IPDU Operation Manual

Contents

1 Brief introduction

Product Name: Remote monitoring and management of power distribution system

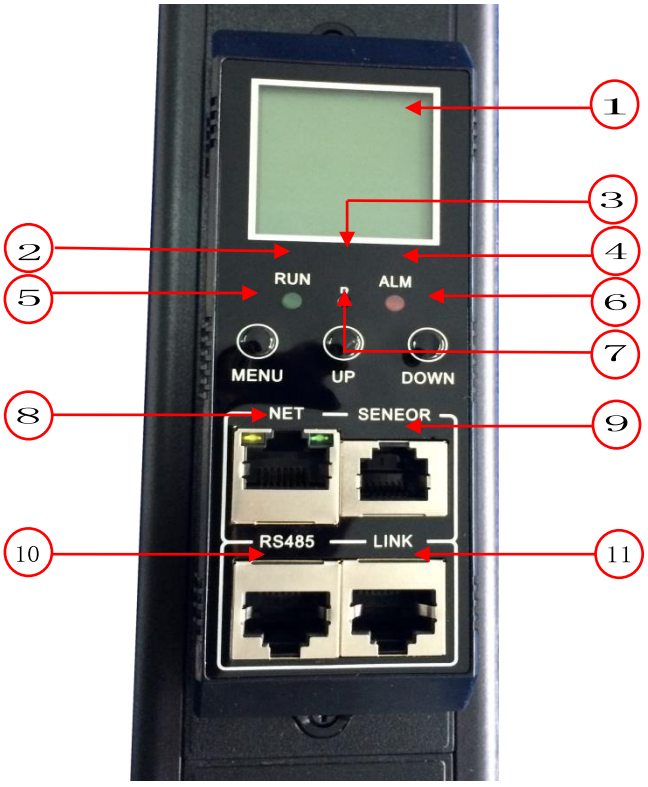
1.1 Definition：

Remote monitoring and management of power distribution system, this product is according to the international development trend of the power distribution management technology, combined with data center application environment of technology and market demand, using the latest core technology with completely independent intellectual property rights. It is a standard system with network communication, monitoring and detection, power distribution, hot swap etc. function.

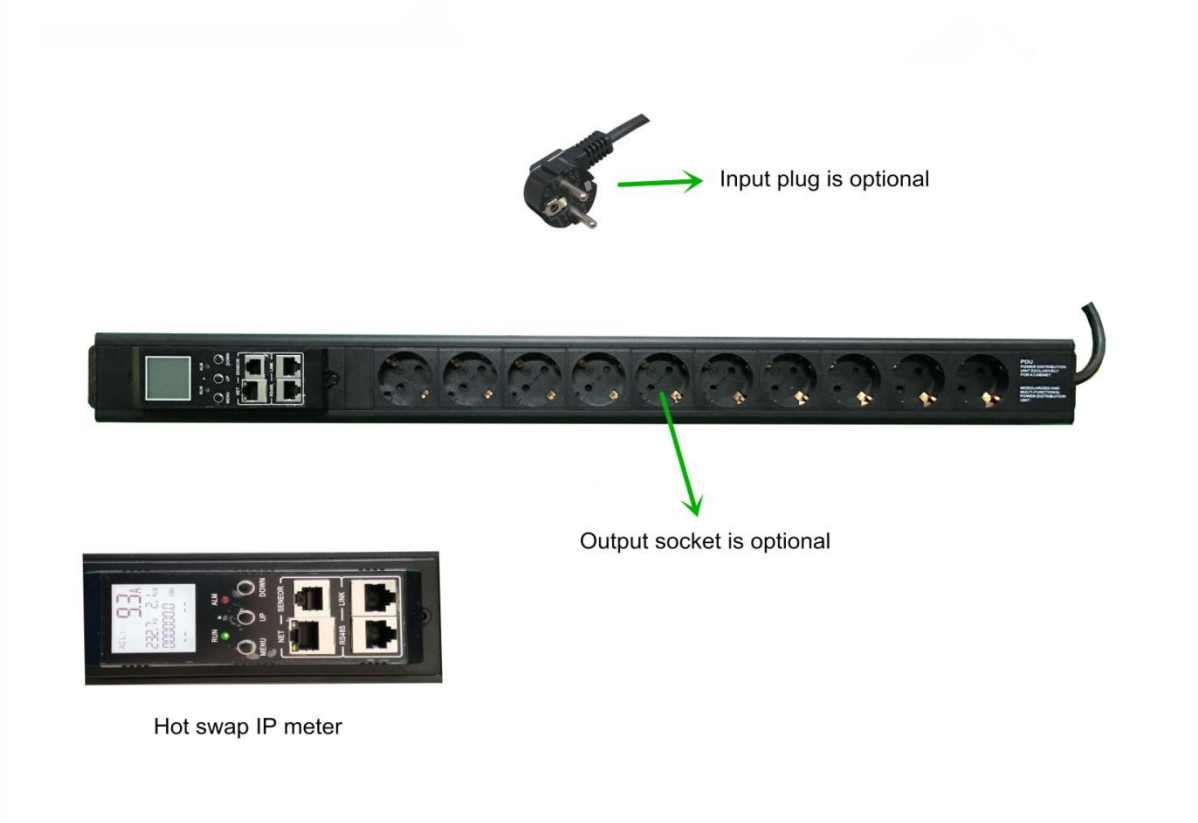
1.2 Main function:

A, the total load current monitoring;
B, the input voltage monitoring;
C, the load power monitoring;
D, total electricity consumption monitoring;
E, input flow monitoring;
F, input overvoltage monitoring;
G, environmental temperature and humidity monitoring

2,Hardware introduction



1- LCD
2-RUN
3- RESET
4- ALARM
5-MENU
6-DOWN
7-UP
8-NET
9-SENEOR
10-RS485
11-LINK



2.1 Boot interface

After 9-1 boot countdown, display the first screen
First screen: AC L1 total current, total voltage, total power, total electric energy, temperature and humidity
The second screen: AC L1 total current, total voltage, total power, power factor , temperature and humidity
The third screen: AC L1 total current, total voltage, total power, total electric energy, temperature and humidity
Fourth screen: AC L2 total current, total voltage, total power, power factor , temperature and humidity
Fifth screen: AC L3 total current, total voltage, total power, power factor , temperature and humidity
Sixth screen: AC L3 total current, total voltage, total power, power factor , temperature and humidity
Seventh screen: 192 168 0 163
Eighth screen: Add M
Ninth screen: AC L1 total current limit, total voltage upper limit,temperature and humidity limit
Tenth screen: AC L2 total current limit, total voltage upper limit, temperature and humidity limit
Eleventh screen: AC L3 total current limit, total voltage upper limit, temperature and humidity limit

2.2 Button Operation

Check Switching:

Through the UP and DOWN keys to switch with the first to eleventh screen display.

