

### Intelligent PDU product introduction

Product overview

Intelligent PDU is a new generation of intelligent power distribution management unit which mainly targets at the power environment of the computer room. The intelligent management control module and control chip which can not be provided by traditional PDU and PDU equipment are added. And through Ethernet, RS485, RS232 and other communication methods to connect with the Yishu Internet of things platform, achieve the effect of remote control and plan management. Yishu intelligent PDU can realize energy consumption statistics, voltage and current monitoring and other functions based on a single channel or the whole

cabinet. And through the remote control system to achieve the power supply of electrical equipment query, connect, disconnect or restart functions, for the stability of the computer system, safe, green operation provides a technical guarantee.

Product characteristics

Energy saving and emission reduction

Ø Energy monitoring

Yishu intelligent PDU can measure the input voltage and current of each circuit, and in watts or kilowatts, Calculate the power used, it can also be used to calculate total energy use. To realize the effective monitoring of the energy use of all electrical equipment in the computer room.

Ø Energy saving control. Yishu smart PDU can judge the PDU power, as well as the usage of each socket, reasonable arrangement of electric equipment deployment location, efficient regulating air inlet opening and closing, also can according to customer's situation will be a closet don't need the switches, routers, firewalls, and other equipment for power operation, implement efficient statistical analysis of energy saving and emission reduction.

Ø Statistical analysis. Yishu smart PDU can

interconnect with the iot platform through Ethernet interface or RS232 interface to monitor and manage the working status, such as PDU total power supply, port output current, voltage, power factor, port switch status, temperature and humidity, etc., so as to better manage related power devices and ensure the stability of the power supply system.

Ø Power supply safety. Yishu smart PDU can monitor and warn the current, voltage, and power of the cabinet to prevent overcurrent, overvoltage, and overload. It can also set the safety valve value of the total load according to the actual situation. When the total current of the PDU exceeds the set threshold, it can warn the power accident to prevent the load of the PDU from exceeding the allowable range. Further improve the safety level of the equipment room.

ØRemote control. Yishu smart PDU can be managed and accessed by Yishu iot cloud platform, which solves the problem that the original power supply alone cannot be managed, and realizes the group management, authority management, data report generation and so on for all PDU in the data. When a blue screen of death (BSOD) occurs on the server or the power supply is stuck, remote soft restart is not possible. This function can only be achieved by hard restart of

#### the smart PDU

Yishu smart PDU series product user manual

#### 1. Instructions

- Open the packing case;
- Take out the PDU and check whether the machine is in good condition;
- Check the product list carefully and contact us if you have any questions;
- Dear users, please read the instructions carefully before using the
  PDU and follow the instructions;
- Our system software and program conversion software provide free upgrades;
- After sales, our company provides free remote guidance service.

### 2. Product list

NO.	Name	Quantity	Unit	Remark
1	PDU	1	pic	-
2	Hanging ears	2	pics	
3	screw	1	package	-
4	specification	1	pic	-
5	Certificate of conformity	1	pic	-

# 3.System parameter

YISHU SMART PDU				
	Parameters	Remark		
Style				
Output socket	8-bit new national standard 10A(optional)			
Maximum output per route	10A			
Temperature and humidity sensor	Up to 3			
Timing	Supports network automatic time calibration and local time calibration			
Size	44. 4*4. 4*12cm	No hanging ear		
Shell color	Matte black			
Wire specification	2.0 square			
Length	1. 8M			
Input voltage range	200-240V			
Rated current	16A			
Operating frequency	50-60 Hz			
Port	232 485 TCP			
Support peripheral	2 access control, 1 smoke sensing, 1 flooding			
Working temperature	-10-40 Degree Celsius			
External dry contact	4pcs.			
External dry contact	4pcs.			

Operation record	1000 pcs.	
Alarm record	1000 pcs.	
protocol	SNMP TELNET MQTT MODBUS-RTU	
IP proTOCOL	IPV4 IPV6	
Sequence	1-199 sec	
Power status	Last time, power on poweroff	
plan display	320* 240 LCD	
upgrade	online fireware upgrade	
Ethernet speed	10/100M	
	resolution 0.1V	
Voltage value	precise +- 1%	
	range 100-240V	
	resolution 0.1A	
current value	precise +- 1%	
	range 1-36V	
	resolution 0.1KW/H	
electricity value	precise +- 1%	
	range 1-999999KW/H	
TEMP walue	resolution 0.10	
TEMP value	precise +- 1%	

	range −20 60 C	
Alarm	EMAIL SNMP-TRAP	
Browser	chrome edge firefox	
time trigger	64 PCS	
ping trigger	8pcs	
language	chinese english	
direction	horizontal vertical	

### 3. Warranty

- Warranty scope,:PDU body
- Warranty period: 12 months from the date of purchase.
- If there is a problem with this product, please contact us in time, do not repair yourself, so as not to damage the machine and lose the warranty qualification.
- During the warranty period, the freight sent is borne by the user, and the freight sent back is borne by us.

