
SmartPDU	Channel 1	1	2	3	5	5	Edit Interval Time
SmartPDU	CH2	2	4	5	2	2	Edit Interval Time
SmartPDU	CH3	3	6	7	3	3	Edit Interval Time
SmartPDU	CH4	4	8	9	4	4	Edit Interval Time
SmartPDU	CH5	5	10	11	5	5	Edit Interval Time
SmartPDU	CH6	6	12	13	6	6	Edit Interval Time
SmartPDU	CH7	7	14	15	7	7	Edit Interval Time
SmartPDU	CH8	8	16	17	8	8	Edit Interval Time
SmartPDU	CH9	9	18	19	1	1	Edit Interval Time
SmartPDU	CH10	10	20	21	2	2	Edit Interval Time
SmartPDU	CH11	11	22	23	3	3	Edit Interval Time
SmartPDU	CH12	12	24	25	4	4	Edit Interval Time
SmartPDU	CH13	13	26	27	5	5	Edit Interval Time

Figure 95



Device name	Channel name	Channel number	Frequency (Hz)	Power consumption (Kwh)	Power factor	Enable Delay (S)	Disable Delay (S)	Status	Operation	output type	SET
SmartPDU	Channel 1	1	0.000	0.000	0.000	5	5	OFF	Open	single-phase	Modify
SmartPDU	CH2	2	0.000	0.000	0.000	2	2	OFF	Open	single-phase	Modify
SmartPDU	CH3	3	0.000	0.000	0.000	3	3	OFF	Open	single-phase	Modify
SmartPDU	CH4	4	0.000	0.000	0.000	4	4	OFF	Open	single-phase	Modify
SmartPDU	CH5	5	0.000	0.000	0.000	5	5	On	Close	single-phase	Modify
SmartPDU	CH6	6	0.000	0.000	0.000	6	6	On	Close	single-phase	Modify
SmartPDU	CH7	7	0.000	0.000	0.000	7	7	On	Close	single-phase	Modify
SmartPDU	CH8	8	0.000	0.000	0.000	8	8	On	Close	single-phase	Modify
SmartPDU	CH9	9	0.000	0.000	0.000	1	1	On	Close	single-phase	Modify
SmartPDU	CH10	10	0.000	0.000	0.000	2	2	On	Close	single-phase	Modify
SmartPDU	CH11	11	0.000	0.000	0.000	3	3	On	Close	single-phase	Modify
SmartPDU	CH12	12	0.000	0.000	0.000	4	4	On	Close	single-phase	Modify
SmartPDU	CH13	13	0.000	0.000	0.000	5	5	On	Close	single-phase	Modify

Figure 96

9.7. Group Settings

The group settings can group all the channels of all the connected control boards into two ways: adjacent channel grouping and adjacent channel grouping, such as **Figure 97**; in the group settings interface, you can group by entering the number of adjacent channels and interval channels, and you can turn on and off each group of channels at the same time.

There is no time sequence for turning on and off each group of channels, and they can be turned on and off at the same time, such as **Figure 98**, **Figure 99**, **Figure 100**, **Figure 101**, **Figure 102**, **Figure 103**, **Figure 104**.

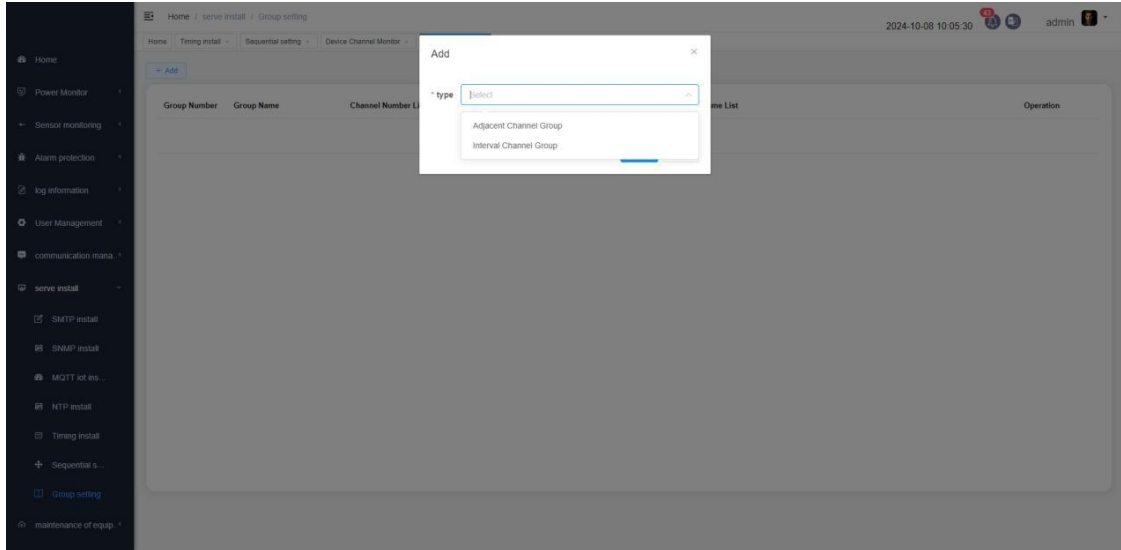


Figure 97

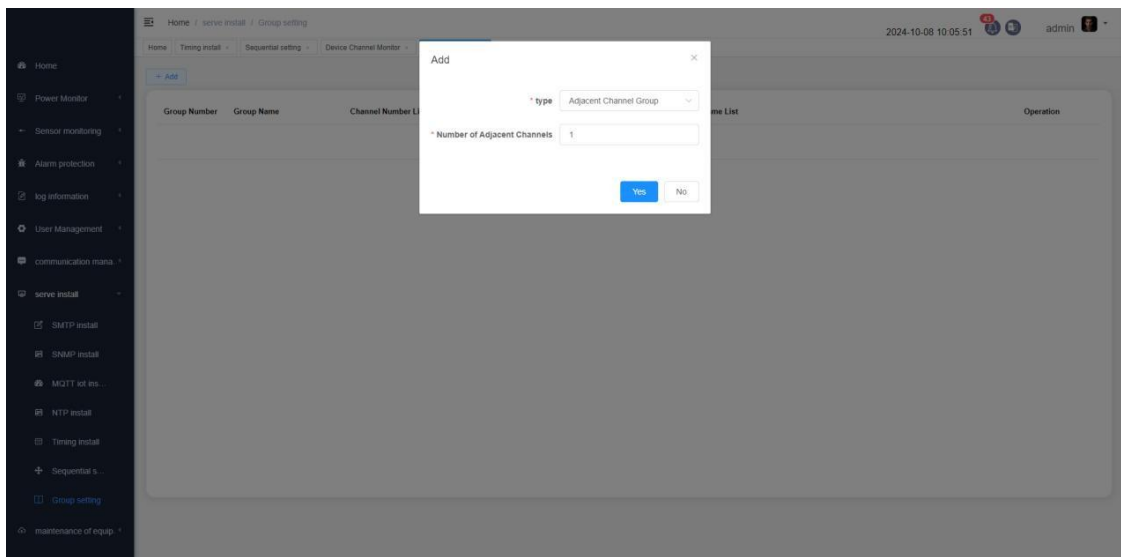


Figure 98

Home / serve install / Group setting

2024-10-08 10:06:10 admin

Home Group setting

+ Add

Group Number	Group Name	Channel Number List	Channel Name List	Operation
1	Group1	1,	Channel 1,	Modify More
2	Group2	2,	CH2,	Modify More
3	Group3	3,	CH3,	Modify More
4	Group4	4,	CH4,	Modify More
5	Group5	5,	CH5,	Modify More
6	Group6	6,	CH6,	Modify More
7	Group7	7,	CH7,	Modify More
8	Group8	8,	CH8,	Modify More
9	Group9	9,	CH9,	Modify More
10	Group10	10,	CH10,	Modify More
11	Group11	11,	CH11,	Modify More
12	Group12	12,	CH12,	Modify More
13	Group13	13,	CH13,	Modify More

Figure 99

Home / serve install / Group setting

2024-10-08 10:06:28 admin

Home Group setting

+ Add

Group Number	Group Name	Channel Number List	Channel Name List	Operation
1	Group1	1,	Channel 1,	Modify More
2	Group2	2,	CH2,	Modify Close Open
3	Group3	3,	CH3,	Modify More
4	Group4	4,	CH4,	Modify More
5	Group5	5,	CH5,	Modify More
6	Group6	6,	CH6,	Modify More
7	Group7	7,	CH7,	Modify More
8	Group8	8,	CH8,	Modify More
9	Group9	9,	CH9,	Modify More
10	Group10	10,	CH10,	Modify More
11	Group11	11,	CH11,	Modify More
12	Group12	12,	CH12,	Modify More
13	Group13	13,	CH13,	Modify More

