# JSY-MK-351

# **Intelligent PDU Modules**

# **User Manual**



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### **1. Introduction**

The professional-grade network remote monitoring and management power distribution system is the latest scientific research achievement achieved after years of dedicated research in the field of power distribution technology. This product is based on the development trend of the world's future power distribution monitoring and management technology, combined with the technical requirements of the modern data center application environment, and adopts the latest core technology with completely independent intellectual property rights, as well as network communication, power distribution, and electric energy metering technologies to integrate the latest network remote monitoring and management power distributor.

This device refers to the following standards:

Q/GDW 1354-2013 "Smart Electricity Meter Functional Specifications".

GB/T 17626.2-1998 Electromagnetic compatibility test and measurement technology -

Electrostatic discharge immunity test. GB/T 17626.3-1998 Electromagnetic compatibility test and measurement technology -

Radio frequency electromagnetic field radiation immunity test .

GB/T 17626.4-1998 Electromagnetic compatibility test and measurement technology -

Electrical fast transient pulse group immunity test .

GB/T 17626.5-1998 Electromagnetic compatibility test and measurement technology - Surge (impact) immunity test .

GB/T 17626.8-1998 Electromagnetic compatibility test and measurement technology - Power frequency magnetic field immunity test .

MODBUS-RTU communication protocol.

### **2. Product Introduction**

#### 2.1 Product Overview

Single-phase and three-phase smart PDU meters are based on the innovative SUM (sustainable, scalable and maintainable) design concept technology. As a key component of the metering cabinet power distribution unit (PDU), after being installed into the main body of the PDU, it can Provides active metering capabilities for energy optimization and circuit protection. User-set alarm thresholds can effectively reduce risks by warning of potential circuit overloads through real-time local and remote alarms. Metered rack PDUs provide power usage data to support data center managers in making informed decisions about load balancing and proper IT sizing, thereby significantly reducing total cost of ownership. Users can configure metered cabinet PDU via Ethernet access or RS485. This series of products can be widely used in data center rooms such as IDC, banks, securities, governments, and enterprises.

### 2.2 Function introduction

Performance parameters			Technical indicators
	Single- Phase	Input voltage	176-264V
Input Optional		Maximum total load current	63A
	Three- phase	Input voltage	3*220V 50/60HZ
		Maximum total load current	3*32A Optional 63A, 120A, 150A
Output	Output voltage		176-264V
	Output current		8A, optional high current 20A
	Output port		Optional, up to 36 ports
	Frequenc	ÿ	50/60HZ
User interface			TFT color screen
		n buttons	Up, down, set, reset buttons
		ication interface	One Ethernet, 1-channel RS485(two interfaces)
	Input Optional Output	Input Optional Output of Output vi Output vi Output vi Output ci Output ci	Input       Single- Phase       Input voltage         Input       Phase       Maximum total load current         Optional       Input voltage         Three- phase       Input voltage         Maximum total load current       Maximum total load current         Output voltage       Output current         Output port       Frequency         Display       Operation buttons



	Temperature and humidity interface	2-channel		
	Switch input interface	Two interfaces, 4 channels		
	Switch output interface	One interface, 2 channels		
	PDU total measurement	Voltage, current, power, electric energy		
	Each output measurement	Voltage, current, power, electric energy		
	Each output can be remotely turned on/off	Yes		
Electrical parameter measurement	Customize the power- on/power-off sequence and interval time for each output	Yes		
	Administrator permissions can be defined in different levels	Yes		
	Customize alarm signal thresholds	Voltage and current adjustable		
	Cascade function	Yes, 4 products can be cascaded		
	Load current monitoring			
	Load power monitoring			
Monitoring function	Voltage monitoring			
	Power monitoring			
	Ambient temperature and humidity monitoring			
	Load current upper and lower limit settings			
Setting the function	Ambient temperature and humidity upper and lower limit settings			
	Email alert address settings			
	SNMP (V1, V2) settings			
	Network parameter settings (IP, gateway, mask, DNS )			



	system Alerts	When the the the rated	e load current exceeds value
			e temperature and exceed the limit
Alarm function	Custom Alerts	When the load current exceeds the rated value	
			e temperature and exceed the limit
		Buzzer be	eeps
	Alerts	LCD value	e flashes
	Way		ically send an email to m administrator
		SNMP sei informati	nds Trap alarm status on
			nmunication nd sends alarm status on
Access method		WEB acce through I	ess and control E
		via standa	1) access and control ard network nent workstation
User Management		User ID a	nd password settings
Environment		Operati ng temper ature	-20 ~ 60 ℃
	Extreme operating temperature		- <b>30 ~ 70</b> ℃
	Relative humidity		10 ~ 90%
	Storage and transportation temperature	limit	-40 ~ 70°℃

### 2.3 Model selection

- MK-351M stands for Intelligent IPDU.
- MK-351J stands for the expansion module interface module. •

## **JSY-MK** JSY-MK-351 Intelligent PDU Modules

- ◆ JSY-MK-352AFE stands for three-phase four-wire power supply module .
- ◆ JSY-1073 stands for single-phase power supply module .
- JSY-1054 stands for a 4-channel intelligent control module, current specification: 8A(Max. 16A).
- JSY-1084 stands for a 4-channel intelligent control module, current specification: 20A(Max. 50A).