In case of failure caused by the following reasons, paid maintenance will be carried out during the warranty period.

Problems caused by improper operation or disassembly, repair and modification without permission.

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- Out of standard specification, over voltage, over current, over load.
- Problems caused by collision or improper placement (such as water, etc.) after purchase.
- Failure caused by use in an environment that does not comply with the requirements of this manual.
- Damage to the control box caused by voltage misconnection or voltage instability.
- Failure caused by earthquake, fire, lightning strike, abnormal voltage or other force majeure.

### 4. Common problem handling

Why is the network unavailable?

Check whether the network cable is plugged in, whether the contact is poor

Why is the network port indicator off?

Check whether the network cable is connected according to standard 568B

Why isn't PING working?

Check whether your network is on the same IP segment and whether the ping is successful.

What is the default IP address?

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The default IP address is DHCP.

➤ What is the initial password?

The user name and password are :admin

#### 5. Contact us

Guangzhou Yishu IOT Technology Co.,Ltd.

TEL: 13600027334 020-31000383

QQ: 3022175328

E-mail: 429825488@qq.com

Webside: http://www.icpdu.com

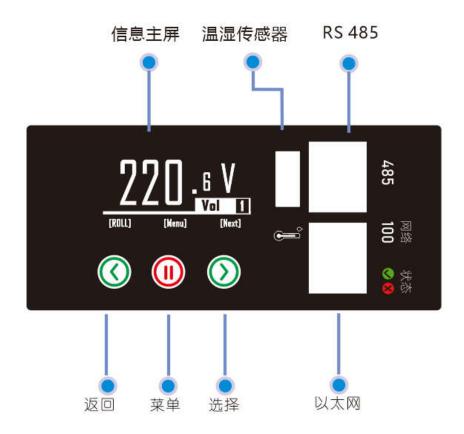
Cloud platform address:http://c.icpdu.com

Address: 4th Floor, No. 2, Guigang Lane 2, Hualong Town, Panyu

District, Guangzhou

### 6. Panel introduction

### 6.1 Panel description

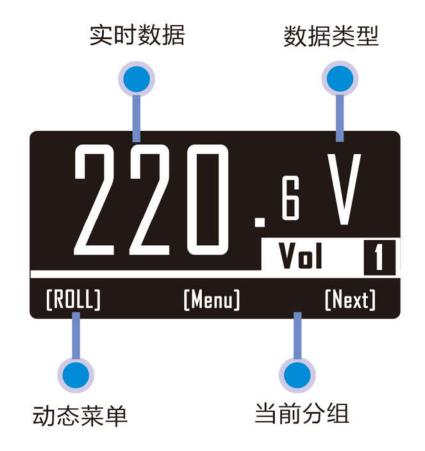


6.2Button Three physical buttons, 1 x Ethernet, 1 x RS485, and 1 x USB connect to the T/H sensor

- 6.3 Introduction of pin function
- 6.4 Pilot lamp

以太网		RS 485 引脚		
1	RX-	1		
2	RX+	2		
3	TX-	3		
4	空	4	RX TTL	
5	空	5	TX TTL	
6	TX+	6	GND	
7	485+A	7	485+A	
8	485+B	8	485+B	

### 6.5 Screen display



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### 6.7.1The screen is divided into four areas

They are: real-time data, data type, dynamic menu,

### current group

Data type

Voltage

Current

Power

Energy

Temp

Hump

### 6.7.2 Display inside

### 6.7.2.1 Voltage display/current/power display







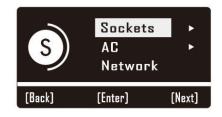
### 6.7.2.1Temperature/humidity/power display



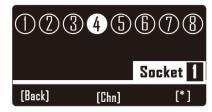




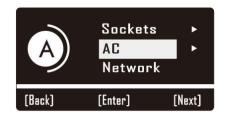
6.7.2.1Unit current/operating status/Manual switch







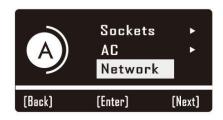
#### 6.7.2.1 Air conditioning Settings, parameters and models



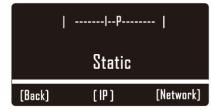




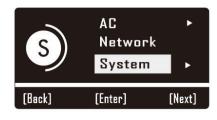
#### 6.7.2.2View and set IP addresses

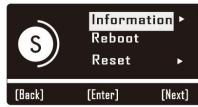






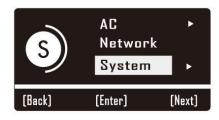
6.7.2.3 PDU name, system version, and time view