Figure 100

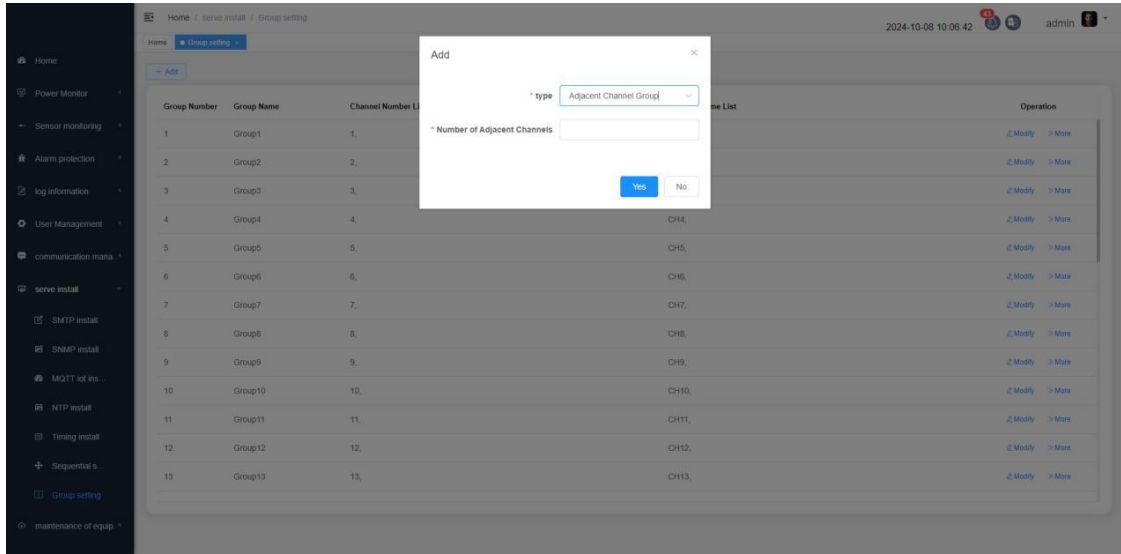


Figure 101

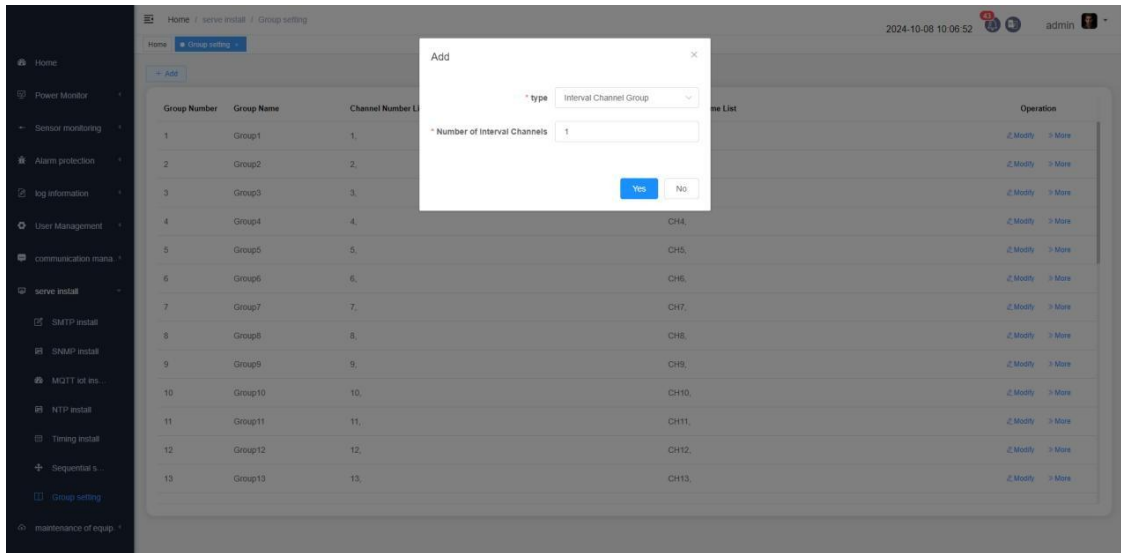


Figure 102

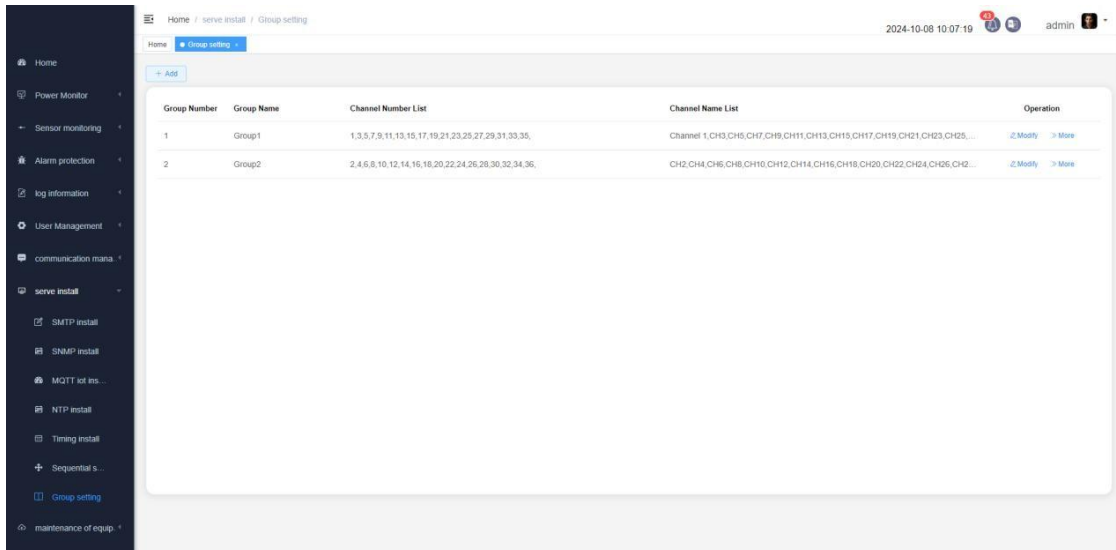


Figure 103

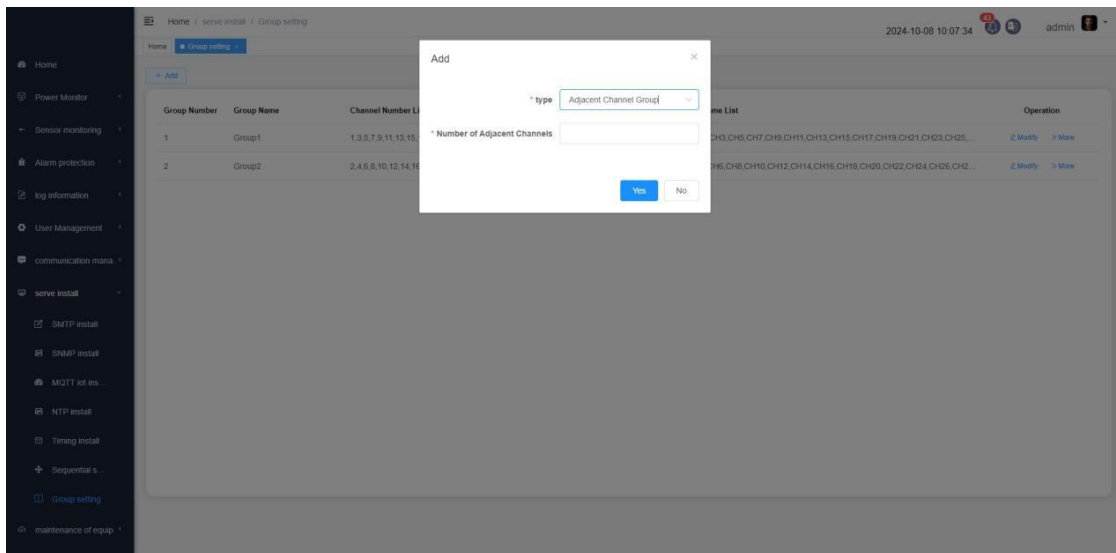


Figure 104

10. Device Maintenance

10.1. Device Restart

On the device restart interface, click the restart button, and the system prompt button will pop up. Click OK and the program will restart. Such as **Figure 105** and **Figure 106**. After the program restarts, the IP address will

change!!!

