



【Hi-IOT Platform】

Power Monitoring System

Operation Manual V1.0

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Heyuan Intelligence Technology Co.,Ltd

Declare

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Chapter I Platform Login

1.1 Operation Environment

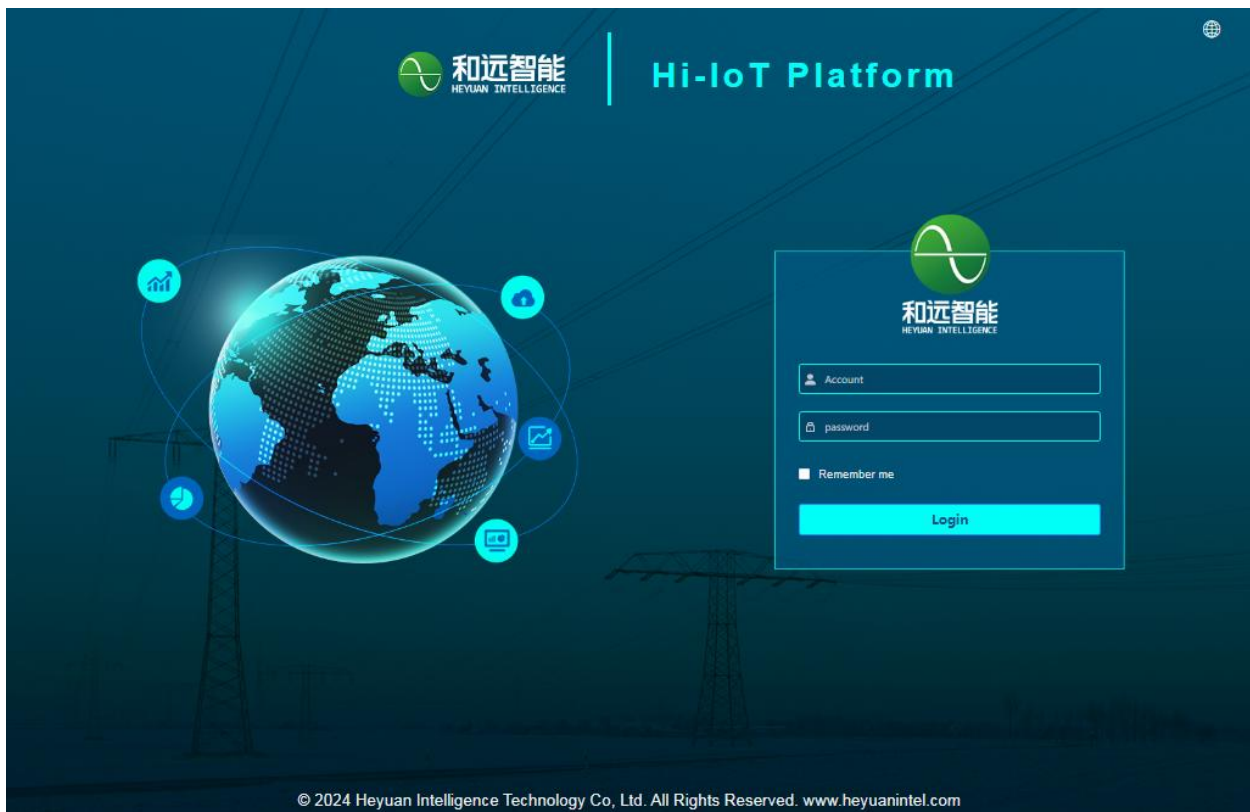
- Operating system: Windows 2000 Professional / Server、Windows XP and above.
- The recommended browsers are Firefox / Google Chrome.

1.2 Platform Login

- Default local access IP address: 127.0.0.1
- External access to the host requires setting the IP address in advance (setting method :see operation video)
- Input the 127.0.0.1 or set IP address by Chrome to enter the platform.

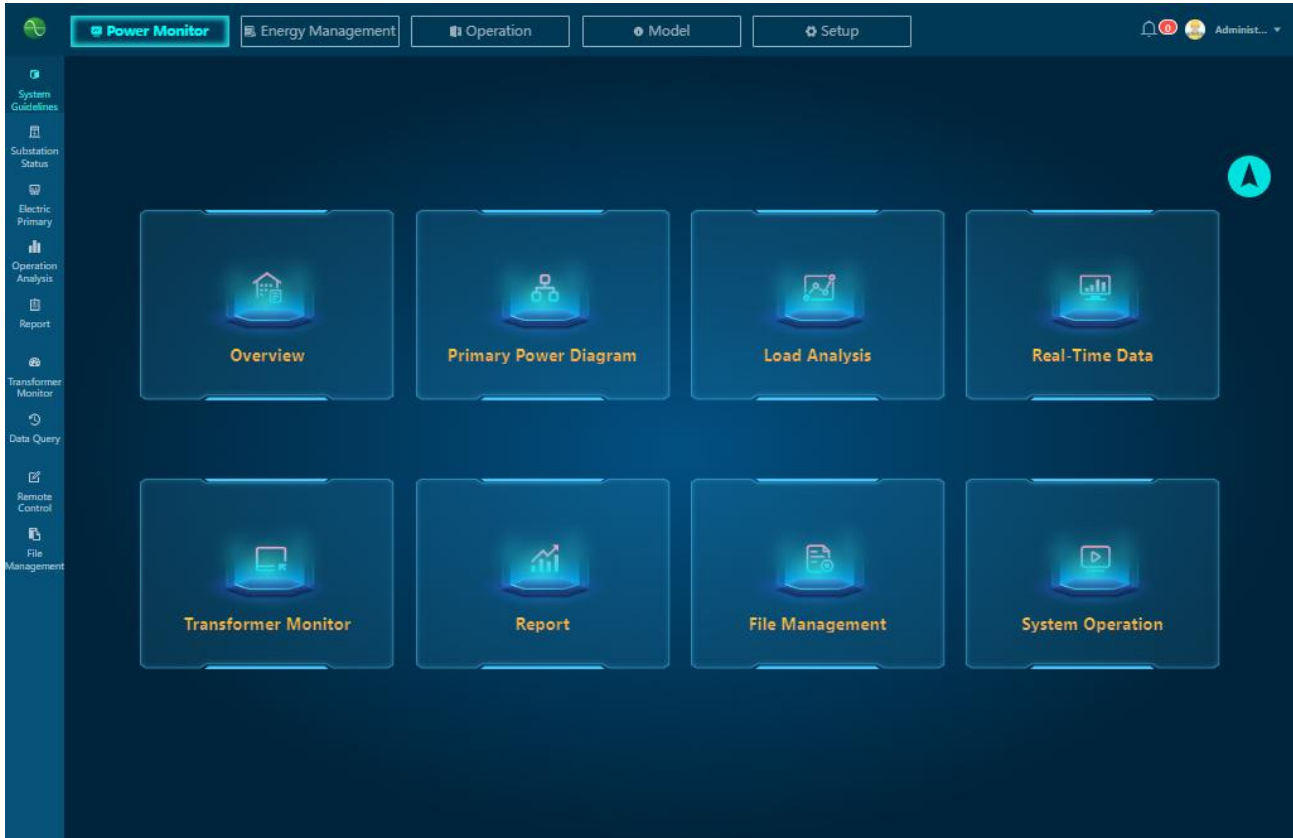
Default account: administrator

Password: Happy2024%



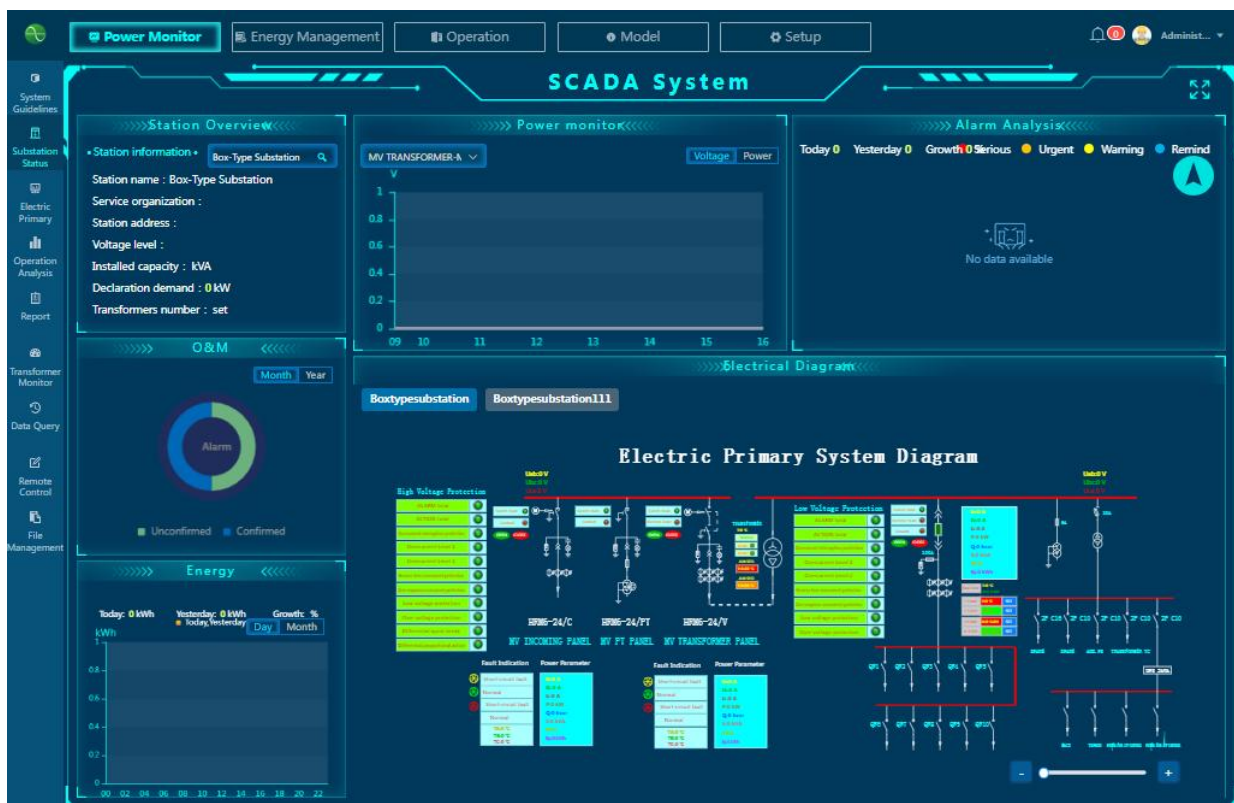
Chapter II System Guidelines

There are total 8 function menus: Overview/Primary Power Diagram/Load Analysis/Real-Time Data/Transformer Monitor/Report/File Management/System Operation.



