

# Power Distribution Unit (PDU)

8、12、16、20、24 Sockets  
User Manual



## **User Notice**

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The manufacturer of this system is not responsible for any radio and/or TV interference caused by unauthorized modifications to this device. It is the responsibility of the user to correct such interference.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.

## **Package Contents**

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The PDU Series package consists of:

PDU power distributor host x 1

PDU installation bracket x 2

PDU adapter x 1 (Installed according to host specifications,  
Please refer to attachment for loading and unloading details.)

PDU Temperature and humidity probe x 1

Check to make sure that all the components are present and in good order. If anything is missing, or was damaged in shipping, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the switch or to any other devices on the PDU installation.

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# About This Manual

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This User Manual is provided to help you get the most from your PDU system. It covers all aspects of installation, configuration and operation. An overview of the information found in the manual is provided below.

**Chapter 1, *Introduction***, introduces you to the PDU system. Its purpose, features and benefits are presented, and its front and back panel components are described.

**Chapter 2, *Hardware Setup***, provides step-by-step instructions for setting up your installation.


**Chapter 3, *Basic Operation and First Time Setup***, explains the procedures that the Administrator employs to set up the PDU network environment, and change the default user name and password.

**Chapter 4, *Browser Operation***, describes how to log in to the PDU with an internet browser, and explains the layout and components of the PDU's user interface.

**Appendix**, provides specifications and other technical information regarding the PDU.

## Conventions

This manual uses the following conventions:

Symbol	Indicates text that you should key in.
[ ]	Indicates keys you should press. For example, [Enter] means to press the <b>Enter</b> key. For keys that need to be entered at the same time, they are placed in the same square brackets, and the keys relate to a plus sign. For example: [Ctrl+Alt].
1.	Numbered lists represent procedures with sequential steps.
◆	Bullet lists provide information, but do not involve sequential steps.
→	Indicates selecting the option (on a menu or dialog box, for example), that comes next. For example, Start → Run means to open the <i>Start</i> menu, and then select <i>Run</i> .
	Indicates critical information.

# Chapter 1

## Introduction

### Overview

---

The new-generation intelligent power distributor (PDU) can effectively and conveniently improve the efficiency of power management. A Smart PDU is an intelligent power distributor that contains 8-64 AC sockets and provides IEC sockets.

These power distributors can safely, centrally and intelligently manage power (on, off, cycle) in home, garage, monitoring, shopping mall, yard, traffic, road and bridge application scenarios, and monitor power equipment using sensors.

The Smart PDU power distributor provides remote power management and real-time power measurement functions. It allows you to control and monitor the power status of an entire PDU or individual sockets online through TCP/IP from any place. Can be set separately for each group of socket power state, so that users can switch each group of equipment, Real-time display of current and voltage power consumption.

Installation and operation of this product is quick and easy: just plug the cable into the corresponding connection port, and use the user-friendly browser interface for setting and management. Since PDU supports firmware updates over the network, you can download the latest version of firmware from the company website to ensure the latest product improvements.

A Smart PDU is equipped with circuit breaker alarms. When a trip occurs, a Smart PDU can sound an alarm or send email alarm. This feature provides faster response time to recover servers and other equipment when power is lost due to current overload.

## **PDU Series Comparison Chart**

<b>Model</b>	<b>Power Cord</b>	<b>Outlets</b>	<b>Monitoring Level</b>	<b>Amps</b>	
				<b>Per Port</b>	<b>Total</b>
LIV-0816 WN	C19-C20	C13	PDU	10A	16A
LIV-0832 WN	IEC 60309	C13	PDU	10A	32A
LIV-1232 WN	IEC 60309	C13	PDU	10A	32A
LIV-1632 WN	IEC 60309	C13	PDU	10A	32A
LIV-2032 WN	IEC 60309	C13	PDU	10A	32A
LIV-2432 WN	IEC 60309	C13	PDU	10A	32A
LIV-0816EU	C19-C20	EU Standard	PDU	10A	16A
LIV-0832 EU	IEC 60309	EU Standard	PDU	10A	32A
LIV-1232 EU	IEC 60309	EU Standard	PDU	10A	32A
LIV-1632 EU	IEC 60309	EU Standard	PDU	10A	32A
LIV-2032 EU	IEC 60309	EU Standard	PDU	10A	32A
LIV-2432 EU	IEC 60309	EU Standard	PDU	10A	32A
LIV-0816 AM	C19-C20	USA Standard	PDU	10A	16A
LIV-0832 AM	IEC 60309	USA Standard	PDU	10A	32A
LIV-1232 AM	IEC 60309	USA Standard	PDU	10A	32A
LIV-1632 AM	IEC 60309	USA Standard	PDU	10A	32A
LIV-2032 AM	IEC 60309	USA Standard	PDU	10A	32A
LIV-2432 AM	IEC 60309	USA Standard	PDU	10A	32A
LIV-M0816	C19-C20	C13	PDU	10A	16A
LIV-M0832	IEC 60309	C13 C19	PDU	10A 16A	32A
LIV-M1232	IEC 60309	C13 C19	PDU	10A 16A	32A
LIV-M1632	IEC 60309	C13 C19	PDU	10A 16A	32A
LIV-M2032	IEC 60309	C13 C19	PDU	10A 16A	32A
LIV-M2432	IEC 60309	C13 C19	PDU	10A 16A	32A
LIV-M2464	IEC 60309	C13 C19	PDU	10A 16A	32A