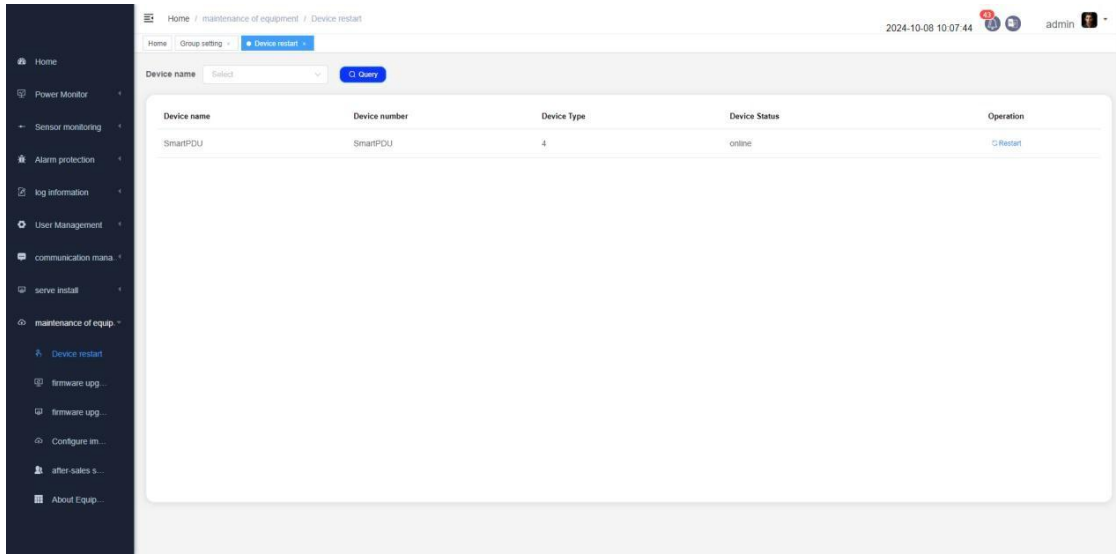


Figure 105

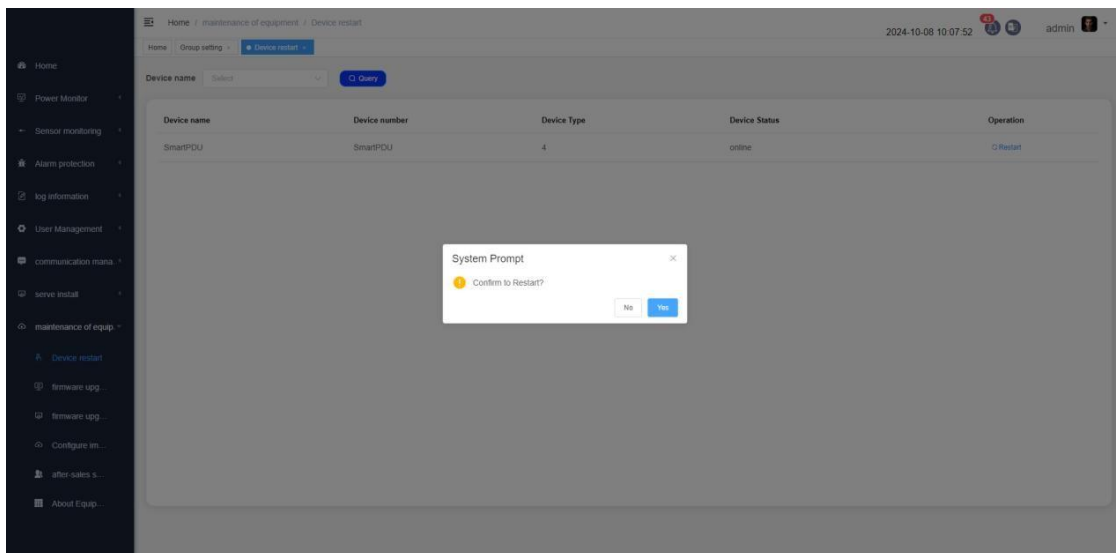


Figure 106

10.2. Firmware Upgrade

In the firmware upgrade interface, you can manually upgrade the core board program. Click Firmware Upgrade to enter the firmware upgrade interface.

After uploading the program and clicking OK, the upgrade can begin, such as **Figure 107**, **Figure 108**, and **Figure 109**.

Figure 107

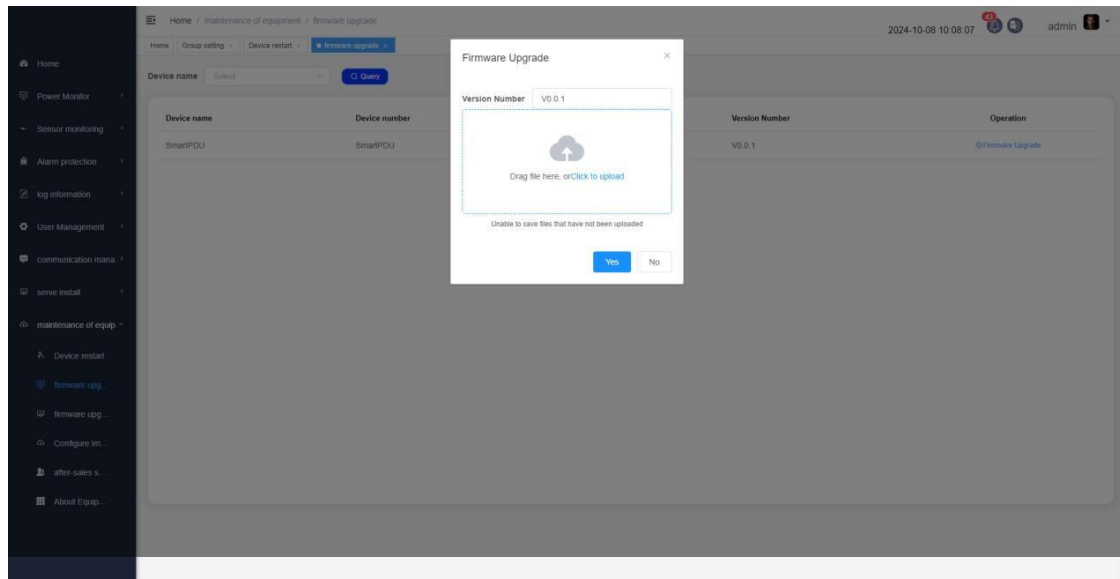


Figure 108

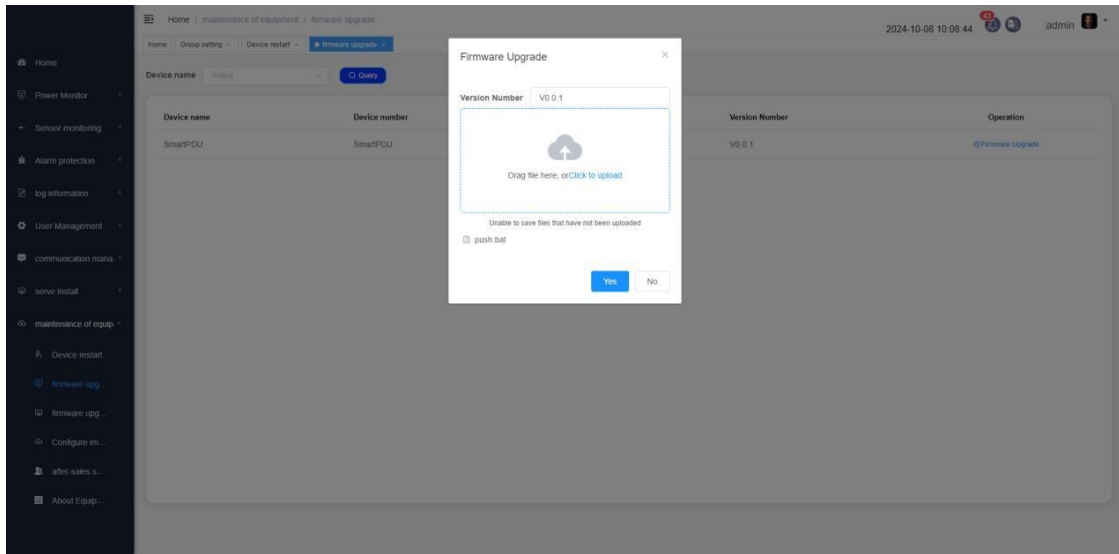


Figure 109

10.3. Restore Factory Settings

10.3.1. Restore Factory Settings

Click the "Restore factory settings" button in the factory settings, and click OK on the system prompt interface to start restoring the factory settings of the header program, such as **Figure 110** and **Figure 111**. The interface prompt "Backend interface connection abnormality" such as **Figure 112** appears, which means that the program has been restored to factory settings. Refresh the page and log in again.

