

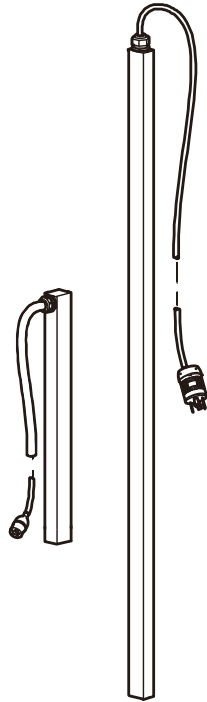


# Easy Rack Power Distribution Unit User Guide

EPDU1116MBO EPDU1132MBO EPDU1216MBO EPDU1232MBO  
EPDU1116SMBO EPDU1132SMBO EPDU1216SMBO EPDU1232SMBO

990-6541A

Release Date: 08/2022



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# General Information

## Important Safety Information

Read the instructions carefully to become familiar with the equipment before trying to install, operate, service or maintain it. The following messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a Danger or Warning safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### **⚠ DANGER**

**DANGER** indicates an imminently hazardous situation which, if not avoided, **will result in death** or serious injury.

### **⚠ WARNING**

**WARNING** indicates a potentially hazardous situation which, if not avoided, **can result in death** or serious injury.

### **⚠ CAUTION**

**CAUTION** indicates a potentially hazardous situation which, if not avoided, **can result in minor** or moderate injury.

### **NOTICE**

**NOTICE** addresses practices not related to physical injury including certain environmental hazards, potential damage or loss of data.

## Safety

### **NOTICE**

This product has not been tested for Radio Frequency Interference. Sale of this product where Radio Frequency Interference testing is required is prohibited. This includes North America and Japan.

# Introduction

## Product Features

The APC Rack Power Distribution Unit (Rack PDU) may be used as a stand-alone, network-manageable power distribution device. The Rack PDU provides real-time remote monitoring of connected loads. User-defined alarms warn of potential circuit overloads. You can manage a Rack PDU through its Web User Interface (Web UI), Command Line Interface (CLI), or Simple Network Management Protocol (SNMP).

The Rack PDU has these additional features:

- Monitor device power, apparent power, power factor, energy, and frequency.
- Monitor phase voltage, current, power, apparent power, power factor, and energy.
- Monitor bank current, peak current, voltage, power, apparent power, power factor, energy, and breaker status.
- Monitor outlet status, current, voltage, power, apparent power, power factor, energy, and loads status.
- Individual outlet control and outlet group control for switched Rack PDUs.
- Configurable alarm thresholds with network access to help avoid overloaded circuits.
- Email notifications for Rack PDU and system events.
- Various levels of access: Admin User, Super User and Read Only.
- Event logging (400 events).
- SNMP traps (V1, V2c, and V3) and Syslog notifications based on the severity level or category of system event.
- Security protocols for authentication and encryption.
- Up to four Rack PDUs of any type can be cascaded using the In and Out ports so that only the one network connection is necessary.
- USB port, Firmware auto-upgrade and system events export.
- Synchronize the time with the SNTP Server.

**NOTE:** There is no Real Time Clock (RTC) battery on this device. You will need to set a SNTP server the first time you log in.

## Getting Started

To start using the Rack PDU:

1. Install the Rack PDU using the *Rack Power Distribution Unit Installation Instructions* that were shipped with your Rack PDU.
2. Apply power and connect to your network. Follow the directions in the Rack Power Distribution Unit Installation Instructions.
3. Establish network settings (See “Establish Network Settings” on page 3.)
4. Begin using the Rack PDU by way of one of the following:
  - Web User Interface (See “Web User Interface” on page 13.)
  - Rack PDU Front Panel (See “Display Interface Overview” on page 8.)
  - SNMP protocol (See “SNMP” on page 32.)
  - Command Line Interface (CLI) (See “Command Line Interface” on page 9)

# Establish Network Settings

## DHCP Configuration

The default TCP/IP configuration setting, **DHCP**, assumes that a properly configured DHCP server is available to provide TCP/IP settings to the Rack PDU.

## Static IP Configuration

You must define three TCP/IP settings for the Rack PDU before it can operate on the network:

- The IP address of the Rack PDU
- The subnet mask of the Rack PDU
- The IP address of the default gateway (only needed if you are going off segment)

### Command Line Interface (CLI)

1. Connect to Serial Port (Configure the port for 115200 bps, 8 data bits, no parity, 1 stop bit, and no flow control).
2. Log on to the CLI (default account: apc/apc).
3. Contact your network administrator to obtain the IP address, subnet mask, and default gateway for the Rack PDU.
4. Use these three commands to configure network settings. (Text in italics indicates a variable.)

```
tcpip -i yourIPaddress
tcpip -s yourSubnetMask
tcpip -g yourDefaultGateway
```

For each variable, type a numeric value that has the format xxx.xxx.xxx.xxx.

For example, to set a system IP address of 156.205.14.141, type the following command and press ENTER:

```
tcpip -i 156.205.14.141
```

5. Type `reboot`. The Rack PDU restarts to apply the changes.

For detailed information on how to configure the TCP/IP settings in a Rack PDU, see “Network Settings” on page 29.

# Network Port Sharing (NPS)

## About the Network Port Sharing Feature

You can use the Network Port Sharing feature to view the status of and configure and manage up to four Rack PDUs using only one network connection. This is made possible by connecting the Rack PDUs via the In and Out ports on the Rack PDU front panel.

## Display ID

The display ID is a number, 1 to 4, used to uniquely identify the Rack PDU in a group. After two or more Rack PDUs are connected to one another in an NPS group, they can be identified on the various interfaces by the use of this "Display ID". This Display ID is viewable in the top left corner of the display.

## Installation Instructions

Connect up to four Rack PDUs via the In and Out ports on the Rack PDU.

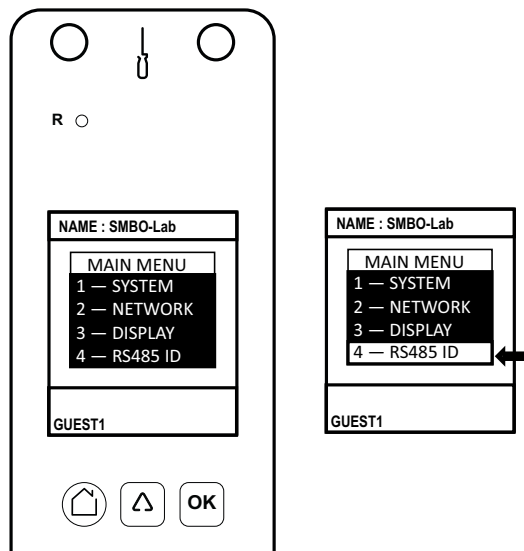
**NOTE:** Only one Rack PDU in an NPS group is allowed to be the host. The Display ID for host is 0.

## Specific Assignment of Display IDs

The default device ID is 1. You need to select a host device and change its ID to 0.

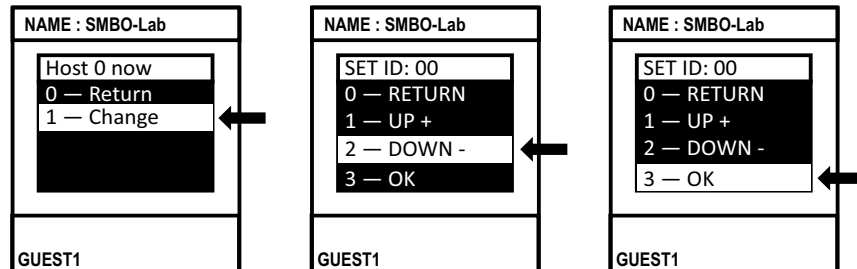
1. In the LCD display, press the **scroll** button  to open the Main Menu.