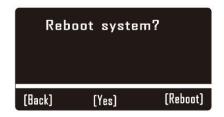




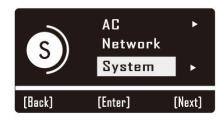
6.7.2.4System restart

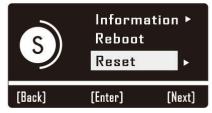


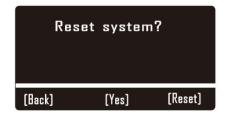




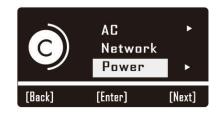
6.7.2.5System factory Settings, to press Yes three times

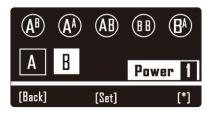


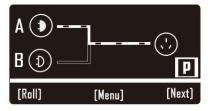




6.7.2.6 ATS switching function







# 手动控制





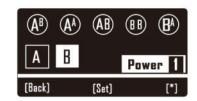


BB 仅选B

● 优先B

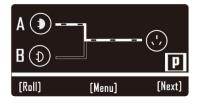
A 输入A状态 实心为有电

B 输入B状态 实心为没电



# 实时状态





7 System page

#### The menu

- 7.0 Log in
- 7.1 Home page

#### 7.2Controls

- 7.2.1socket
- 7.2.2air conditioner

### 7.3 flip-flop

- 7.3.1 Overview of triggers
- 7.3.2 Voltage trigger
- 7.3.3 Current trigger
- 7.3.4 Electric trigger
- 7.3.5 Temperature trigger
- 7.3.6 Timing trigger
- 7.3.7 Network connection trigger
- 7.3.8 lo flip-flop
- 7.3.9 Power input flip-flop

### 7.4 Equipment

- 7.4.1 Equipment group
- 7.4.2 Equipment unit
- 7.4.3 Equipment parameter
- 7.4.4 Equipment expansion
- 7.4.5 Front panel
- 7.4.6 4G
- 7.4。

#### 7.5 Service

- 7.5.1WEB
- **7.5.2TELNET**
- 7.5.3SNMP
- 7.5.4 Internet of things
- 7.5.5 Equipment cloud
- 7.5.6 Reverse proxy
- 7.5.7 Mail Sending service

#### 7.6 Maintenance

- 7.6.1 Network
- 7.6.2 Time
- 7.6.3 Managing Passwords
- 7.6.4 Firmware upgrade
- 7.6.5 Factory data reset
- 7.6.6 Equipment to restart
- 7.6.7 Equipment

### 7.7 Message

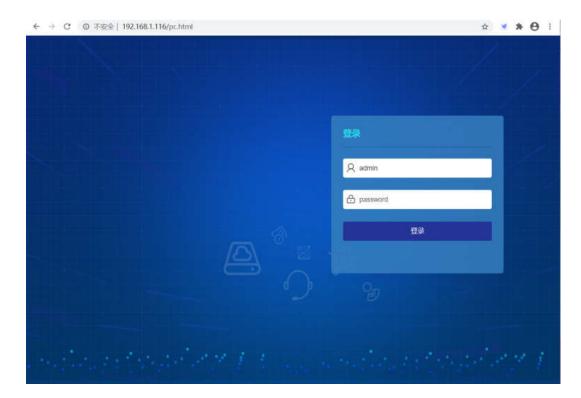
- 7.7.1 Alarm log
- 7.7.2 Operation log
- 7.7.3 About the equipment

## 8.0 Log in

8.0.1 Enter http://ip in the browser. IP is used as DHCP by default

\*Please check whether the router is on

DHCP service. For details, see 6.7.2.2

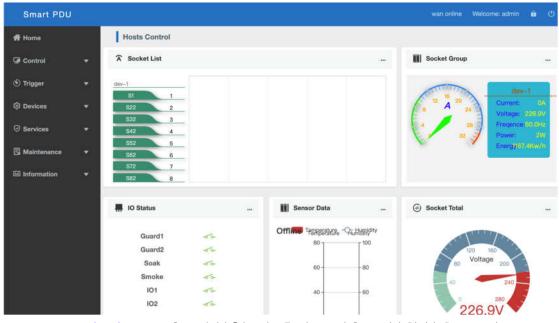


8.0.2The default user name and password are all lowercase admin. For details about how to change the password, see 7.6.3 managing passwords.

#### 8.0.3. Click to log in

### Note: Please use chrome Firefox or Internet Explorer 9.0 or above

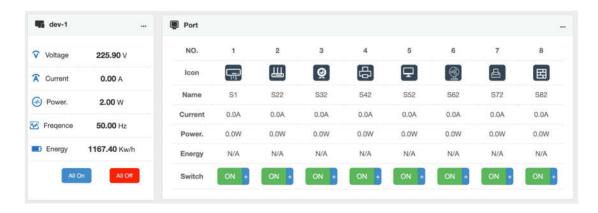
#### 8.1 Home Page Introduction



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- 8.1.1 The socket list is the dynamic real-time current display of the unit.
- 8.1.2. Socket performance dashboard for group voltage, voltage, power, electricity real-time data.
- 8.1.3. Sensing data: current temperature and humidity values \* can be extended to 3 sets of data
- 8.1.4. Socket data summary, the sum of the current data of all groups (voltage is the average)
- 8.1.5. IO status Indicates the current expansion IO status (optional module). Supports two access control channels, one water access channel, one smoke sensing channel, and four IO channels.
- 8.1.6. The service status is the resource occupied by the current CPU.