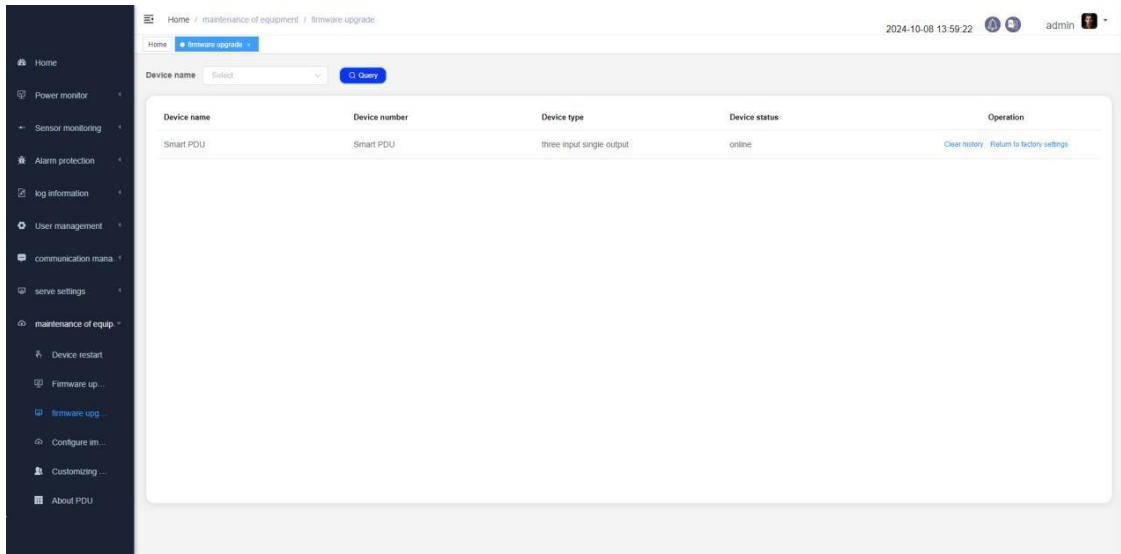


Figure 110

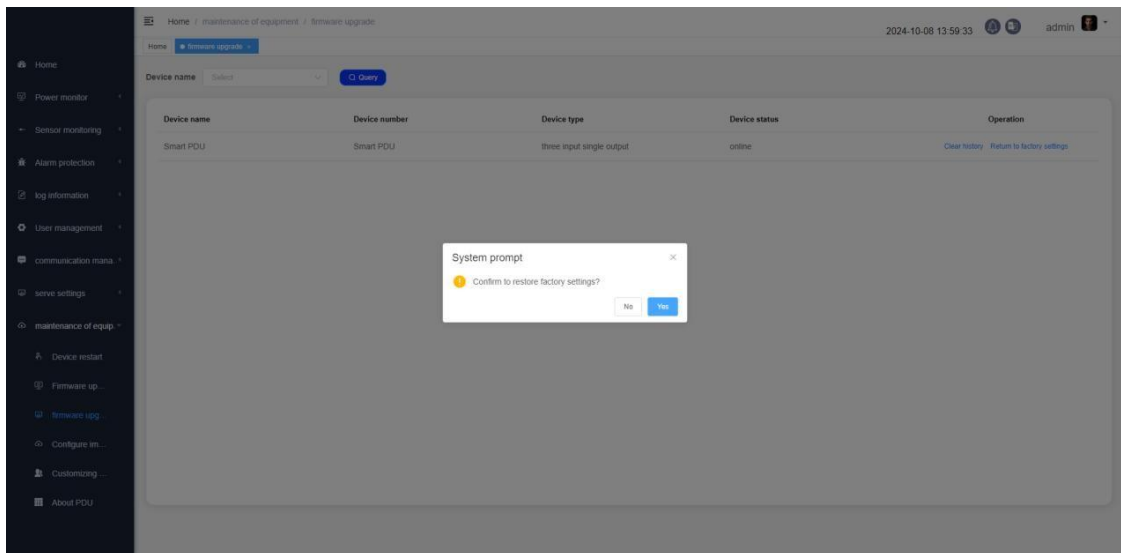


Figure 111

Home / maintenance of equipment / firmware upgrade

2024-10-08 13:59:44 admin

Backend interface connection exception

Home **firmware upgrade**

Device name:

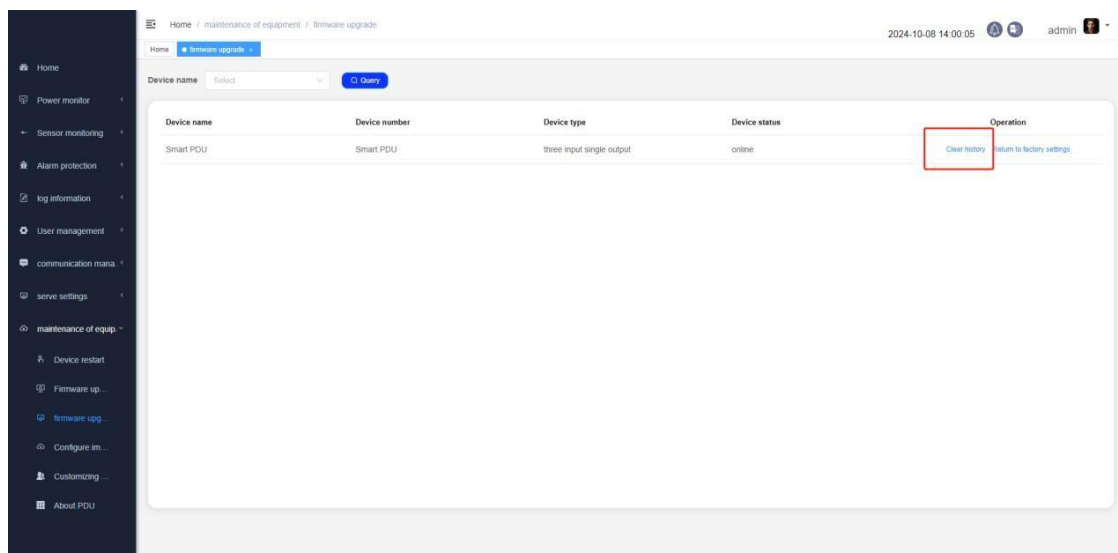
Device name	Device number	Device type	Device status	Operation
Smart PDU	Smart PDU	three input single output	online	Clear history Return to factory settings

Figure 112

10.3.2. Clear History

On the factory reset interface, click "Clear History" to enter the Clear History interface. On the Clear History interface, you can view the current device name and the function items that can clear history (power monitoring history, sensor history, alarm log, operation log, and run log). The Clear History interface selects all history by default, and you can also manually select to clear a certain history. After selecting, click OK and click OK on the OK interface to complete the operation of clearing history, such as **Figure 113**, **Figure 114**, **Figure 115**, and **Figure 116**.