### 3. Main functions

#### 3.1 Real-time monitoring function

The display screen can view the monitored total load current, total voltage, total power, total electric energy, power factor, and load current parameters of each independent unit: the content displayed on the LCD screen can be viewed on the Web page, and the closed/open state of each independent unit, temperature/humidity sensor data and operating status can be controlled. 4-channel switch input can be configured by the customer, and there are 2-channel switch output.

#### 3.2 Socket unit control

 Control single-channel relay closing and opening, or control multiple channels simultaneously.

• You can set the sequential delay power-on, up to 6 seconds. (This means that when two or more channels are controlled continuously, after the previous channel is completed, you need to wait 6 seconds before the next channel starts to operate.)

• Each relay can be set to start at a fixed time.

#### 3.3 Customized alerts

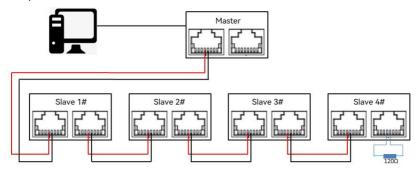
• The total load current/voltage over-limit threshold can be customized, the load current over-limit threshold of each socket unit can be customized, and the temperature/humidity over-limit threshold can be customized.

• The buzzer sounds. An email is sent to the system administrator. SNMP sends a trap to warn the system status.

#### 3.4 Master-slave (cascade) communication

The two interfaces are the same RS485 communication bus, providing two interfaces for easy cascading . RS485 communication cascade can connect up to 4 instruments. Communication cables can use ordinary shielded twisted pair cables. When RS485

communication cables are routed outdoors, attention should be paid to the grounding of the cable shielding layer. The total length of the communication cable should not exceed 1200 meters. The positive and negative polarities of the RS-485 ports of each device must be connected correctly. If the shielded twisted pair cable is long, it is recommended to connect a 120  $\Omega$  resistor at the end and reduce the transmission rate to improve the reliability of communication.



### 4. Technical parameters and installation



Product Structure	No.	ltem	Parameters	
Diagram				
			Display Mode	TFT color screen
	1		Display content	Meter information
		LCD display	Display direction	Adjustable
A			Refresh time	1 second
			The backlight will turn operation.	off after 5 minutes of no
	2	Up key		digit right shift, return to
a	3	Set key	Setting menu setting	item confirmation, saving
	(4)	Down key	Display page turning,	
0+	4	Down Key	decreasing	nashing digit value
	5	Reset key	Short press to restart	
<b>Ø</b> ==→0	6	Communication	Yellow, flashing during	g cascade
		light	communication	
	7	Operation light	Emerald green, flashir	ng when the system is
			running	
	8	Warning light	Red, flashing during a	
	9	Indicator light	12-channel relay outp	out status indicator
	10	Ethernet port	Connect to the netwo	rk, remote access
	1112	RS485	Cascade, parameter c	onfiguration
	13	USB	Software upgrade	
	14	Buzzer		
	15		1-channel, 2-channel	switch input
	16	Switching quantity	3-channel, 4-channel	switch input
	1		2-channel switch outp	put
	1819	Temperature and	2-channel temperatu	re and humidity sensor
		humidity	detection	
	20	RS485	Reserved function	

#### 4.1 User interface and parameters

Note: Provide secondary development interface . SNMP (V1/V2c).

#### 4.2 Display interface introduction

LCD disp	ay information graphic	c Parameter Description
2024-07-08 19:48:48 ♦ MasterInfo SocketInfo SensorInfo SystemInfo	Next] Enter] Up]	System main menu Host Information Socket Information Environmental Information System Information
	Host Info	rmation
2024-07-08 19:48:48 Hard 1.00 Soft 1.39 SN 2309040085 IP 192.168.1.168	Next] Back]	Hardware version number Software version number Equipment No. IP address
2024-07-08 19:48:48 U 222.13V I 2.14A P 475W EP 15.03Kwh	2024-07-08         19:           V         222.         13V           I         2.         14A           A]         P         475W           EP         15.         03Kwh           Back]	48:48       Voltage         Resolution : 0.01V       Current         [B]       Resolution: 0.01A         [Back]       Resolution: 0.01KWh

