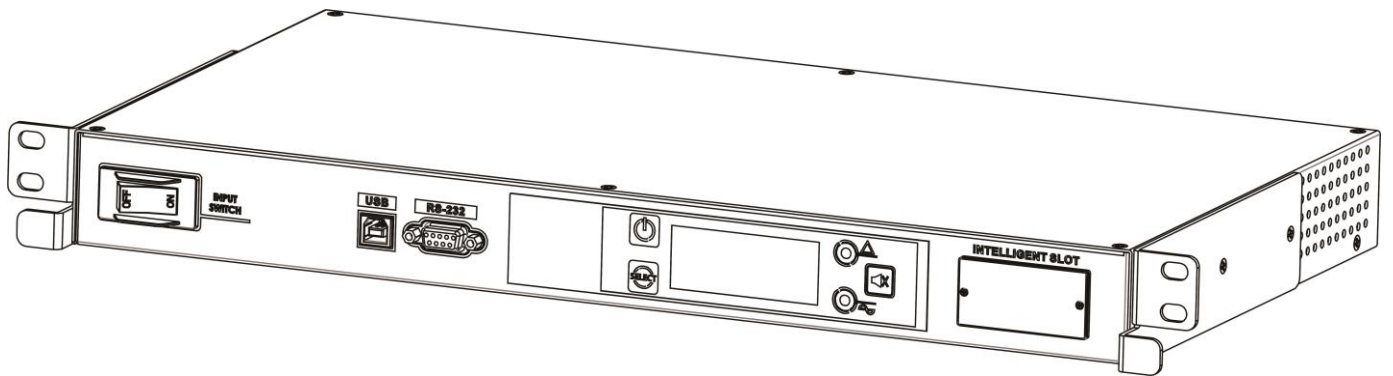




## **PDU LA-PDU-MT-R-IEC**

### **Power Distribution Unit**



Version: 1.0

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# **1. Introduction**

## **1-1 Package Contents**

- PDU x 1
- User Manual x 1
- USB cable x 1
- Input IEC-SCHUCKO 16A cable

## **1-2 Safety**

- The PDU must be connected to earth while in use.
- Do not use extension cords or adapters with this PDU.
- Ensure the power cord and sockets are in good condition.
- To reduce the risk of fire or electrical shock, PDU installation has to be in a temperature and humidity controlled indoor environment. Ambient temperature must not exceed 50°C. The PDU is not intended for outdoor use.