Figure 113



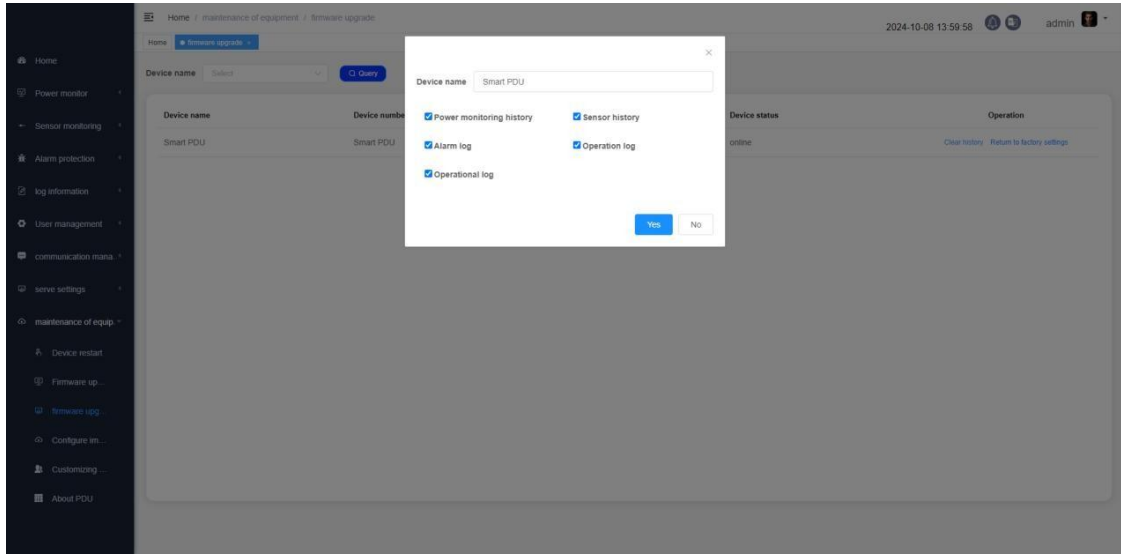


Figure 114

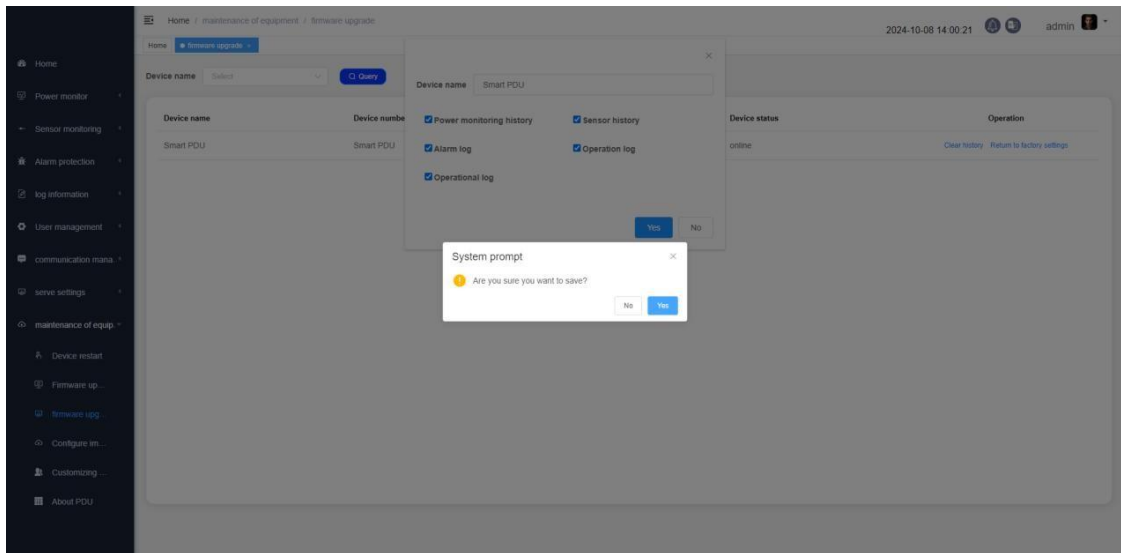


Figure 115

The screenshot displays the YURRO Rack PDU Solution web interface. At the top left is the YURRO logo. The main navigation menu on the left includes: Home, Power monitor, Sensor monitoring, Alarm protection, log information, User management, communication mana, serve settings, maintenance of equip, Device restart, Firmware up..., firmware upg..., Configure im..., Customizing..., and About PDU. The breadcrumb trail at the top reads: Home / maintenance of equipment / firmware upgrade. A green notification banner at the top center states "Submitted successfully". The top right corner shows the date and time "2024-10-08 14:04:47" and the user "admin". Below the breadcrumb trail, there is a "Device name" dropdown menu set to "Select" and a "Query" button. The main content area features a table with the following data:

Device name	Device number	Device type	Device status	Operation
Smart PDU	Smart PDU	three input single output	online	Clear history Return to factory settings

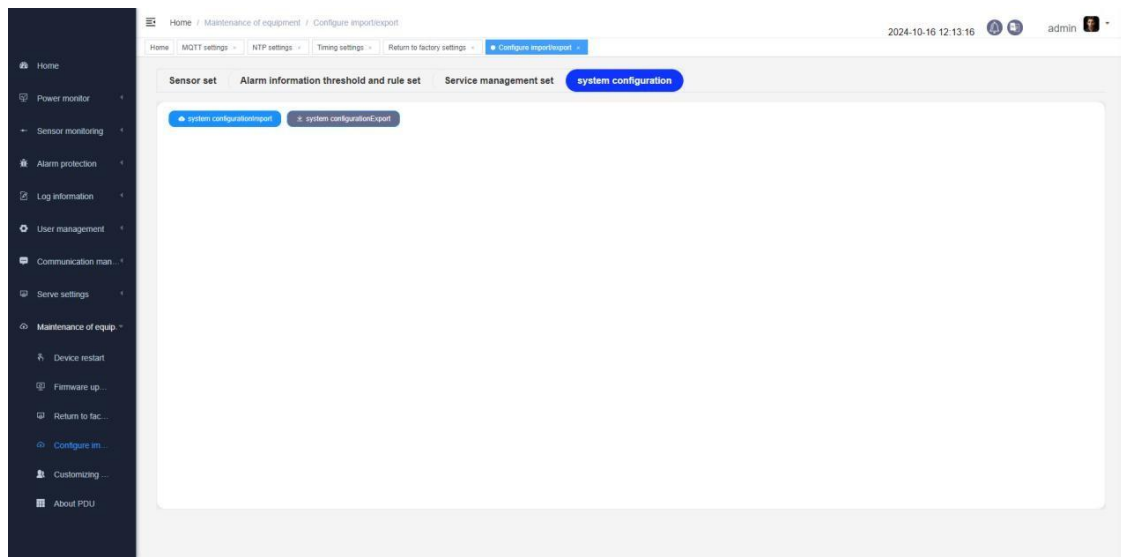
Figure 116

10.4. Configuration Import/Export

10.4.1. System Configuration Export

In configuration import/export, currently only the import and export of system configuration is supported; click the "System Configuration Export" button in the configuration interface, and click Save in the upper right corner to complete the export of system configuration, such as **Figure 117**, **Figure 118**, and **Figure 119**.