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2024-07-08 19:48:48 U 222.13V I 2.14A P 475W [C] EP 15.03Kwh [Back]		power Resolution: 1W Accuracy: ±1% Response time: ≤1 s
2024-07-08 19:48:48 Uab 0.00V Ubc 0.00V Uca 0.00V [Back]	2024-07-08         19:48:48           YUa         0.00°         [Next]           YUb         369.95°         YUc         369.94°           YUc         369.94°         [Back]	
2024-07-08 19:48:48 YIa 0.88° YIb 180.86° YIC 0.94° [Back]	2024-07-08 19:48:48 U unbalance 0. 02% I unbalance 0. 02% [Back]	
	Socket Information	
2024-07-08 19:48:48 01#PDU OFFLINE [Next] I 0.185A P 41.5W [Set] EP 1.290Kwh [Back]	2024-07-08 19:48:48 16#PDU OFFLINE [Next] I 0.185A P 41.5W [Set] EP 1.290Kwh [Back]	<ul> <li>1 - 16 output parameters,</li> <li>Up to 36 channels can be connected</li> <li>Current, power,</li> <li>electrical energy.</li> <li>Communication</li> <li>abnormality shows</li> <li>offline.</li> <li>Relay settings .</li> <li>Password: 8310</li> </ul>



E	Environmental Information			
2024-07-08 19:48:48 01#Sensor Online Temperature 8.1°C Humidity 68.6% [Back]	2024-07-08 19:48:48 02#Sensor Online Temperature 29.1°C Humidity 64.5% [Back]	1 -channel and 2- channel temperature and humidity, Communication abnormality is displayed as offline Temperature and		
2024-07-08 19:48:48 Sensor Input [Next] 01# × 03# × 02# × 04# × [Back]	2024-07-08 19:48:48 Sensor Output 01# × 02# × [Back]	humidity resolution 0.1 Accuracy Temperature: ±0.5 ℃ Humidity: ± 2% Response time: ≤1 s		
	System Information			
2024-07-08 19:48:48 DHCP OFF [Set] [Back]	2024-07-08 19:48:48 IP Address 192.168. 1.168 [Set] [Back]	Network Settings: DHCP Status: ON, OFF IP address Subnet Mask Gateway		
2024-07-08 19:48:48 Sub Mask 255. 255. 255. 0 [Set] [Back]	2024-07-03 19:48:48 Gateway 192.168. 1. 1 [Set] [Back]	MAC Address Mode settings: Master/Slave#~4# Language settings: [Chinese][English]		

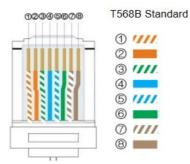
N JSY-MK	JSY-MK-351 Intelligent PDU Modules		User Manual V1.1
2024-07-08 19:48:48 MAC Address 70-00-00-04-62-55	[Next] [Set] [Back]	2024-07-08 19:48:48 Model master [Set] [Back]	Buzzer settings: Status: ON, OFF Setting the number of slave machines: 1-4 cascade up to 4
2024-07-08 19:48:48 Language English	[Cursor] [Enter] [Back]	2024-07-08 19:48:48 Beep OFF [Set] [Back]	
2024-07-08 19:48:48 slave num 4	[Next] [Set] [Back]		

### 4.3 Terminal Definition

#### 4.3.1 RS485 interface terminal

RS485 interface, Pin4 (blue) 485 A, Pin5 (blue and white) 485 B. Note: The wiring color of RJ45 may be incorrect, please refer to the actual

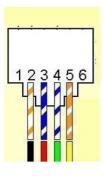




Color	Functional Description
1 Orange and white	NC
2 Orange	NC
3 Green and white	NC
4 Blue	RS485-A
5 Blue and white	RS485-B
6 Green	NC
7 Brown and white	NC
8 Brown	NC

usage .

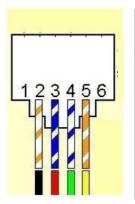
#### 4.3.2 Switch input interface terminal



IN1, IN2 interface			
No.	Functional Description		
1	Switch input 1		
2	Switch input 2		
3	DC 12V		
4	DC 12V		
5	GND		
6	GND		
<u> </u>	1		

IN	3, IN4 interface
No.	Functional Description
1	Switch input 3
2	Switch input 4
3	DC 12V
4	DC 12V
5	GND
6	GND

#### 4.3.3 Switch output interface terminal



C	UT1, IUT2 interface
No.	Functional Description
1	1st normally open output
2	1st normally closed output
3	COM1
4	2nd normally open outputs
5	2nd normally closed outputs
6	COM2

#### 4.3.4 Temperature and humidity interface terminal

		HT1 interface		HT2 interface
	No.	Functional Description	No.	Functional Description
	1	GND	1	GND
123456	2	NC	2	NC
	3	SCL1	3	SCL1
	4	SDA1	4	SDA1
	5	GND	5	GND
	6	DC 5V	6	DC 5V

#### 4.3.5 RS485 interface terminal (reserved for backup)

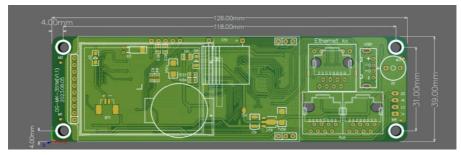
:	No.	Functional Description
	1	RS485-A
	2	RS485-B
123456	3	DC 5V
	4	DC 5V
	5	GND
	6	GND

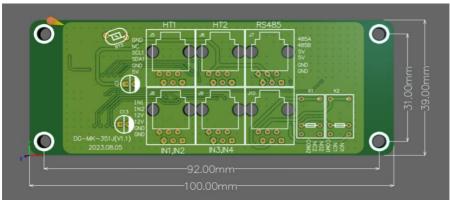
Note: The above wiring colors may be incorrect, please refer to the actual wiring situation .