Host and auxiliary machine settings:

Through the UP and DOWN key to switch to eighth screen, press the MENU button and hold on 5s and the M will be flashing. through the UP and DOWN keys to switch with M and S; After confirming the change, push and hold the button MENU key for 5S, the device will restart and save the settings value.

Note: M is the host, S is the auxiliary, auxiliary machine can be cascaded through the host.

Modify the L1, L2, L3 limits;

Through the UP and DOWN key to switch to the ninth to eleventh screen display, press the button MENU key 5S waiting current limit is flashing .Through DOWN button to switch the total current limit, The upper limit of total voltage ,temperature, humidity is added by UP button (0-9 automatic cycle accumulation), after confirming the change, press the button MENU key 5S, restart the device to save the set value.

3 Software introduction

3.1 HTTP visit

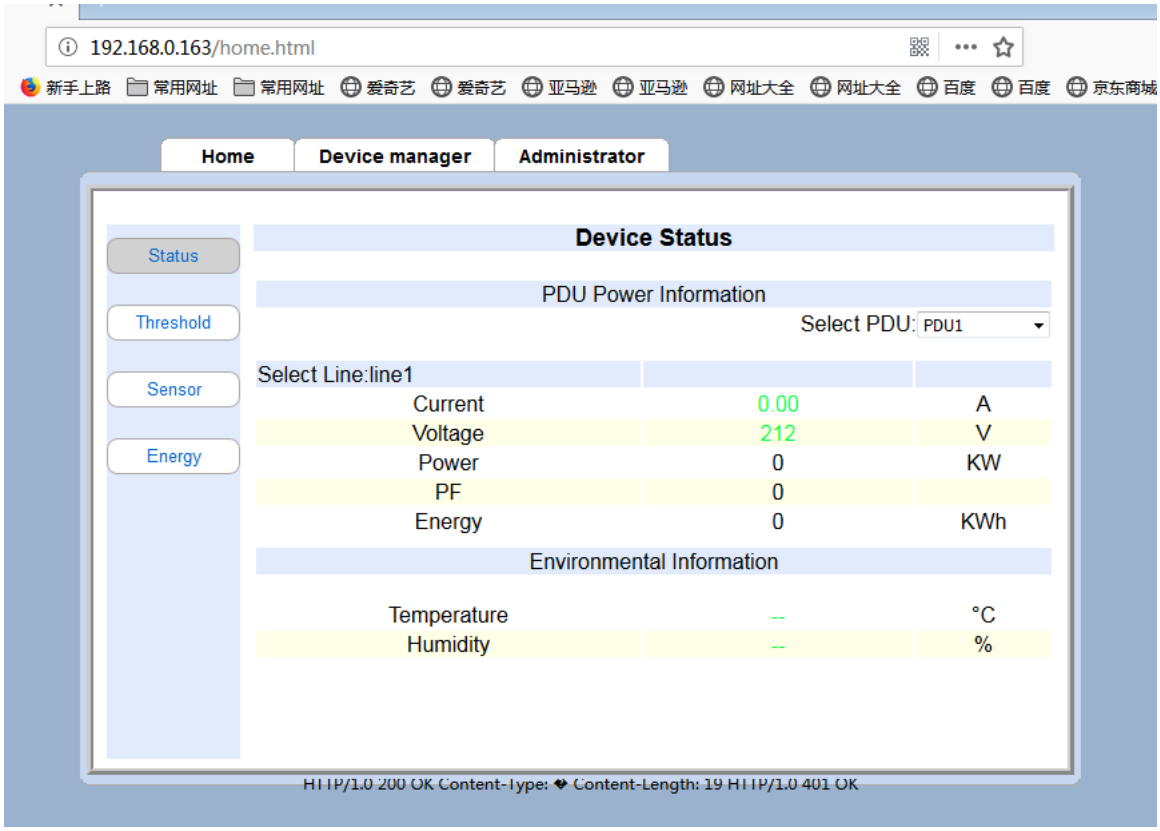
HTTP login screen, enter the browser address bar 192.168.0.163, enter, as shown:

3.2 The home page displays

The total current, the total voltage, the total power, power factor, total electric energy, temperature, humidity;

By selecting PDU switching to view the state of host and the sub-machine.

By choosing Line, switching view L1, L2, L3; three-phase current parameters.