#### 8.2 Control introduction



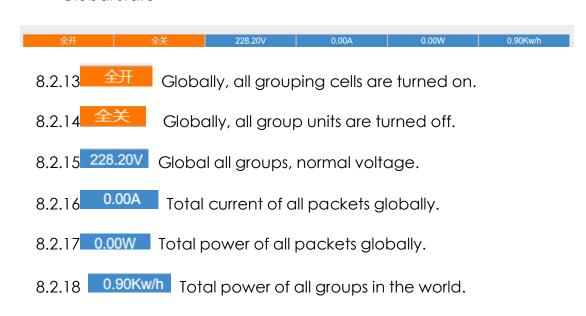
- 8.2.1 dev-1 is the current group identifier.
- 8.2.2 Display the current group working in real time.
- 8.2.3 Full on, full off, control the on and off of the current group unit.
- 8.2.4 Port information

- 8.2.5 1 Is the identification number of the physical unit
- 8.2.6 The icon \* of the current unit is replaceable refer to Chapter 5.
  - 8.2.7 The operating current of the current unit.
  - 8.2.8 The real-time power of the current unit.
- 8.2.9  $^{NA}$  The total power of the current cell, NA, indicates the absence of the function.
  - 8.2.10 Current device state, click state is the reverse.
  - 8.2.11 Click + to display the slide down menu.

延时开延时关

8.2.12 Current unit port switch expansion function, restart, delay on, delay off.

#### Global state

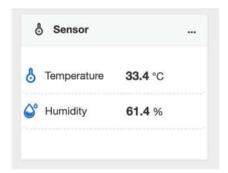


#### 8.2.19 ATS switching

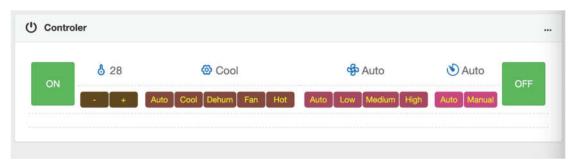
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8.2.2 Air conditioning control (the function for external sensor you can choose and buy) .



- 1.Temperature and humidity of the current air conditioner sensor
- 2 .Air conditioning control function button.



- 8.3The trigger
- 8.3.1Trigger overview
- 8.3.1.1



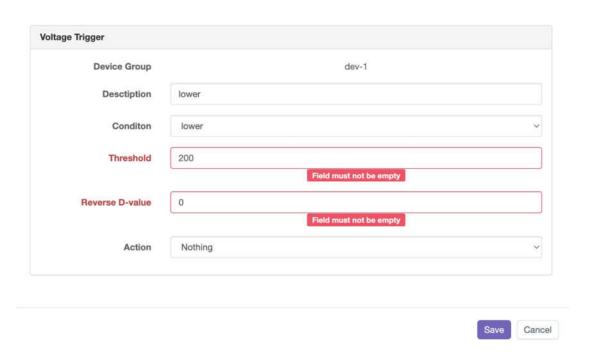
8.3.1.2Record in detail the trigger that the unit port is in use.

### 8.3.2.1 Voltage trigger



Note: Voltage triggers are in groups.

#### 8.3.2.1.1 Voltage trigger settings click modify.



8.3.2.1.2 [Equipment Group] Name of the group

- 8.3.2.1.3 [Description] User-defined input
- 8.3.2.1.4 [Condition] The parameters are Disabled, Below, Close, and Exceed.
- 8.3.2.1.5 [ Threshold ] Enter the set value
- 8.3.2.1.6 **[**return difference**]** Input integer, assuming the set voltage is 250V trigger, back difference is 2, so when the voltage is greater than 250v will trigger, when the voltage is lower than 248V the trigger is removed.
- 8.3.2.1.7 [Actions] Actions are "On", "off", "Restart", "Delay on", "Delay off", "Alarm"
- 8.3.2.1.7 [Parameters] Unit port, and "Air conditioning action"

#### 8.3.2.2 Current trigger

CURRENT trigger

Device Group	dev	-1
Port	Group	
Desctiption	lower	
Conditon	lower	:0
Threshold	10	
	Field must no	at be empty
Reverse D-value	0	
	Field must no	et be empty
Action	Nothing	
Action	Nothing	v

8.3.2.2.2 [Description] User-defined input

8.3.2.2.3 [Condition] The parameters are Disabled, Below, Close, and Exceed.

8.3.2.24 Threshold Thresho

8.3.2.2.5 [Input integer] The input integer assumes that the current is set to 10A to trigger, and the return difference is 2, so when the current is greater than 10A, it will trigger, and the current is lower than 8A, it can trigger.