#### 4.4

#### Product size

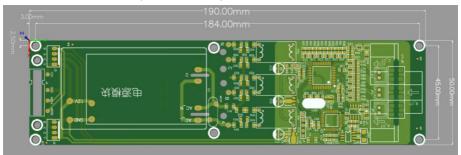
MK-351M Smart PDU Dimensions.





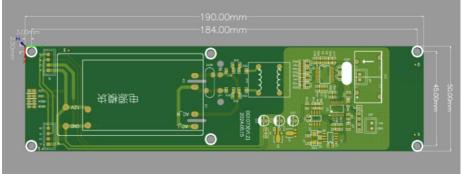
MK-351J Intelligent PDU Expansion Board Dimensions

◆ JSY-MK-352AFE three-phase four-wire power module dimensions

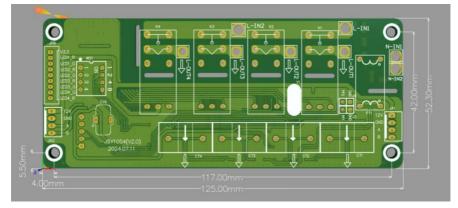


• JSY-MK-1073 single-phase power module dimensions





♦ JSY-1054 4-channel relay module dimensions



### 5. Web Network Operation

#### 5.1 Supported browsers

You can access the PDU through its web interface using IE, Google 360, or Microsoft Edge . Other commonly used browsers may work but have not been fully tested.

#### 5.2 Cascade Setting Instructions

• You can use the PDU's system IP address as the URL of the web interface and log in

### **JSY-MK** JSY-MK-351 Intelligent PDU Modules

using a case-sensitive username and password.

- The PDU uses a static IP address by default when it leaves the factory. The default address is 192.168.1.192. The current IP address can be queried from the network status page on the LCD display of the display module. If you need to configure a dynamic IP, you need to enable the DHCP function of the device.
- Before using the cascading function, you need to select the master-slave mode for each PDU configuration. The master mode has only one PDU, and the slave mode can be configured with 4 PDUs by default.

#### 5.2.1 Cascade settings

After the PDU is powered on, plug the network cable into its network port. At this time, in the LCD display of the display module, by short pressing the button, you can query the IP address from the host information, as shown in Figure 5.2.1 : 192.168.1.192 .

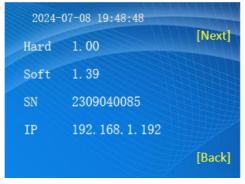


Figure 5.2.1

#### 5.2.2 Log in

Enter the IP address of the PDU in the URL address field of the web browser ( http://192.168.1.192 in the web page )



The default username and password for the super administrator are both : " admin", then click Login. As shown in Figure 5.2.2:

#### 19 / 34

~	▶ ЈЅҮ-МК	ilitäs Engli
	Account Username (Case Insensitive)	
	Password Persent	2 <sub>99</sub> 6
		Login

Figure 5.2.2

The main interface consists of three parts: main menu bar, status information, and login status .

Main menu: includes PDU Logo and navigation function menu .

Status information: mainly includes temperature and humidity information, slave/divided relay status and voltage, current, power, power factor, electric energy, PDU voltage, total current, total power and other information.

#### 5.2.3 Host and slave connection method

After one host PDU and four slave PDUs (up to four) are set to the host-slave mode respectively, the network port of the host PDU is connected to the network cable, and the network ports of the four slave PDUs (up to four) are left unconnected. The host and slave, and slave and slave are connected in series through the RS485 interface in turn, so that the host PDU and slave PDU are cascaded. Users only need to log in to the Web interface of the host PDU to control the host PDU and slave PDU and slave PDU through web pages.

#### 5.3 Device Status Description

The device selection includes the device information of the host and slave, powerrelated data, temperature and humidity information, and alarm status information.