**Note:** For complete specifications for each model, please refer to the product specification sheet.

## Features

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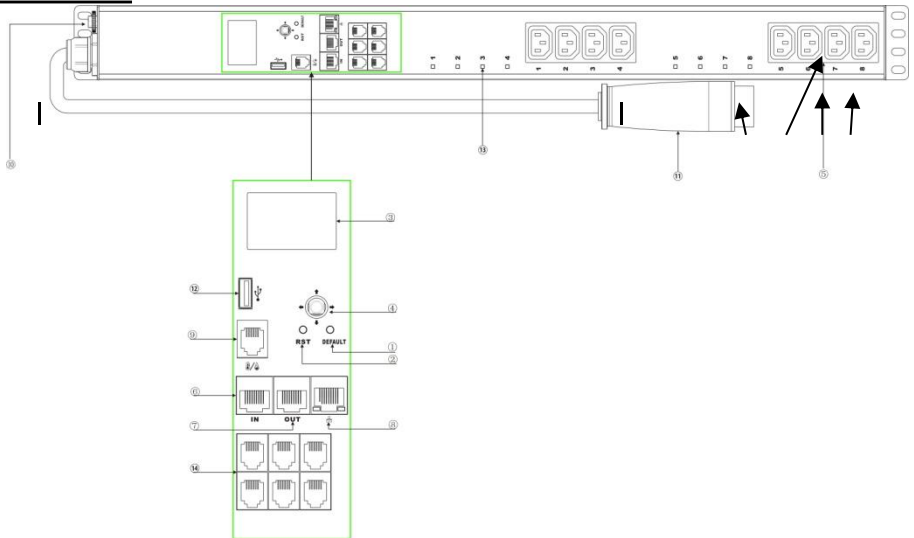
- ◆ Remote users can monitor PDU and loop status on web pages
- ◆ Support safe shutdown function
- ◆ Each device has its own power supply and socket. The user interface can be accessed even when the overload state triggers the automatic power-off switch on this device
- ◆ Fire surge protection, reduce the risk of fire caused by surge.
- ◆ Remote power management via TCP/IP and built-in 10/100 Ethernet port
- ◆ Support network communication protocols: TCP/IP, UDP, HTTP, HTTPS, DHCP, 10BASE-T /100Base-TX, Ping
- ◆ Individual power sockets can be controlled locally and remotely (open, close, cycle switch)
- ◆ Power on sequence - The user can set the power on sequence and the delay time for each socket so that the device can be turned on in the appropriate sequence
- ◆ It can be easily set and operated through the browser interface
- ◆ Support for multiple browsers (IE, Mozilla, Firefox, Chrome, Safari, Opera, Netscape)
- ◆ It can measure the power status of the PDU loop of the whole power distributor
- ◆ Current and voltage critical setting
- ◆ Provides the socket naming function
- ◆ Support activity log
- ◆ Supports firmware upgrade
- ◆ Support multiple languages: English, simplified Chinese
- ◆ Configurable mail notification feature to keep your system notified of changes in status
- ◆ Flexible mounting design for easy mounting on structured wiring enclosures, walls or behind tables and televisions.
- ◆ Supports SNMP (V1、V2、V3) management, Modbus for IP management

- ◆ RTC supports timer operation in the absence of power supply
- ◆ Support multi-user Settings, and multi-user different management rights Settings
- ◆ Support PDU energy usage statistics, quickly understand the usage of electrical equipment through graphics
- ◆ PDU Exterior the PDU provides LCD Displays to visually display the operating status of ports and hosts
- ◆ Dynamic password verification in the login window enhances user login security verification
- ◆ You can add and query scheduled tasks to make work plans for PDU port sockets in advance
- ◆ Displays current and voltage alarms on the home page, and queries historical records of PDU anomalies
- ◆ Support zero meter clearing function
- ◆ Provides ports for the ambient T/H sensor
- ◆ Provides an RJ45 connector
- ◆ The IP blacklist function effectively blocks malicious users
- ◆ Support the current, power, and power factor detection of each power supply separately output port
- ◆ Support separate port set threshold warning and power off Settings to protect the safety of electrical devices
- ◆ Supports single-phase AC or three-phase AC input
- ◆ Support modular combination, convenient for users to combine and customize according to the actual use scenario and the change of power specifications
- ◆ Support constant power replacement of main control module
- ◆ Support the installation of independent overload break protection device according to the group, to achieve the break protection function of abnormal group power consumption
- ◆ Support PDU installation and flip, the local LCD screen can flip the interface with the change of direction

- ◆ 3P working mode, can be divided according to L1, L2, L3 three-phase group of different colors, easy to operate and manage
- ◆ Support a variety of extended sensors or controlled switch control signal output
- ◆ Support remote temperature and humidity expansion module connection

## ◆ Components

### Front View



No.	Item	Description
1	Defaults Switch	<p>This switch is recessed and must be pushed with a thin object, such as the end of a paper clip</p> <ul style="list-style-type: none"> <li>You can press this button and hold it for more than 3 seconds to reset the PDU to factory default values</li> <li>Release this switch and restart the device to take effect.</li> </ul>
2	Reset Switch	Hold down the key to restart the PDU
3	LCD Displays	LCD used to display PDU status information
4	Interface selection button	Used to control the MENU function of LCD
5	Power output socket	Each power socket can connect to electrical devices with the current less than 10A. The total output power is less than 16A/32A. If the power output exceeds the maximum load, the PDU and electrical devices may be damaged and the circuit breaker protection function may be triggered
6	Cascade input port	Cascaded RJ45 input to other devices

7	Cascade output port	Cascaded output with other devices through RJ45
8	LAN Port	It can connect to 10M/100M Ethernet network. Control and access PDUs
9	T/H sensor ports	External temperature and humidity sensors can be connected through RJ11 ports
10	Overload protection switch	When the PDU is overloaded, the protector automatically disconnects the power supply to protect the electrical equipment.
11	32A power input socket	Please insert the power cable to the AC power supply here. This power input socket is equipped with a switch setting. When the power cable is connected and the power switch is turned on, the PDU can be put into working state.
12	USB interface	Extend the USB function port
13	LED Indicators	Indicates the operating status of the power output port
14	Sensor interface	Sensor interface can be connected to access control, smoke, alarm and other devices.

**Power output module type: 4, 6, 8, 10 port combination modules:**



Support different countries power interface:



US-Plug



C13



C19



French-Plug



UK-Plug



Euro-Plug

### Before You Begin

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1. Important safety information regarding the placement of this switcher is listed in the appendix for safety tips, please refer to this information before operation.
  2. Before installation, ensure that the power supply of all devices to be connected is turned off.
- 

The PDU can be installed indoors in a server cabinet. To install a PDU in the above positions, use the fasteners and screws delivered with the DEVICE to secure the PDU to a specific position.

### Installation

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To install a PDU, perform the following operations:

1. Properly ground the PDU using ground cables. Connect one end of the grounding cable to the grounding terminal and the other end to the appropriate grounding object.

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**Note:** Do not omit this step. Proper grounding can avoid damage caused by surge or static electricity

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2. For each group of devices to be connected, use their power cables to connect the AC socket of the device to the available socket on the PDU.
3. Connect the cable that connects the PDU to the network to the network connection port of the PDU.
4. Connect the PDU power cable to the AC power supply.