8.3.2.2.6 [Actions] Actions are "On", "off", "Restart", "Delay on", "Delay off", "Alarm"

8.3.2.2.7 8.3.2.1.7 [Parameters] Unit port, and "Air conditioning action"

#### 8.3.3.3 Electric trigger

8.3.3.3.1 Reference voltage trigger

#### 8.3.3.4 Temperature trigger

8.3.3.4.1Reference voltage trigger

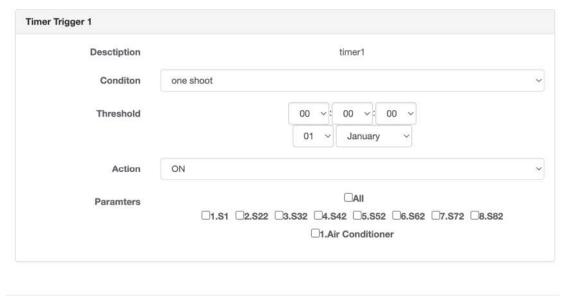
#### 8.3.3.5 Timing trigger

Note: This timing list contains a maximum of 68 groups

#### 8.3.3.5.1 List of timers



#### 8.3.3.5.1.1 Click to modify



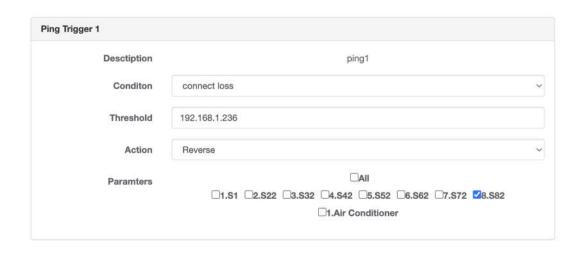


- 8.3.3.5.1.2 [Description] time1 automatic naming
- 8.3.3.5.1.3 [Conditions] Cycle mode "Disabled", "Specified Time", "Daily", "Weekly", "Monthly"
- 8.3.3.5.1.4 [Threshold ] Fixed time
- 8.3.3.5.1.5 [Action] The actions are "no action", "on", "off", "restart", "delay on", "delay off", "alarm".
- 8.3.3.5.1.6 [Parameters] Unit port, and "Air conditioning action"
- 8.3.3.6 Network link trigger

Note: the network connection for a maximum of 8 groups



8.3.3.6.1 Click modify, add a new group and click copy

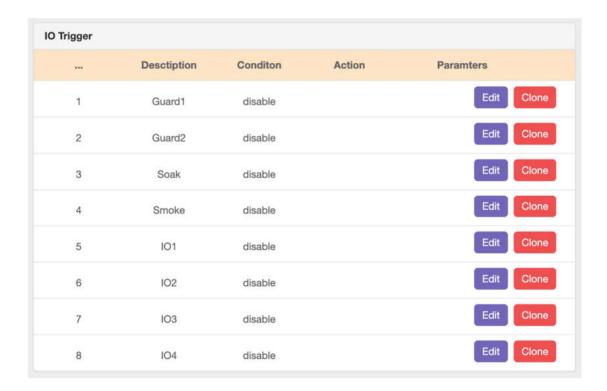




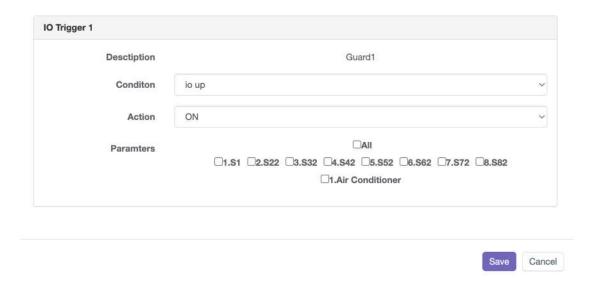
- 8.3.3.6.2 [Description] ping1 automatic naming
- 8.3.3.6.3 [Conditions] Cycle mode "Disabled", "Network connection", "Network Disconnection", "weekly"
- 8.3.3.6.4 [Threshold] Enter the IP address or domain name, note (use intranet, try not to set the domain name)
- 8.3.3.6.5 [Action] The actions are "no action", "On", "off", "Restart", "Delay on", "Delay off", "Alarm".
- 8.3.3.6.6 [Parameters] Unit port, and "Air conditioning action"

#### 8.3.3.7 IO trigger

There are 8 groups of IO triggers (please select the official sensor, the unofficial specified sensor may damage the PDU)



8.3.3.7.1 [Description] Automatic number, cannot be modified8.3.3.7.2 [Conditions] "io up" "io down" stands for "top trigger", "bottom trigger"



- 8.3.3.7.3 【Action】 The actions are "no action", "On", "off", "Restart", "Delay on", "Delay off", "Alarm".
- 8.3.3.7.4 **[**Parameters**]** Unit port, and "Air conditioning action" <a href="www.icpdu.com">www.icpdu.com</a> Copyright © by yisu Equipment Co., Ltd. Rights Reserved.