中文 EN				
HomePage				
Please select a device:	Primary Device	~	Confirm	Alarm Settings

In the Web interface, click on the device selection, the host data is displayed by default, and the host and slave (up to 4) data information can be selected through the drop-down menu. See Figure 5.3.0 below

中文 EN				
HomePage				
Please select a device:	Primary Device	~	Confirm	Alarm Settings
	Primary Device Slave Unit One			
No1 Real-time Currer	Slave Unit Two Slave Unit Three Slave Unit Four		232.58V	🖌 No1 Real-time

Figure 5.3.0

### 5.3.1 System Information

PDU system information includes system operation status, device information (product model, version number, etc.), network status and other related information. See Figure 5.3.1

# JSY-MK JSY-MK-351 Intelligent PDU Modules

N 1004 1414	中文 EN	
▶ ЈЅҮ-МК	System Information	
HomePage	System Status Information	
Socket Management 🗠	System Running Time	19day,6hour,55min
	CPU Usage	55%
	Content Usage	46%
Account Management	Used Storage Space	68%
System Management*		
System Information	Device Information	
Network Configuration	Device SN	2403191631
Prompt Information Config	Device Model	DG-352IP
Prompt information Conlig	Firmware Version	V5.01
Language Configuration		
System Time Config	Wired Network Status Information	
Profile Management		
📕 Event Management 🗠	Wired Network Mode	Static IP
r Evan managaman	LAN MAC Address	70-1D-08-09-66-04 192.168.1.221
System Update	LAN IP Address	192.108.1.221
	Default Gateway	192.168.1.1
	Default Gateway	192.108.1.1
	Wireless Network Status Information	
	Wireless Status	Not Enabled
	Wireless Network Mode	Station
	SSID	admin
	Wireless MAC Address	70-1D-08-09-68-04
	IP Address	192.168.1.221
	Subnet Mask	255.255.255.0
	Default Gateway	192.168.1.1

Figure 5.3.1

#### 5.3.2 Electrical parameter information

 JSY-351M intelligent IPDU connected to JSY-MK-352AFE three-phase four-wire master intelligent meter electrical parameter information includes: voltage, current, power, power factor, electric energy and other information parameters.

A Phase Data				B Phas	e Data		C Phase Data						
No1 Real-tin	0.00A	Mo1 Real-lime V	234.62V Antage PMIS	No1 Real-Br	0.00A	🗲 No1 Re	234.68V al-time Voltage RMS	🗩 No1 Re	0.00A al-Sime Current RMS	🗲 No1 Ri	234.66V		0 Energy
() No1 Active	OW re Power RMS	Ro No1 Power Fa	1.000 actor RMS	() No1 Activ	<b>OW</b> e Power RMS	RB No1 F	1.000	() No1	<b>OW</b> Active Power RMS	R No1	1.000 Power Factor RMS	•	0% Not Hurridity I 0°C Not Temperature
	0.00kWh	*	50		0.00kWh	M	50		0.00kWh	2	50	٥	0% No2 Humidity F
No1 Real-tin	me Energy RMS	No1 Real-time Fre	equency RMS	No1 Real-ti	me Energy RMS	No1 Real	-time Frequency RMS	No1 Re	al-time Energy RMS	No1 Rea	6-time Frequency RMS		0°C

 JSY-351M intelligent IPDU connected to JSY-1073 single-phase master intelligent meter electrical parameter information includes: voltage, current, power, power factor, electric energy and other information parameters. As shown in the figure (For master)

A Phase Data							
*	0.00A	+	0.00V	0 kWh		0%	No1 Humidity RMS
No1 Real-time Cu			al-time Voltage RMS	Energy	1	0°C	No1 Temperature RMS
No1 Real-time Active	OW e Power RMS	No1 Real-ti	0.000 me Power Factor RMS			0%	No2 Humidity RMS
No1 Real-time Er	00kWh	Mot Real	0 time Frequency RMS				
NVT Real-time Er	norgy runo	NOT Real	uno mequency rulio		1	0°C	No2 Temperature RMS

 Slave JSY-351M intelligent IPDU connected to JSY-1073 single-phase master intelligent meter electrical parameter information includes: voltage, current, power, power factor, electric energy and other information parameters.

No1 Humidity R	0%					Phase Da
		0 kWh	0.00V	+	0.00A	×
No1 Temperature R	0°C	Energy	Real-time Voltage RMS	No1 R	eal-time Current RMS	No1 Re
		AND THE REAL PROPERTY OF THE R	0.000	692	<b>0W</b>	Ċ
	0%		0.000 al-time Power Factor RMS		time Active Power RMS	

 The output control unit (JSY-1054 4-channel relay control module) electrical parameter information includes: voltage, current, power, power factor, electric energy and other information parameters. Up to 9 control modules can be connected, and up to 36 channels can be connected. (Or optional JSY-1084 high current control module). As shown in the figure



All Cocket Basic Information Tabl

No.	Alias	Status	Туре	Effective Voltage	Effective Current	Active Power	Energy Consumption
1		Open	single-phase	232.70V	0.000A	0.0W	0.000kWh
2		Open	single-phase	232.97V	0.000A	0.0W	0.000kWh
3		Open	single-phase	232.86V	0.000A	0.0W	0.000kWh
4		Open	single-phase	232.66V	0.000A	0.0W	0.000kWh
5		Open	three-phase	232.91V	0.000A	0.0W	0.000kWh
6		Open	single-phase	232.67V	0.000A	0.0W	0.000kWh
7		Open	single-phase	232.81V	0.000A	0.0W	0.000kWh
8		Open	single-phase	232.63V	0.000A	0.0W	0.000kWh

#### 5.3.3 Temperature monitoring

The temperature and humidity status of the PDU displays the current temperature and humidity data, as shown in the figure



- If the system fails to read information from the temperature and humidity sensor, a "
   0 " will be displayed.
- The device has only two temperature and humidity interfaces by default. The device supports expanding the temperature and humidity device interface through the RS485 interface.