2.1 Overview

In the station information selection box, select the name of the station you want to view and display the information of that station.





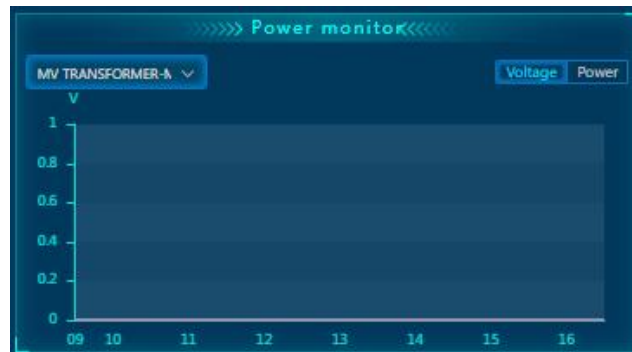
- O&M (Operation and Maintenance) : Month/Year number of alarms and task quality.



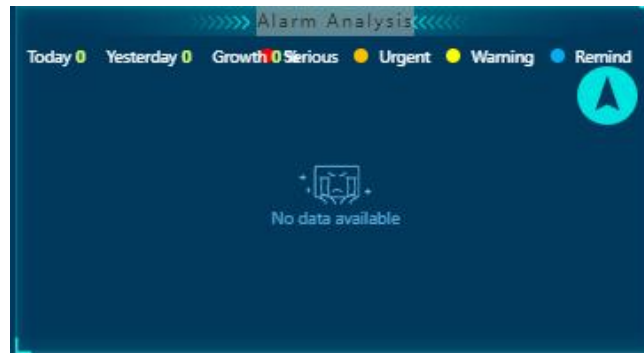
- Energy: energy consumption trend



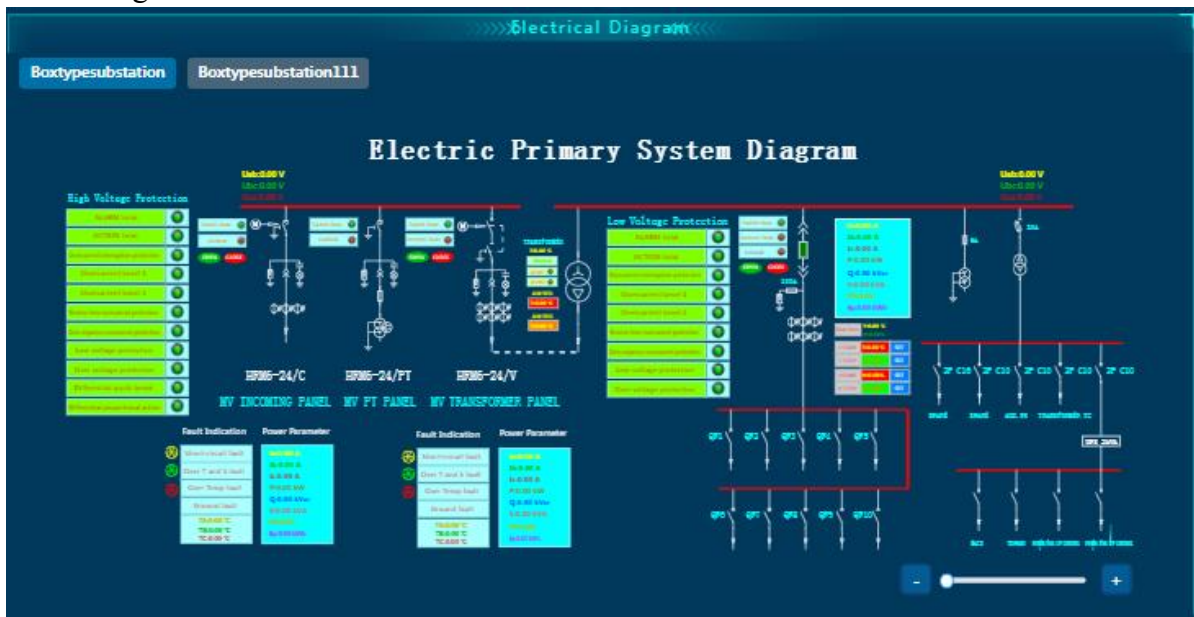
- Power monitor:voltage & power data trend



- Alarm Analysis

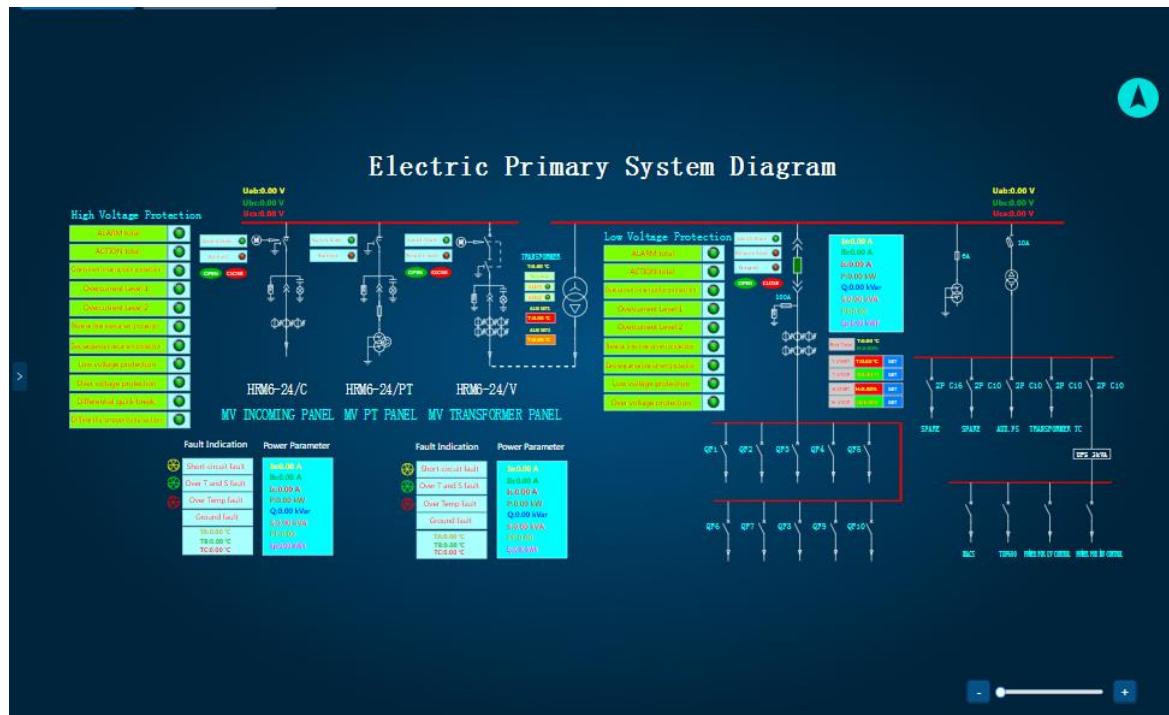


- Electrical Diagram



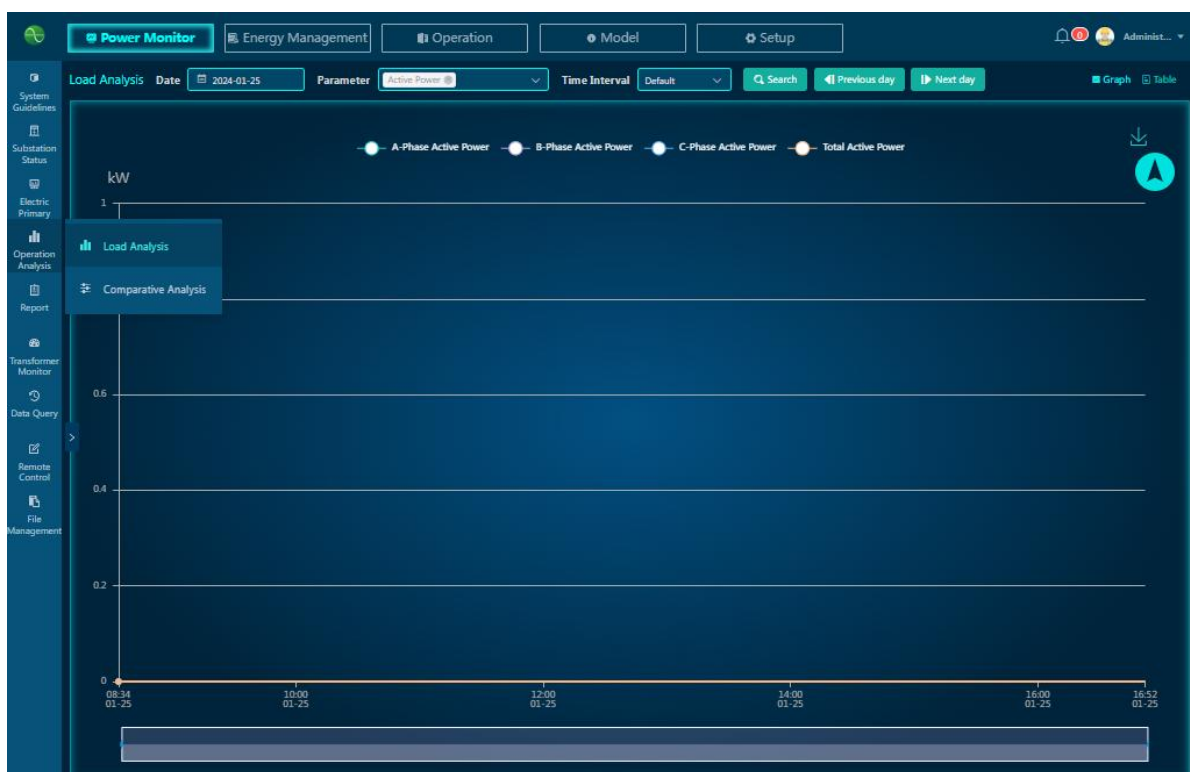
2.2 Electric Primary Diagram

Basic running parameters of the devices can be viewed, and DI status remote monitoring and opening/closing control can be achieved.