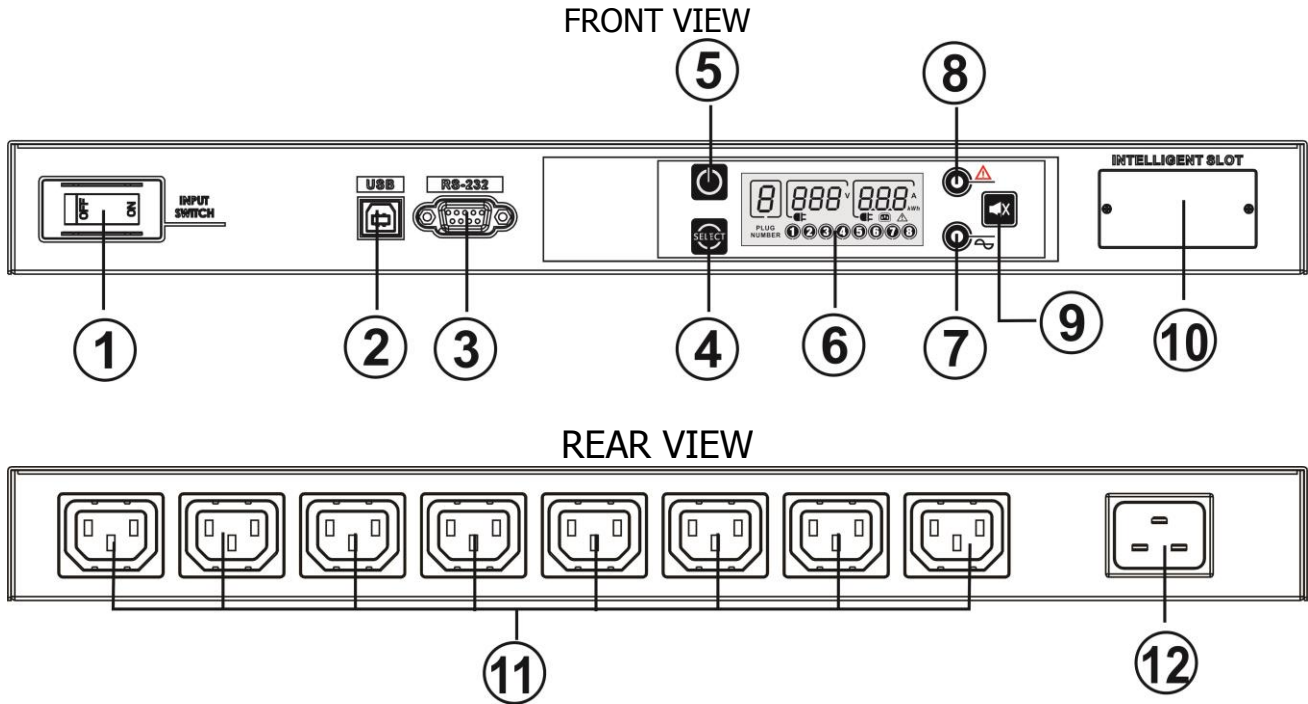
## **1-3 Disposing of PDU**

The PDU contains internal components that are considered toxic or hazardous waste such as electronic circuit boards. For proper disposal, contact your local recycling/reuse or hazardous waste center.

## **1-4 Function**

The PDU is designed to distribute AC power from a single source to 8 outputs with advanced load monitoring and local or remote ON/OFF switching control of individual outlets.

## 1-5 Overview

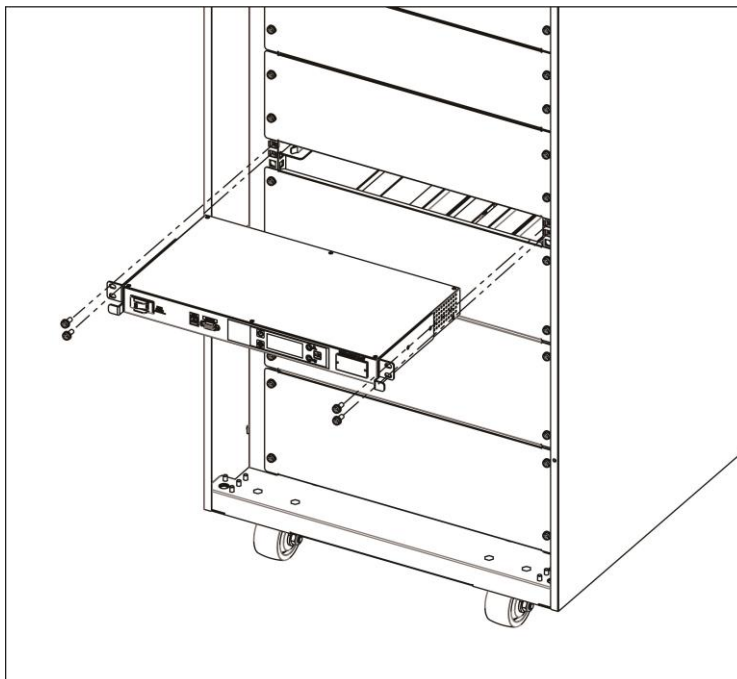


- |  |   |
|--|---|
| ① Input switch   | ⑧ Fault indicator                             |
| ② USB communication port   | ⑨ MUTE/FUNCTION button: to silence the buzzer |
| ③ RS232 communication port   | ⑩ Expansion slot for communication boards     |
| ④ SELECT button: to toggle the different status screens in LCD display | ⑪ Output IEC 10A sockets                      |
| ⑤ ON/OFF button: to turn on or off the outputs                         | ⑫ Input 16A plug                              |
| ⑥ LCD display  |   |
| ⑦ Mains indicator  |   |

## 2. Installation

### 2-1 Rack Mounting

Following figure shows how to install the PDU module in a 19-inch bay (with a depth of 600mm) at the desired height in the cabinet uprights. Secure the device adequately to cabinet with four screws.