Figure 117



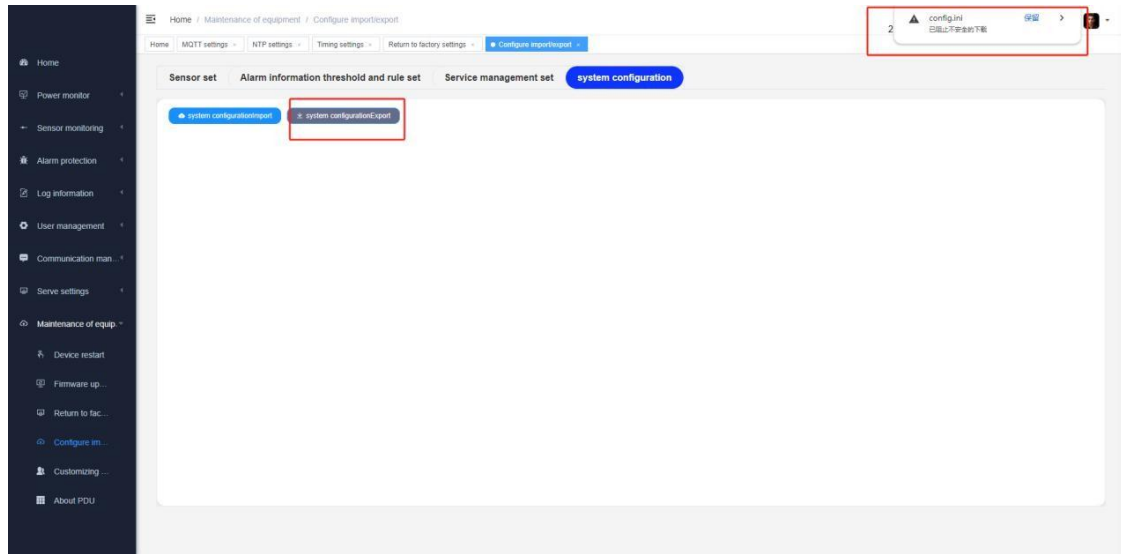


Figure 118

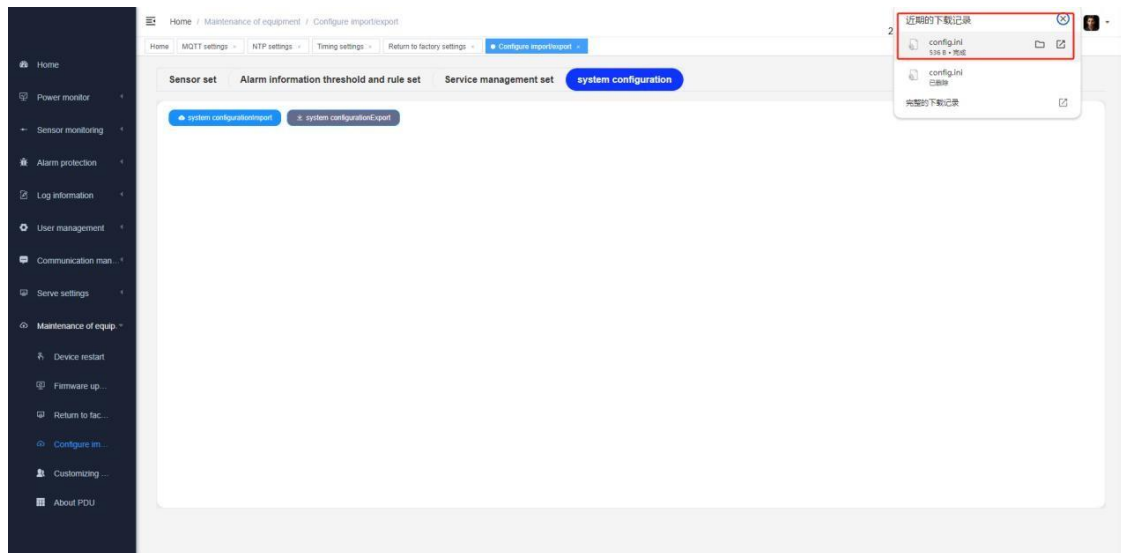


Figure 119

The current configuration interface only contains device ID, device name (number, name), meter type (type), control board type (pwrtype), system default language (language), control board refresh frequency (samptime), log refresh frequency (savetime), number of phase groups (ph_group), channel delay (ch_delay), meter master-slave type (mode), slave address

(address), and master-slave communication baud rate (baudrate), such as

Figure 120.

```
[product]
id          = "0"
number     = "Smart PDU"
name       = "Smart PDU"
type       = "1"
pwrtype    = "5"
language   = "0"
samptime   = "30"
savetime   = "60000"
ph_group   = "8"
ch_delay   = "8"

[modbus]
mode       = "0"
address    = "1"
baudrate   = "115200"
```

Figure 120

10.4.2. System Configuration Import

On the system configuration interface, click the "System Configuration Import" button, click "Click to Upload" on the system configuration interface, select the configuration file on the file upload interface, and click OK to complete the configuration import. After the configuration is successfully imported, the program automatically restarts, such as **Figure 121**, **Figure 122**, and **Figure 123**.

Figure 121

```
[product]
id          = "0"
number     = "Smart PDU11"
name       = "Smart PDU11"
type       = "1"
pwrtype    = "5"
language   = "1"
samptime   = "30"
savetime   = "60000"
ph_group   = "8"
ch_delay   = "8"

[modbus]
mode       = "0"
address    = "11"
baudrate   = "115200"
```

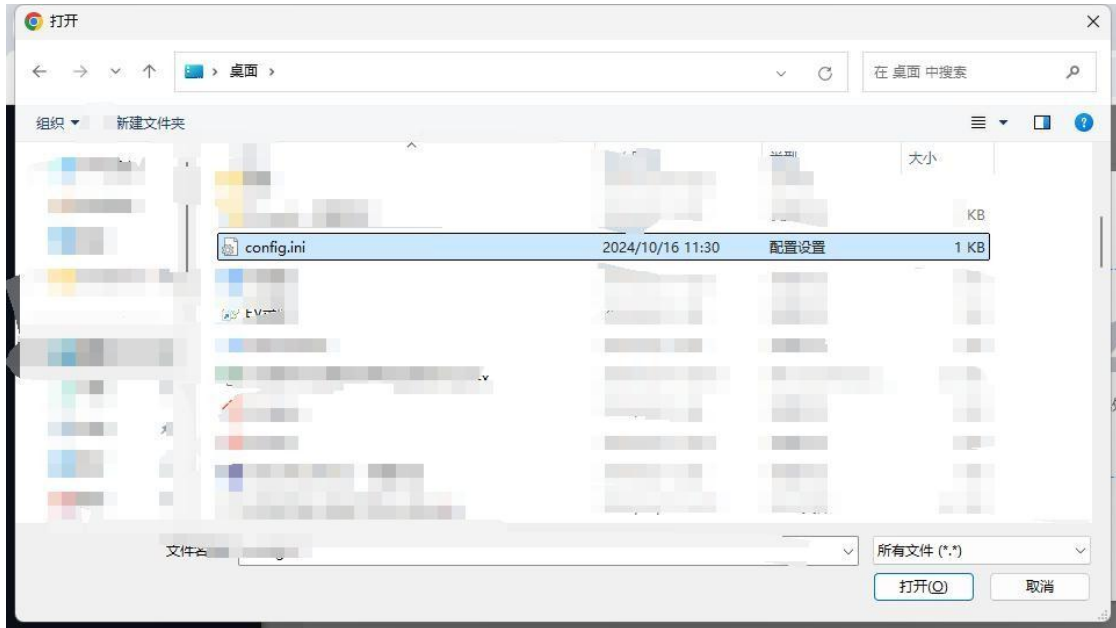


Figure 122

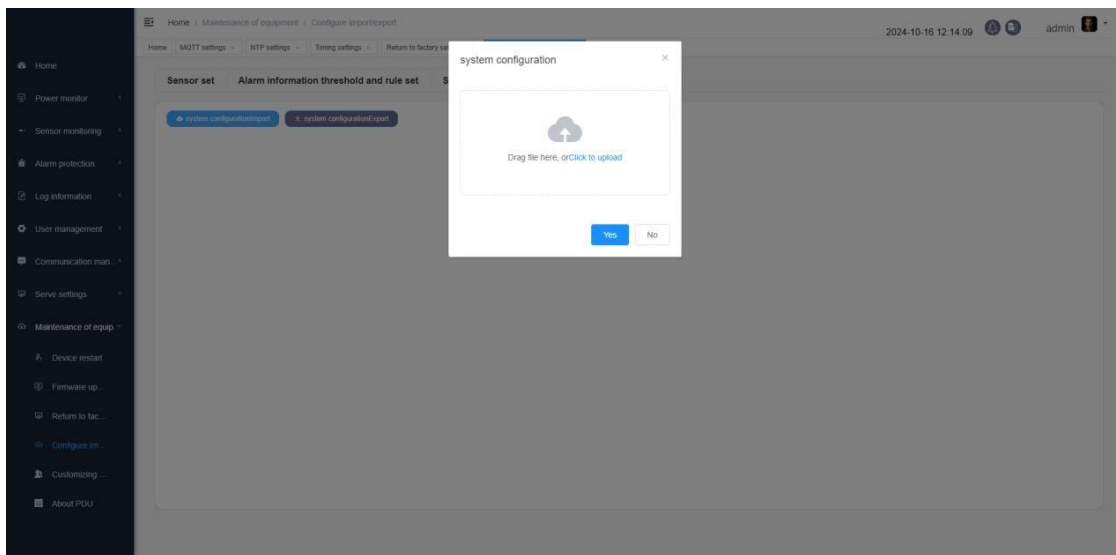


Figure 123

10.5. After-sales Service

The after-sales service interface allows you to view the after-sales service information of the PDU, such as **Figure 124**