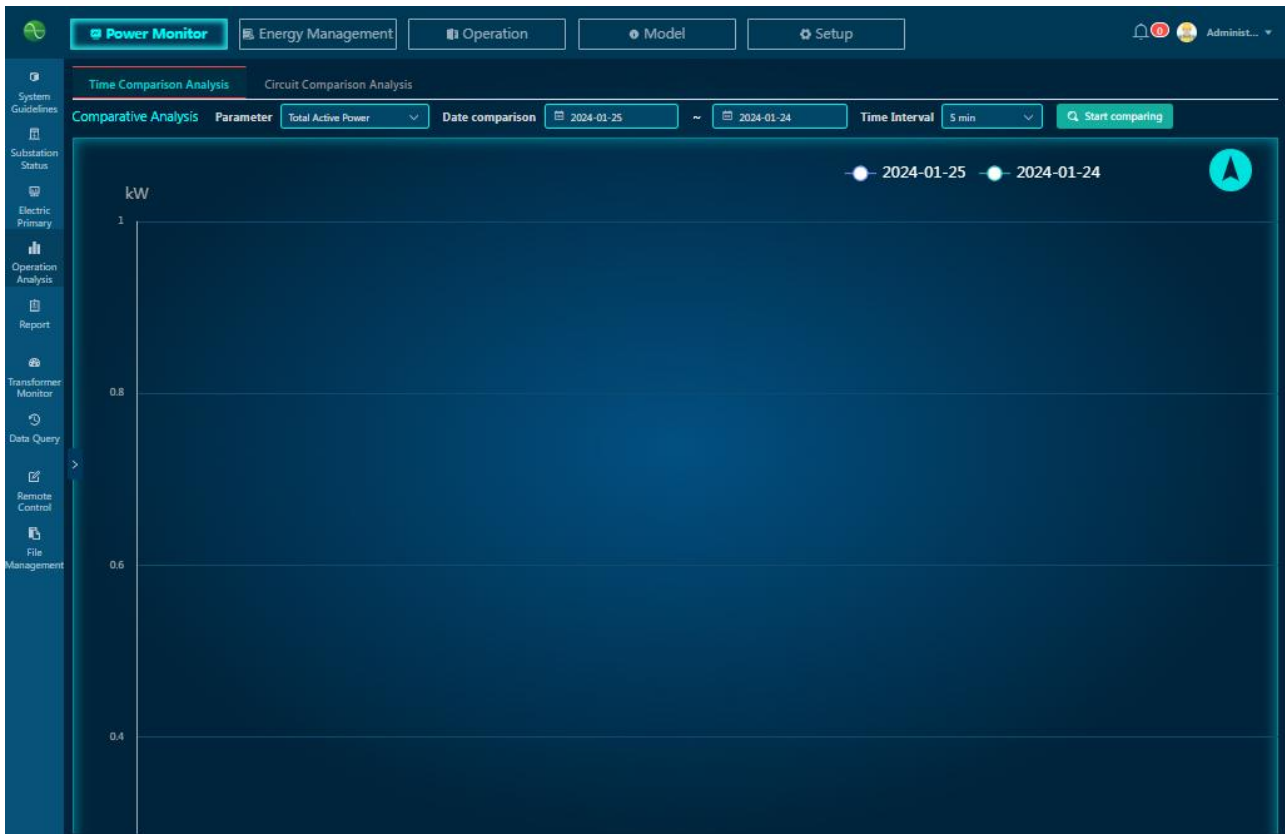


2.3 Operation Analysis

- **Load Analysis:** the user can query the load curve graph (table) of the selected circuit according to the date and time interval as needed.



➤ Comparative Analysis(Time/Circuit)



2.4 Report

➤ Parameter Report



Circuit Name	Collection Time	A-Phase Active Power(kW)	B-Phase Active Power(kW)	C-Phase Active Power(kW)	Total Active Power(kW)
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 08:30:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 08:35:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 08:40:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 08:45:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 08:50:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 08:55:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 09:00:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 09:05:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 09:10:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 09:15:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 09:40:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 09:45:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 09:50:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 09:55:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 10:00:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 10:05:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 10:10:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 10:15:00	0	0	0	0
MV INCOMING PANEL-MS3U7E3_D	2024-01-25 10:20:00	0	0	0	0

➤ Extreme Report(Daily/Monthly)

The user can view the maximum and minimum values of the electrical parameters, as well as the time when the corresponding extreme values occur.

Power Monitor

Energy Management

Operation

Model

Setup

System Guidelines

Solution Status

Electric Primary

Operation Analysis

Report

Transformer Monitor

Data Query

Remote Control

File Management

Daily Telemetry Report

Monthly Telemetry Report

Parameter

Current

Date

2024-01-25

Query

Previous day

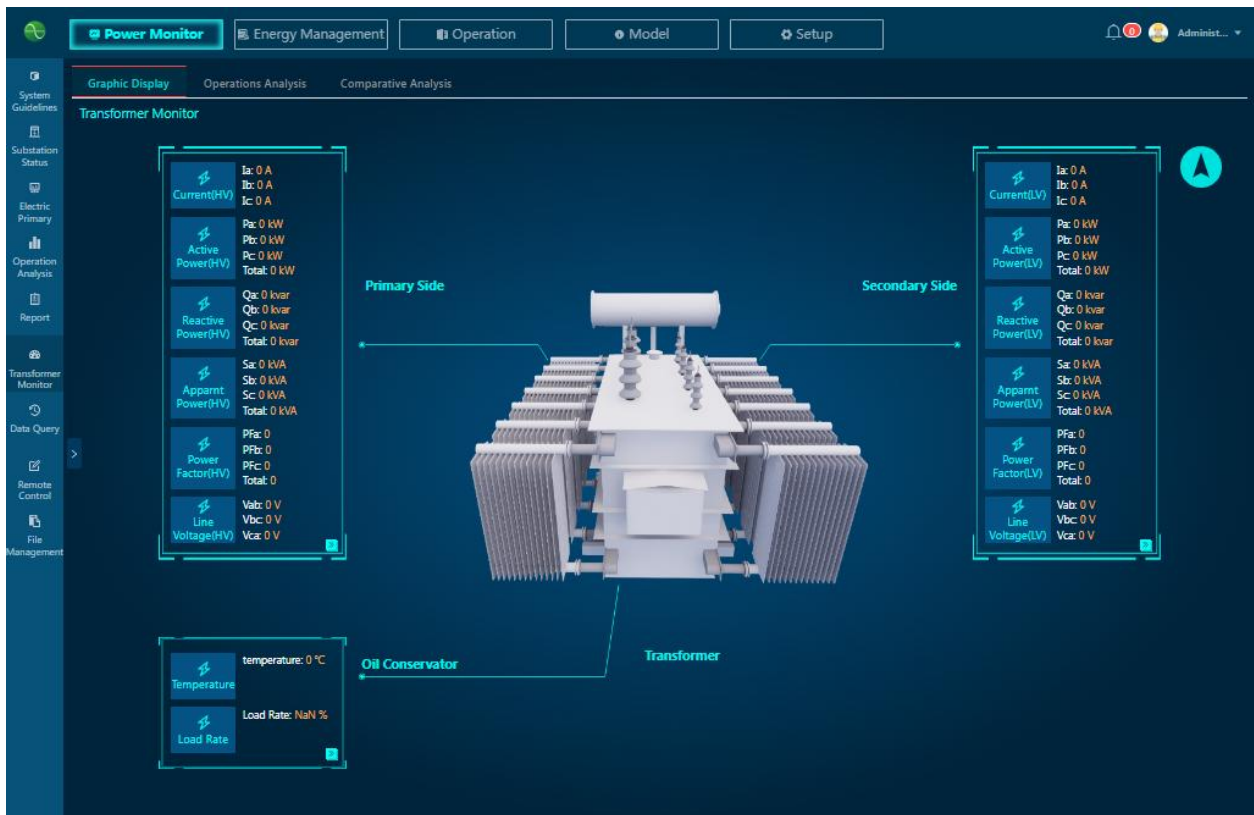
Next day

Export

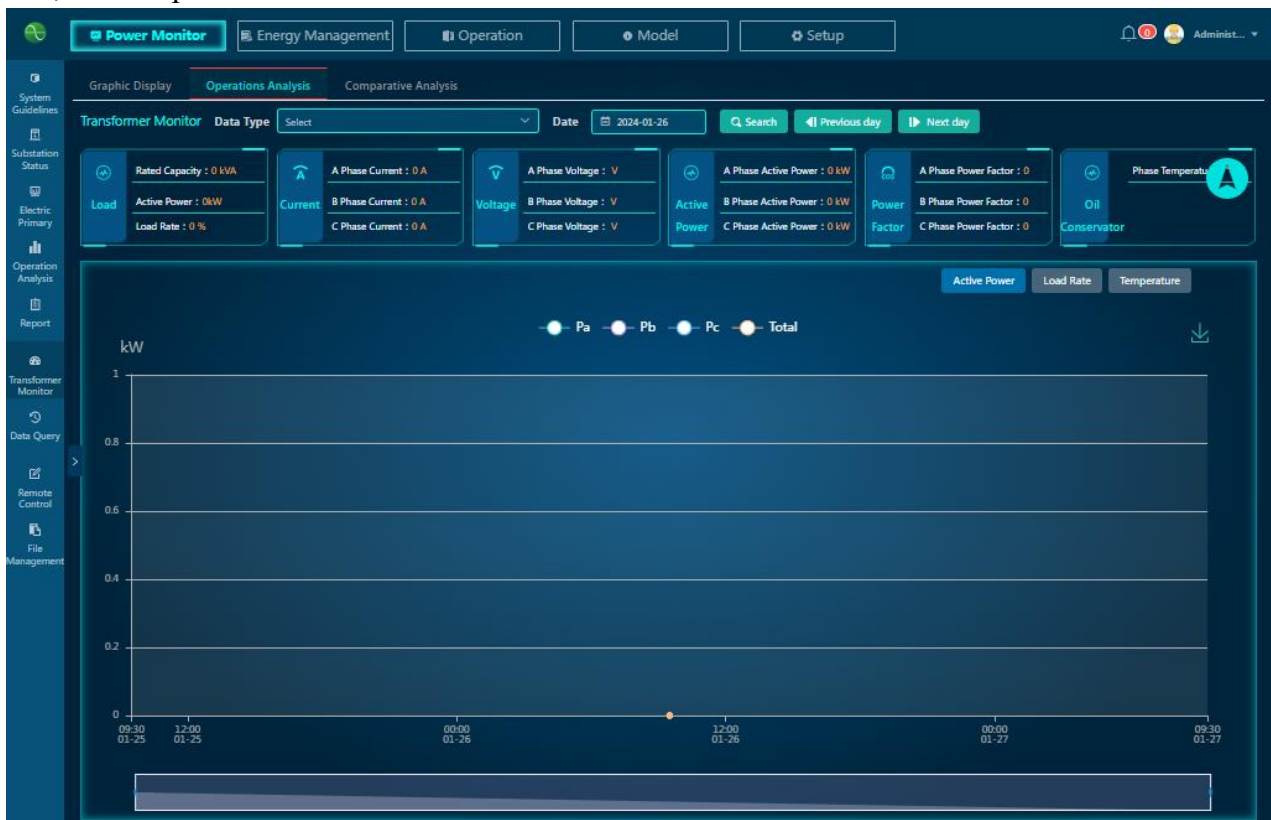
Circuit	Date	A-phase Current					B-phase Current					C-phase Current				
		Max value		Min value		Average value	Max value		Min value		Average value	Max value		Min value		
		value	dateTime	value	dateTime		value	dateTime	value	dateTime		value	dateTime			
MV INCOMING PANEL...	2024-01-25	0.000A	08:34	0.000A	08:34	0.000A	0.000A	08:34	0.000A	08:34	0.000A	0.000A	08:34	0.000A		