#### 5.3.4 Alarm status

PDU displays the voltage, current, temperature and humidity, IO node sensors (access control/water immersion/smoke sensors), time settings, user settings, logs, device information, etc. relative to the corresponding thresholds .

Please select a device:	Primary Device	$\sim$	Confirm	Alarm Settings
			and the second	

#### 5.3.5 Event Log

The PDU will record two types of logs: event log and alarm log

	Y-MK	JSY-MK-351 Intelligent PDU Modules		5 0361	User Manual V1.1	
List						
ort All Events						
Time	Type	Level	SubType	Number	Alarm Value	
024-11-14 15:11:27	Socket Switch	General	Open	8#	Web Page Operation	
024-11-14 15:11:25	Socket Switch	General	Open	7#	Web Page Operation	
024-11-14 15:11:23	Socket Switch	General	Open	6#	Web Page Operation	
024-11-14 15:11:21	Socket Switch	General	Open	5#	Web Page Operation	
024-11-14 15:11:19	Socket Switch	General	Open	4#	Web Page Operation	
024-11-14 15:11:18	Socket Switch	General	Open	3#	Web Page Operation	
024-11-14 15:11:16	Socket Switch	General	Open	2#	Web Page Operation	
024-11-14 15:11:11	Socket Switch	General	Open	1#	Web Page Operation	
024-11-14 14:57:37	User Login	General		Administrator	0	
024-11-14 10:28:42	Socket Switch	General	Close	36#	Web Page Operation	

• The log information includes: offline alarm from the host/slave, control module, undervoltage alarm, overvoltage alarm, overcurrent alarm, temperature and humidity offline alarm, temperature upper and lower limit alarm, humidity upper and lower limit alarm.

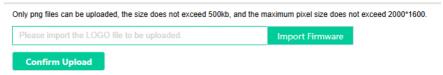
• The information content is in the format of: time-type-level-subtype-serial numberalarm value.

• 100 alarm messages can be stored , and the latest alarm message will overwrite the previous one.

#### 5.3.6 LOGO upload

Support user-defined uploaded pictures.

LOGO Upload



LOGO , company abbreviation and full name of the WEB page can be changed according to needs. The LOGO can only upload png files, the file size does not exceed 500KB, and the size is 200 \*100 pixels. After filling in, click "Confirm Upload".

#### 5.4 System parameter settings

#### 5.4.1 Account Addition

In the web interface, click Account Management

Account List

Account Name	Account Descrip		
admin	Administrator		

O Add New Account

In account management, used to add, modify or delete users .

• The default username and password for the administrator are both "admin". The administrator's username and password can be modified .

• Ordinary users do not have output loop control permissions by default.

Administrators can add output loop control permissions for ordinary users .

• The super user has the highest permissions on the device and can access or modify any options that can be set and modified.

#### 5.4.2 TCP/IP Settings

• In TCP/IP settings, DHCP is selected as "ON" by default. The PDU will automatically obtain an IP address assigned from any DHCP server. If DHCPP is "ON", the input in the IP address, mask and gateway boxes will be invalid.

• Network settings include IP address settings, SNMP settings, web login settings, email settings, upgrade settings, Telnet settings, etc.

The device supports static IP address or dynamic IP address setting.

_	IN IN

<ul> <li>Static IP</li> </ul>	O Dynamic IP
IP Address:	192.168.1.221
Subnet Mask:	255.255.255.0
Gateway:	192.168.1.1

When selecting a static IP address, the user can set a fixed IP address, mask, and gateway according to the existing network environment. If a dynamic IP address is selected, the IP address will be automatically obtained according to the router settings in the LAN where the device is located.

Note: After modifying the network configuration information, you need to restart the system to take effect.

#### 5.4.3 SNMP Settings

PDU supports SNMPv1 and SNMPv2c . When users select SNMPv1 and SNMPv2c, they can operate SNMP by setting the community name and proxy server IP:

#### SNMP Password

Community Key:	public	
Trap IP:	192.168.1.19	

completing the SNMP settings, you need to install the corresponding SNMP management software.

#### 5.4.4 Alarm threshold setting

Note: The alarm contents are overvoltage, undervoltage, and overcurrent. The overvoltage threshold range is 110-300VAC, and the default is 265V. The undervoltage alarm threshold range is 0-300VAC, and the default is 175V. The overcurrent alarm threshold range is 0-63A, and the default is 63A (fill in the threshold with an integer)

• In the Wed interface, click Alarm Settings to set the main circuit alarm threshold.