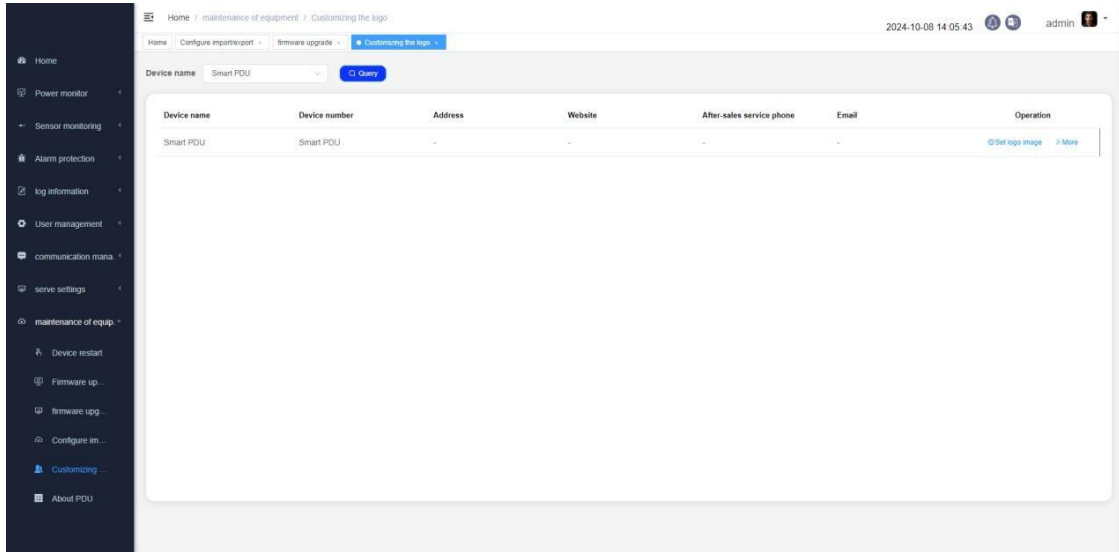
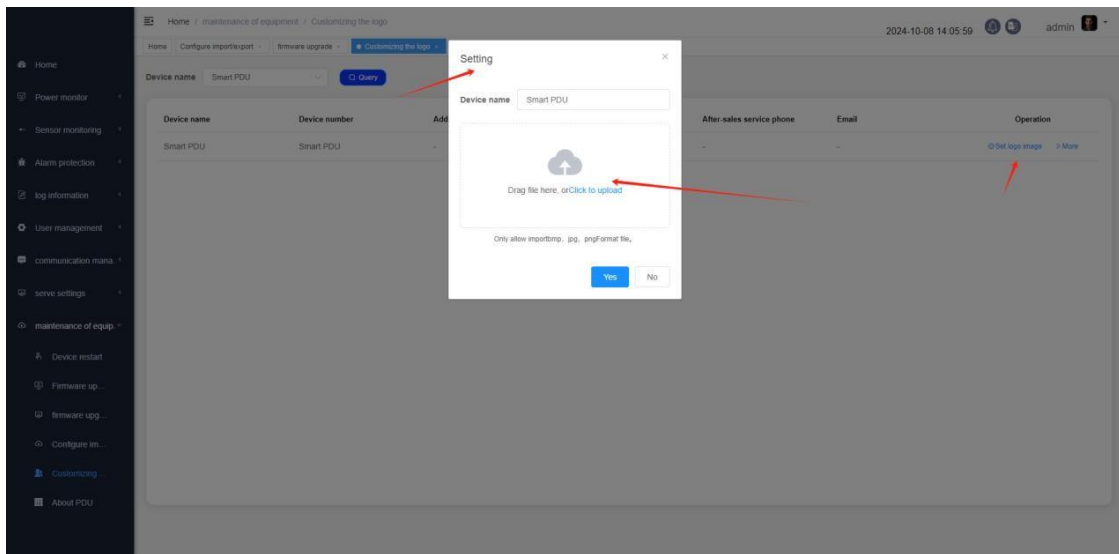


Figure 124

10.5.1. LOGO Replacement

In the after-sales service interface, click "Set logo Figure" to enter the logo setting interface, then click the "Click to upload" button to select a Figure in bmp, jpg, or PNG format (this manual selects a neutral logo in PNG format). After selecting, click OK to upload successfully, such as **Figure 125, Figure 126, and Figure 127.**

Figure 125



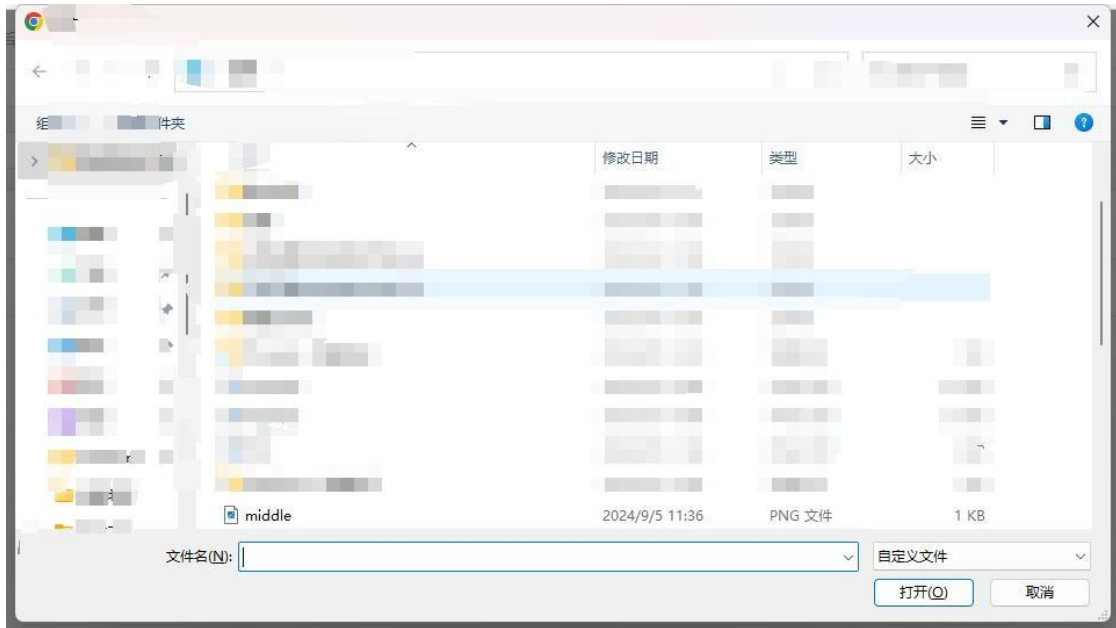


Figure 126

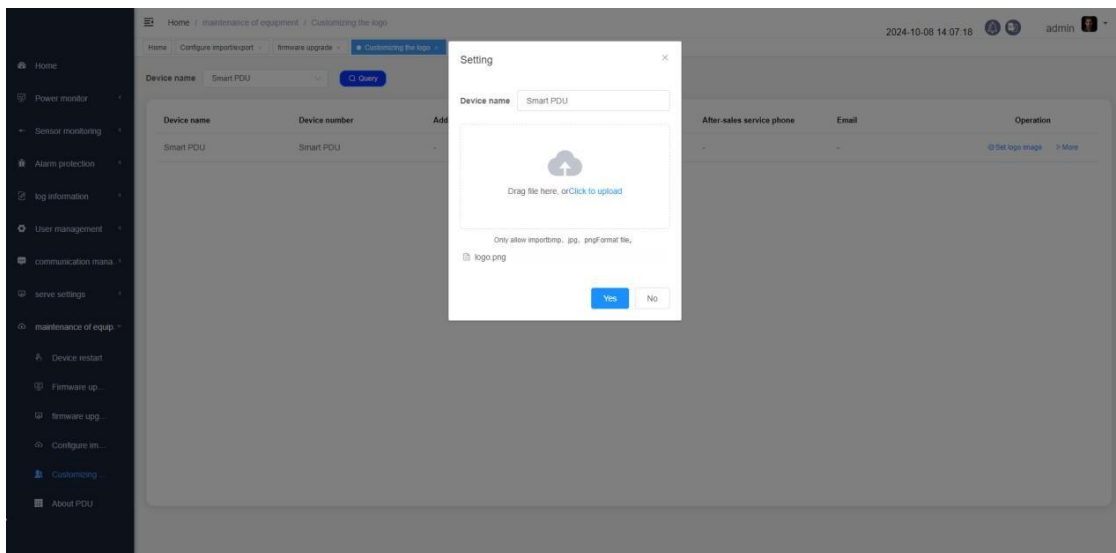


Figure 127

After uploading the new logo successfully, click the "OK" button and refresh the page to successfully replace the new logo, such as **Figure 128** and **Figure 129**.