Then scroll to the **4 – RS485 ID** and press the  button.










2. Press the **scroll** button to select the **1 – Change**, then press the **OK** button to open the SET ID menu.
3. Scroll **Δ** to highlight the **2 – Down -**, then press the **OK** button to decrease the ID to 0.
4. Scroll **Δ** to highlight the **3 – OK**, then press the **OK** button to finish.

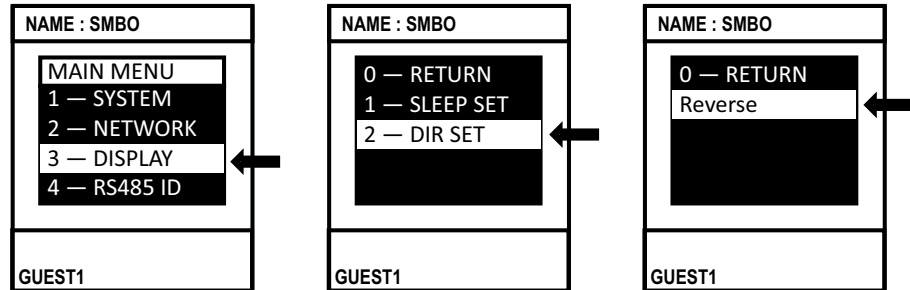


Use the SET ID menu to assign a unique ID to each guest device. The Rack PDU group is now available via the Host's IP address.

## Reverse of the LCD Orientation

You can use this feature to reverse the LCD orientation.

1. In the LCD display, press the **scroll** button  to open the Main Menu.  
Then scroll to the **3 – DISPLAY** and press the  button.
2. Press the **scroll** button to select the **2 – DIR SET**, then press the  button to open the set menu.
3. Scroll  to highlight the **Reverse**, then press the  button to finish.



# Reset to Defaults

## Using the LCD menu

You can Reset to Defaults via LCD menu even if you forgot your password:

- Press the Scroll button to go to the Main Menu, then navigate to the following menu: **System > Resets > CPU > Default**. Press the **OK** button to trigger the parameters reset action.
- Use the default account `apc/apc` to login into the Rack PDU after the reset is completed.

## Using the Command Line Interface

You can use a local computer (a computer that connects to the Rack PDU or other device through the serial port) to access the Command Line Interface.

1. Select a serial port at the local computer and disable any service that uses that port.
2. Connect the serial cable to the selected port on the computer and to the Serial port at the Rack.
3. Run a terminal program (such as Tera Term<sup>®</sup> or HyperTerminal<sup>®</sup>) and configure the selected port (115200 bps, 8 data bits, no parity, 1 stop bit, and no flow control).
4. Press ENTER, repeatedly if necessary, to display the username prompt. Then use the default, **apc**, for the username and password.

At the Command Line Interface, use the following commands to default the parameters

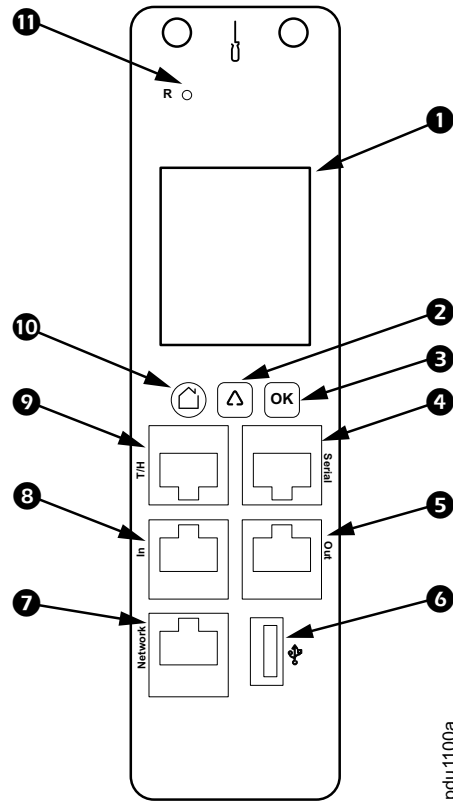
```
reset [-a] Reset All parameters
reset [-d] Reset Device parameters
reset [-n] Reset Network parameters
reset [-c] Remove Certificate
```

5. Type `reboot` to restart the device.

**NOTE:** Press the **Reset** button on the LCD front panel only to reboot the device itself without resetting to defaults.

# Display Interface Overview

The device has a network port and a Temperature/Humidity port, serial port, USB port, and In/Out port (cascade connection). During normal operation, the LCD will flash periodically. When a critical alarm is triggered, the buzzer will beep. Press any button on the display to turn off the buzzer.



Item	Function	Description
❶	LCD Display	Show information about the Rack PDU.
❷	Scroll Button	Use the Scroll button to move through displayed information.
❸	OK Button	With a menu option highlighted, press the OK button to display the selected Rack PDU information.
❹	RJ45 Serial Port	Port for connecting the Rack PDU to a terminal emulator program for local access to the command line interface.
❺	Out Port	RS485 port for use with Network Port Sharing feature.
❻	USB Port	Connect flash drive for firmware upgrades or to download data logs.
❼	10/100 Base-T Connector	Connect the Rack PDU to the network.
❽	In Port	RS485 port for use with Network Port Sharing feature.
❾	Temp/Humidity Port	Temp/Humidity Sensor connection port.
❿	Main Menu Button	Press to view the Rack PDU electrical input.
⓫	Reset Button	Reset the Rack PDU without affecting the status of the outlets.

---

# Command Line Interface

## About the Command Line Interface (CLI)

You can use the Command Line Interface to view the status of and configure and manage the Rack PDU. The CLI uses YMODEM to perform the file transfer. However, you cannot read the current file through YMODEM.

## Log on to the CLI

To access the Command Line Interface, you can use a local (serial) connection with a computer.

1. Select a serial port at the computer and disable any service that uses that port.
2. Connect the serial cable from the selected serial port on the computer to the **Serial** port on the Rack PDU.
3. Run a terminal program (such as Tera Term<sup>®</sup> or HyperTerminal<sup>®</sup>) and configure the selected port (115200 bps, 8 data bits, no parity, 1 stop bit, and no flow control).
4. Press ENTER. It may take multiple (up to three) attempts to get a prompt to appear. At the prompt, enter your user name and password (the default is apc/apc).

## Using the CLI

At the Command Line Interface, you can use commands to configure the Rack PDU. To use a command, type the command and press ENTER. Commands, arguments, and options are case-sensitive.

While using the Command Line Interface, you can also do the following:

- Type `help` and press ENTER to view a list of available commands, based on your account type.
- Type `bye` to close the connection to the Command Line Interface.

## Command Syntax

Item	Description
-	Options are preceded by a hyphen.
< >	Definitions of options are enclosed in angle brackets. For example: - i <ipv4 address>
[ ]	If a command accepts multiple options or an option accepts mutually exclusive arguments, the values may be enclosed in brackets.
	A vertical line between items enclosed in brackets or angle brackets indicates that the items are mutually exclusive. You must use one of the items.