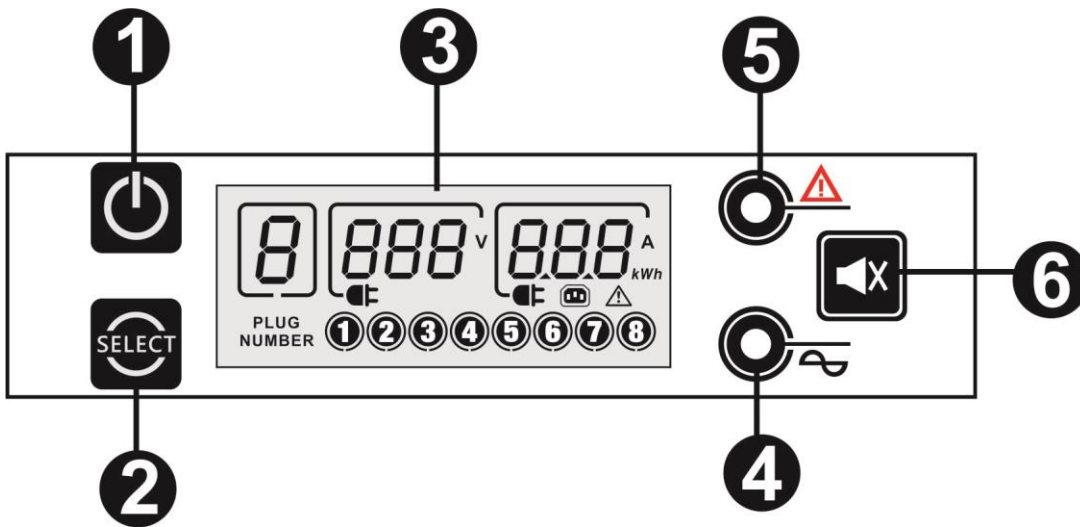


### 2-2 Connections

For connecting the PDU, plug the input to the mains or to the UPS depending on user's requirements. Plug the equipment to the outputs.

# 3 Operation & Display

## 3-1 Panel Overview



1. On/Off button
2. Select button
3. LCD display: for detailed LCD operation, please check section 3-2.
4. Power indicator (Yellow)
5. Fault indicator (Red)
6. Mute/Function button

On the LCD display, it will show the following information:

- Input voltage
- Input current
- Output current for each output socket
- Output watt for each output socket
- Output watt-hour for each output socket
- Numerical pug icon to represent each output socket  
icon on = output on  
icon off = output off  
icon blinking = output overload (alarm overload or output shutdown due to overload)
- Fault code (please check section 3-2-4 for detailed codes)

## 3-2 Operation

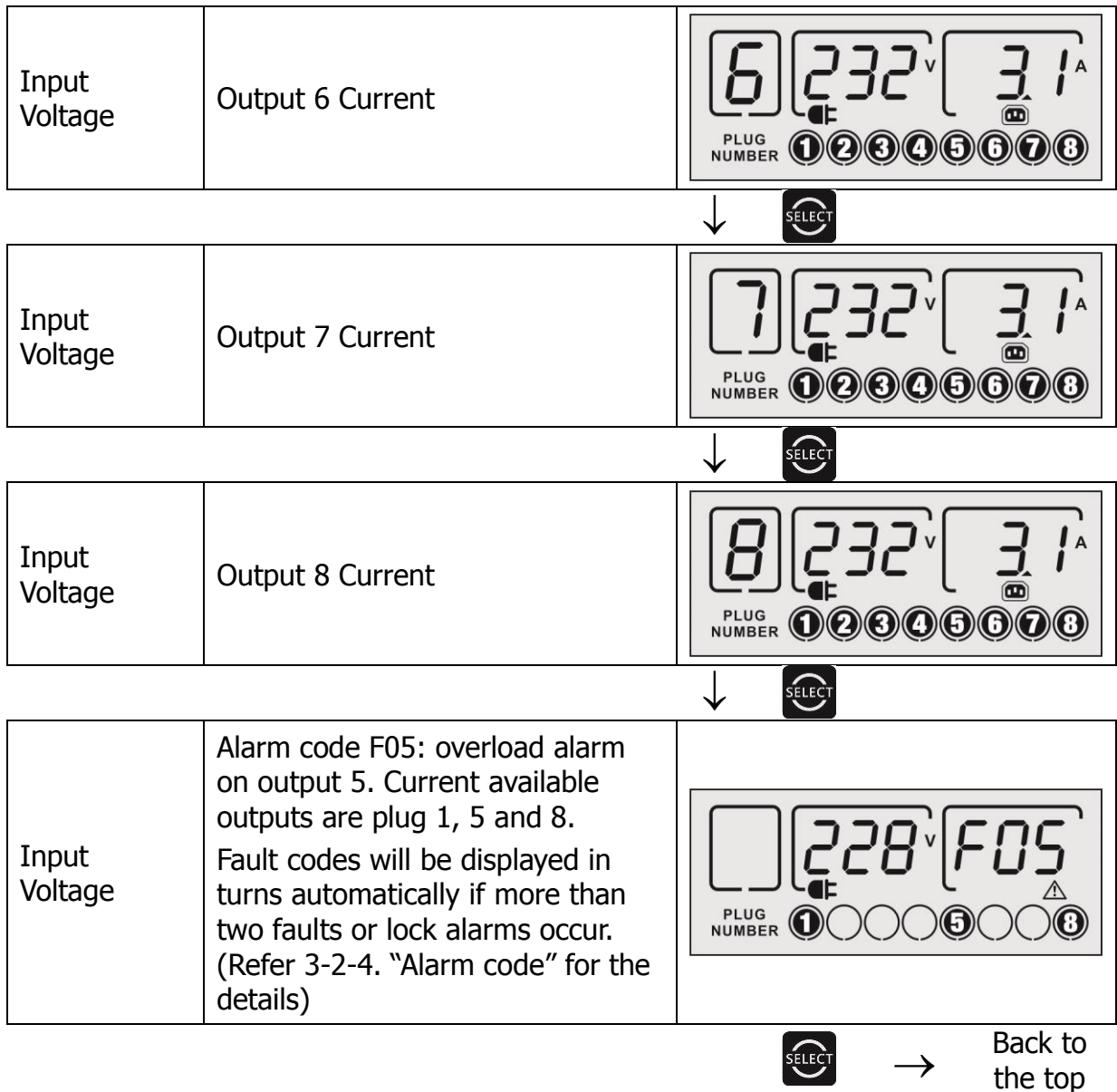
The LCD display allows you to view the status of each output (ON / OFF), input voltage, input current, the current on each output and any alarm codes present.