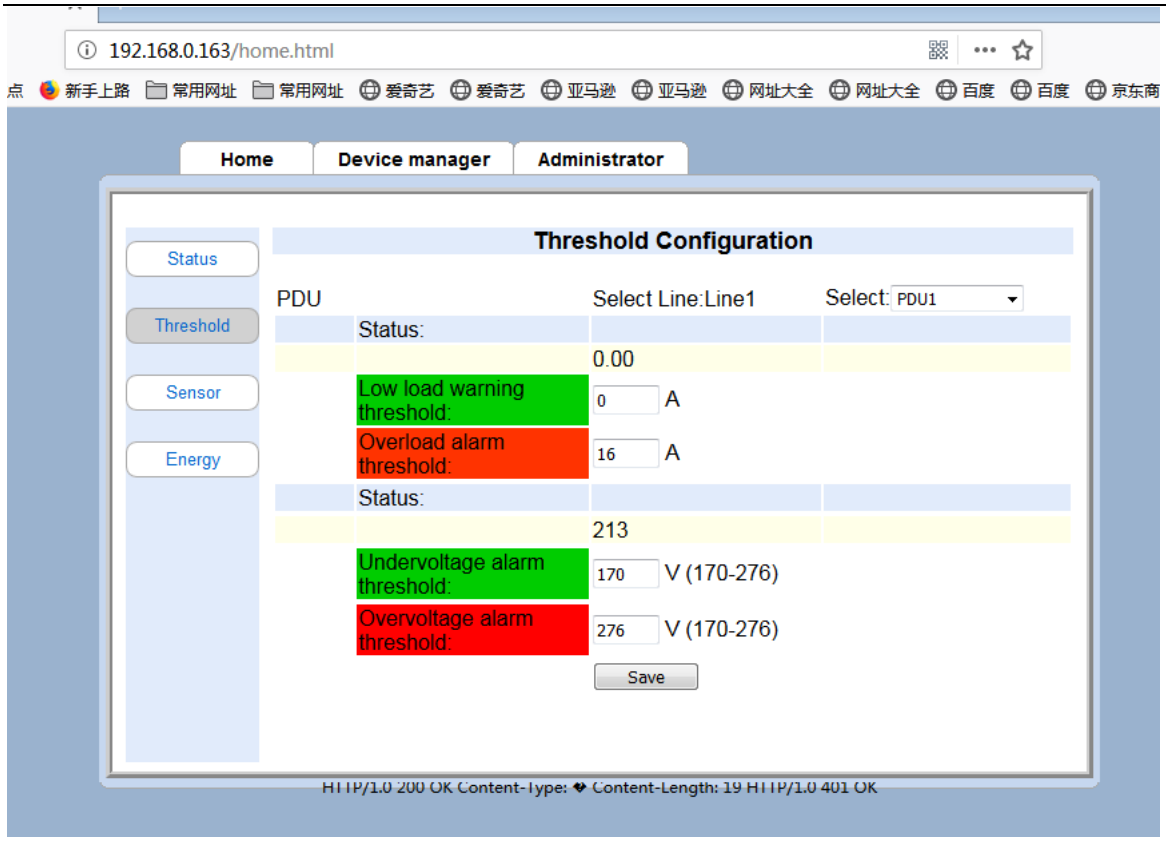


3.3 Threshold configuration

Total current setting, the total voltage bound setting(170-276),total current restrictions on the range of (0-32),through the Save button to save the set value.

By selecting PDU switching to view the host and sub- machine and set restrictions.

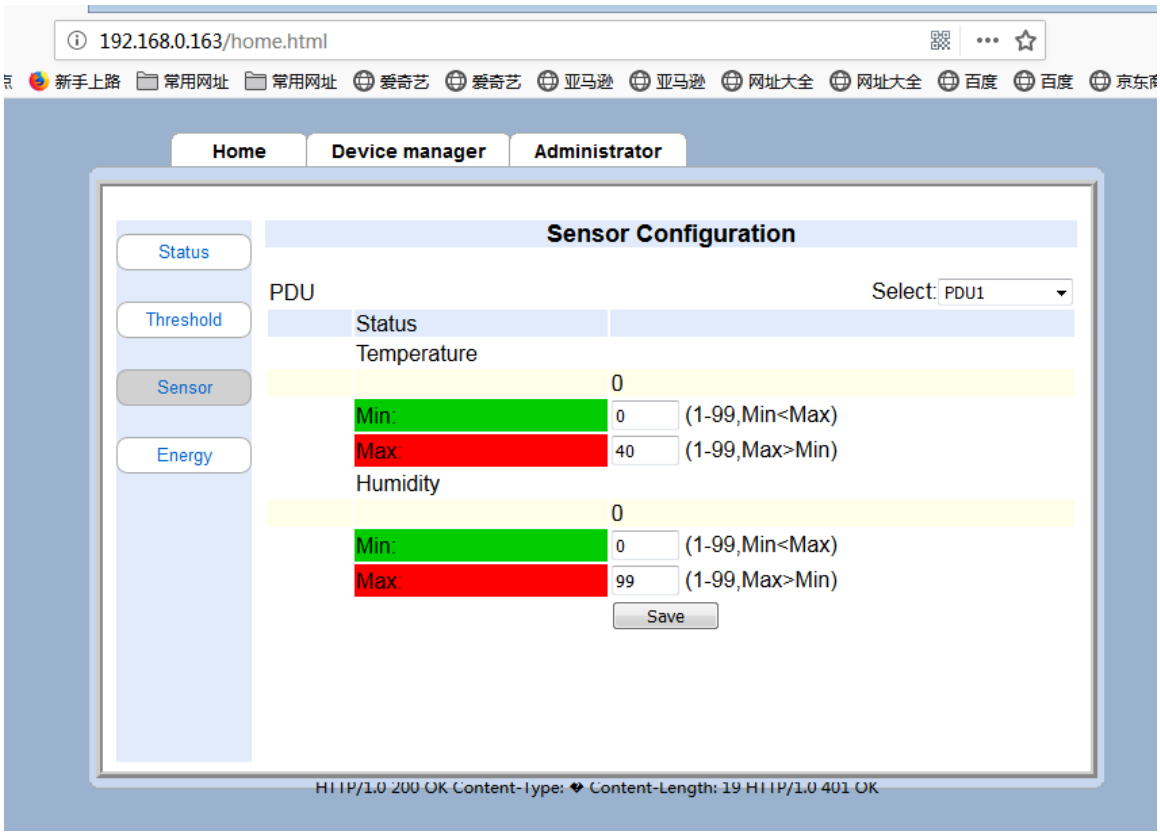
By choosing Line, switching view L1, L2, L3; three-phase current and voltage limit set;



3.4 Sensor Configuration

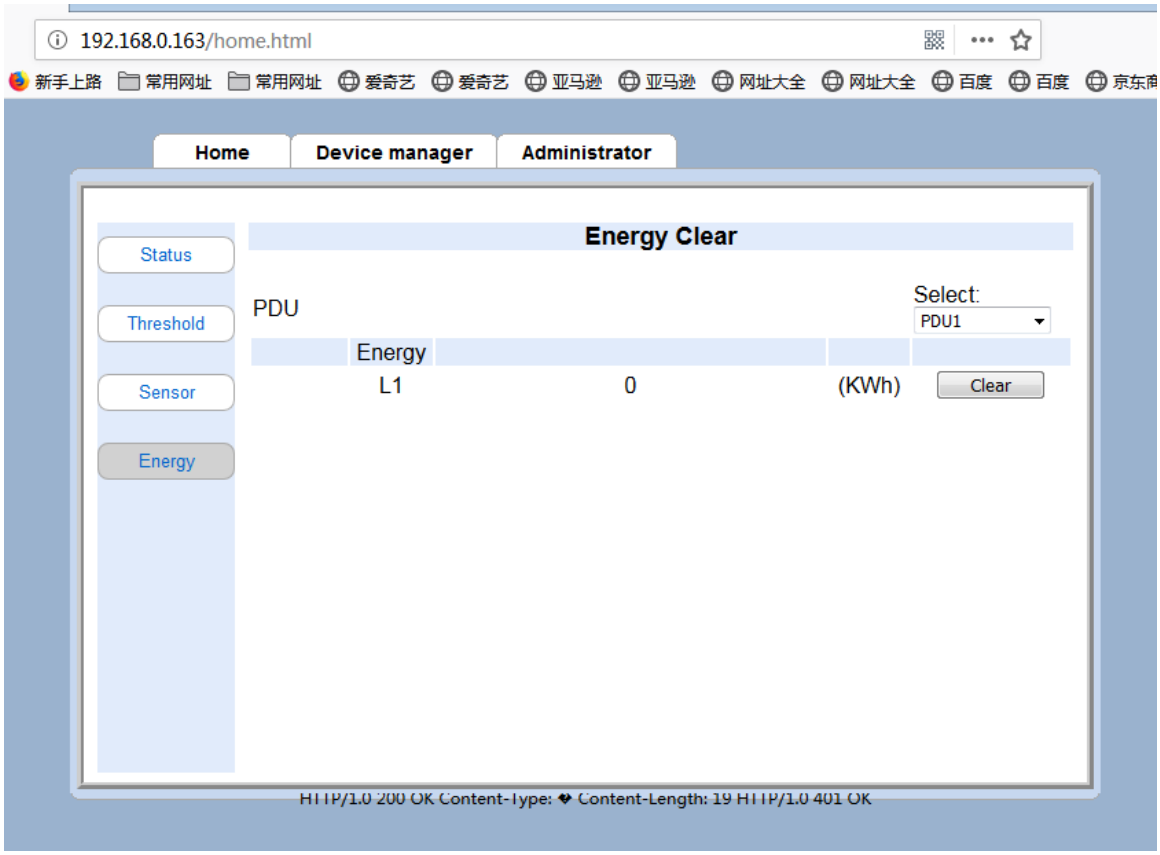
Only can add a temperature / humidity sensor, you can set the temperature / humidity minimum and maximum values, through the Save button to save the set value;