### Example of a command that supports multiple options:

```
tcpip [-m <manual | dhcp>] [-i <ipv4 address>]
      [-s <subnet mask>] [-g <gateway>]
```

In this example, the `tcpip` command accepts any of the following options:

- m defines the IP assign mode
- i defines the ipv4 address
- s defines the subnet mask
- g defines the gateway address

### Example of a command that accepts mutually exclusive arguments for an option:

```
tcpip [-m <manual | dhcp>]
```

In this example, the option `-m` accepts only two arguments: `manual` or `dhcp`. For example, to set the manual network mode, type:

```
tcpip -m manual
```

The command will fail if you type an argument that is not specified.

# Device Command Descriptions

## tcpip

**Access:** Administrator

**Description:** View and manually configure these network settings for the Rack PDU:

**Parameters:**

Option	Argument	Description
-m	<manual   DHCP>	Get IP address manually or with DHCP.
-i	<IP address>	Type the IP address of the Rack PDU, using the format xxx.xxx.xxx.xxx.
-s	<subnet mask>	Type the subnet mask for the Rack PDU.
-g	<gateway>	Type the IP address of the default gateway. Do not use the loopback address (127.0.0.1) as the default gateway.

**Example 1:** To view the network settings of the Rack PDU, type `tcpip` and press ENTER.

```
> tcpip
Active IPv4 Settings
-----
Active IPv4 Address: 10.177.78.215
Active IPv4 Subnet Mask: 255.255.255.0
Active IPv4 Gateway: 10.177.78.1

Manually Configured IPv4 Settings
-----
IPv4: enabled
IPv4 Address: 192.168.8.8
Subnet Mask: 255.255.255.0
Gateway: 192.168.8.1
MAC Address: 02-00-00-11-22-33
```

**Example 2:** To view the IP address of the Rack PDU, type:

```
> tcpip -i
IPv4 address: 192.168.08.08
```

**Example 3:** To manually configure an IP address of 192.168.1.49 for the Rack PDU, type:

```
> tcpip -i 192.168.8.9
IPv4 address: 192.168.08.09
Reboot required for change to take effect
```

## web

**Access:** Super User, Administrator

**Description:** Access Web UI with Https or Http protocol.

**Parameters:**

Option	Argument	Definition
-a	<https   http>	Web UI Access mode. Access Web UI with Https or Http protocol.

**Example 1:** To enable access to the Web UI with HTTP or HTTPS, type:

```
> web -a http
or > web -a https
```

**Example 2:** To view the TCP/IP port used by HTTP, type:

```
> web
Http: enabled
Https: disabled
Http Port: 80
Https Port: 443
Minimum Protocol: TLS1.2
```

## version

**Access:** Administrator

**Description:** View bootloader and application firmware information for the Rack PDU.

**Parameters:** None

**Example 1:** To view the version information of the Rack PDU, type `version` and press ENTER.

```
> version
bootloader version: bootloader-V0.2
firmware version: FW-1.4.12
```

## reset

**Access:** Administrator

**Description:** Reset the configurations for the Rack PDU.

**Parameters:**

Option	Definition
-a	Reset all parameters.
-d	Reset device parameters.
-n	Reset Network parameters.
-c	Reset Certificate.

**Example:** To reset the network parameters of the Rack PDU, type `reset -n` and press ENTER.

```
> reset -n
Reset Network parameters
```

## reboot

**Access:** Administrator

**Description:** Reboot the Rack PDU:

**Parameters:** None

**Example:** To reboot the Rack PDU, type `reboot` and press ENTER.

```
> reboot
Bootloader start...
```



# Web User Interface

## Supported Web Browsers

You can use Microsoft® Edge or Google® Chrome® or Mozilla® Firefox® to access the Rack PDU through its Web interface. Other commonly available browsers may work but have not been fully tested by APC.

## Log On to the Web User Interface

You can use the System IP address of the Rack PDU for the URL address of the Web interface. Use your case-sensitive username and password to log on.

The default username and password for the **Admin** are both “**apc**”. The **Admin** can create **General Users**. General Users define their own usernames and passwords.

User will be enforced to change the default Admin account password, the password will require at least one lowercase character, one uppercase character, one number, and one symbol.

DHCP is enabled by default. The auto-assigned IP address can be requested from the Network Status page in the LCD display of the Rack PDU. On your computer, type the IP address of the Rack PDU in your Web browser's URL address field (e.g., <https://192.168.0.162> or <http://192.168.0.16> if HTTP is your access protocol) and press ENTER. If needed, you can assign a static IP address to the Rack PDU using a serial connection to the CLI or Web UI. (See “Establish Network Settings” on page 3 for more information.)

## Web User Interface Features

Read the following to get familiar with basic Web UI features for your Rack PDU.




### Tabs

The following tabs are available:

- **Home**: This is the default tab when you log on. View active alarms, the load status of the Rack PDU. For more information, see “About Home” on page 15.
- **Status**: Gives the user the status of the Rack PDU. The **RPDU** tab covers the status of alarms, bank and outlets. The **Network** tab covers just the network. See “Status Tab” on page 17.
- **Control**: The **Control** tab covers two topics: **Outlet** and **Reset/Reboot**. Much more information is covered under each of these tabs and will be described in the **Control** tab section.
- **Configuration**: The **Configuration** tab covers **RPDU**, **Outlet Group**, **Email**, **Thresholds**, **Network**, **SNMP**, **Date/Time**, **File Upgrade**, and **User**. Much more information is covered under each of these tabs and will be described in the **Configuration** tab section.
- **Logs**: The **Logs** tab covers more information which will be further discussed later in the **Logs** section of the document.
- **About**: The **About** tab will be further discussed later in the **About** section of the document.

## Device Status Icons

One or more icons and accompanying text indicates the current operating status of the Rack PDU:

Symbol	Description
	<b>Critical:</b> A critical alarm exists, which requires immediate action.
	<b>Warning:</b> An alarm condition requires attention and could jeopardize your data or equipment if its cause is not addressed.
	<b>No Alarms:</b> No alarms are present, and the Rack PDU is operating normally.

At the upper right corner of every page, the Web User Interface displays the same icons currently displayed on the **Home** page to report Rack PDU status:

- The **No Alarms** icon if no alarms exist.
- One or both other icons (**Critical** and **Warning**) if any alarms exist, and after each icon, the number of active alarms of that severity.

## Quick Links

At the lower left on each page of the interface, there are three configurable links. By default, the links access the URLs for these Web pages:

- **Link 1: APC' Web Site:** The home page of the [APC by Schneider Electric](#) website.
- **Link 2: Knowledge Base:** The Frequently Asked Questions (FAQs) page of the APC by Schneider Electric website.
- **Link 3: EcoStruxure IT:** Information on [EcoStruxure IT](#).

Located in the upper right hand corner of each page:

- User Configure (Click to change user preferences)
- Language (If available, click to change language preference)
- Log Off (Click to log the current user off of the Web UI)
- Help (Click to view help contents)

# About Home

The **Home** page contains the following information: Active Alarms, Device Load Status, Phases Load Status, Temperature & Humidity Status, and Rack PDU Parameters. Active Alarms will show if any alarms exist. If no alarms exist, a green check mark with the words "No Alarms Present" will show. The Load Status shows a colored bar demonstrating the level of the Phases and Device loads.