2.5 Transformer Monitor

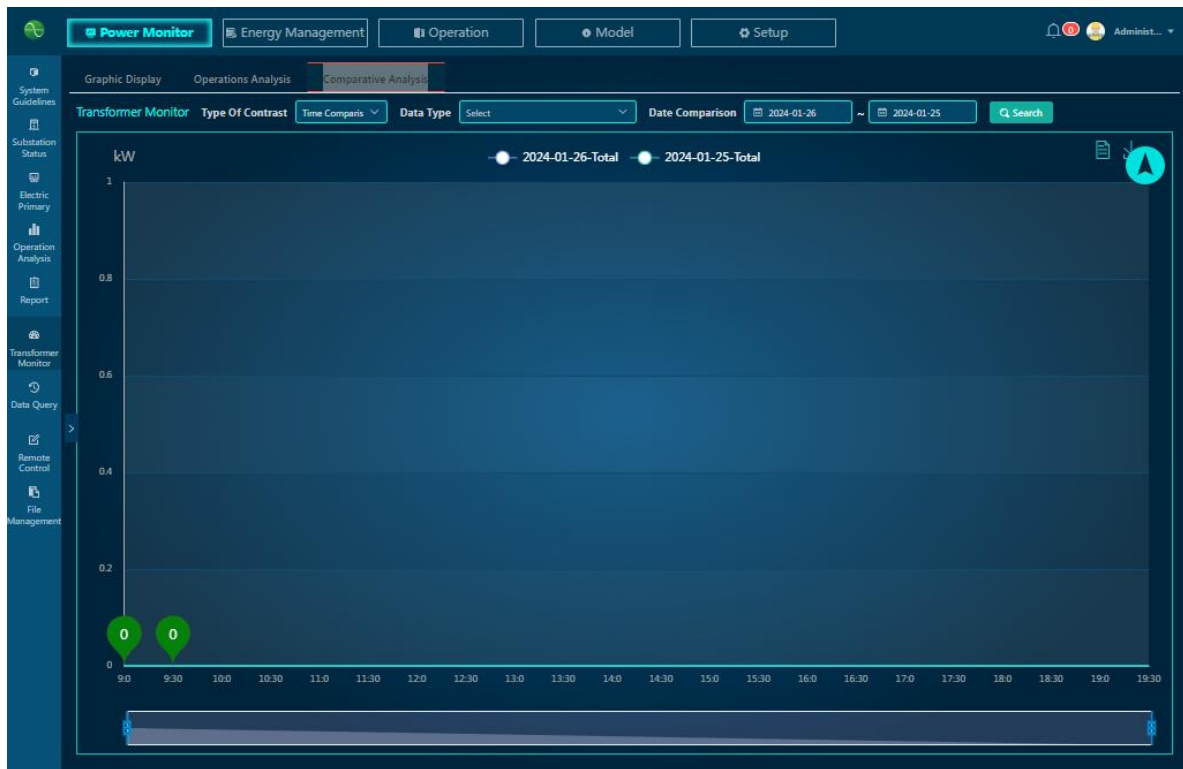
- Graphic Display : Display the primary/secondary electrical parameters.



- Operations Analysis: display transformer primary and secondary side data, as well as active power, load rate, and temperature curve data.



➤ Comparative Analysis



2.6 Data Query

- Real-time Data: select the device circuit, and the real-time data of the circuit will be displayed on the right side.

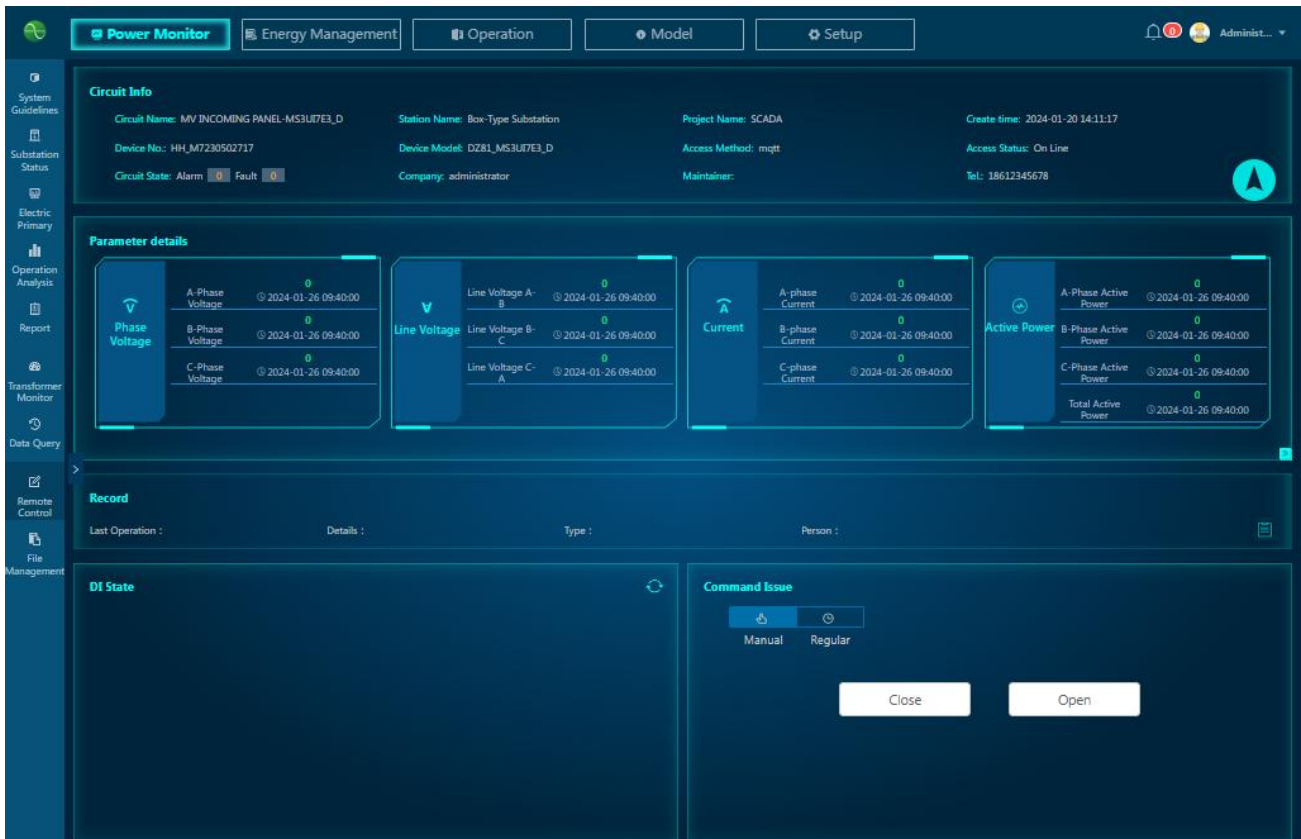


➤ History Data:



2.7 Remote Control

➤ Circuit Control: Circuit Info、Parameter details、Record、DI Stat、Command Issue



➤ Circuit Info

Circuit Info			
Circuit Name: IMV INCOMING PANEL-MS3U7E3_D	Station Name: Box-Type Substation	Project Name: SCADA	Create time: 2024-01-20 14:11:17
Device No.: HH_M7230502717	Device Model: DZ81_MS3U7E3_D	Access Method: mqtt	Access Status: On Line
Circuit State: Alarm ☐ Fault ☐	Company: administrator	Maintainer:	Tel: 18612345678

➤ Parameter details

Parameter details			
Phase Voltage A-Phase Voltage 0 2024-01-26 10:36:00 B-Phase Voltage 0 2024-01-26 10:36:00 C-Phase Voltage 0 2024-01-26 10:36:00	Line Voltage Line Voltage A-B 0 2024-01-26 10:36:00 Line Voltage B-C 0 2024-01-26 10:36:00 Line Voltage C-A 0 2024-01-26 10:36:00	Current A-phase Current 0 2024-01-26 10:36:00 B-phase Current 0 2024-01-26 10:36:00 C-phase Current 0 2024-01-26 10:36:00	Active Power A-Phase Active Power 0 2024-01-26 10:36:00 B-Phase Active Power 0 2024-01-26 10:36:00 C-Phase Active Power 0 2024-01-26 10:36:00 Total Active Power 0 2024-01-26 10:36:00

➤ Record

Record			
Last Operation : 2024-01-25 17:15:16	Details : Close	Type : Success	Person : admin

➤ DI State

DI State

➤ Command Issue

Command Issue

☒ Manual
 ☐ Regular

2.8 File Management

2.8.1 File Management: operation documents can be directly uploaded to file management.

Power Monitor

Energy Management

Operation

Model

Setup

Administ...