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**Note:** We strongly recommend that you do not plug the ECO PDU power cord into the extender of multiple sockets to prevent it from being unable to get enough power to operate properly.

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After connecting PDUs, power on PDUs and connected devices.

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**Note:** It is strongly recommended that you use harness straps and cable boxes to secure cables to the front panel of the equipment. Prevent loose and poor contact in subsequent time.

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# Chapter 3

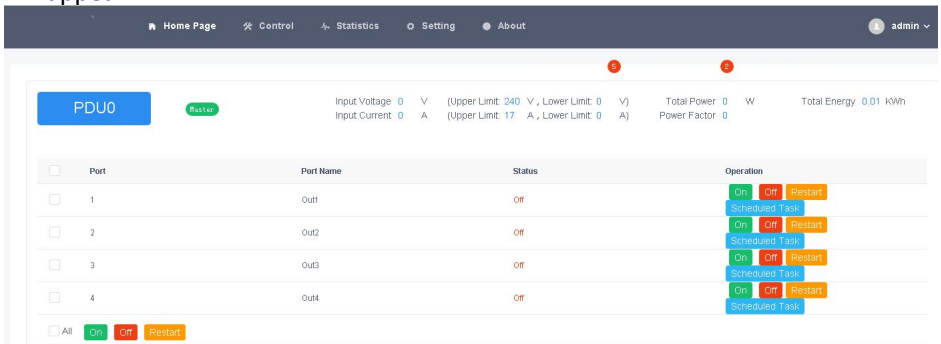
## Basic Operation and First Time Setup

### First Time Setup

After the PDU is installed on the shelf, the administrator needs to set network parameters and change the default value of super Administrator log-in Settings and new users. The most convenient way is to use a browser through the network log-in.

- Note:** 1. Since this is your first log-in, you can use the default log-in IP address: **192.168.0.100**, user name: **admin**, and default password: **admin123456**. For security reasons, you must change to your unique user's name and password (See Changing Administrator Log-in for more information).
2. To log in to the network remotely, please refer to the IP address description.

After you log-in to the PDU successfully, the Socket Access/Connection page will appear:



After log-in, the top pane of the page provides the following options for PDU operations: **Home Page**, **Control**, **Statistics**, **Settings**, and **About**. Click the corresponding TAB to select, set, and view the functions provided on the corresponding page.

### Network Configuration

To configure the network, perform the following operations:

1. Click the **Setting** TAB.
2. The device configuration page is displayed. A screen like the following should appear:



User Management  
User List  
Add User  
Permission Management  
Blacklist Setting



Device Deployment  
Cascade Setting  
Network Setting  
Port Name Setting  
Port Delay Setting  
SNMP Setting  
Ping Setting



Global Setting  
Mail Setting  
System Time Setting  
Clear Energy  
Restore to Factory Setting  
Upgrade  
Language Setting



Threshold Setting  
Input Warning Setting  
Output Warning Setting  
Output OFF Setting  
Temp & Humi Warning Setting

3. Please fill in the field data according to the information provided in the device setting instructions of **Network Setting**. Supports HTTPS access, Such as::

### Adapter1

IP Addr 192.168.0.100

Subnet Mask 255.255.255.0

Gateway IP 192.168.0.1

Primary DNS Server 8.8.8.8

Secondary DNS 168.95.1.1

Smart DHCP ☒

NetBios Name IPM-8221

HTTP Port 80

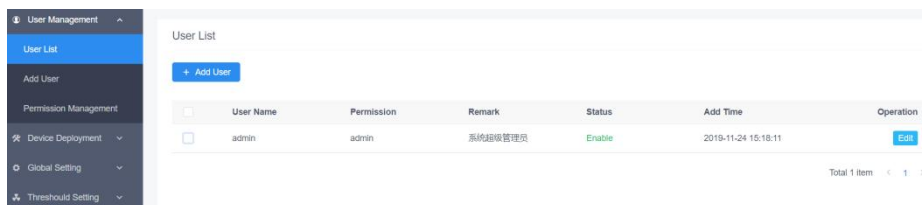
HTTPS Port 443

Redirect ☒

## Change administrator log-in

To change the default user name and password of the super administrator, perform the following operations:

1. Click the User List in the User Management button at the top of the screen. A list of users is listed on the left side of the user administrator page, with their more detailed information displayed on a large block in the center.



2. In the Administrator information section, select Edit to reset the unique name and password, then click **Save** (bottom of the page).

---

**Note:** If you forget the administrator account and password, please reset the host to restore the initial Settings, to restore the default administrator account.

---

Edit User

User Name

Password

Password Validation

Permission ☒ Admin

Status ☒ Enable

Remark

[Save](#)

## **Continue to perform**

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After you complete the network Settings and change the default administrator account and password, you can have other administrator accounts. Operation permissions, including new users, are explained in the next section.

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# Chapter 4

## Browser Operation

### Logging In

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You can connect to PDUs from any platform with a web browser installed. To access the PDU, perform the following operations:

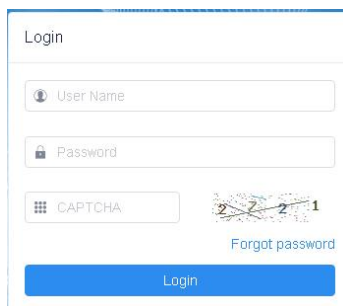
1. Open a browser and enter the IP address of the PDU that you want to access in the address box.

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**Note:** You can use the default IP address **192.168.0.100** to log in to the PDU or use a new IP address after the PDU is changed. Remember that the new IP address is required for subsequent log-in.