## The Overview Views

In the **Load Status** area, view the basic electricity parameters for the device and for the phases, as applicable. The green, blue, and red meter shows the current load status: normal, low load, or overload.

**NOTE:** Blue will only appear if the optional low-load threshold is configured.

The screenshot displays the Schneider Electric Easy Rack PDU web interface. At the top, there is a navigation bar with the Schneider Electric logo, the product name "Easy Rack PDU Metered-by-Outlet with Switching", the EcoStruxure IT logo, and a "No Alarms" status indicator. Below the navigation bar, the "Home" section is active. The "Active Alarms" section shows "No Alarm Present". The "Load Status" section provides a detailed overview of electricity parameters:

- Device Load:** 0.00 kW. A horizontal bar chart shows a green segment (normal) and a small red segment (overload).
- Energy:** 0.3 kWh
- Apparent Power:** 0.00 kW
- Power Factor:** 1.00
- Frequency:** 49.96 Hz
- Phase L1 Load:** 0.0 A. A horizontal bar chart shows a green segment (normal) and a small red segment (overload).
- Voltage:** 232.0 V
- Apparent Power:** 0.00 kVA
- Power Factor:** 1.00
- Power:** 0.00 kW
- Energy:** 0.01 kWh
- Phase L2 Load:** 0.0 A. A horizontal bar chart shows a green segment (normal) and a small red segment (overload).
- Voltage:** 232.0 V
- Apparent Power:** 0.00 kVA
- Power Factor:** 1.00
- Power:** 0.00 kW
- Energy:** 0.01 kWh
- Phase L3 Load:** 0.0 A. A horizontal bar chart shows a green segment (normal) and a small red segment (overload).
- Voltage:** 232.0 V
- Apparent Power:** 0.00 kVA
- Power Factor:** 1.00
- Power:** 0.00 kW
- Energy:** 0.29 kWh

In the **Temperature & Humidity Status** area, view the current temperature and humidity.

The "Temperature & Humidity Status" section displays the following information:

- Temperature:** -- °C
- Humidity:** -- %

In the **Rack PDU Parameters** area, view the Name, Location, Contact, Model Number, Rating, User Type (type of user account accessing the Rack PDU), version, and Uptime (the amount of time the Rack PDU has been operating since the last reboot from either a power cycle or a reboot of the Management Interface).

Rack PDU Parameters		
Name	Location	Contact
Unknown	Unknown	Unknown
User Type	Model Number	Rating
admin	EPDU1232SMBO	3 p, 32 A
Version	Uptime	
FW-1.6.7	0 Days 1 Hours 34 Minutes	

# Status Tab

## About the Status Tab


The **Status Tab** page contains the following information: Alarms, Bank, and Outlet.


Path: **Status > Alarms**


View the Alarm status for the Rack PDU.

The screenshot shows the user interface for the Schneider Electric Easy Rack PDU. At the top left is the Schneider Electric logo. To its right, the text reads "Easy Rack PDU Metered-by-Outlet with Switching" and "Rack Power Distribution Unit Application". Further right is the EcoStruxure IT logo with the tagline "Innovation At Every Level" and a link to "Mobile visibility into your devices". On the far right, there is a green checkmark icon followed by the text "No Alarms". Below the main header is a green navigation bar with links for Home, Status, Control, Configuration, Logs, and About. The main content area is titled "Status" and contains a box labeled "Device Alarm Status". Inside this box, there are two items: "Critical" with a red circle and 'x' icon, and "Warning" with a yellow triangle icon. At the bottom of the page, there are links for "APC's Web Site", "Knowledge Base", and "EcoStruxure IT", and a copyright notice: "2021, Schneider Electric Ltd. All rights reserved."

View the status of each outlet bank. Click **Configure bank settings** to go to the thresholds configure page.


 Easy Rack PDU Metered-by-Outlet with Switching  
 RACK POWER DISTRIBUTION UNIT APPLICATION








 Innovation At Every Level  
 Mobile visibility into your devices

 No Alarms  
[apc](#) | [English](#) | [Log Off](#) | [Help](#)

[Home](#) | [Status](#) | [Control](#) | [Configuration](#) | [Logs](#) | [About](#)

## Status


### Bank Status


<p><b>Bank 1</b></p> <p>Current 0.0 A</p>  <p>Peak Current 0.0 A</p> <p>Phase L1</p> <p>Voltage 232.0 V</p> <p>Apparent Power 0.00 kVA</p> <p>Power 0.00 kW</p> <p>Power Factor 1.00</p> <p>Energy 0.00 kWh</p> <p>Breaker Status --</p>	<p><b>Bank 2</b></p> <p>Current 0.0 A</p>  <p>Peak Current 0.0 A</p> <p>Phase L1</p> <p>Voltage 232.0 V</p> <p>Apparent Power 0.00 kVA</p> <p>Power 0.00 kW</p> <p>Power Factor 1.00</p> <p>Energy 0.00 kWh</p> <p>Breaker Status --</p>	<p><b>Bank 3</b></p> <p>Current 0.0 A</p>  <p>Peak Current 0.0 A</p> <p>Phase L2</p> <p>Voltage 232.0 V</p> <p>Apparent Power 0.00 kVA</p> <p>Power 0.00 kW</p> <p>Power Factor 1.00</p> <p>Energy 0.00 kWh</p> <p>Breaker Status --</p>
<p><b>Bank 4</b></p> <p>Current 0.0 A</p>  <p>Peak Current 0.0 A</p> <p>Phase L2</p> <p>Voltage 232.0 V</p> <p>Apparent Power 0.00 kVA</p> <p>Power 0.00 kW</p> <p>Power Factor 1.00</p> <p>Energy 0.00 kWh</p> <p>Breaker Status --</p>	<p><b>Bank 5</b></p> <p>Current 0.0 A</p>  <p>Peak Current 0.0 A</p> <p>Phase L3</p> <p>Voltage 232.0 V</p> <p>Apparent Power 0.00 kVA</p> <p>Power 0.00 kW</p> <p>Power Factor 1.00</p> <p>Energy 0.01 kWh</p> <p>Breaker Status --</p>	<p><b>Bank 6</b></p> <p>Current 0.0 A</p>  <p>Peak Current 0.0 A</p> <p>Phase L3</p> <p>Voltage 232.0 V</p> <p>Apparent Power 0.00 kVA</p> <p>Power 0.00 kW</p> <p>Power Factor 1.00</p> <p>Energy 0.28 kWh</p> <p>Breaker Status --</p>


[Configure bank settings](#)

Path: Status > Outlet

View the status of each outlet. Click **Control** outlets to go to the outlets control page.


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### Status

Outlet Status									
#	Outlet Name	State	Current	Voltage	Power	Apparent Power	Energy	Power Factor	Loads Status
1	Outlet1	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
2	Outlet2	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
3	Outlet3	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
4	Outlet4	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
5	Outlet5	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
6	Outlet6	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
7	Outlet7	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
8	Outlet8	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
9	Outlet9	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
10	Outlet10	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
11	Outlet11	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
12	Outlet12	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
13	Outlet13	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
14	Outlet14	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
15	Outlet15	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
16	Outlet16	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
17	Outlet17	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
18	Outlet18	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
19	Outlet19	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
20	Outlet20	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
21	Outlet21	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
22	Outlet22	Off	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
23	Outlet23	Off	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load
24	Outlet24	On	0.0 A	0.0 V	0.00 kW	0.00 kVA	0.0 kWh	1.00	Normal Load

Control outlets

# Control

The **Control** menu options enable you to take immediate actions affecting active user management and the security of your network.