### 9.Equipment

### 9.1 Equipment group

[Identification] System generation

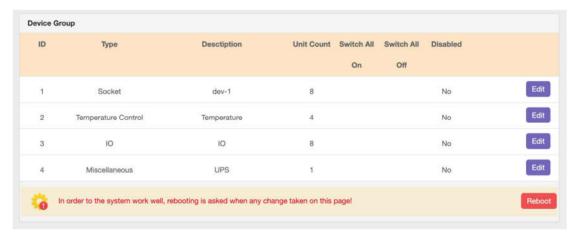
**Type** System generation

[Description] The group name can be modified

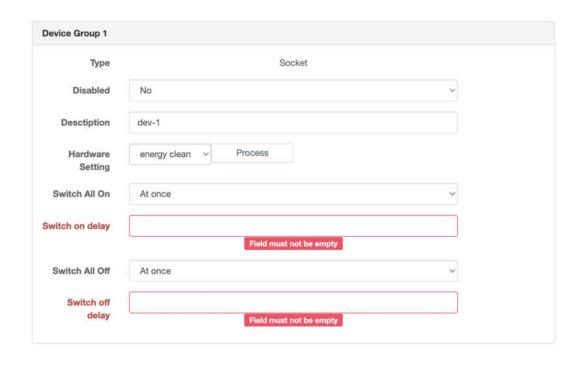
**[**Full open mode**]** Sets the fully open unit port order

**[**Fulll off mode**]** Sets the fully off unit port order

### Note (You need to restart to modify this menu)



#### 9.1.1 Modification of device groups



Save Cancel

[Type] Identification of system

[Disable] Whether to enable this group (not recommended to modify)

[Description] Can be changed according to actual needs, a maximum of 5 Chinese characters

[Number of units] System identification, (not recommended to modify) the system may be error.

[Bus address] System identification, (not recommended to modify) the system may be error.

[Hardware setup] Power clear (Set this function to clear the power record)

**[**Full open mode**]** Set fully open unit port order, modify according to actual needs, default is at the same time.

[Fully open interval] Each unit port open interval

[Full off mode] Set fully off unit port order, modify according to actual needs, default is at the same time.

[Fully off interval] Each unit port off interval

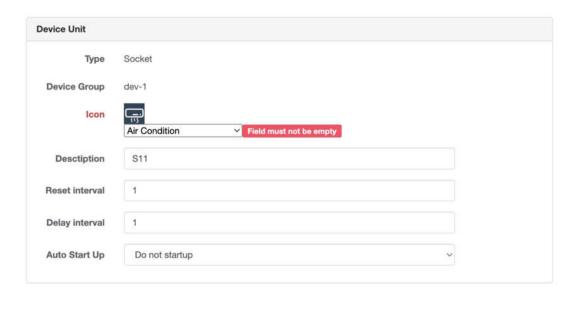
### 9.2 Equipment unit

#### List of units

Device Unit							
ID	Туре	Device Group	Icon	Desctiption	Reset interval	Delay interval	
1	Socket	dev-1		S1	1	1	Edit
2	Socket	dev-1	Ш	S22	2	2	Edit
3	Socket	dev-1	(Ø	\$32	3	3	Edit
4	Socket	dev-1	日	S42	4	4	Edit
5	Socket	dev-1	$\Box$	S52	5	5	Edit
6	Socket	dev-1	<b>⊚</b>	S62	6	6	Edit
7	Socket	dev-1	<u>a</u>	S72	7	7	Edit
8	Socket	dev-1	田	S82	8	8	Edit
1	AC	Temperature		Air Conditioner			Edit
2	Temperature Control	Temperature		Temperature1			Edit
3	Temperature Control	Temperature		Temperature2			Edit
4	Temperature Control Temperature			Temperature3			Edit
1	Entrance Guard IO			Guard1			Edit
2	Entrance Guard	10		Guard2			Edit

#### 【类型】插座

#### 【设备组】名称可修改看 4.4.1





#### [Type] socket

[Equipment group] The name can be changed, as described in 4.4.1

[Icons] You can select the desired icon from the list

[Description] Fill in the unit port name as needed, e.g. "Air conditioning"

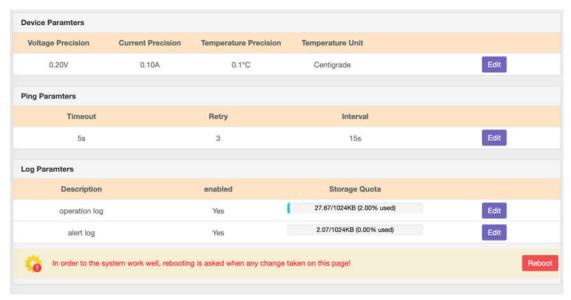
[Interval of restarts] According to the actual need of the integer like "1" in seconds

[Delay interval] According to the actual need of the integer like "1" in seconds

[Start up] According to the actual adjustment action "do not start", "start", "delay start"

[Start Up Delay] According to the actual need to adjust to prevent starting current is too large, at the same time proposes keeping a certain interval.