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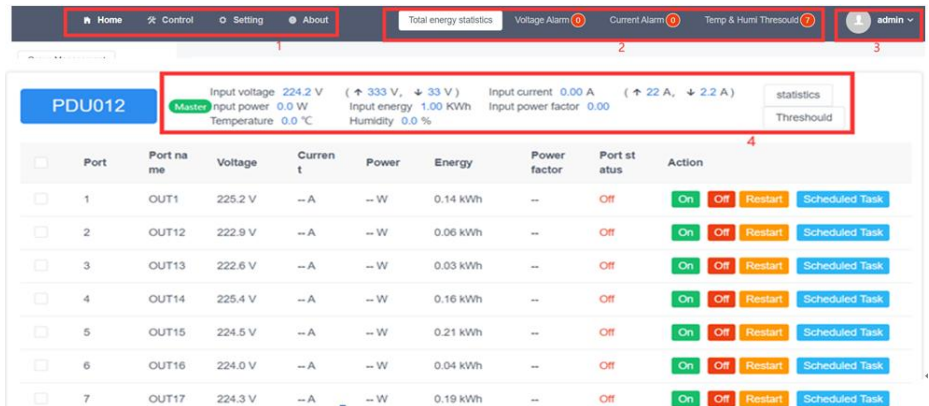
2. After the security warning dialog box appears, please accept the authentication, which is reliable. Once accepted, a log-in screen will appear:

A screenshot of a web browser showing a login page. The page has a light blue header with the word "Login" in a sans-serif font. Below the header, there are three input fields: "User Name" with a person icon, "Password" with a lock icon, and "CAPTCHA" with a grid icon. To the right of the CAPTCHA field is a CAPTCHA image showing the number "2" and "1" with lines connecting them. Below the CAPTCHA field is a link that says "Forgot password" in blue text. At the bottom of the form is a blue button with the word "Login" in white text.

3. Enter a valid user name and password (set by the PDU administrator) and complete the password as prompted.
4. Click log-in to go to the main page of the browser.

### The PDU Main Page

Once you have logged in successfully, the PDU home page will appear along with the socket access page:



**Note:** The window shown above displays the contents of the administrator's page according to the type, authority, and PDU of each user. Depending on the model, items may not be displayed on all users' pages.

## Page Components

Web page components are described as follows:

No.	Item	Description
1	Option Column	This option column contains the main operation categories of THE PDU. The items that appear in the option column vary according to the user type. This authorization option is set when the account is established.
2	Alarm Column	Lists the number of alarms related to the PDU running process. You can click to go to the details page to view the type and content of the alarm.
3	log-in options	You can perform log-in operations, such as refreshing, logging out, changing passwords, and querying logs.

4	PDU operating status	Provides real-time information about the device, such as power voltage, current, and power consumption.

## Socket access

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### Online

When you log in to the PDU, the user interface will be displayed with the default socket access page and a menu.

The PDU status and socket status contents are displayed on the main block.

<input type="checkbox"/>	Port	Port name	Voltage	Current	Power	Energy	Power factor	Port status	Action
<input type="checkbox"/>	1	OUT1	225.1 V	-- A	-- W	0.14 kWh	--	Off	<span>On</span> <span>Off</span> <span>Restart</span> <span>Scheduled Task</span>
<input type="checkbox"/>	2	OUT12	223.0 V	-- A	-- W	0.06 kWh	--	Off	<span>On</span> <span>Off</span> <span>Restart</span> <span>Scheduled Task</span>
<input type="checkbox"/>	3	OUT13	222.6 V	-- A	-- W	0.03 kWh	--	Off	<span>On</span> <span>Off</span> <span>Restart</span> <span>Scheduled Task</span>
<input type="checkbox"/>	4	OUT14	225.4 V	-- A	-- W	0.16 kWh	--	Off	<span>On</span> <span>Off</span> <span>Restart</span> <span>Scheduled Task</span>
<input type="checkbox"/>	5	OUT15	224.8 V	-- A	-- W	0.21 kWh	--	Off	<span>On</span> <span>Off</span> <span>Restart</span> <span>Scheduled Task</span>
<input type="checkbox"/>	6	OUT16	224.5 V	-- A	-- W	0.04 kWh	--	Off	<span>On</span> <span>Off</span> <span>Restart</span> <span>Scheduled Task</span>
<input type="checkbox"/>	7	OUT17	224.8 V	-- A	-- W	0.19 kWh	--	Off	<span>On</span> <span>Off</span> <span>Restart</span> <span>Scheduled Task</span>
<input type="checkbox"/>	8	OUT18	225.1 V	-- A	-- W	0.15 kWh	--	Off	<span>On</span> <span>Off</span> <span>Restart</span> <span>Scheduled Task</span>

---

**Note:** Only PDUs with this function display the socket status sub-menu block. Other models only provide PDU status monitoring, which allows you to enable, disable, reset, and schedule tasks for corresponding port sockets. For detailed descriptions, refer to the subsequent chapters.

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## Control

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On the menu bar of the home page, select Control to access the scheduled task options page of the PDU. You can query scheduled tasks and add new scheduled tasks for the socket.

In the schedule task list bar, you can retrieve the desired port schedule status by time.

In the add scheduled task TAB, you can add scheduled tasks based on your requirements, such as socket port, switch type, time, working day, and remarks. Select the corresponding option and click the Save button to Save and generate a scheduled task. PDU will perform the corresponding scheduled task operation at the set time.

## Statistics



You can collect energy consumption statistics based on the specified query time range. Select a start time from the drop-down list box based on the date, month, and year. You can select energy consumption within 24 hours, the latest 7 days, 30 days, and 90 days based on the quick selection function on the time bar.

## Settings

Setting options includes **Account Management**, **Device Deployment**, **Global Settings**, and **Threshold Settings**. This option is available only to administrators. Common users cannot see this option.



### Account management

Sub-function options include Account list, adding an account, and rights management Blacklist Setting

User List

+ Add User

<input type="checkbox"/>	User Name	Permission	Remark	Status	Add Time	Operation
<input type="checkbox"/>	user1	visitor	user	Enable	2021-12-31 08:42:48	<a href="#">Edit</a> <a href="#">Delete</a>
<input type="checkbox"/>	admin	admin	super admin	Enable	2019-11-24 15:18:11	<a href="#">Edit</a>

Total 2 Items < 1 >

If you log in to the PDU as an administrator, the account list displays information about all accounts in the PDU system. The administrator has the permission to add, delete, and edit accounts. The default administrator account can only be edited but cannot be deleted.

Add User

User Name

user1

Password

\*\*\*\*\*

Password Validation

\*\*\*\*\*

Permission

☐ Operator
☒ Visitor

Status

☒ Enable
☐ Disable

Remark

user

Save

After logging in as an administrator, you can use this function to add new accounts and select corresponding permissions.