**NOTE: Outlet Control** is only available for Switched Rack PDUs.

## Controlling Rack PDU Outlets

Path: Control > Outlet

View Outlet Control, Control Action, and Selected Outlets. You can select the outlets that show the outlet's State, Name, Phase, and Bank.

### To control the outlets on your Rack PDU

Mark the check boxes for each individual outlet or outlet group to control or select the **All Outlets** check box.

Select a **Control Action**, then click **Apply** or **Cancel**.

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## Control

### Outlet Control

Control Action:

Apply to Outlets:  All Outlets

	#	State	Outlet Name	Phase	Bank
<input type="checkbox"/>	1	On	Outlet 1	[1]	1-1
<input type="checkbox"/>	2	On	Outlet 2	[1]	1-2
<input type="checkbox"/>	3	On	Outlet 3	[1]	1-3
<input type="checkbox"/>	4	On	Outlet 4	[1]	1-4
<input type="checkbox"/>	5	On	Outlet 5	[1]	2-1
<input type="checkbox"/>	6	On	Outlet 6	[1]	2-2
<input type="checkbox"/>	7	On	Outlet 7	[1]	2-3
<input type="checkbox"/>	8	On	Outlet 8	[1]	2-4
<input type="checkbox"/>	9	On	Outlet 9	[2]	3-1
<input type="checkbox"/>	10	On	Outlet 10	[2]	3-2
<input type="checkbox"/>	11	On	Outlet 11	[2]	3-3
<input type="checkbox"/>	12	On	Outlet 12	[2]	3-4
<input type="checkbox"/>	13	On	Outlet 13	[2]	4-1
<input type="checkbox"/>	14	On	Outlet 14	[2]	4-2
<input type="checkbox"/>	15	On	Outlet 15	[2]	4-3
<input type="checkbox"/>	16	On	Outlet 16	[2]	4-4
<input type="checkbox"/>	17	On	Outlet 17	[3]	5-1
<input type="checkbox"/>	18	On	Outlet 18	[3]	5-2
<input type="checkbox"/>	19	On	Outlet 19	[3]	5-3
<input type="checkbox"/>	20	On	Outlet 20	[3]	5-4
<input type="checkbox"/>	21	On	Outlet 21	[3]	6-1
<input type="checkbox"/>	22	Off	Outlet 22	[3]	6-2



## Resetting the Network Interface

Path: Control > Reset/Reboot

This menu gives you the option to reset and reboot various components of the network interface. You also have the option to **Reboot Management Interface**.

The screenshot shows the Schneider Electric Easy Rack PDU web interface. The top navigation bar includes links for Home, Status, Control, Configuration, Logs, and About. The main content area is titled "Reset/Reboot" and contains a form titled "Reset/Reboot Network Interface". The form has three radio button options: "Reboot Management Interface" (selected), "Reset All", and "Reset Only". Under "Reset Only", there are three checkboxes: "TCP/IP", "Event Log", and "Thresholds to Defaults". At the bottom of the form are "Apply" and "Cancel" buttons. The footer of the page includes links to APC's Web Site, Knowledge Base, and EcoStruxure IT, along with a copyright notice for Schneider Electric Ltd. 2021.

**NOTE: Reboot Management Interface** only restarts the Rack PDU's Network Management Interface. It does not affect the outlet ON/OFF status.

**Reset All:** Reset all configuration values except account information and the Event Log.

**Reset Only:** Options include:

- **TCP/IP:** Set TCP/IP Configuration to **DHCP**, its default setting. This requires that the Rack PDU receive its TCP/IP settings from a DHCP server.
- **Event Log:** Reset all Event logs.
- **Thresholds to Default:** Reset all threshold settings.

# Configuration

## About the Configuration Tab

Under the Configuration tab, several menu options are available to make changes to the Rack PDU:

- Configure a name, location, and contact for the Rack PDU.
- Manage Outlet group.
- Email notification configuration.
- Configure thresholds for all connected Devices, Phases, Banks, and Outlets.
- Network and Web configuration.
- SNMP configuration.
- Date and time configuration.
- Firmware, Certificate, Key upgrade.
- Manage Users.

## Configure Rack PDU Name and Location

Path: Configuration > RPDU

The name, location and contact you enter in the **Device** area will appear on the **Home** tab.

1. Enter a name, location, and contact.
2. Click **Apply** to save.

You can customize a name for the temperature/humidity sensor.

1. Enter the name of the sensor.
2. Click **Apply** to save.

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### RPDU

#### Device

Name

Location

Contact

#### Sensor

Name

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## Configure and Control Outlet Groups

Path: Configuration > Outlet Group



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### Outlet Group

#### Outlet Groups Configuration

Outlet Grp 1 (G1)

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Outlet Grp 2 (G2)

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Outlet Grp 3 (G3)

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Outlet Grp 4 (G4)

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Outlet Grp 5 (G5)

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Outlet Grp 6 (G6)

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Outlet Grp 7 (G7)

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Outlet Grp 8 (G8)

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Outlet Grp 9 (G9)

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Outlet Grp 10 (G10)

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Note: Edit an outlet group by clicking on the group name, each group includes maximum 4 units, you can create maximum 10 groups.

## Outlet Group Terminology

An *outlet group* consists of outlets that are logically linked together on the same Rack PDU. Outlets that are in an outlet group turn on, turn off, and reboot in a synchronized manner.

## Purpose and Benefits of Outlet Groups

By using groups of synchronized outlets on Rack PDUs, you can ensure that outlets turn on, turn off, and reboot in a synchronized manner. Synchronizing control group actions through outlet groups provides the following benefits.

- Synchronized shutdown and startup of the power supplies of dual-corded servers prevents erroneous reporting of power supply failures during a planned system shutdown or reboot.
- Synchronizing outlets by using outlet groups provides more precise shutdown and restart timing than relying on the delay periods of individual outlets.

## System Requirements for Outlet Groups

To set up and use synchronized outlet control groups, you need a computer that can initiate synchronized control operations through the Web UI.

## Edit or Delete an Outlet Group

In the **Outlet Group Configuration** table, click on the number or name of the outlet group to edit or delete.

1. When editing an outlet group you can add or remove outlets by selecting the check boxes to mark or unmark them.
2. To delete the outlet group, click **Delete**.

## Email Notification

Path: Configuration > Email

Use Simple Mail Transfer Protocol (SMTP) to send an email to a single recipient when an event occurs. To use the email feature, you must define the following settings:

- **SMTP Server:** The IPv4 address or DNS name of the local SMTP server.
- **Port:** The SMTP port number, with a default of 25. The range is 25, 465, 587, 5000 to 32768.
- **Authentication:** Enable this if the SMTP server requires authentication.
- **User Name, Password, and Confirm Password:** If your mail server requires authentication, enter your user name and password here.
- **From Address:** The IP addresses of the Domain Name System (DNS).
- **To Address:** The user and domain name of the recipient.