System Guidelines

Substation Status

Electric Primary

Operation Analysis

Report

Transformer Monitor

Data Query

Remote Control

File Management

File Management

File name

Date

Start date

to

End Date

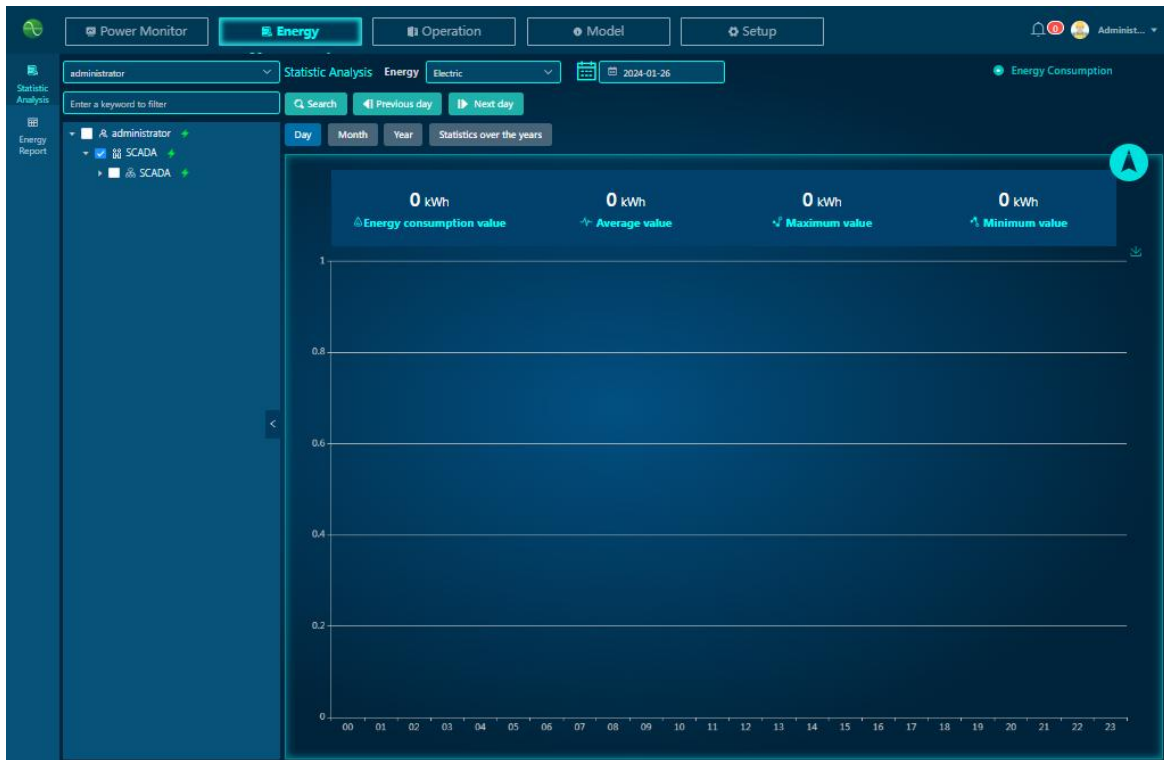
Search

+ Add

Name	Whether the public	Description	Create time	Founder	Operations
No Data					

Chapter III Energy Management

3.1 Statistic Analysis



3.2 Energy Report

Energy Report:

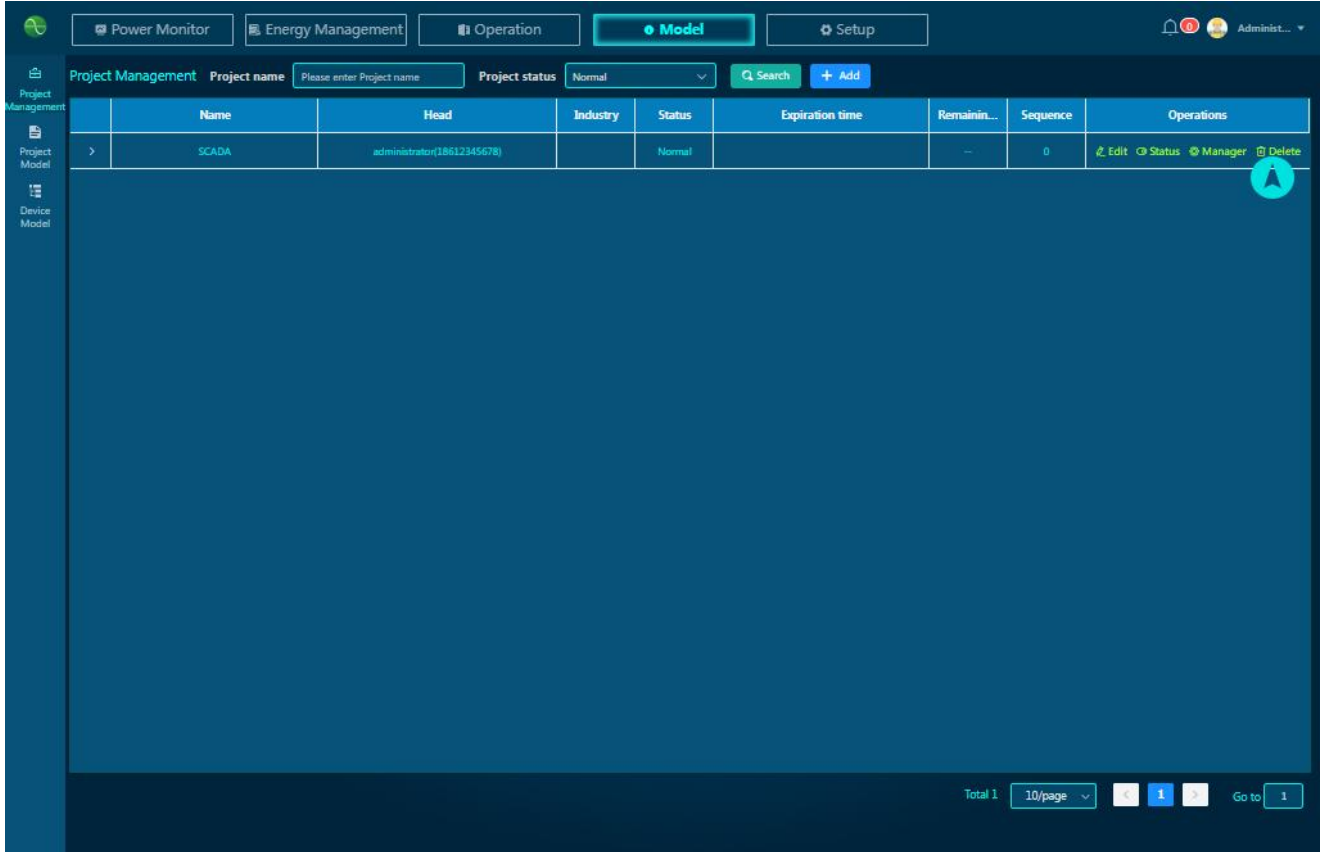
The screenshot shows the 'Energy Report' interface of the EMS. The table displays energy consumption data for various nodes over a 24-hour period. The data is as follows:

Node Name	00H	01H	02H	03H	04H	05H	06H	07H	08H	09H	10H	11H	12H
SCADA	0	0	0	0	0	0	0	0	0	0	0	0	0
total	0	0	0	0	0	0	0	0	0	0	0	0	0

Chapter IV Operation

4.1 Project Management

4.1.1 Project Management:



The screenshot shows the 'Project Management' interface. At the top, there are tabs for 'Power Monitor', 'Energy Management', 'Operation', 'Model' (selected), and 'Setup'. Below the tabs, there is a search bar and a '+ Add' button. The main area displays a table with the following columns: Name, Head, Industry, Status, Expiration time, Remainin..., Sequence, and Operations. The table contains one row with the following data:

Name	Head	Industry	Status	Expiration time	Remainin...	Sequence	Operations
SCADA	administrator(18612345678)		Normal		—	0	Edit Status Manager Delete

At the bottom right, there is a pagination bar showing 'Total 1', '10/page', and 'Go to 1'.

The screenshot shows a 'Related project information' dialog box with the following fields:

- Name:** Please enter name
- Head:** Please enter responsible person
- Mailbox:** default.tips.pleaseEnterEmail
- Address:** Please select address
- Longitude:** Please select address
- latitude:** Please select address
- Area structure:** Please enter building area
- Date due:** [Calendar icon]
- Industry involved:** Please select industry
- Data configuration information:** [{"url": "127.0.0.1:5041", "user": "root", "password": "123456"}]
- broker Message:** [{"host": "127.0.0.1", "port": "1883", "user": "root", "password": "123456"}]
- Project code:** Please enter the project code

Buttons: Confirm, Cancel

➤ Status:

The screenshot shows a 'Related project status information' dialog box with the following options:

- ☒ Normal
- ☐ Arrearage
- ☐ Logout

Buttons: Confirm, Cancel

➤ Manager:

The screenshot shows a software interface with a sidebar on the left containing 'Project Management', 'Project Model', and 'Device Model'. The main area has tabs for 'Power Monitor', 'Energy Management', 'Operation', 'Model' (selected), and 'Setup'. A modal dialog titled 'ProjectSCADAAdmin information' is open, containing the following fields:

- User name:** Administrator
- Belonging department:** 407 (unknown)
- Mobile phone:** 18912345612
- Mailbox:** Please enter email
- Login name:** Administrator
- User password:** [Reset password link]
- Gender:** Male
- Role:** Project Administrator(default)
- Note:** Please enter

At the bottom of the dialog are 'Confirm' and 'Cancel' buttons. The background interface shows a table with columns 'Sequence' and 'Operations', and a status bar at the bottom indicating 'Total 1' and '10/page'.

4.2 Project Model

4.2.1 Project Model:

The screenshot shows the 'Project Model' view selected in the sidebar. The main area has tabs for 'Project', 'Dist', 'Station', 'Primary wiring diagram', 'Communication state diagram', 'Video server', and 'Plan'. The 'Project' tab is active, displaying the following information for the project 'SCADA':

- Name:** SCADA
- Status:** Normal
- Head:** administrator
- Mobile phone:** 18612345678
- Address:**
- Industry involved:**
- Administrative division:**
- Expiration time:**
- Operator:** admin(admin)
- Operating time:** 2024-01-20 14:11:17

The interface includes a sidebar on the left with 'Project Management', 'Project Model', and 'Device Model'. The top navigation bar has tabs for 'Power Monitor', 'Energy Management', 'Operation', 'Model' (selected), and 'Setup'. A status bar at the bottom right shows 'Administ...'.