Alarm	Settings:
-------	-----------

Effective Current: (Accu	racy: 0.001A)				
Lower Warning Limit	0	Α	Varning Upper Limit	0	A
Effective Voltage: (Accur	racy: 0.01V)				
Lower Warning Limit	0	V	✓ Warning Upper Limit	0	v
Active Power: (Accuracy	: 0.01W)				
Lower Warning Limit	0	W	V Varning Upper Limit	0	W

The voltage/current threshold is used to set the upper and lower alarm thresholds of the current voltage/current. When the measured value is within the threshold range, it will display green "normal", and when the measured value exceeds the threshold, it will display red "warning"

• Output control unit alarm threshold setting. Single loop setting.

No.	Alias	Status	Handle	Information
9		Open	✓ Open × Close	Setting
2		Open	✓ Open × Close	Setting

• Output control unit alarm threshold setting, batch setting and sequential poweron delay setting.

When the measured value is within the threshold range, it will display green
 "Normal", and when the measured value exceeds the threshold, it will display red
 "Warning".

JSY-M	K JSY-MK-351 Ir	ntelligent PDU Modules	User Manual V1.1
Work Schedule Settings			
Select All Socket01 Socket02 Socket03	Socket04 Socket05 Socket06	Socket07 Socket08 Socket09 Socket	10 Socket11 Socket12 Socket13 Socket14
Socket01 Socket02 Socket03 Socket16 Socket16 Socket17 Socket29 Socket30 Socket31	Socket04 Socket05 Socket06 Socket18 Socket19 Socket20 Socket32 Socket33 Socket34		
Sequential Power-on Delay: 0 +	s		
Alarm Settings:			
Effective Current: (Accuracy: 0.001A)			
Cower Warning Limit	A 🗹 Warning Upper Limit 0	A	
Effective Voltage: (Accuracy: 0.01V)			
Cover Warning Limit	V V Warning Upper Limit 0	v	
Active Power: (Accuracy: 0.01W)			
Lower Warning Limit 0	W 🗹 Warning Upper Limit 0	W	

#### 5.4.5 Temperature and humidity alarm threshold settings

Temperature and humidity alarm threshold settings

NZ N 414

Temperature and Humidity Threshold Setting

✓ Lower Limit 0 % ✓ Upper Limit 80	%

• The user can set the upper and lower alarm thresholds of the current temperature and humidity. The current device only supports setting two temperature and humidity interfaces, but the device supports expanding the temperature and humidity device interface through the RS485 interface . Here, the upper and lower alarm thresholds of the sensor temperature and humidity can be set, so that after it exceeds the limit, an alarm can also be issued through the PDU.

#### 5.4.6 NTP Settings

PDU supports NTP settings, and users can enable or disable NTP service according to usage .

Enable: Set and fill in the NTP server and NTP time zone, click the NTP setting button, and the device will obtain the time and date of the currently selected time zone in the network based on the NTP server and time zone filled in by the user, and update the device system time ( automatically synchronized every 10 minutes ).



#### NTP configuration

NTP:	Enable	~
NTP Server:	time.ustc.edu.cn	
NTP Port:	123	
Time Zone:	UTC+8:00	~
Confirm		

#### 5.4.7 Event Configuration Description

Users can set the alarm level, and events can be divided into three levels: general, warning, and critical.

can be divided into three levels: general, war	ning, and critical.
Event Type	Event Level
Temperature and Humidity Alarm	General 🗸
Voltage Alarm	General
Current Alarm	General
Power Alarm	General
Meter Offline Alarm	General
Socket Offine Alarm	General
Temperature and Humidity Offline Alarm	General
Switching Value Input Event	General
Switching Value Output Event	General
Circuit Breaker Alarm	General
User Login	General
New Users	General
Delete Users	General 🔍
Socket Switch	General

• The log supports downloading. Click "Export All Events" and the log will be downloaded to the accessed PC through the browser.

#### 5.4.8 Email Settings

The mailbox supports SMTP to send warning emails to the specified

mailbox:

	f mailbox information as the sender of the event notification, are an authorization code instead of the password here.	
SMTP Server Address:		
User Name:	Plause and classic name.	
Password:		54
Port:	25	
Encryption Method:	•	

After the user has set up all the functions, the device needs to be restarted to make

them effective. Then the user can click the "Send Test Email" button to test whether the current configuration is effective .

```
Nextly Receiver Configuration
TE To the work abbrase the recipient of the work nethrodise.
Final Advances
Final
```

Enter the email address in the corresponding "Receiving Account" input box. Modify the notification event level: general, warning, critical.

#### 5.4.9 System Upgrade

In the upgrade settings, you can see the system and web page firmware versions, and you can upgrade the current firmware information when new firmware is available.

Import the firmware before upgrading. The firmware is a bin file. After the upgrade is completed, the PDU will automatically restart.