The screenshot displays the configuration page for an Easy Rack PDU. At the top, there are logos for Schneider Electric and EcoStruxure IT, along with the text 'Easy Rack PDU Metered-by-Outlet with Switching' and 'Rack Power Distribution Unit Application'. A 'No Alarms' status indicator is visible in the top right. A green navigation bar contains links for Home, Status, Control, Configuration, Logs, and About. The main content area is titled 'Email' and contains an 'E-mail Configuration' form. The form includes fields for SMTP Server (smtp.example.com), Port (25), Authentication (unchecked), User Name (UserName), Password, Confirm Password, From Address (address@example.com), and To Address (address@example.com). 'Apply' and 'Cancel' buttons are at the bottom of the form. Footer text includes 'APC's Web Site | Knowledge Base | EcoStruxure IT' and '2021, Schneider Electric Ltd. All rights reserved.'

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### Email

#### E-mail Configuration

**SMTP Server**  
smtp.example.com

**Port** [25, 465, 587, 2525, 5000 to 32768]  
25

**Authentication**  
 Enable

**User Name**  
UserName

**Password**

**Confirm Password**

**From Address**  
address@example.com


**To Address**  
address@example.com

Apply Cancel


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## Syslog

Path: Configuration > Syslog



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### Syslog Server

#### Servers

Enable

**Syslog Server**

**Port**

#### Syslog Test

**Message**

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**Syslog Server:** Use IP address to identify a server to receive Syslog message sent by the Rack PDU.

**Port:** The port that the Rack PDU will use to send Syslog message. The default UDP (User Datagram Protocol) port assigned to Syslog is 514.

**Syslog Test:** Send a test message to the Syslog server (Configured through the Syslog Server option above). The result will be sent to the configured Syslog server. The message can have up to 32 characters.

- The priority (PRI): The Syslog priority is assigned to the message event and the facility code of the message will be sent by the Rack PDU.
- The Header: A time stamp and the IP address of the Rack PDU.
- The **CONTENT** field is the event text, followed (optionally) by a space and the event code.
- Example: Test Syslog.

## Configure Load Thresholds

Path: Configuration > Thresholds

To configure load thresholds for the Device Load, Phases, Banks, Outlets, Temperature Sensor, and Humidity Sensor.

1. Set the **Overload Alarm** and **Low Load Warning** thresholds.
2. Click **Apply** to save your settings.

The screenshot shows the 'Thresholds Configuration' page in the Schneider Electric Easy Rack PDU web interface. The page is titled 'Thresholds Configuration' and contains several sections for configuring different components:


- Device Load:** Low Load Warning is set to 0 kW, and Overload Alarm is set to 20 kW.
- Phase:** Low Load Warning is set to 0 A, and Overload Alarm is set to 32 A.
- Bank:** Low Load Warning is set to 0 A, and Overload Alarm is set to 16 A.
- Outlet:** Low Load Warning is set to 0 A, and Overload Alarm is set to 16 A.
- Temperature Sensor:** Over Alarm is set to 60 °C.
- Humidity Sensor:** Low Warning is set to 0 %.

At the bottom of the configuration area, there are 'Apply' and 'Cancel' buttons. The top navigation bar includes 'Home', 'Status', 'Control', 'Configuration', 'Logs', and 'About'. The top right corner shows 'No Alarms' with a green checkmark and links for 'apc | English | Log Off | Help'. Logos for Schneider Electric and EcoStruxure IT are also present.

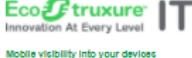


## Network Settings

Path: Configuration > Network



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### Network

#### Current Settings

System IP 10.177.78.187	Subnet Mask 255.255.255.0	Default Gateway 10.177.78.1	MAC Address 58 FC DB 80 00 0F
Mode DHCP	DHCP Server 10.177.40.179	Lease Remains 372 minutes	

#### IPv4 Configuration

Mode

Manual

DHCP

System IP

Subnet Mask

Default Gateway

#### Web Configuration

Access

HTTP

HTTPS

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**Current Settings** displays the current IPv4 address, subnet mask, default gateway, MAC address, and boot mode of the Rack PDU. For information on DHCP and DHCP options, see RFC2131 and RFC2132.

### IPv4 Configuration

Setting	Description
Manual	Configure IPv4 manually by entering the IP address, subnet mask, and default gateway.
DHCP	The default setting. The Rack PDU requests network assignment from any DHCP server. <ul style="list-style-type: none"> <li>If the Rack PDU finds a DHCP server, but the request to that server fails or times out, it stops requesting network settings until it is restarted.</li> </ul>

**DHCP response options:** Each valid DHCP response contains options that provide the TCP/IP settings that the Rack PDU needs to operate on a network, and other information that affects the operation of the Rack PDU.

**TCP/IP options:** The Rack PDU uses the following options within a valid DHCP response to define its TCP/IP settings. All of these options except the first are described in **RFC2132**.

- **IP Address** (from the **yiaddr** field of the DHCP response, described in **RFC2131**): The IP address that the DHCP server is leasing to the Rack PDU.
- **Subnet Mask** (option 1): The Subnet Mask value that the Rack PDU needs to operate on the network.
- **Router**, i.e., Default Gateway (option 3): The default gateway address that the Rack PDU needs to operate on the network.
- **IP Address Lease Time** (option 51): The time duration for the lease of the IP Address to the Rack PDU.

**Other options:** The Rack PDU also uses these options within a valid DHCP response. All of these options except the last are described in **RFC2132**.

- **Network Time Protocol Servers** (option 42): One NTP server that the Rack PDU can use.
- **Time Offset** (option 2): The offset of the Rack PDU's subnet, in seconds, from Coordinated Universal Time (UTC).
- **Domain Name Server** (option 6): One Domain Name System (DNS) server that the Rack PDU can use.
- **Host Name** (option 12): The host name that the Rack PDU will use (32-character maximum length).

## Web Configuration

Option	Description
Access	<ul style="list-style-type: none"> <li>• <b>Enable HTTP:</b> Enables Hypertext Transfer Protocol (HTTP), which provides Web access by user name and password, but does not encrypt user names, passwords, and data during transmission. HTTP is disabled by default.</li> <li>• <b>Enable HTTPS:</b> Enables Hypertext Transfer Protocol (HTTPS) over Secure Sockets Layer (SSL). SSL encrypts user names, passwords, and data during transmission, and authenticates the Rack PDU by digital certificate. When HTTPS is enabled, your browser displays a small lock icon. HTTPS is enabled by default.</li> <li>• <b>HTTP Port:</b> The TCP/IP port (80 by default) used to communicate by HTTP with the Rack PDU.</li> <li>• <b>HTTPS Port:</b> The TCP/IP port (443 by default) used to communicate by HTTPS with the Rack PDU.</li> <li>• <b>Minimum Protocol:</b> TLS 1.2.</li> </ul>
SSL Certificate	<p>Add, replace, or remove a security certificate.</p> <p><b>If you install an invalid certificate, or if no certificate is loaded when you enable SSL, the Rack PDU generates a default certificate.</b> You can use the default certificate for basic encryption-based security, but a security alert message displays whenever you log on.</p> <p><b>Add or Replace Certificate File:</b> Use file upgrade function via web browsers to add or replace certificate file.</p> <p><b>Remove:</b> Delete the current certificate.</p>

## SNMP

Path: Configuration > SNMP

All usernames, passwords, and community names for SNMP are transferred over the network as plain text. If your network requires the high security of encryption, disable SNMP access or set the access for each community to Read. (A community with Read access can receive status information and use SNMP traps.)

When using Data Center Expert™ to manage a Rack PDU on the public network, you must have SNMP enabled in the Rack PDU interface. Read access will allow Data Center Expert to receive traps from the Rack PDU, but Write access is required while you use the interface of the Rack PDU to set the Data Center Expert as a trap receiver.