4.2.2 Dist:

The screenshot shows the 'Model' tab selected in the top navigation bar. The left sidebar has 'Project Management', 'Project Model', and 'Device Model' options. The main content area is titled 'Dist' and contains a table with the following data:

Unique identifier	District name	Create time	Current state	Operations
2	SCADA	2024-01-20 17:31:03	Effective	+ Add, Edit, Delete

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

4.2.3 Station:

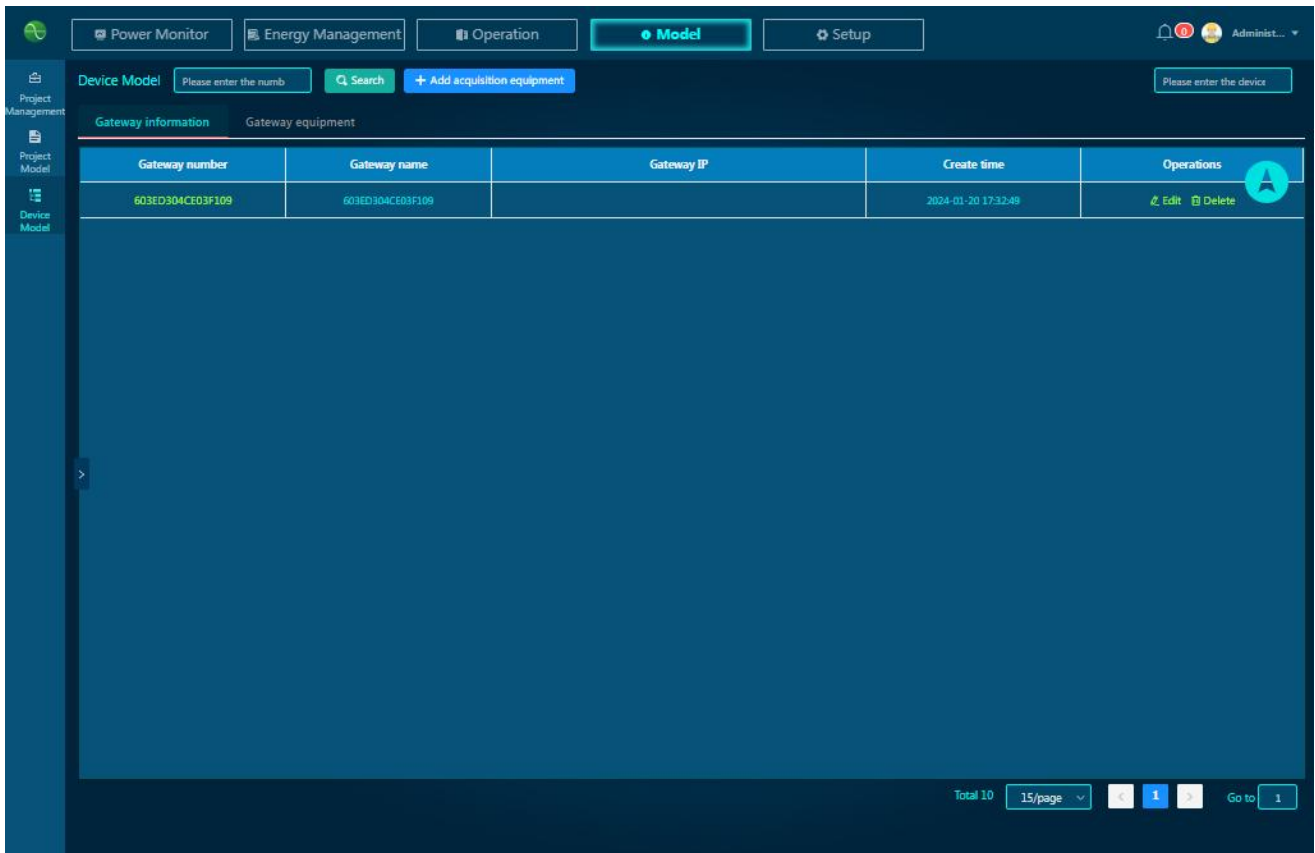
The screenshot shows the 'Model' tab selected in the top navigation bar. The left sidebar has 'Project Management', 'Project Model', and 'Device Model' options. The main content area is titled 'Station' and contains a table with the following data:

Name	Code	Name	Type	Energy type	Model type	Head	Address	Operations
>	Box-Type Substa	Box-Type Substation	Electricity-Distri bution Box	Electric	External Enviro nment	administrator(18612345678)		Edit, Delete

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

4.3 Device Model

4.3.1 Device Mode:



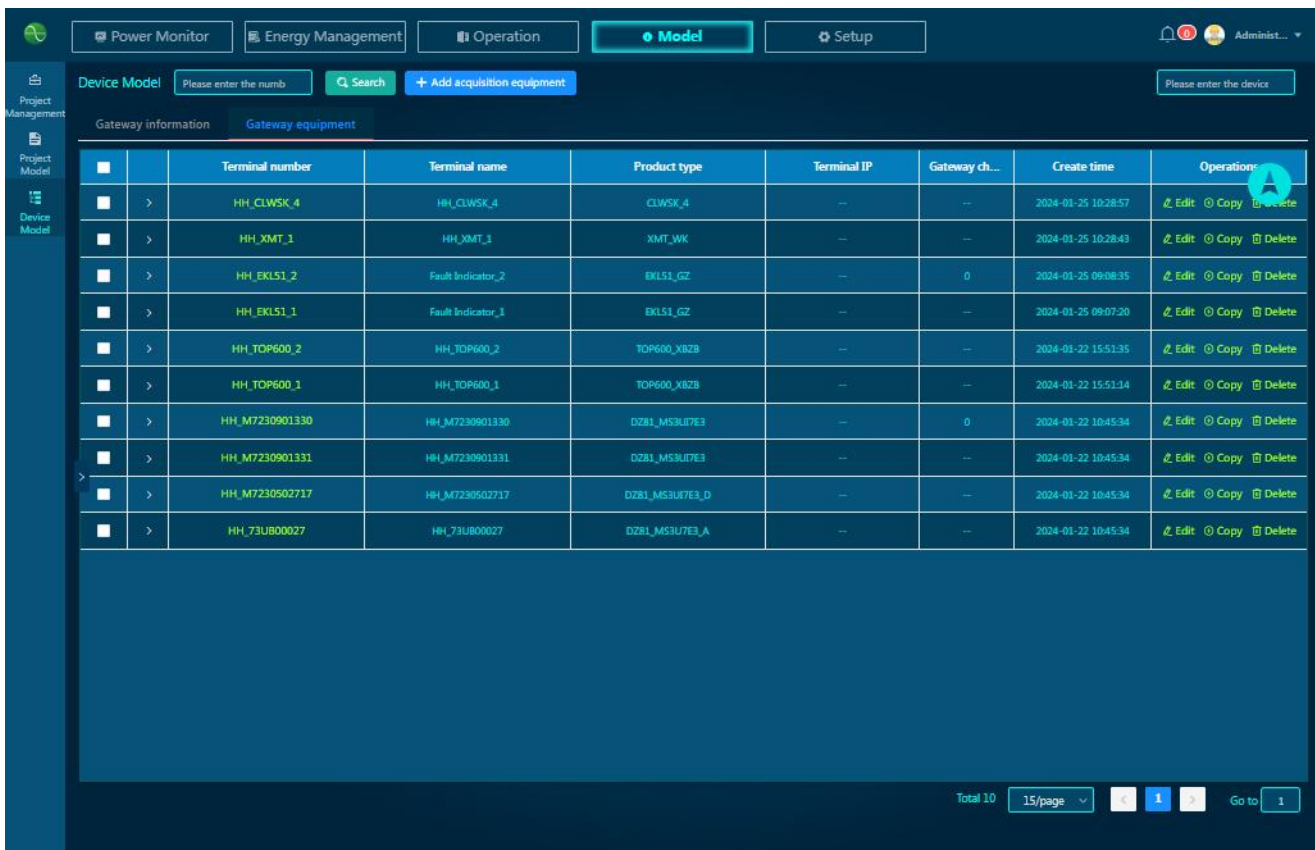
Power Monitor | Energy Management | Operation | **Model** | Setup

Device Model | Please enter the numb | Search | + Add acquisition equipment | Please enter the device

Gateway information | Gateway equipment

Gateway number	Gateway name	Gateway IP	Create time	Operations
603ED304CE03F109	603ED304CE03F109		2024-01-20 17:32:49	Edit Delete

Total 10 | 15/page | 1 | Go to 1



Power Monitor | Energy Management | Operation | **Model** | Setup

Device Model | Please enter the numb | Search | + Add acquisition equipment | Please enter the device