### Equipment parameters



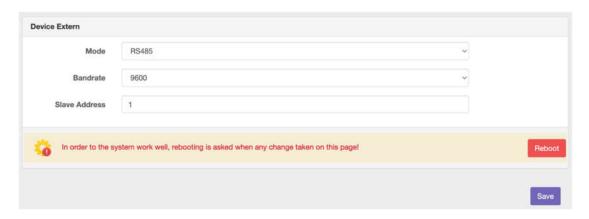
#### 校正设置



In general, the factory has been proofread, special circumstances can be set up

#### Device extension

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[Mode] "RS485", "TCP", "TCP+485" Please select the default is 485+TCP and does not need to change

[Baudrate] "1200" "4800" "9600" "11520" suggestion "9600"

[Secondary address] 1-64 the default is 1, note: the same bus, the address code can not be the same

Note: This module must be restarted after function modification.

Front panel Settings

display monitor seting







#### **SERVICE**

#### WEB (WEB SRIVCE SETING)





# 【status 】 display the previous connection WEB IP address and time 【Default port 】80



Save Cancel

### 【Turned on】 On by default

[Port] WEB port is 80. Change the port as required

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#### Telnet disposition



#### **【status】** Can display the current link TELNET IP address and time



**[**Enalbed**]** The default value is yes. If the telnet server is not required,

#### select No

#### [Port] default port is 23

#### SNMP service



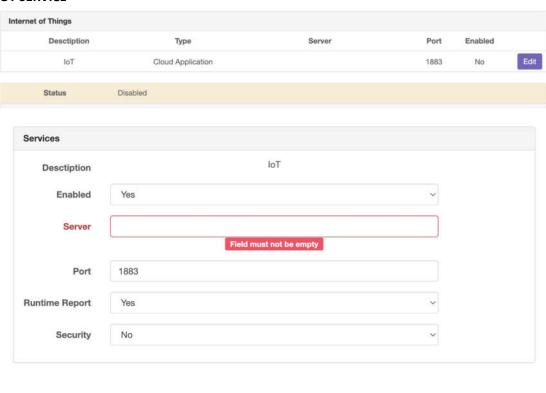


[Enalbed] The default is yes, if you do not need to use the SNMP server,

### select no

### 【Port】 default port is 161

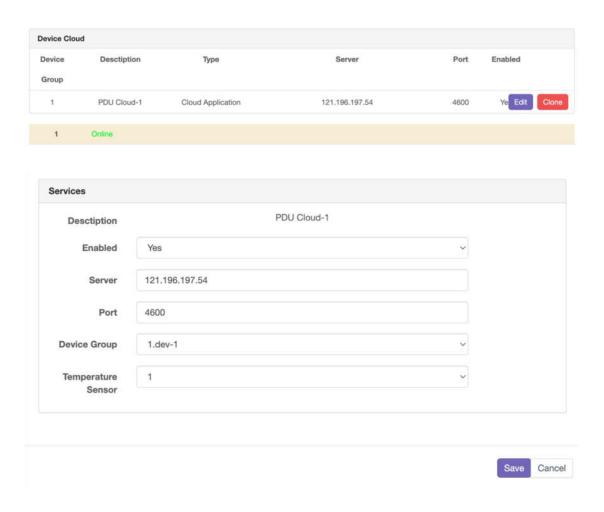
#### **IOT SERVICE**



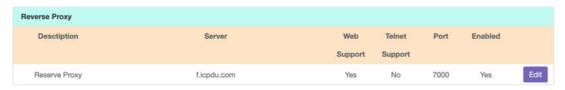
### [Enalbed] Default no, select No if MQTT server is not required