By selecting PDU switching to view the host and sub- machine and set restrictions.



3.5 The electricity Consumption configuration

Check L1, L2, L3 each phase power, clear the Power Recorder by reset button.



3.6 System configuration

system message:

Look for the MAC address;

IPV4 address, IPV4 subnet mask, IPV4 default gateway, IPV4 DNS server settings;

NOTE: The factory default

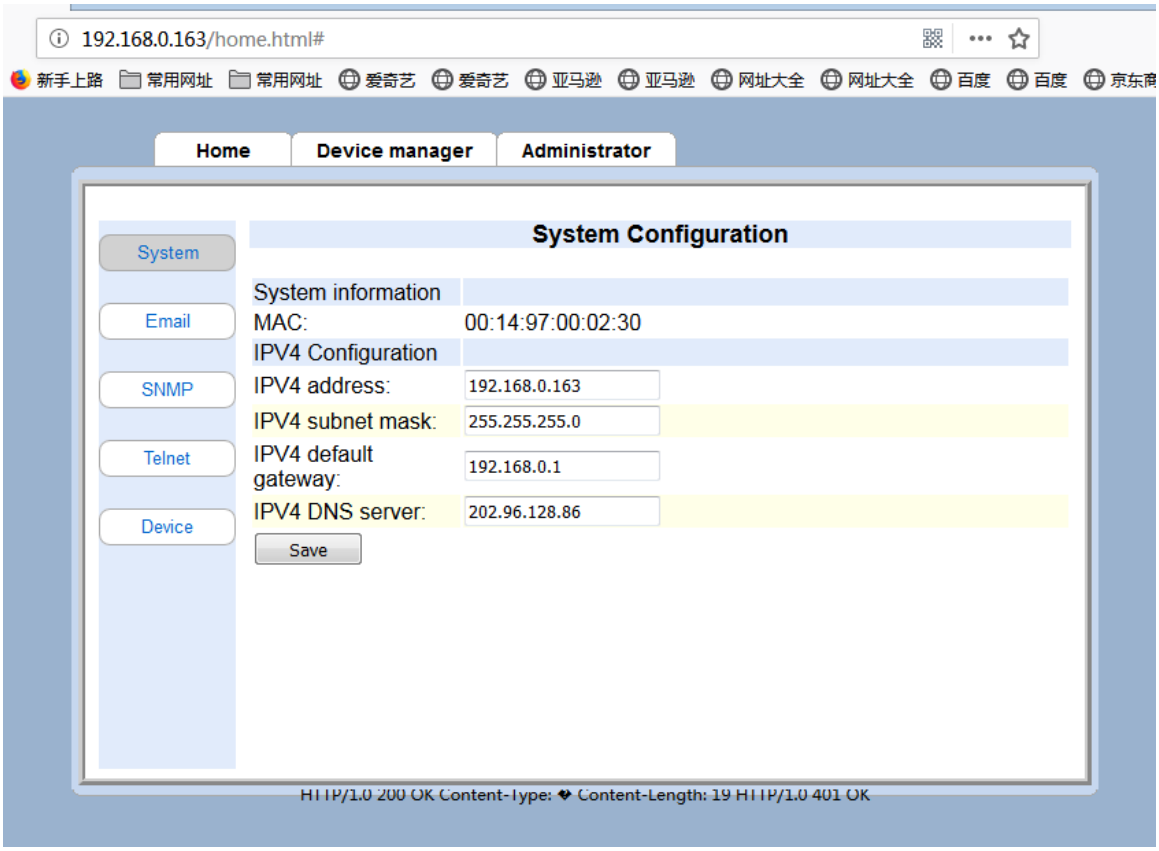
IPV4 address: 192.168.0.163

IPV4 Subnet Mask: 255.255.255.0

IPV4 default gateway: 192.168.0.1

IPV4 DNS server: 202.69.128.86

Please fill in the correct DNS server address, if wrong, will affect the SMTP service;