The screenshot shows the 'SNMP Configuration' page in the Schneider Electric Easy Rack PDU interface. The page has a green header with navigation links: Home, Status, Control, Configuration, Logs, and About. The main content area is titled 'SNMP Configuration' and contains the following fields and options:

- Trap Proxy Server:** A text input field containing '0.0.0.0'.
- SNMPv1:** An unchecked checkbox.
- SNMPv2C:** An unchecked checkbox.
- Read Community Name:** A text input field containing 'public'.
- Write Community Name:** A text input field containing 'private'.
- SNMPv3:** A checked checkbox.
- User Name:** A text input field containing 'admin'.
- Authentication Passphrase:** An empty text input field.
- Privacy Passphrase:** An empty text input field.
- Authentication Protocol:** Radio buttons for SHA (selected), MD5, and None.
- Privacy Protocol:** Radio buttons for AES (selected), DES, and None.
- Buttons:** 'Apply' and 'Cancel' buttons at the bottom left.

At the bottom of the page, there are links for 'APC's Web Site | Knowledge Base | EcoStruxure IT' and a copyright notice: '2021, Schneider Electric Ltd. All rights reserved.'

### Network Port Sharing

All Rack PDUs in a group can be accessed through the Host Rack PDU via SNMP "rPDU2" OIDs available in our PowerNet-MIB.

The full path to these OIDs is:

iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).apc(318).products(1).hardware(1).rPD  
U2(26)

Individual Rack PDUs can be identified in the SNMP MIB tables by viewing the corresponding "Module" OIDs in each table. These Module OIDs will return the Display ID of the Rack PDU.

Example Module OIDs: rPDU2IdentModule, rPDU2DeviceConfigModule, rPDU2SensorTempHumidityConfigModule

In order to be backwards compatible with previous versions, the Host Rack PDU will always be the first index in any table that supports multiple Rack PDUs.

### SNMPv1/v2C

**Trap Proxy Server:** The IPv4 address that receive device trap message.

**Read Community Name:** The name that an SNMP Server must use to access the community. The maximum length is 16 ASCII characters, and the default community name is `public`.

**Write Community Name:** The name that an SNMP Server must use to access the community. The maximum length is 16 ASCII characters, and the default community name is `private`.

### SNMPv3

**Trap Proxy Server:** The IPv4 address that receive device trap message.

**User Name:** The identifier of the user profile. SNMP version 3 maps GETs, SETs, and traps to a user profile by matching the user name of the profile to the user name in the data packet being transmitted. A user name can have up to 16 ASCII characters (`admin`, by default).

**Authentication Passphrase:** A phrase of 8 to 16 ASCII characters (`passphrase`, by default) that verifies that the NMS communicating with this device through SNMPv3 is the NMS it claims to be, that the message has not been changed during transmission, and that the message was communicated in a timely manner, indicating that it was not delayed and that it was not copied and sent again later at an inappropriate time.

**Privacy Passphrase:** A phrase of 8 to 16 ASCII characters (`passphrase`, by default) that ensures the privacy of the data (by means of encryption) that an NMS is sending to this device or receiving from this device through SNMPv3.

**NOTE:** You must change the default SNMPv3 authentication passphrase and privacy passphrase. The strong passphrases require at least one lowercase character, one uppercase character, one number, and one symbol.

**Authentication Protocol:** The APC implementation of SNMPv3 supports SHA and MD5 (SHA by default) authentication. Authentication will not occur unless an authentication protocol is selected.


**Privacy Protocol:** The implementation of SNMPv3 supports AES and DES as the protocols for encrypting and decrypting data. Privacy of transmitted data requires that a privacy protocol is selected and that a privacy passphrase is provided in the request from the NMS. When a privacy protocol is enabled but the NMS does not provide a privacy passphrase, the SNMP request is not encrypted.

**NOTE:** You cannot select the privacy protocol if no authentication protocol is selected. To use SNMPv3, you must have a MIB program that supports SNMPv3.


The Rack PDU supports SHA or MD5 authentication and AES or DES encryption. The most secure protocols are SHA authentication combined with AES encryption.

## Date/Time

Path: Configuration > Date/Time



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### Date/Time

#### Current Settings

<b>Date</b> 1/1/2000	<b>Time</b> 1:50:55	<b>Active NTP Server</b>
<b>Time Zone</b> +0.0 hours		

#### System Time Configuration

Manual

**Date** mm/dd/yyyy

**Time** hh:mm:ss

Apply local computer time

Synchronize with NTP Server

**Time Zone**

Override Manual NTP Settings

**NTP Server**

**Update Interval** [ 1 to 8760 ]  
 Hours

Update using NTP now.

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Set the time and date used by the Rack PDU. You can change the current settings manually or through a Network Time Protocol (NTP) Server:

With both, you select the **Time Zone**. This is your local time difference with Coordinated Universal Time (UTC), also known as Greenwich Mean Time (GMT).

**Manual Mode:** Do one of the following:

- Enter the date and time for the Rack PDU.
- Select the check box **Apply Local Computer Time** to apply the date and time settings of the computer you are using.

**Synchronize with NTP Server:** Have an NTP (Network Time Protocol) Server define the date and time for the Rack PDU.

- **Override Manual NTP Settings:** If you select this, data from other sources (typically DHCP) take precedence over the NTP configurations you set here.
- **NTP Server:** Enter the IP address or domain name of the NTP server.

- **Update Interval:** Define, in hours, how often the Rack PDU accesses the NTP Server for an update. Minimum: 1; Maximum: 8760 (1 year).
- **Update Using NTP Now:** Initiate an immediate update of the date and time by the NTP Server.

## Firmware Upgrade

Path: Configuration > File Upgrade

The screenshot shows the 'File Upgrade' web interface. At the top, there are logos for Schneider Electric, Easy Rack PDU Metered-by-Outlet with Switching, EcoStruxure IT, and a 'No Alarms' status indicator. A navigation bar contains links for Home, Status, Control, Configuration, Logs, and About. The main heading is 'File Upgrade'. Below this, there are two main sections:

- Load Firmware File:** Contains an 'Upload' section with a 'Choose File' button (labeled 'No file chosen') and 'Apply' and 'Cancel' buttons.
- Load Certificate File:** Contains radio buttons for 'Add or Replace' (selected) and 'Remove'. Under 'Add or Replace', there are fields for 'Certificate' and 'Private Key', each with a 'Choose File' button (labeled 'No file chosen'). Below the 'Remove' option, there is a note: 'Removes the current certificate and generates a self-signed certificate to replace the removed one.' and 'Apply' and 'Cancel' buttons.

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Obtain the free, latest firmware version from [www.apc.com](http://www.apc.com). To upgrade the firmware of one or more Rack PDUs, use one of the following three methods:

- For a Rack PDU that is on your network, use Web UI to transfer the firmware from your computer to the Rack PDU.
- For a Rack PDU that is NOT on your network, use **YMODEM** through a serial connection to transfer the individual firmware modules from your computer to the Rack PDU.
- Use a **USB drive** to transfer the individual firmware modules from your computer.

### Use the Web UI to upgrade one Rack PDU

To use the Web UI to upgrade one Rack PDU that is on the network:

- You can download the firmware file from [www.apc.com](http://www.apc.com).
- Click **Choose File** and select the correct firmware file that downloaded.
- Click **Apply** to upload the selected firmware to the Rack PDU.
- Once the firmware upgrade succeeds, the system will reboot automatically to complete the upgrade.