Permission Management

Operator

Visitor

☒ Operate Ports
☒ Port Delay Setting
☒ Input Warning Setting
☒ View System Logs

☐ User Management
☐ System Time Setting
☒ Output Warning Setting
☒ View User Operation Logs

☒ Manage Scheduled Task
☒ Clear Energy
☒ Output Off Setting
☒ Statistics

☒ Port Name Setting
☒ Language Setting
☒ Temp & Humi Warning Setting

Save

There are two levels of permission management options: operator and browsing user. Operator rights provide functions related to PDU operations. If selected, the corresponding rights take effect and the

operator is granted the operation rights.

Permission Management

---

Operator Visitor

---

☒ View System Logs      ☒ View User Operation Logs      ☒ Statistics

[Save](#)

**Browsing permission** This section describes how to query system logs, operation logs, and statistics. You can select the corresponding options to assign the browsing permission to users.

### Blacklist Setting

Users can add Settings based on the IP addresses that need to be restricted to prevent accounts with restricted addresses from accessing and logging in to the PDU control system.

Blacklist Setting

[+ Add](#)

IP	Operation
192.168.0.200	<a href="#">Delete</a>
192.168.0.201	<a href="#">Delete</a>

Total 2 items    < 1 >

## The equipment deployment

Sub-function options include network Settings, port name Settings, port delay Settings, and SNMP Settings, Ping Settings。

Network Setting

IP Addr: 192.168.0.100

Subnet Mask: 255.255.255.0

Gateway IP: 192.168.0.1

Primary DNS Server: 223.5.5.5

Secondary DNS: 8.8.8.1

Smart DHCP: ☒

NetBios Name: lppdu

HTTP Port: 80

[Save](#)

The default IP address is **192.168.0.100**. You can reset the IP address and network Settings based on your IP address segment. Click **SAVE** to Save the new Settings. ◦

---

**Note:** You can restart the PDU in two ways:

1. Press the embedded RST reset button at the front of the PDU with a needle, such as the end of a paper clip, to restart the PDU.
  2. On the WEB page of the PDU, select The Upgrade option in Global Setting and click Restart to Restart the DEVICE.
- 

Port Name Setting

PDU: PDU 0

Name: PDU0

Port	Name
Port1	Out1
Port2	Out2
Port3	Out3
Port4	Out4

[Save](#)

You can name the PDU or the socket of the PDU control port. After the name is changed, click the Save button to Save the

#### Port Delay Setting

PDD

Port	On Delay(Second)	Off Delay(Second)	Restart Delay(Second)
Out1	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="1"/>
Out2	<input type="text" value="2"/>	<input type="text" value="2"/>	<input type="text" value="2"/>
Out3	<input type="text" value="3"/>	<input type="text" value="3"/>	<input type="text" value="3"/>
Out4	<input type="text" value="4"/>	<input type="text" value="4"/>	<input type="text" value="4"/>

#### Settings.

Port delay setting function allows you to set the opening and closing delay time of the port socket. By default, the switching interval of the adjacent port is 1 second. You can also modify the interval delay time according to your needs.

---

**Note:** The delay time of the port socket is intended to protect the electrical appliance from experiencing the shock of current and voltage at the moment of power-on, thus protecting the electrical appliance from damage. It is strongly recommended to retain the default delay setting.

---

### SNMP Setting

SNMP Agent On ☒

Communit

Permission 

Read Only ^

Read Only  
Read & Write

TRAP On

Reception Addr

Save

SNMP Settings. If this function is enabled, an alarm will be sounded and E-mail message will be sent when the circuit breaker trips or the PDU/socket threshold is set beyond the minimum or maximum setting range.

PDU 

PDU0

OUT1	IP	Ping间隔时间(秒)	Ping超时时间(秒)	Ping失败动作	生效	测试
OUT12	<input type="text" value="192.168.0.1"/>	<input type="text" value="3"/>	<input type="text" value="5"/>	<div>重启</div>	<input checked="" type="checkbox"/>	<div>测试</div>
OUT13	<input type="text" value="192.168.0.2"/>	<input type="text" value="3"/>	<input type="text" value="5"/>	<div>断电</div>	<input checked="" type="checkbox"/>	<div>测试</div>
OUT14	<input type="text" value="192.168.0.2"/>	<input type="text"/>	<input type="text"/>	<div>请选择</div>	<input type="checkbox"/>	<div>测试</div>
OUT15	<input type="text"/>	<input type="text"/>	<input type="text"/>	<div>请选择</div>	<input type="checkbox"/>	<div>测试</div>
OUT16	<input type="text"/>	<input type="text"/>	<input type="text"/>	<div>请选择</div>	<input type="checkbox"/>	<div>测试</div>
OUT17	<input type="text"/>	<input type="text"/>	<input type="text"/>	<div>请选择</div>	<input type="checkbox"/>	<div>测试</div>
OUT18	<input type="text"/>	<input type="text"/>	<input type="text"/>	<div>请选择</div>	<input type="checkbox"/>	<div>测试</div>

PING is used to test whether the network of the port connected to the PDU is normal. You can set an IP address and interval to test whether the network is normal.

Sensor Setting

[Sensor Setting](#)
[Controller Setting](#)
[Sensor Linking](#)

PDD

Sensor No	Name	Type
1	<input type="text" value="sensor1"/>	<input type="text" value="NO"/>
2	<input type="text" value="sensor2"/>	<input type="text" value="NC"/>
3	<input type="text" value="sensor3"/>	<input type="text" value="NC"/>

Save

Sensor Settings: Connect external sensor devices such as smoke sensors, water intrusion sensors, and access control devices. Customize extension functions based on linkage Settings.

Sensor Setting

[Sensor Setting](#)
[Controller Setting](#)
[Sensor Linking](#)

PDD

Controller No	Name
1	<input type="text" value="controller1"/>
2	<input type="text" value="controller2"/>

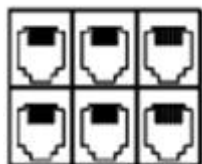
Save

## Sensor Setting

Sensor Setting						
<div> <div>Sensor Setting</div> <div>Controller Setting</div> <div>Sensor Linking</div> </div>						
<div>IPM-8221</div>						
ID	Sensor No	Sensor Name	Sensor Type	Controller No	Controller Name	Enabled
14	2	sensor2	NC	1	controller1	Enable
15	2	sensor2	NC	2	controller2	Enable

The interface of the sensor and controller is RJ11, and the corresponding sequence is shown in the following figure:

sensor 2 sensor 3 CTL2



sensor 1 Reserve CTL1

Users can make their own cable to access the corresponding interface according to the actual requirements, or purchase our conversion cable. Connect the cables according to the corresponding sequence.