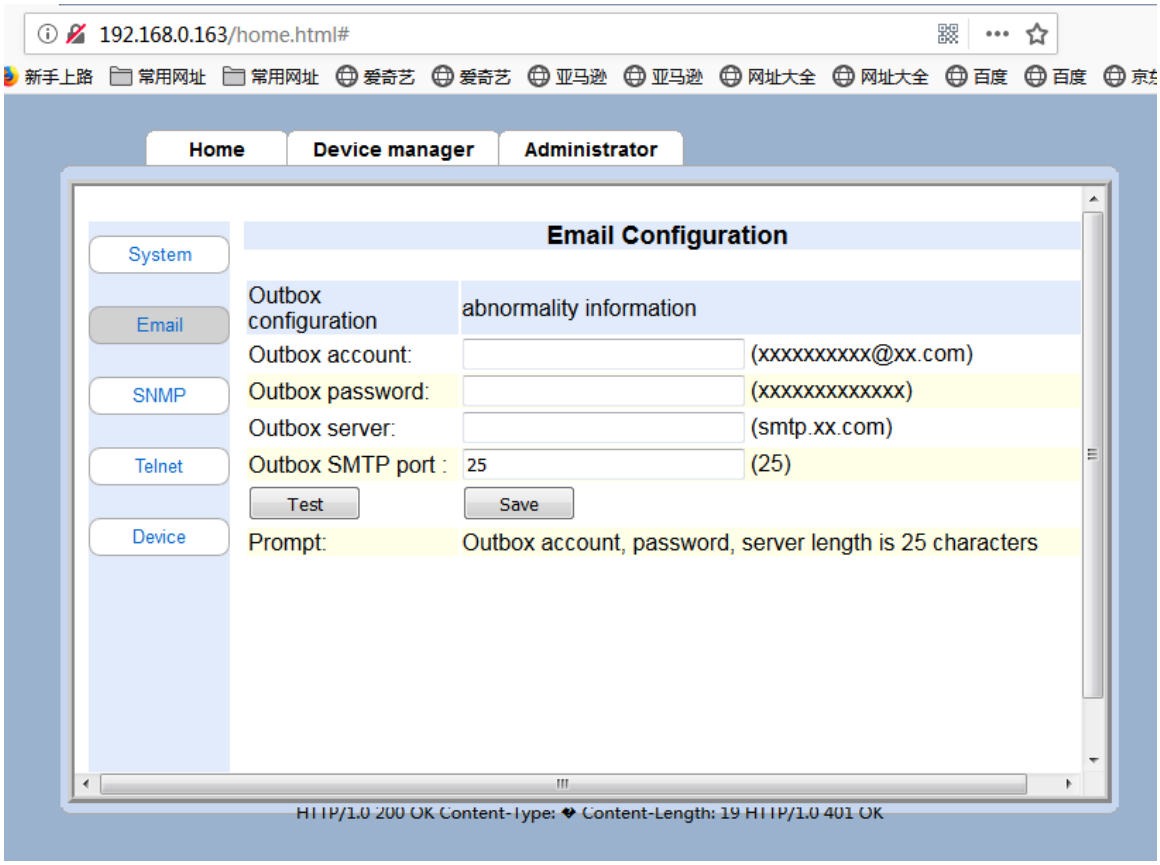


3.7 Mail Service

The default set up SMTP client, exception information can be sent to email after filling out outbox account, password, server and port number.

NOTE: Inbox account please fill in the user profile;

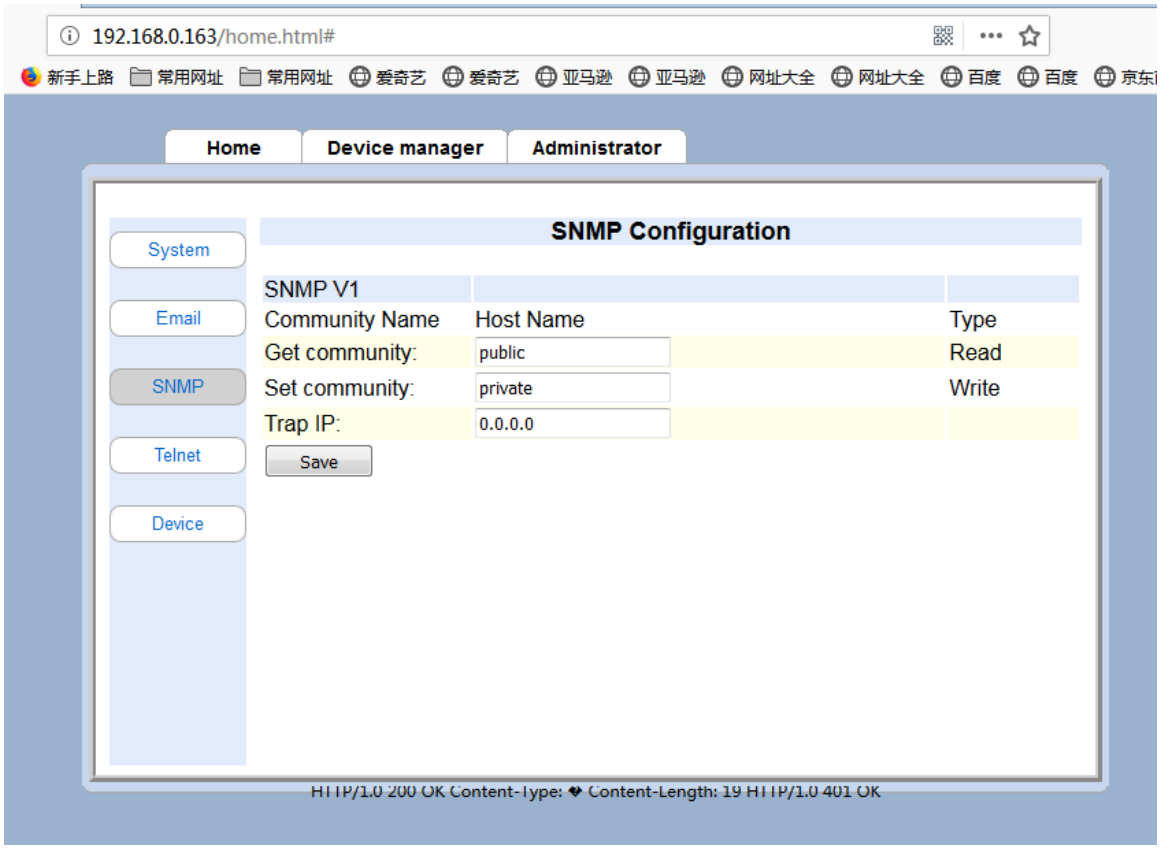
The default set up SMTP client can send ordinary mail message, cann't send an encrypted message.