Eight digital numbers displayed on the bottom of LCD to represent the eight output sockets. If the numerical icon is on, the represented output socket is powered on. If the numerical icon is off, the represented output socket is powered off. If the numerical icon is blinking, the represented output socket is overload.

### 3-2-1 SELECT Button

The **SELECT** button allows you to scroll through different status screen. The LCD displayed information will be switched in turns by pressing SELECT button. The displayed information is switched as below order: Total input voltage/input current, input voltage/output current for each active numerical plug and fault codes.

Information		LCD Display
Input Voltage	Input Current	<p>The LCD display shows a total input voltage of 230V and an input current of 7.1A. The plug number 1 is highlighted in the 'PLUG NUMBER' row at the bottom.</p>
		↓
Input Voltage	Output 1 Current	<p>The LCD display shows an input voltage of 232V and an output current of 3.1A for plug 1. The plug number 1 is highlighted in the 'PLUG NUMBER' row.</p>
		↓
Input Voltage	Output 2 Current	<p>The LCD display shows an input voltage of 232V and an output current of 3.1A for plug 2. The plug number 2 is highlighted in the 'PLUG NUMBER' row.</p>
		↓
Input Voltage	Output 3 Current	<p>The LCD display shows an input voltage of 232V and an output current of 3.1A for plug 3. The plug number 3 is highlighted in the 'PLUG NUMBER' row.</p>
		↓
Input Voltage	Output 4 Current	<p>The LCD display shows an input voltage of 232V and an output current of 3.1A for plug 4. The plug number 4 is highlighted in the 'PLUG NUMBER' row.</p>
		↓
Input Voltage	Output 5 Current	<p>The LCD display shows an input voltage of 232V and an output current of 3.1A for plug 5. The plug number 5 is highlighted in the 'PLUG NUMBER' row.</p>
		↓



### 3-2-2 ON/OFF Button

The **ON/OFF** button allows you to switch on or off output sockets one by one.

#### Turn on selected output socket

To switch on a numerical output socket, you have to switch to specific plug number shown on left corner by keep pressing SELET button. Then, press ON/OFF button (1 to 2 sec) until the represented number is displayed on the bottom of LCD screen.

#### Turn off selected output socket

To switch off a numerical output socket, you have to switch to specific plug number shown on left corner by keep pressing SELET button. Then, press ON/OFF button (1 to 2 sec) until the represented number is faded on the bottom of LCD screen.

The ON/OFF button is no function while it's shown input current or the Alarm code in LCD display.

### 3-2-3 Mute/Function Button

Two functions by pressing Mute/Function button.

- Mute function by pressing and hold the button for at least 3 seconds.
- Function button by quick press the button

#### Mute Operation

When the buzzer is sounding due to alarms, the buzzer can be mute by pressing this button. After buzzer is mute, if warning situation remains, it's possible to press this button to have buzzer sound again. If one or more alarms occur after buzzer has been mute, the buzzer will sound again.