Gateway information | **Gateway equipment**

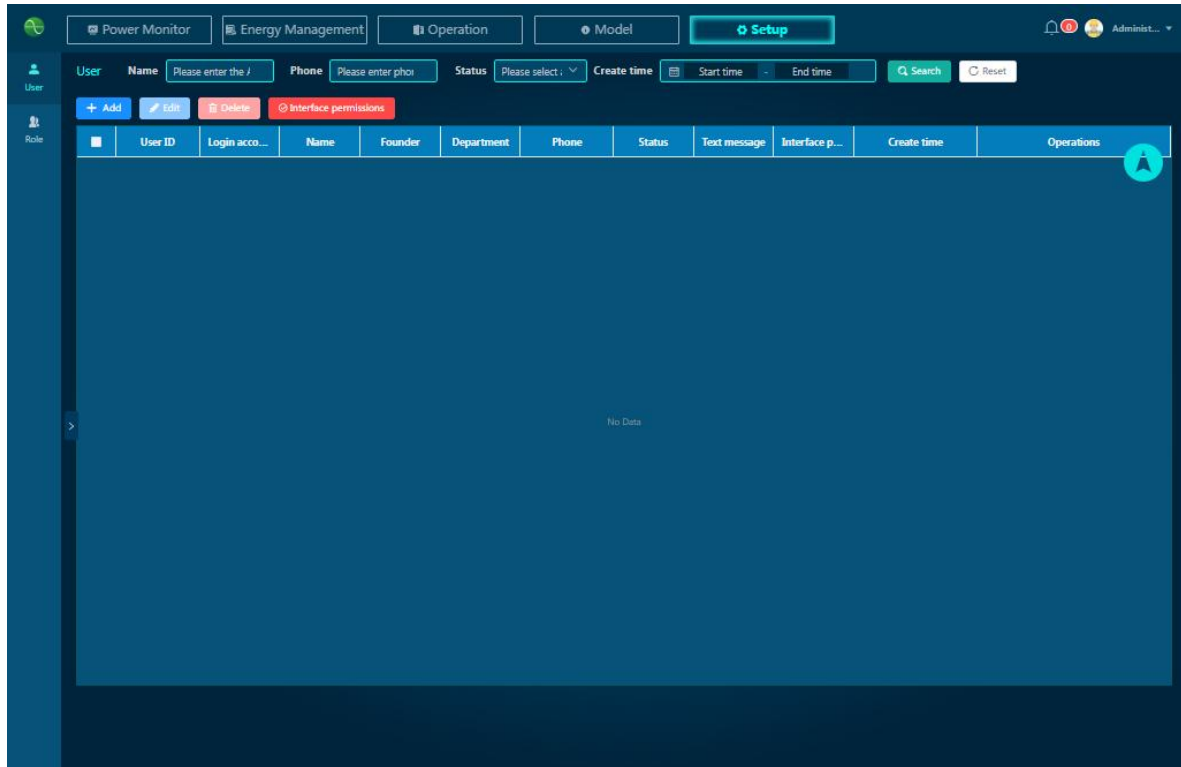
	Terminal number	Terminal name	Product type	Terminal IP	Gateway ch...	Create time	Operations
■	HH_CLWSK_4	HH_CLWSK_4	CLWSK_4	--	--	2024-01-25 10:28:57	Edit Copy Delete
■	HH_XMT_1	HH_XMT_1	XMT_WK	--	--	2024-01-25 10:28:43	Edit Copy Delete
■	HH_EKL51_2	Fault Indicator_2	EKL51_GZ	--	0	2024-01-25 09:08:35	Edit Copy Delete
■	HH_EKL51_1	Fault Indicator_1	EKL51_GZ	--	--	2024-01-25 09:07:20	Edit Copy Delete
■	HH_TOP600_2	HH_TOP600_2	TOP600_XBZB	--	--	2024-01-22 15:51:35	Edit Copy Delete
■	HH_TOP600_1	HH_TOP600_1	TOP600_XBZB	--	--	2024-01-22 15:51:14	Edit Copy Delete
■	HH_M7230901330	HH_M7230901330	DZB1_MS3U7E3	--	0	2024-01-22 10:45:34	Edit Copy Delete
■	HH_M7230901331	HH_M7230901331	DZB1_MS3U7E3	--	--	2024-01-22 10:45:34	Edit Copy Delete
■	HH_M7230902717	HH_M7230902717	DZB1_MS3U7E3_D	--	--	2024-01-22 10:45:34	Edit Copy Delete
■	HH_73UB00027	HH_73UB00027	DZB1_MS3U7E3_A	--	--	2024-01-22 10:45:34	Edit Copy Delete

Total 10 | 15/page | 1 | Go to 1

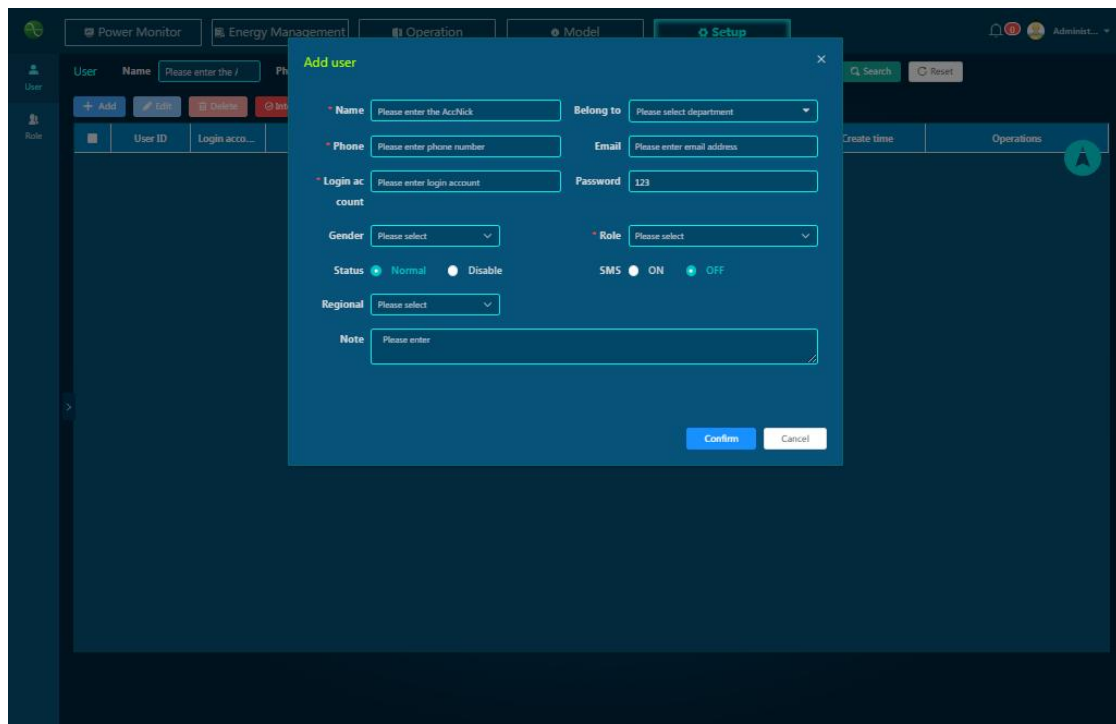
Chapter V Setup

5.1 User Management

5.1.1 User:

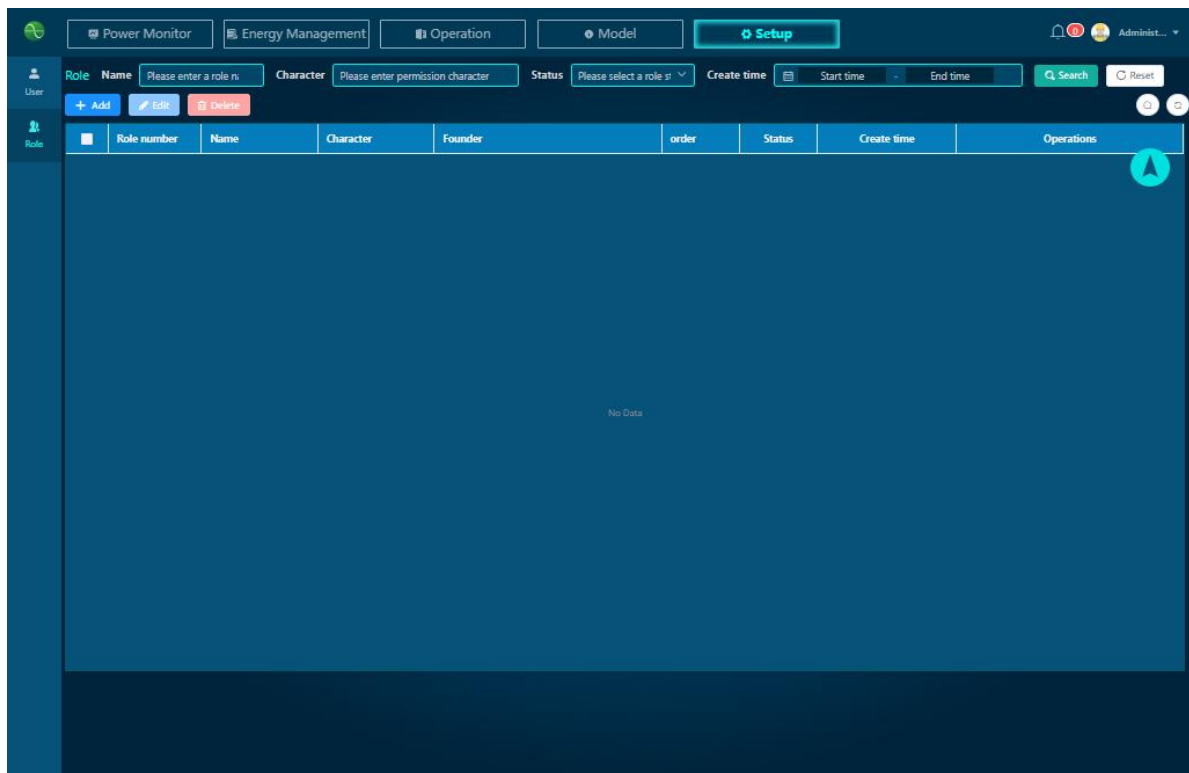


➤ Add User:

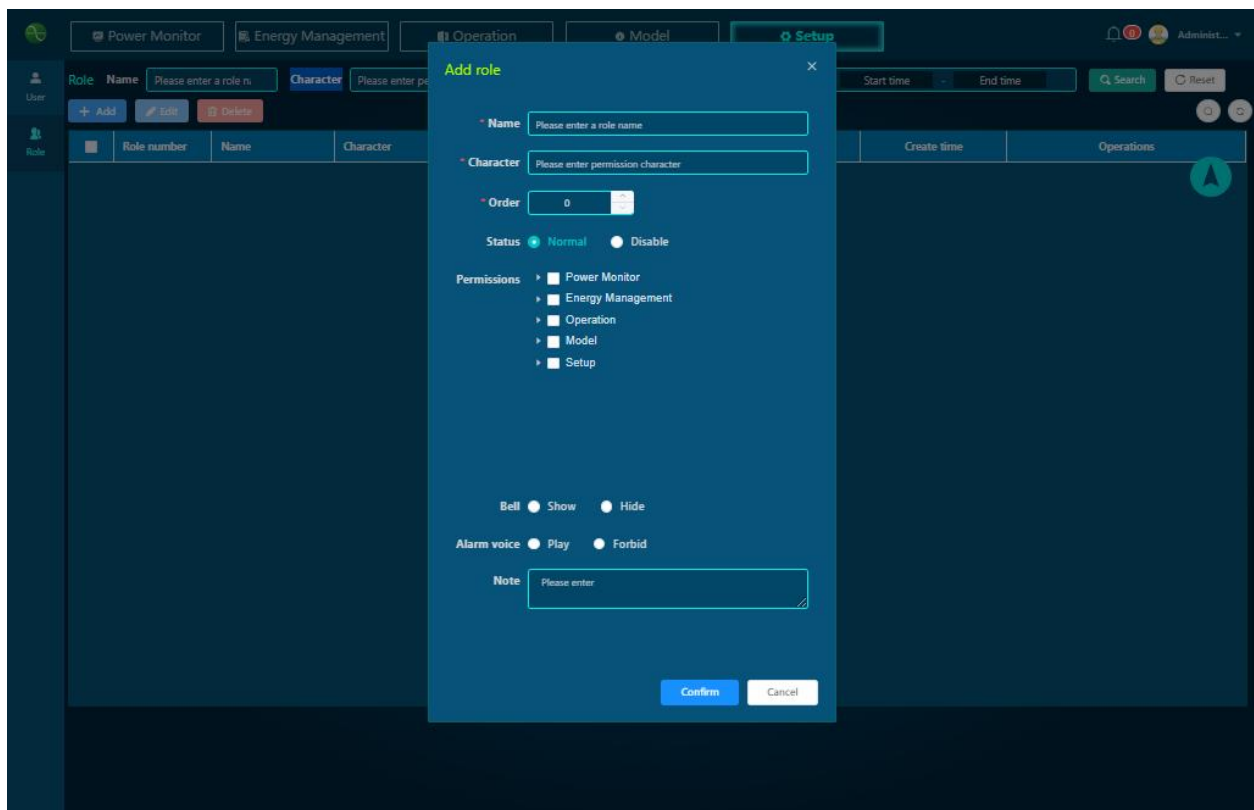


5.2 Role Management

5.2.1 Role management:

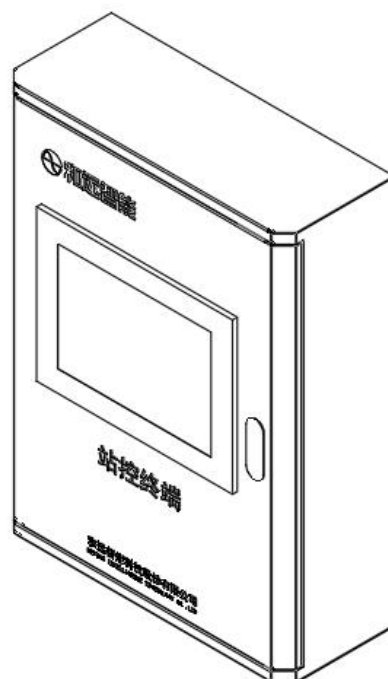
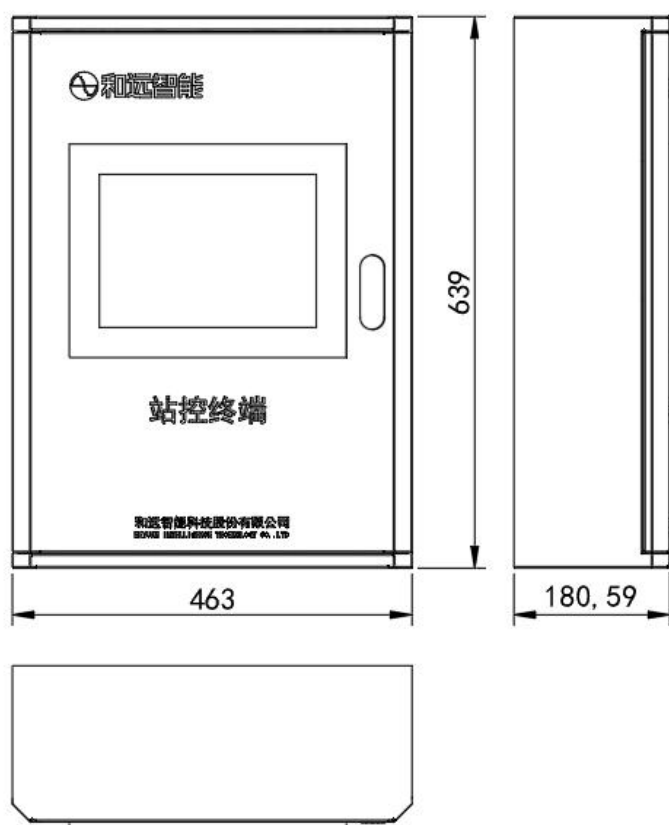


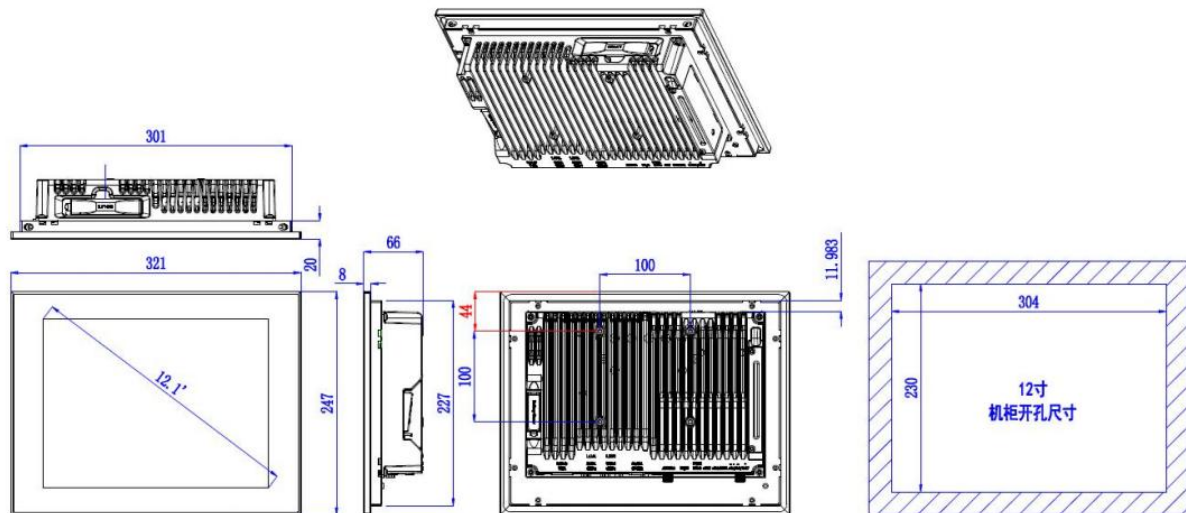
- Search:
- Add new user:



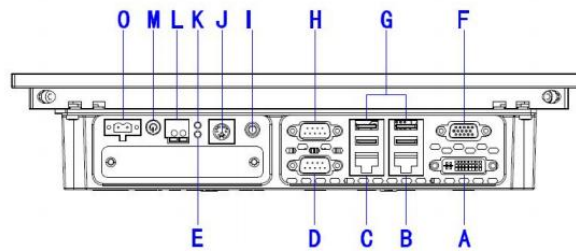
Chapter VI Hardware Introduction

6.1 Product appearance and dimension





➤ 6.1.2 Interface



A:DVI-D	B:LAN1	C:LAN2	D:COM1
E:Power LED	F: VGA	G:USB	H:COM2
I:Line OUT	J: PS2	K:HDD LED	I:SW
M:Power Switch	O: DC IN 12-24V		

6.2 Parameters

➤ 6.2.1 Industrial Panel PC parameters

Parameters	CPU	J1900	J6412	4205U	i3-8145U	i5-7200U
	Basic Frequency	Quad Core2.0GHz		Dual Core 1.8GHz	Dual Core 2.1 GHz	Dual Core 2.5 GHz
	Cache	2MB	1.5MB	2MB	4MB	3MB
	Chip	Integrated PCH-LP				
	Memory	1*DDR3L-1600 , max 8GB / 1*DDR4 2400MHz , max 16GB				
	Storage	1 x 2.5" SATA bay + 1 x mSATA				
I/O Interface	Network	2 x Intel 1000Mbps RJ-45 Ethernet port				
	VF	Optional				
	USB	4 x USB3.0/2.0/1.1				
	Serial Port	2 x RS-232 / RS-485 port				
	Back I/O Interface	DVI-I / 2 x GLAN / 4 x USB / 2 x COM / 2 x PS2 / Line-out / Mic-in				

Material Characteristics	Size (W x H x D)	321 mm x 247mm x 66mm (12.64" x 9.72" x 2.60")
	Hole Size (W x H)	304mm x 230mm (11.97" x 9.06")
	Weight	3.54kg
Operating System	Operating System	Windows 7, Windows 7 Embedded, Windows8, Windows10, Linux, VXWORKS, QNX
Power Supply	Input Voltage	12-24VDC $\pm$ 10%
	Max. Consumption	37W
LCD Screen	Type	12.1" XGA TFT
	Resolution Ratio	1024 x 768
	Maximum Color	16.7MB
	Display Area (W×H)	245.76mm × 184.32 mm
	Backlight	LED
	Backlight MTBF(hour)	30000hrs
	Pixel pitch	0.240 x 0.240
	Brightness	350cd/m2
	Contrast Ratio	800 : 1
	Visual Angle	(L) 80 / (R) 80 / (T) 80 / (B) /80
Touch Screen	Type	Multi point capacitive touch screen
	Transmittance	87%
	Controller	USB interface
	Driver support	Windows XP, Windows 7 , Windows 8, Windows 10 , Linux
	Multi touch	Up to 10points under Windows
	Surface Hardness	Moh's hardness 7H
Others	Working temperature	-20 ~ 60° C (-4~140°F)
		0 ~45°C (32~113°F)
	Storage Temperature	-30 ~ 80°C (-22 ~ 176°F)
	Relative Humidity	5~95%(No condensation)
	Vibration during operation	SSD applied: 1.5 Grms, IEC 60068-2-64, random, 5~500Hz, 1 hr/axis
	Impact during operation	SSD applied: 10G, IEC 60068-2-27, Half sine wave, lasting for 11ms
	EMC	CE/FCC Class B
	Waterproof	Front panel: IP65

Chapter VII After-sales Service

7.1 Product Warranty

1. The product warranty period is one year.
2. The company is responsible for free maintenance or exchange within one-year warranty period.
3. The cost of the components and freight shall be charged for improper meter installation and/or operation.
4. Over the warranty period, part of the maintenance cost according to actual situation will be charged.

7.2 Service Guarantee

1. Product technical consulting and quality complaints will be replied within 12 hours.
2. Solutions for quality complaints will be provided within 24 hours.
3. Except statutory holidays and force majeure.

Chapter VIII Contact US

Headquarter Add.:

7F No.1 Aosheng Building, 1166 Xinluo Street, High-tech Development Zone, Jinan, P.R. China 250101

Factory Add.:

2F Innovation Factory, Feiyue Road, High-tech Development Zone, Jinan, P.R. China 250101

Tel: +86 68621770-863

mail: info@heyuanintel.com

Website: www.heyuanintel.com