3.8 SNMP configuration

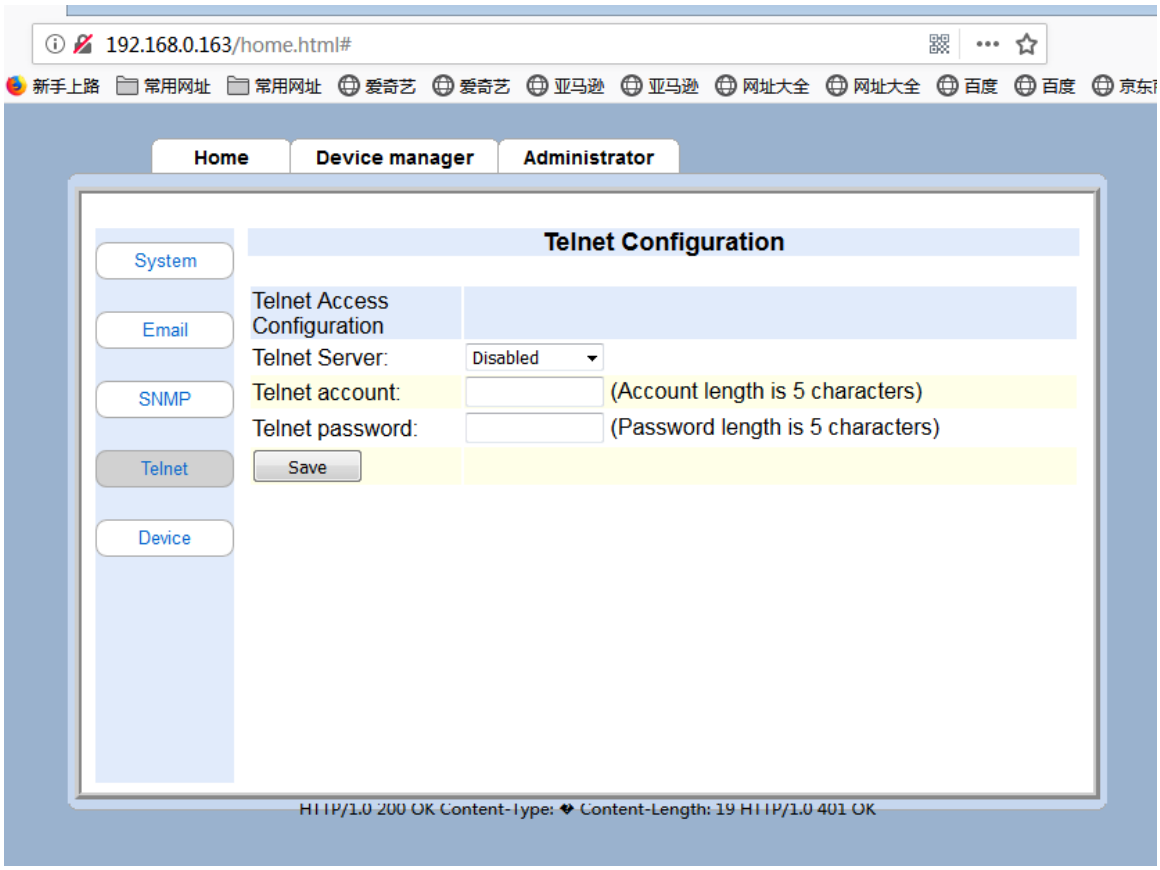
Fill in the “Get community, Set community”, default read as public, written as private.

SNMP Trap IP: Send exception trap alarm, fill in the alarm accepts computer's IP.



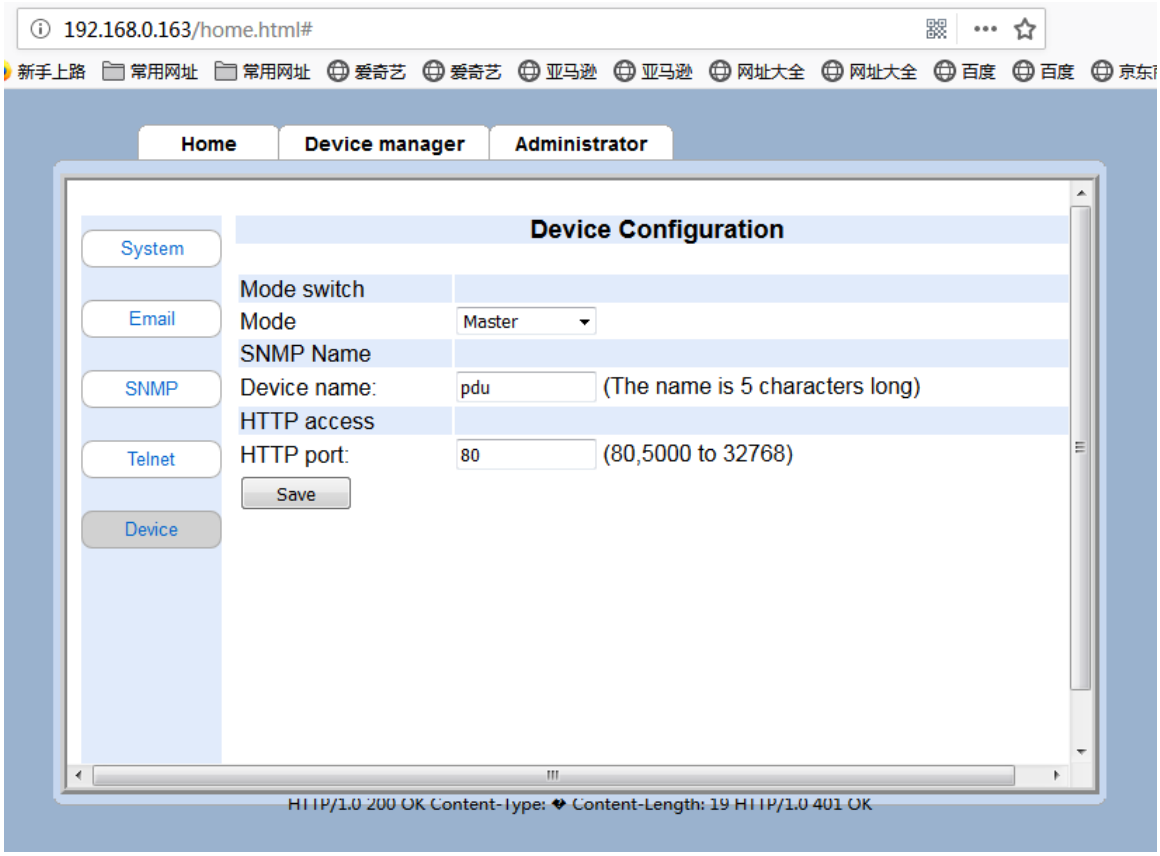
3.9 Telnet configuration

Telnet access configuration, drop-down menu, select On or disable the Telnet server.
Open Telnet server, please fill in the Telnet login account password, click Save, through Telnet client login server.