The control input pins of the sensor are connected to pins 2 and 3.

The output of the controller is divided into 2 and 3 pins in normally open mode and 2 and 6 pins in normally closed mode

## Global Settings

Sub-function options include: **Mail Settings, System Time Settings, Electricity Meter Reset, Factory Reset, System Upgrade, Language Settings**

Mail Setting

Account setting   Receiver List   Send Logs

SMTP Server

Port

Sender

Password

Enable Mail ☒ Enable ☐ Disable

The email setting function allows you to send PDU alarms and logs to a specified email address after setting an email address. After setting the email address, you can send a test email to check whether the email address is correct.

Mail Setting

Account setting   Receiver List   Send Logs

Name  Mail Box

Name	Mail Box	Status	Operation
Eddie	610114768@qq.com	Enable	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Eddie	zhu_huija0001@126.com	Enable	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

You can search, query, edit, and delete email addresses in the receiving email list, and enable or disable email sending Settings. It is convenient for you to adjust according to the actual application situation.

Mail Setting

Account setting   Receiver List   Send Logs

PDU  Time

<input type="checkbox"/>	Device Name	Reception Mail Box	Content	Send Time	Operation
<input checked="" type="checkbox"/>	PDU0	Eddie.zhu_huija0001@126.com m:Eddie.610114768@qq.com	The input voltage is under lower limit!	2021-12-29 10:56:34	<input type="button" value="Delete"/> <input type="button" value="Export"/>
<input checked="" type="checkbox"/>	PDU0	Eddie.zhu_huija0001@126.com	The input voltage is under lower limit!	2021-12-29 10:52:06	<input type="button" value="Delete"/> <input type="button" value="Export"/>
<input type="checkbox"/>	PDU0	Eddie.zhu_huija0001@126.com	The input voltage is under lower limit!	2021-12-29 10:50:18	<input type="button" value="Delete"/> <input type="button" value="Export"/>

Mail logs record sent mail information. You can query, delete, or export mail

logs based on the time setting.

System Time Setting

System Time 2021-12-31 11:11:39

Set time   Synchronize from Computer Time

**System time** You can set the system time of the PDU and synchronize the time with the browser you log in to.

Clear Energy

PDU

Total Energy 0.25 kW

**The meter reset function** can reset the accumulated electric quantity of THE PDU. After setting, the PDU system will restart the calculation of accumulated electric quantity.

Restore to Factory Setting

PDU

Restore to Factory Setting(Device Will Reboot after restoration)

**The factory setting restoration function** restores the PDU to its factory Settings and deletes all records and information in the PDU. Exercise caution when performing this operation. After the default Settings are restored, the system restarts. You can perform related operations, such as setting PDUs again.

Upgrade

Upgrade File

**After system upgrade**, you can query the latest version of the PDU software you use on our website, download the file and save it in the specified file directory on the PC, select the upgrade file to complete the software

update of the PDU system, and restart the PDU system after the system is updated.

Language Setting

Language

English

▼

Save

Language setting: The PDU currently supports two languages: Chinese and English. If there is a new language package, you can follow the latest upgrade program to upgrade the system and complete the multi-language conversion. Select the system language you want through the drop-down option, click the **Save** button and the system will be changed to the language you selected.

Threshold Settings

Sub-function options include **Input Warning Setting** 、 **Output Warning Setting** 、 **Output Off Setting**、 **Temp & Humi Warning Setting**.

Input Warning Setting

PDU

PDU0

▼

Voltage Upper Limit

240

V

Voltage Lower Limit

0

V

Current Upper Limit

17

A

Current Lower Limit

0

A

Save

**Input Warning Setting.** You can set the maximum and minimum values of the input current and voltage. When the current or voltage exceeds the threshold, the PDU automatically sends alarm logs to the specified email box address, and an alarm message is displayed on the home page, facilitating query and handling after your next log-in.

## Output Warning Setting

PDU

PDU0

Batch Threshold Setting

Output	Current Warning Upper Limit		Current Warning Lower Limit	
Out1	2.5	A	0	A
Out2	2.5	A	0	A
Out3	2.5	A	0	A
Out4	2.5	A	0	A
Out5	2.5	A	0	A
Out6	2.5	A	0	A
Out7	2.5	A	0	A
Out8	2.5	A	0	A

Save

Output Warning setting. You can set the upper limit and lower limit of the output current of each power output port respectively to ensure that the electrical device works within a safe current range. If the output current exceeds the set range, the system will issue an alarm. You can also set parameters in batches. Treat the same setup requirements uniformly.

## Output Off Setting

PDU PDU0 Batch Threshold Setting

Output	Current Off Upper Limit		Current Off Lower Limit	
Out1	17	A	0	A
Out2	3	A	0	A
Out3	3	A	0	A
Out4	8	A	0	A
Out5	3	A	0	A
Out6	3	A	0	A
Out7	3	A	0	A
Out8	3	A	0	A

Save

When the current exceeds the upper limit, the system automatically disconnects the corresponding port to eliminate the risk of device overload. You can also set the output power in batches. Treat the same setup requirements uniformly.

**Output Off Setting**, this function is mainly to prevent excessive current damage to electrical equipment and line, reach the maximum or minimum range of current you set, will trigger the system power off.

---

**Note:** Set the current threshold appropriately according to PDU parameters. Incorrect current setting may cause the PDU to fail to provide power output or effectively protect electrical devices and circuits when excessive current occurs.

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## Temp & Humi Warning Setting

Select Device

Temp Warning Upper Limit  °C

Temp Warning Lower Limit  °C

Humi Warning Upper Limit  %

Humi Warning Lower Limit  %

## Temp & Humi Warning Setting

You can set the upper and lower limits of temperature and humidity. When the upper and lower limits of temperature and humidity are exceeded, the system generates an environmental alarm.

## About

You can obtain the network configuration information, name, hardware version information, and device serial number of the PDU.