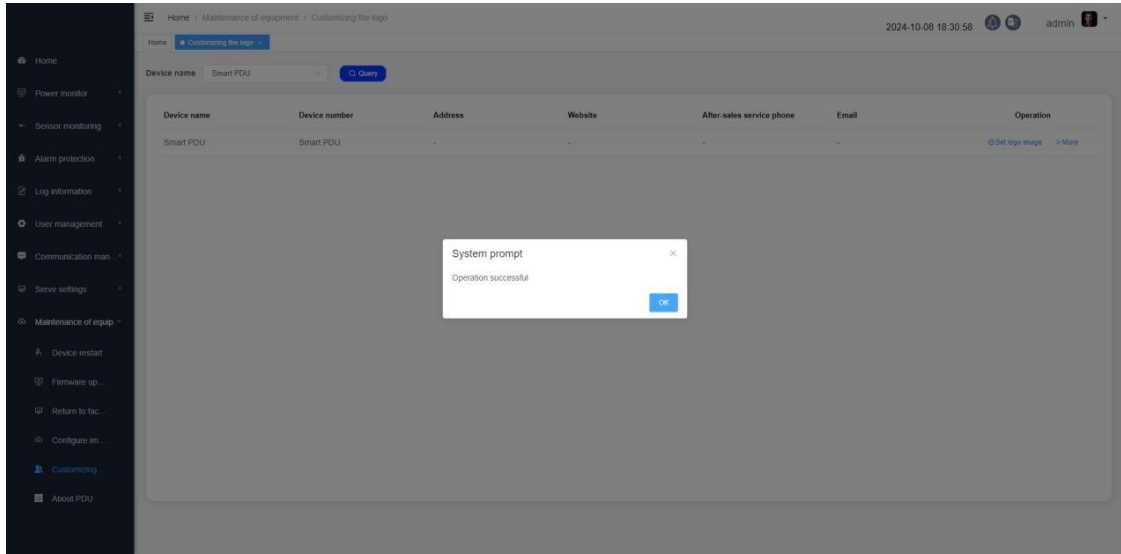


Figure 128

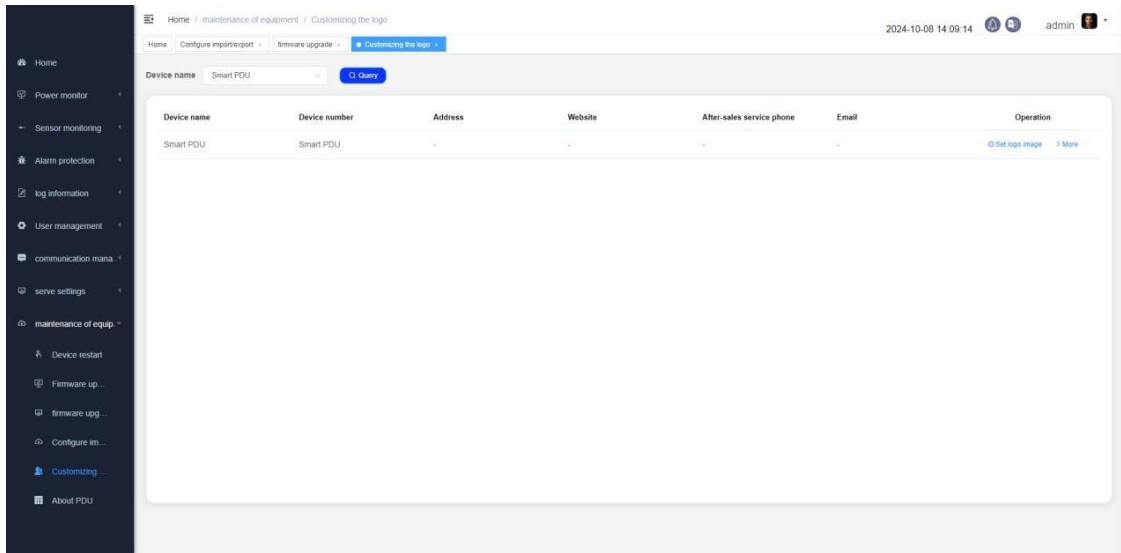
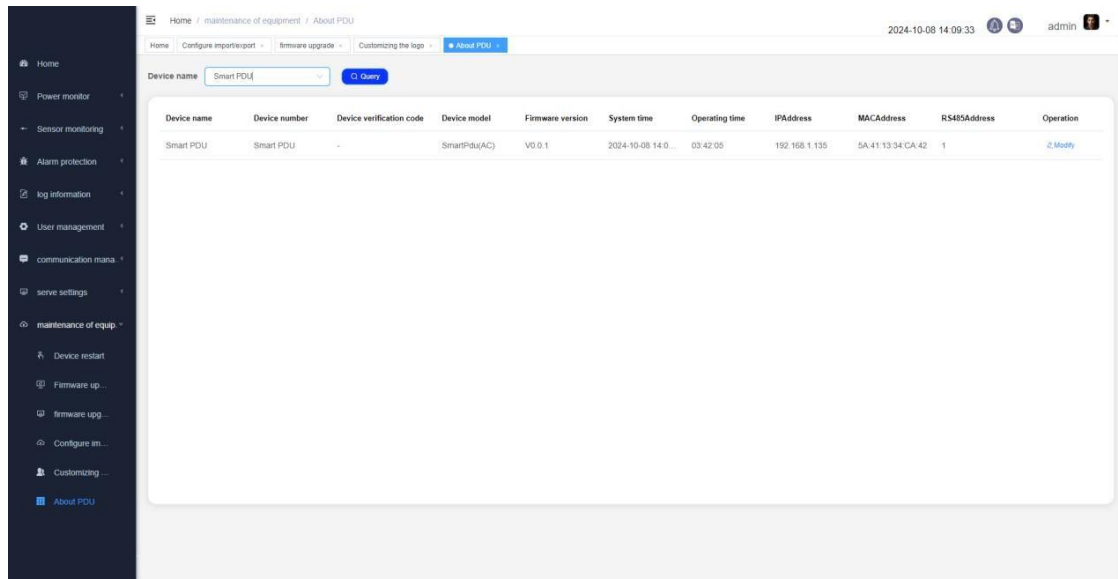


Figure 129

10.6. About Device

In the About Device interface, you can view detailed information about the device, and you can also search for all eligible devices by device name and device number. You can also modify the device name and RS485 address, such as **Figure 130**, **Figure 131**, and **Figure 132**.

Figure 130



The screenshot shows the 'About PDU' interface. At the top, there is a breadcrumb trail: Home / maintenance of equipment / About PDU. The current page title is 'About PDU'. A search bar is located at the top left of the main content area, with the text 'Smart PDU' entered and a 'Query' button next to it. Below the search bar is a table with the following data:

Device name	Device number	Device verification code	Device model	Firmware version	System time	Operating time	IPAddress	MACAddress	RS485Address	Operation
Smart PDU	Smart PDU	-	SmartPdu(AC)	V0.0.1	2024-10-08 14:0...	03:42:05	192.168.1.135	5A:41:13:34:CA:42	1	Modify

Figure 131

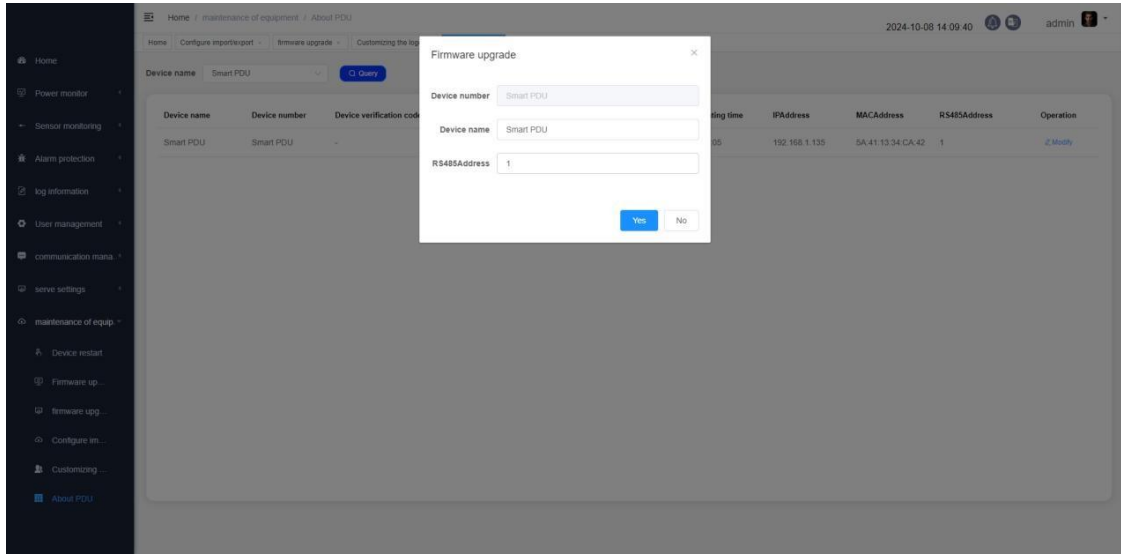


Figure 132