#### Function Operation

It's to switch displayed information on specific output. The displayed information is output current, output wattage and output wattage-hour in order. You may switch to specific output by pressing "SELECT" button. When requested plug number is shown on left digital area, quick press "FUNCTION" button to switch displayed information.

Information		LCD Display	
Input Voltage	Output 1 Current		
		↓	
Input Voltage	Output 1 Wattage		
		↓	
Input Voltage	Output 1 Wattage-Hour		
			→ Back to Output 1 Current screen

### 3-2-4 Alarm Code/LED/Buzzer

<b>CODE</b>	<b>DESCRIPTION</b>	<b>Fault LED</b>	<b>MAINS LED</b>	<b>Buzzer</b>
A01	Low input voltage	ON	Blinking	0.5s ON / 1.0s OFF
A02	High input voltage	ON	Blinking	0.5s ON / 1.0s OFF
S01	Immediate shutdown on Output 1	Blinking	OFF	0.5s ON / 0.5s OFF
S02	Immediate shutdown on Output 2	Blinking	OFF	0.5s ON / 0.5s OFF
S03	Immediate shutdown on Output 3	Blinking	OFF	0.5s ON / 0.5s OFF
S04	Immediate shutdown on Output 4	Blinking	OFF	0.5s ON / 0.5s OFF
S05	Immediate shutdown on Output 5	Blinking	OFF	0.5s ON / 0.5s OFF
S06	Immediate shutdown on Output 6	Blinking	OFF	0.5s ON / 0.5s OFF
S07	Immediate shutdown on Output 7	Blinking	OFF	0.5s ON / 0.5s OFF
S08	Immediate shutdown on Output 8	Blinking	OFF	0.5s ON / 0.5s OFF
F01	Overload alarm on Output 1	ON	OFF	0.5s ON / 1.0s OFF
F02	Overload alarm on Output 2	ON	OFF	0.5s ON / 1.0s OFF
F03	Overload alarm on Output 3	ON	OFF	0.5s ON / 1.0s OFF
F04	Overload alarm on Output 4	ON	OFF	0.5s ON / 1.0s OFF
F05	Overload alarm on Output 5	ON	OFF	0.5s ON / 1.0s OFF
F06	Overload alarm on Output 6	ON	OFF	0.5s ON / 1.0s OFF
F07	Overload alarm on Output 7	ON	OFF	0.5s ON / 1.0s OFF
F08	Overload alarm on Output 8	ON	OFF	0.5s ON / 1.0s OFF
F09	Low input current	ON	OFF	0.5s ON / 1.0s OFF

F10	High input current	ON	OFF	0.5s ON / 1.0s OFF
F11	Power Fail on Auxiliary 1	ON	OFF	ON
F12	Power Fail on Auxiliary 2	ON	OFF	ON
L01	Lock for overload on Output 1	ON	OFF	ON
L02	Lock for overload on Output 2	ON	OFF	ON
L03	Lock for overload on Output 3	ON	OFF	ON
L04	Lock for overload on Output 4	ON	OFF	ON
L05	Lock for overload on Output 5	ON	OFF	ON
L06	Lock for overload on Output 6	ON	OFF	ON
L07	Lock for overload on Output 7	ON	OFF	ON
L08	Lock for overload on Output 8	ON	OFF	ON
L13	High input voltage	ON	OFF	ON

**NOTE:** The output lock due to overload is permanent and only can be reset by switching on the locked output again. Please simply press the ON/OFF button to turn on the output.

## 4. Technical Specification

<b>Input</b>		
Input Plug	IEC C20 16A 250V	
Cord Entry	Rear feed	
Maximum Input Current	16A	
Rated Input Current	16A	
Nominal Input Voltage	220V/230V/240V	
Rated Input Voltage	184 – 300V	
Input Frequency	50Hz/60Hz	
Power Capacity	3.68KVA at 230V	
Overload Protection	16A Breaker	
<b>Output</b>		
Nominal Output Voltage	220V/230V/240V	
Rated Output Voltage	184 – 300V	
Output Connections	(8) IEC C13	
Output Current Accuracy	+/- 0.1A	
<b>Physical</b>		
Dimensions (D x W x H) (mm)	250 x 430 x 44	
Color	Black	
Weight (Kg)	3.5	
<b>Environmental</b>		
Operation Environment	0 – 50 °C	
Operation Relative Humidity	0 – 90% No condensing	
Altitude	<1000m	
<b>Conformance</b>		
EMC	EN 55022 Class B EN 61000-3-2 EN 61000-3-3 EN 55024	
Safety	EN60950-1	