#### System Update



Please import the package to be update

Import Update Package

#### Web Page Update

- If the power is cut off during the upgrade process, the device can continue to upgrade normally after it is powered on again .
- The PDU firmware is relatively large, so during the upgrade process, please wait patiently for the upgrade to complete and ensure that the network is unobstructed.
- During the PDU upgrade process, please do not perform other operations, such as clicking buttons, using SNMP, logging into the web page, etc.

#### 5.4.10 System time acquisition

After the user gets the PDU, it is recommended to set the time once to ensure the accuracy of the system time.

- PDU supports directly obtaining the current PC time as the PDU time, and also supports accessing the NTP server for time synchronization.
- When the user uses the current PC time as the PDU time, he can directly click "Synchronize".

System Time Configuration		
	2024-11-14 17:06:26 2024-11-14 17:07:35	
Synchronize		

Note: When users use NGP server for time synchronization, refer to 5.5.3 NTP settings

### 5.4.11 Switch quantity alias modification

Supports modification of switch aliases. As shown in the figure

Input Switching Value Alias Configuration

Switching Value No.	Switching Value Alias	Handle
1		2. Edit
2		2. Edit
3		🖉 Edit
4		🙇 Edit

#### Input Switching Value Alias Configuration

Switching Value No.	Switching Value Alias	Handle
1		🗶 Edit
2		2 Edit
3		🗶 Edit
4		🗶 Edit

### 5.5 Other settings instructions

#### 5.5.1 Display column description

There is a current status display bar in the upper right and upper left corners of the interface. It can display the current logged-in user, Chinese and English switching, and the current device time.



	中文 EN		😫 adm	n v	17:11:40 2024/11/14
L	anguage Configuration	A HomePage	System Management / La	iguage Co	nfiguration
ľ	Language Configuration				
	Please chance and the following transports as the default language. After setting, the system language will adversifiely which is the default language advances provide the setting.			Submit	

- Click the current login user name, you can choose to log out (exit) the current user, switch between different users.
- Click "EN" to switch the device to English interface display.

#### 5.5.2 IP address acquisition

There are several ways for PDU to obtain IP address:

The first method: After the PDU is connected to the router, the IP address assigned by the router is obtained statically or dynamically.

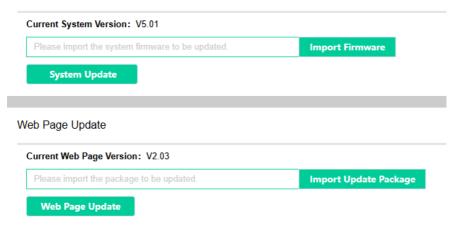
The second method: After the PDU is directly connected to the PC via a network cable, the PC is set to a static IP address. At this time, if the PDU has been set to a static IP address and is in the same network segment as the PC, it can be accessed directly.

The third method: Users can directly set the dynamic or static address of the PDU through the LCD.

#### 5.5.3 System version view

The system updates and records the current PDU firmware version. When the user needs after-sales service for the current device, the user can provide the current screenshot to our company, and our company can provide relevant after-sales service based on the information on the current interface.

System Update



### 6. Troubleshooting

#### 6.1 Frequently Asked Questions

question	Solution	
Network disconnection	<ul> <li>Check if the LED indicator of the network port is flashing and make sure it is flashing normally.</li> <li>Check the integrity of the network cable</li> <li>Verify the PDU network settings</li> </ul>	
No access Web User Interface	<ul> <li>Verify that you can ping the IP address of the PDU</li> <li>Verify that the browser you are using supports PDU web browsing. See "Supported Browsers"</li> <li>Verify that the URL is entered correctly</li> <li>Reset the device</li> </ul>	
LCD display shows garbled characters	<ul> <li>Reset device parameters via LCD</li> <li>Restart by pressing the Reset button</li> <li>If the problem is still not solved, please contact our after-sales service</li> </ul>	

#### 6.2 SNMP Issues

question	Solution
Unable to execute GET or SET	<ul> <li>Verify the community and view "SNMP</li> </ul>
	Devices"
	<ul> <li>Verify that UDP port 161 is open correctly</li> </ul>
	• Check whether the parameters are correct
	when using SNMP
Unable to receive trap	• Verify that the trap proxy server IP address is
	configured correctly
	• Verify that UDP port 162 is opened correctly
The trap received by the network	Please refer to the documentation received
management is not recognized	by your gateway to verify that these traps are
	correctly integrated into the alert/trap
	database

Note: The equipment should be operated in a place without explosion, corrosive gas and conductive dust, and without significant shaking, vibration and impact.

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### 7. Transportation and storage

 The product should not be subject to severe impact during transportation and unpacking, and should be transported and stored in accordance with the national standard GB/T13384-2008 "General Technical Conditions for Packaging of Mechanical and Electrical Products".

2. This product is an electronic device, so you should try to avoid heavy objects hitting and bumping it when handling, picking up and placing it.

3. The ambient temperature of the storage location should be -40  $^{\sim}$  +70  $^{\circ}\rm C$ , the relative humidity should not exceed 85 % and there should be no corrosive harmful substances in the air .

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