About

All Rights Reserved: Copyright Info	
IP Addr: 192.168.0.100	Device Name: PDU0
Subnet Mask: 255.255.255.0	Device UID: G062000000000000
Gateway: 192.168.0.1	Hw Version: v1.1
Primary DNS Server: 223.5.5.5	Sw Version: 1.6.3
Secondary DNS Server: 8.8.8.1	Product Serial: 123456

## Logs

Logs are classified into two types: **System Logs** and **User Operation**

## Logs

System Logs

Time

Type

Select

Read

Select

Search

Time	Event Type	Description	Status
2021-12-29 11:13:23	Input Voltage Warning	Input voltage warning: Below lower limit	Not Read
2021-12-29 10:56:34	Input Voltage Warning	Input voltage warning: Below lower limit	Not Read
2021-12-29 10:52:06	Input Voltage Warning	Input voltage warning: Below lower limit	Not Read
2021-12-29 10:50:18	Input Voltage Warning	Input voltage warning: Below lower limit	Not Read
2021-12-29 10:48:30	Input Voltage Warning	Input voltage warning: Below lower limit	Not Read
2021-12-29 10:47:19	Input Voltage Warning	Input voltage warning: Below lower limit	Not Read
2021-12-29 10:44:48	Input Voltage Warning	Input voltage warning: Below lower limit	Not Read
2021-12-29 10:43:23	Input Voltage Warning	Input voltage warning: Below lower limit	Not Read
2021-12-29 10:41:23	Input Voltage Warning	Input voltage warning: Below lower limit	Not Read

You can click the **More Warnings** button in the upper part of the main window to implement system logs. The system log list is displayed in the pop-up window. You can view the time, type, and description of system logs.

User Operation Logs

Time

Search

Time	User	Description	IP
2021-12-31 09:25:08		A user is modified [ user1]	192.168.0.153
2021-12-31 08:42:48		A user is added [ user1]	192.168.0.153
2021-12-30 16:09:44		A user is modified [ admin]	192.168.0.153
2021-12-30 15:27:42		On [ addr:0]	192.168.0.153
2021-12-30 15:27:42		On [ addr:0]	192.168.0.153
2021-12-30 15:27:23		On [ addr:0]	192.168.0.153
2021-12-29 11:14:12		修改了输入告警设置 [ addr:0]	192.168.0.150
2021-12-29 11:13:14		修改了输入告警设置 [ addr:0]	192.168.0.150
2021-12-29 10:57:46		Input warning settings are modified [ addr:0]	192.168.0.150

**User Operation Logs**, You can click the log-in user drop-down list in the upper right corner of the window and choose Operation Logs to display

the user Operation Logs window, which displays the log time, user, log description, and accessed IP address.

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# Appendix

## Safety Instructions

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### General

- ◆ This product is for indoor use only.
- ◆ Read all of these instructions. Save them for future reference.
- ◆ Follow all warnings and instructions marked on the device.
- ◆ Do not place the device on any unstable surface (cart, stand, table, etc.). If the device falls, serious damage will result.
- ◆ Do not use the device near water.
- ◆ Do not place the device near, or over, radiators or heat registers.
- ◆ The device cabinet is provided with slots and openings to allow for adequate ventilation. To ensure reliable operation, and to protect against overheating, these openings must never be blocked or covered.
- ◆ The device should never be placed on a soft surface (bed, sofa, rug, etc.) as this will block its ventilation openings. Likewise, the device should not be placed in a built-in enclosure unless adequate ventilation has been provided.
- ◆ Never spill liquid of any kind on the device.
- ◆ Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- ◆ The device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- ◆ This equipment is designed to be equipped with 100- 230V alternating IT power distribution system.
- ◆ To prevent damage to your installation it is important that all devices are properly grounded.
- ◆ The device is equipped with a 3-wire grounding type plug. This is a safety feature. If you are unable to insert the plug into the outlet, contact your

electrician to replace your obsolete outlet. Do not attempt to defeat the purpose of the grounding-type plug. Always follow your local/national wiring codes.

- ◆ Do not allow anything to rest on the power cord or cables. Route the power cord and cables so that they cannot be stepped on or tripped over.

- ◆ To help protect your system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).

- ◆ Position system cables and power cables carefully; Be sure that nothing rests on any cables.

- ◆ When connecting or disconnecting power to hot pluggable power supplies, observe the following guidelines:

- ◆ Install the power supply before connecting the power cable to the power supply.

- ◆ Unplug the power cable before removing the power supply.

- ◆ If the system has multiple sources of power, disconnect power from the system by unplugging all power cables from the power supplies

- ◆ Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock

- ◆ Do not attempt to service the device yourself. Refer all servicing to qualified service personnel

- ◆ If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.

- ◆ The power cord or plug has become damaged or frayed.

- ◆ Liquid has been spilled into the device.

- ◆ The device has been exposed to rain or water.

- ◆ The device has been dropped, or the cabinet has been damaged.

- ◆ The device exhibits a distinct change in performance, indicating a need for service.

- ◆ The device does not operate normally when the operating instructions are followed.

- ◆ Only adjust those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage that will require extensive work by a qualified technician to repair.

### **Rack Mounting**

- ◆ When extending the device out of the rack, ensure that the rack is smooth and stable.
- ◆ Do not overload the AC branches that supply power to the frame;  
The carrying capacity of the whole frame should not exceed eighty percent of the power of the branch.
- ◆ Make sure that all equipment used on the rack – including power strips and other electrical connectors – is properly grounded.
- ◆ Ensure that proper airflow is provided to devices in the rack.
- ◆ Ensure that the operating ambient temperature of the rack environment does not exceed the maximum ambient temperature specified for the equipment by the manufacturer
- ◆ Do not step on or stand on any device when servicing other devices in a rack.

### **The Eco PDU's Main Power Cord**

Please use the power cord attached to this package. If it is necessary to replace the power cord attached to this package with another power cord, Please confirm that the power cable must meet at least the cable standards attached to this package.

## IP Address Determination

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If you are an administrator and log in for the first time, you must connect the switcher to assign an IP address for user access. The PDU device provides the means that, in each case, your computer must be on the same network segment as the switcher; When you are connected and logged in, you can assign a fixed network address to the device.

Specific methods are as follows:

1. Set the IP address of your PC to 192.168.0.xxx. Here XXX represents any number other than 100. (192.168.0.100 is the default address of switcher)
2. In the network address column of your browser, enter the recognized IP address of the switcher you want to connect to (192.168.0.100).
3. When you are connected and logged in, assign a set of fixed IP addresses corresponding to its Network segment to the device (see Network Setting).
4. After you log out, be sure to reset your computer IP address back to the original value.
5. Once you are logged in, please go to the Network Settings page to set up a temporary IP environment.