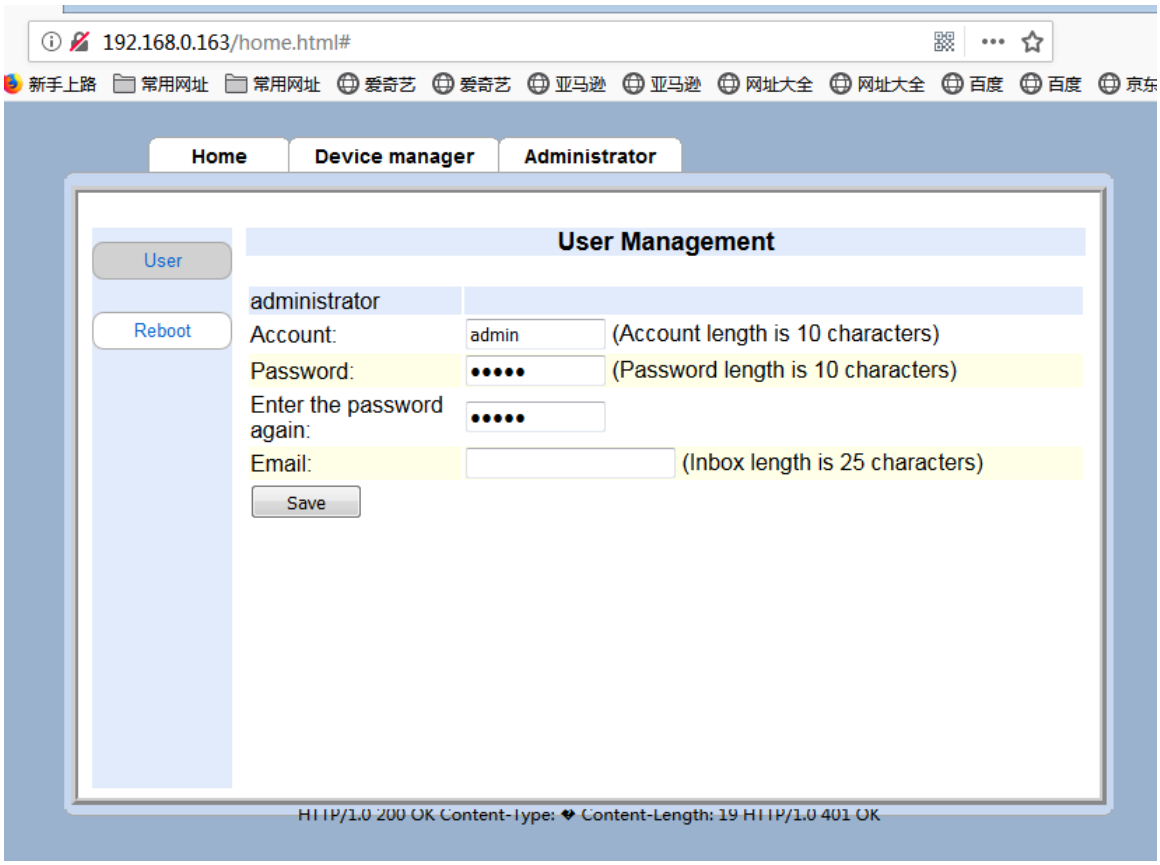
3.10 Device Configuration

Switch modes: drop-down menu, select the operating mode, the optional host mode or deputy mode
SNMP Name: Set the device name, can identify the device during the SNMP access.
HTTP access: HTTP access port number, the default is 80;



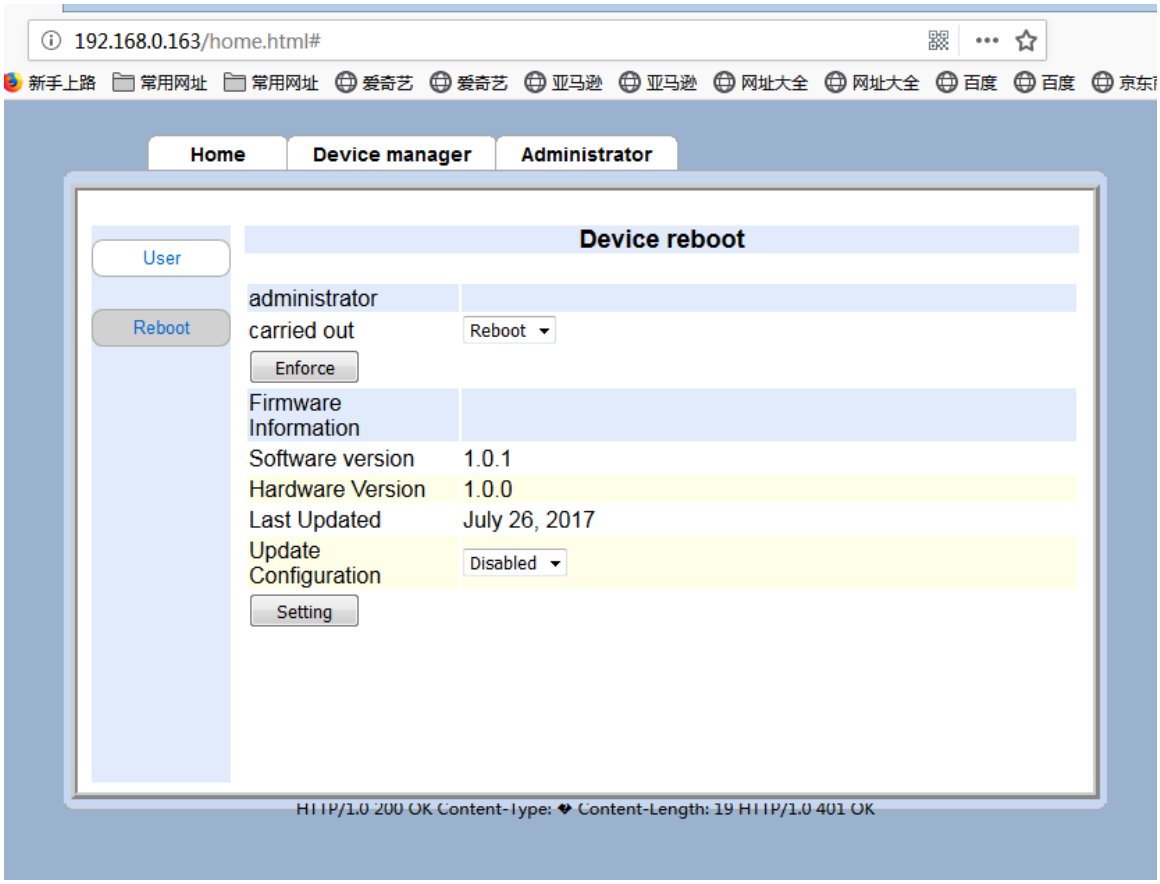
3.11 User Management

The software defaults to single-user mode, account number and password can be modified Email: to receive the abnormal infos.