## **[Poirt]** The default port is 5132

### Equipme SERVICE



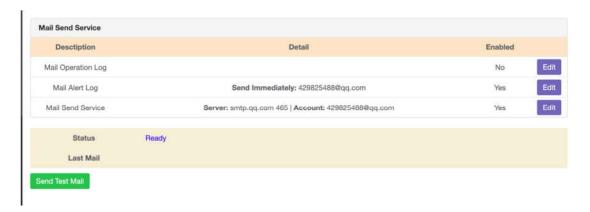
#### Remote Visitors

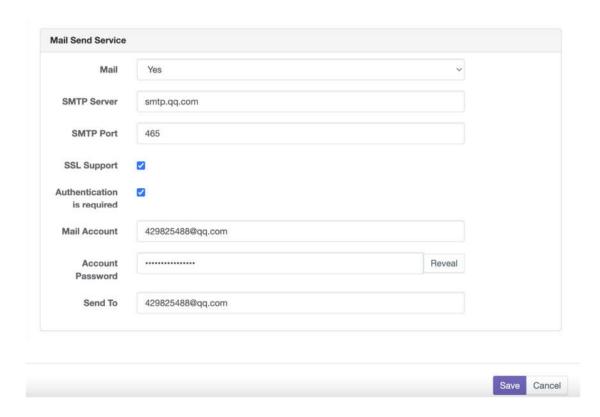




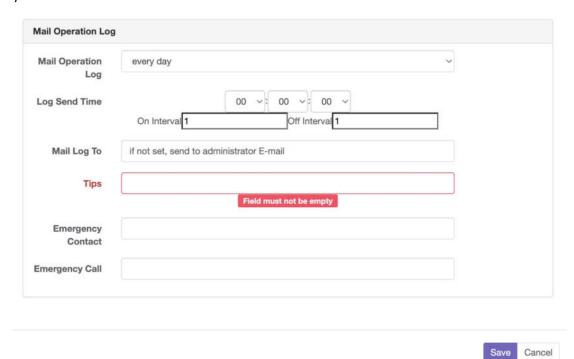
#### **MAIL Service**

Mail sending function, mail service provider must support POP3, if successfully sent, check whether the mail was sent to the spam mailbox. Support SSL encryption, support 163,139, QQ, SINA, etc. It is recommended to use sina mailbox



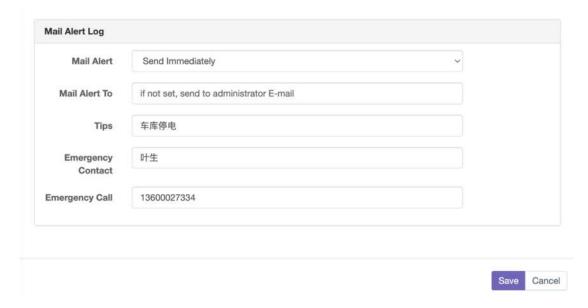


Send alarm log, if it is not an emergency log, do not send frequently, the mail server may block your mailbox.



If you want to send and receive mail, be sure to fill in the correct gateway and DNS

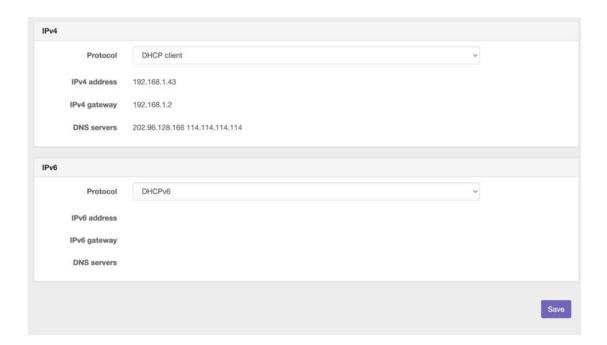
Time modification



Please fill in the required options correctly, if the send is not successful, check whether to open the SMTP service. The DNS gateway is configured correctly.

### Maintenance

Network maintenance: IP address check and change.



The default is DHCP

Fixed IP can be changed.

### 时间修改





### 更新固件







### 恢复出厂设置



The system restarts. The switch status does not change

### The host name



The system restarts. The switch status does not change

### The host name



[ [The host name] The default PDU can be changed as required

[Language] For automatic recognition, the English system automatically switches to English

Message

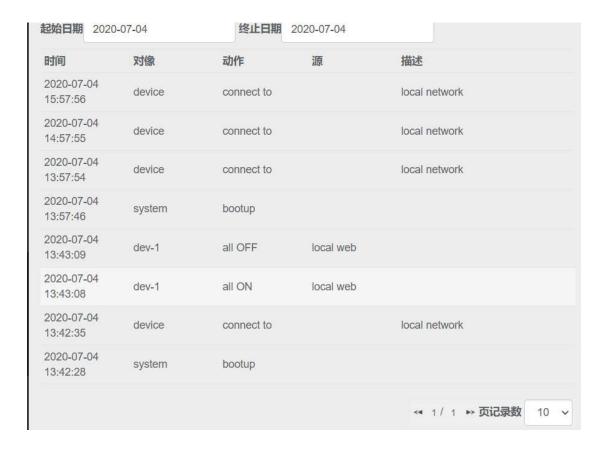
Alarm log

# Message

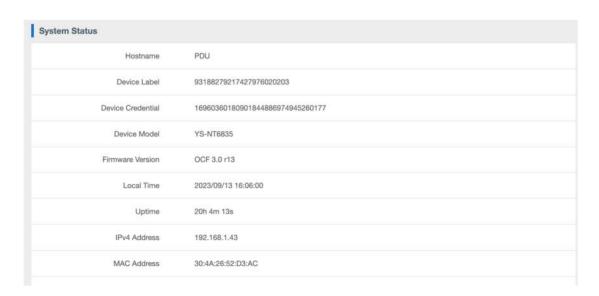
### Alarm log



#### Operation log



#### **Basic system information**



phone brower