## Specifications

Function		
Power	Direct	8、12、16、20、24
Connectors	Power Inlet	16A、32A Aviation connector
	Power Outlets	IEC 320 C13、IEC 320 C19, EU-Plug、UK-Plug, French-Plug, US-Plug
	LAN	1 x RJ-45(Female)
	Cascade	2 x RJ-45(Female)
LED lamp	State of the socket	LCD Displays
	Power	LED
	10/100M	1 (Orange/ Green)
Switches	Reset	1 x Semi-recessed button
	Restore default	1 x Semi-recessed button
I/P Rating		100–240V~; 50–60Hz;16A 100–240V~; 50–60Hz;32A
Load Capacity		3840W 7680W
O/P Rating	Per Port	100–240V~; 50–60Hz; 10A
	Total	100–240V~; 50–60Hz; 16A/32A
Environment	Operating Temperature	0–50℃
	Storage Temperature	-20–60℃
	Humidity	0–80% RH Non-condensing
Physical Properties	Housing	Metal
	Weight	8-port 2.1kg 12-port 2.6kg 16-port 3.1kg 20-port 3.6kg 24-port 4.1kg
	Dimensions(L x W x H)	8-port 696*66*44.5mm 12-port 911*66*44.5mm 16-port 1126*66*44.5mm 20-port 1341*66*44.5mm 24-port 1556*66*44.5mm

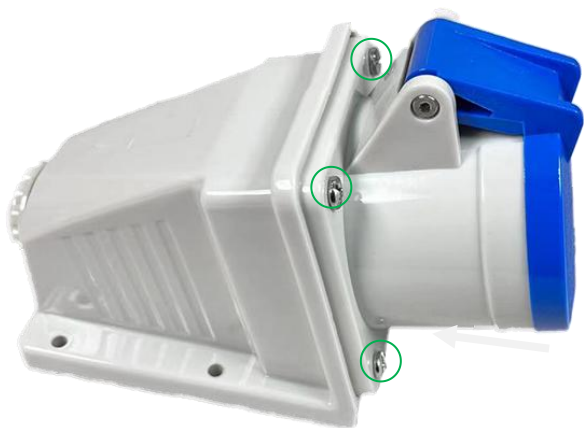
### Remote control temperature and humidity sensor specifications

Supply voltage	5V DC/5~36V DC
Power dissipation	<100mW
Communication mode	RS485
Collection path number	Temperature of channel 1 + Humidity of channel 1
Temperature range	-40℃~+125℃
Temperature resolution	0.1℃
Temperature accuracy	±0.3℃
Humidity range	0~100%RH
Humidity resolution	0.1%RH
Humidity accuracy	±2%RH
Long-term stability	Temperature: <0.03℃/yr Humidity: <0.25%RH/yr
Data update rate	30Hz/ channel
Communication protocol	Modbus RTU
Operating temperature	-40℃~+85℃
Working humidity	0%~95%RH (Non-condensing)
Overall dimensions (LxWxH)	65*46*28.5mm
Installation mode	Standard C45 (35mm) universal rail mounting, or screw hole mounting

### 32A jack specifications

shell	Nylon PC
insulator	Glass fiber nylon
Contact member	Copper alloy (electroplated nickel)
Connection mode	Screw compaction
Protection class (Connection status)	IP44
Temperature range	-25℃ ~ +85℃
Rated current	32A
Operating voltage	100-250V~ 50/60Hz
Withstand voltage	2500V~
Insulation resistance	500V~ 1min > 5MΩ

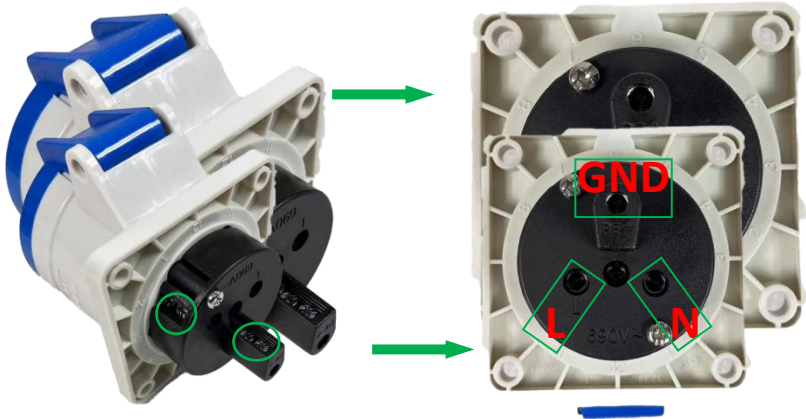
Accessories IEC60309-32A socket disassembly diagram:



1, according to the arrow in the picture, remove the 4 screws used for fixing.

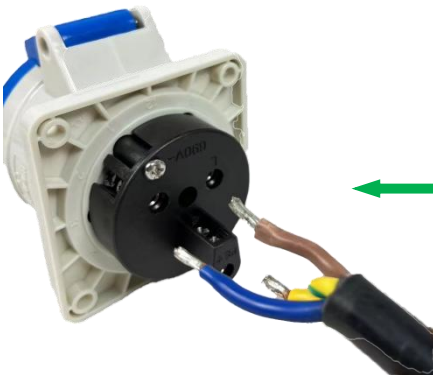


2. Separate the nose from the fuselage and remove the nose.



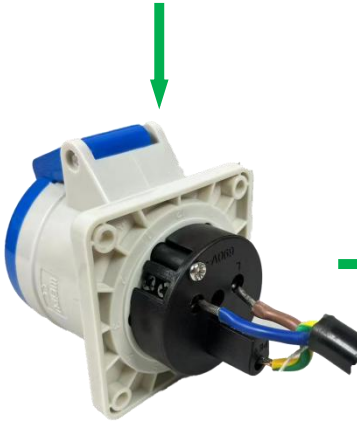
① Find the contact screw

② Follow the pins



④The cable is peeled and  
the cable core is leaked

③Loosen the contact screws  
counterclockwise



⑤ Insert the wiring hole as  
defined by the pin



⑥ Fix all contact screws  
clockwise



⑦ View the wiring sequence and check whether the cables are secured

3. Connect the L, N, and GND wires of the cables as shown in the figure, and tighten them to prevent virtual connections caused by

loosening.



4, connect the head and the frame, and tighten with fastening screws.