3.12 Device reboot

Click the drop-down box to choose reboot or restore the factory settings, click the button to perform.
Firmware Information: Including software version, hardware version, the last update time.
Update Settings: When software have a BUG, can be fed back to the manufacturer. After manufacturer revised and improved it. You can update it by the upgrade tool. Before upgrading need to login, open the update settings.



Note: above configuration info，after finished the setting, you need to reboot device to make them effective.

3.13 SNMP visit

Via SNMP visit tools or write your own tools to access the PDU power parameter information, the software defaults to SNMP V1 version

OID correspondence table as below.

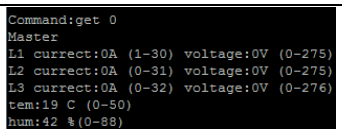
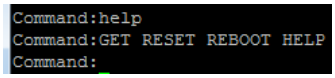
Object name	OID	Object type	Description
Device Name	1.3.6.1.4.1.23273.1.1.1	String	Device Name
MasterVoltageL1	1.3.6.1.4.1.23273.1.2.1	Integer	MasterVoltageL1
MasterCurrentL1	1.3.6.1.4.1.23273.1.2.2	Integer	MasterCurrentL1
MasterEnergyL1	1.3.6.1.4.1.23273.1.2.3	Integer	MasterEnergyL1
MasterVoltageL2	1.3.6.1.4.1.23273.1.2.4	Integer	MasterVoltageL2
MasterCurrentL2	1.3.6.1.4.1.23273.1.2.5	Integer	MasterCurrentL2
MasterEnergyL2	1.3.6.1.4.1.23273.1.2.6	Integer	MasterEnergyL2

MasterVoltageL3	1.3.6.1.4.1.23273.1.2.7	Integer	MasterVoltageL3
MasterCurrentL3	1.3.6.1.4.1.23273.1.2.8	Integer	MasterCurrentL3
MasterEnergyL3	1.3.6.1.4.1.23273.1.2.9	Integer	MasterEnergyL3
SlaveVoltageL1	1.3.6.1.4.1.23273.1.2.10	Integer	SlaveVoltageL1
SlaveCurrentL1	1.3.6.1.4.1.23273.1.2.11	Integer	SlaveCurrentL1
SlaveEnergyL1	1.3.6.1.4.1.23273.1.2.12	Integer	SlaveEnergyL1
SlaveVoltageL2	1.3.6.1.4.1.23273.1.2.13	Integer	SlaveVoltageL2
SlaveCurrentL2	1.3.6.1.4.1.23273.1.2.14	Integer	SlaveCurrentL2
SlaveEnergyL2	1.3.6.1.4.1.23273.1.2.15	Integer	SlaveEnergyL2
SlaveVoltageL3	1.3.6.1.4.1.23273.1.2.16	Integer	SlaveVoltageL3
SlaveCurrentL3	1.3.6.1.4.1.23273.1.2.17	Integer	SlaveCurrentL3
SlaveEnergyL3	1.3.6.1.4.1.23273.1.2.18	Integer	SlaveEnergyL3

3.14 Telnet visit

Via Telnet Client Tools or write your own tools to access the PDU power parameter information; Telnet client needs to be open firstly, fill out the account password.

Telnet command line of the table as follows:

command	Description	Command rollback Screenshot
GET 0/1	Get device power information through a GET command, 0-1 represents 0 is the host, 1 is the auxiliary machine.	
RESET	Restore factory settings command	
REBOOT	Restart command	
HELP	Help Commands	

4 Technical Parameters

No.	performance parameter			technical index
1	input characteristics	Single phase	rated input voltage	110/220V 50/60HZ
			The maximum total load current	32A
		Three phase	rated input voltage	380V 50/60HZ
			The maximum total load current	3×16A
2	Output characteristics	Single phase	Output voltage	110/220VAC 50/60HZ
			The maximum total load current	32A

		Three phase	Output voltage	380V 50/60HZ
			The maximum total load current	3×16A
3	Display Properties	Hot-swappable		LCD, it displays the total input voltage, total current, total power etc.
		Display Accuracy	total voltage	Full scale:300V Accuracy:±1％+2 character resolution ratio:0.1V Response Time:400ms
			Total current	Full scale:32A Accuracy: ±1％+1 character resolution ratio:0.1A Response Time:400ms
			Total electric energy	A constant: 1600imp / kWh Level: 1 Resolution: 0.1kWh
			Temperature	resolution ratio: 0.1℃ ；
			Humidity	resolution ratio: 0.1 %；
4	physical property	Hot-swappable		
		Shell color		
5	Installation methods	Vertical fixed installation		
6	monitoring function	the total load current monitoring		
		the total input voltage monitoring		
		the total load power monitoring		
		the total electricity consumption monitoring		
		the environmental temperature and humidity monitoring		
7	Setting Function	The total load current upper and lower limit settings		
		temperature and humidity upper and lower limit settings		
		address setting of email alarm		
		HTTP Network service settings		
		SNMP（v1）setting		
		Network parameter settings (IP, gateway, mask, DNS)		
8	Alarm function	The system alarm	When the total load current exceeds the rated value	
			When *temperature, humidity exceeds the upper and lower limits*	
		Customize the Alarms	When the total load current exceeds a threshold	
			Temperature, humidity exceeds the upper and lower limits	
		Alarm mode	Buzzer beep	
			LCD digital flash	
			Email is automatically sent to the system administrator	
			SNMP Send alert status information.	
			Serial Port Communication background send the alarm status information	
9	Access method	WEB access control through IE;		

		SNMP（V1）via standard network management workstation access control	
		Telnet command line	
10	user management	Set the user name and password	
11	cascading	Can be cascaded for two products	
12	environment	Operating temperature	0℃~55℃
		relative humidity	10~90%
		storage temperature	-20℃ ~ +70℃

5 Quality Assurance

The date of product purchase from the customer warranty of two years. During the warranty period of the basic obligations of public companies limited to a replacement, repair or maintenance of the Company to return. During the warranty period generally provide customers with free maintenance. If the product is out of warranty or product is due to the determination of the company due to illegal operation, you will be charged the appropriate fee. Above warranty does not apply to problems caused by the following situations:

1. Because of incorrect or inadequate maintenance by the customer due to a malfunction.
2. Unauthorized alterations, modifications or errors caused by misuse malfunction.
3. In the physical environment outside the scope of the product prescribed use of the environment caused by the fault.

SERVICE NOTE:

1. For products returned for repair, be sure to use protective hard box packaging, damage in transit not included in the warranty.
2. Please repair product issues and operational procedures to be concise description.
3. Prepaid customers need to return the product of the shipping company, and the payment of all duties and taxes.
4. Please include your name, address and telephone number of a contact can be ready.