### Use YMODEM to upgrade one Rack PDU

To use YMODEM to upgrade one Rack PDU that is not on the network, you must extract the firmware files from the website, [www.apc.com](http://www.apc.com).

1. Select a serial port at the local computer and disable any service that uses the port.
2. Connect the RJ-45 to DB-9 console cable to the serial port at the Rack PDU.
3. Run a terminal program such as Tera Term<sup>®</sup> or HyperTerminal<sup>®</sup>, and configure the selected port for 115200 bps, 8 data bits, no parity, 1 stop bit, and no flow control.
4. Press the **Reset** button on the Rack PDU, then immediately press the **Esc** key several times until the Boot Monitor prompt displays: #>
5. Type `ymodem`, then press ENTER.
6. From the terminal program's menu, select YMODEM, then select the binary firmware file to transfer using YMODEM. After the YMODEM transfer is complete, the Boot Monitor prompt returns.
7. Type `reset` or press the **Reset** button to restart the Rack PDU's management interface.

### Use a USB drive to transfer and upgrade the files

Use a USB drive to transfer and upgrade the files. Before starting the transfer, make sure the USB drive is formatted in FAT32.

1. Download the firmware upgrade file.
2. Change the file name to `pdu_img.bin`.
3. Place the image file in the USB driver's **root** directory.
4. Insert the USB drive into a USB port on your Rack PDU.
5. Press the **Reset** button and wait for the device to reboot fully.

You can check the firmware version in the About tab to ensure the upgrade is completed successfully.

**NOTE:** The maximum current output of USB port is 50 mA.



## User Management

Path: Configuration > User

The Rack PDU has various levels of access (Administrator, Super User, and Read-Only User), which are protected by user name and password requirements. Up to ten users are allowed to login to the same Rack PDU simultaneously.

An **Administrator** or the **Super User** can use all of the menus in the Web UI. Only Administrator can use the commands in the CLI. **Super-User** and **Read-Only** user can be deleted, but the **Administrator** user cannot be deleted.

On the user configuration page:

- The **User Configuration** option is used to change the password of a user.
- The **New User** option is used to create a new user.
- The **Delete User** option is used to delete a user.

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### User Management

#### User Configuration

User Name

Current Password

New Password

Confirm Password

#### New User

User Name

Password

Confirm Password

User Type

#### Delete User

User Name

# Logs Tab

Path: Logs

By default, the log displays all events. The log can hold a maximum of 400 items, starting with the latest events. When the log is full, it will delete the oldest items.

Additionally, the log records any event, including logins, logouts, outlets actions, alarms, and abnormal internal system events.

**Download event logs:** Click **Download** to save the log as a local text file.

**Deleting event logs:** To delete all events, click **Clear Log**. Deleted events cannot be retrieved.

The screenshot shows the application interface with the following elements:


- Header:** Schneider Electric logo, "Easy Rack PDU Metered-by-Outlet with Switching", "Rack Power Distribution Unit Application", "EcoStruxure IT Innovation At Every Level", "Mobile visibility into your devices", "No Alarms", "apc | English | Log Off | Help".
- Navigation Bar:** Home, Status, Control, Configuration, Logs, About.
- Section Header:** Event Log.
- Logs Panel:**
  - Buttons: Clear Log, Download.
  - Table with columns: Date, Time, Event.
  - Table content (from top to bottom):
 


Date	Time	Event
1/1/2000	1:39:57	Web user 'apc' logged out from 10.231.91.128.
1/1/2000	1:36:2	Web user 'apc' logged in from 10.231.91.128.
1/1/2000	1:34:23	Web user 'apc' logged in from 10.231.89.74.
1/1/2000	1:34:12	Web user 'apc' logged out from 10.231.89.74.
1/1/2000	1:31:17	Web user 'apc' logged in from 10.231.89.74.
1/1/2000	1:19:38	Web user 'apc' logged out from 10.231.89.74.
1/1/2000	1:16:49	Web user 'apc' logged in from 10.231.89.74.
1/1/2000	1:15:49	Web user 'apc' logged out from 10.231.91.128.
1/1/2000	1:15:27	Web user 'apc' logged out from 10.231.89.74.
1/1/2000	1:12:55	Web user 'apc' logged in from 10.231.91.128.
1/1/2000	1:12:37	Web user 'apc' logged in from 10.231.89.74.
1/1/2000	1:11:13	Web user 'apc' logged out from 10.231.89.74.
1/1/2000	1:8:10	Web user 'apc' logged in from 10.231.89.74.
1/1/2000	0:7:17	Web user 'apc' logged out from 10.231.91.128.
  - Page navigation: << < Prev 1/2 Next >>

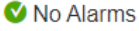
# About Tab

The hardware information is useful to Customer Support for troubleshooting problems with the Rack PDU. The serial number and MAC address are also available on the Rack PDU itself.

Firmware information for the Application Module and Boot Monitor indicates the name, the firmware version, and the date and time each firmware module was created. This information is also useful in troubleshooting and enables you to determine if updated firmware is available at the website, [www.apc.com](http://www.apc.com).


 Easy Rack PDU Metered-by-Outlet with Switching  
 Rack Power Distribution Unit Application


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## About

### Firmware

Application Version  
FW-1.8.7

Bootloader Version  
bootloader-v0.5

Date  
Dec 20 2021

### Hardware

Serial Number  
SN-170038

Hardware Revision  
HW-0.1

MAC Address  
58 fc db 80 00 0f

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# Troubleshooting

For problems that persist or are not described here, contact APC Customer Care at [www.apc.com](http://www.apc.com).

## Rack PDU Access Issues

Problem	Solution
Unable to ping the Rack PDU	<p>If the Rack PDU's Network Status LED is green, try to ping another node on the same network segment as the Rack PDU. If that fails, it is not a problem with the Rack PDU. If the Network Status LED is not green, or if the ping test succeeds, perform the following checks:</p> <ul style="list-style-type: none"> <li>• Verify all network connections.</li> <li>• Verify the Network Settings of the Rack PDU.</li> </ul>
Cannot access the Web User Interface	<ul style="list-style-type: none"> <li>• Verify that HTTP or HTTPS access is enabled.</li> <li>• Make sure you are specifying the correct URL — one that is consistent with the security system used by the Rack PDU. SSL requires <b>HTTPS</b>, not <b>HTTP</b>, at the beginning of the URL.</li> <li>• Verify that you can ping the Rack PDU.</li> <li>• Verify that you are using a Web browser supported for the Rack PDU. See "Supported Web Browsers".</li> <li>• If the Rack PDU has just restarted and SSL security is being set up, the Rack PDU may be generating a server certificate. The Rack PDU can take up to several minutes to create this certificate, and the SSL server is not available during that time.</li> </ul>

## SNMP Issues

Problem	Solution
Unable to perform a GET or SET	<ul style="list-style-type: none"> <li>• Verify the community name (SNMPv1 or SNMPv2c) or the Authentication configuration (SNMPv3). See "SNMP".</li> <li>• Verify the UDP port 161 of NMS is correctly opened.</li> </ul>
Unable to receive traps at the NMS	<ul style="list-style-type: none"> <li>• Verify the Trap Proxy Server IP address configuration is correct.</li> <li>• Verify the UDP port 162 of NMS is correctly opened.</li> </ul>



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990-6541A