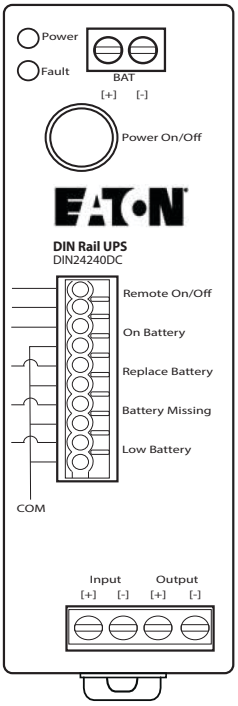
Eaton Din Rail DC UPS DIN24240DC / DIN24480DC / BPDIN24XL

Quick Start Guide



Powering Business Worldwide

p/n: 934184
Revision A

IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

This manual contains important instructions that you should follow during installation and maintenance of the UPS. Please read all instructions before operating the equipment and save this manual for future reference.

⚠WARNING

- This UPS contains its own energy source (batteries).
- The DC mains power must be turned off before connecting or disconnecting wires to the terminals.
- Use RED wire for (+) positive and BLACK for (-) negative wire connections.
- Make sure the wires do not touch to chassis during their connection.
- Always connect the DC mains input and load output wires first, then the UPS battery terminals labeled (BAT +/-), and finally to the EBM.
- To reduce the risk of fire or electric shock, install this UPS in a temperature and humidity controlled, indoor environment, free of conductive contaminants. Ambient temperature must not exceed 50°C (122°F). Do not operate near water or excessive humidity (95% max).
- To comply with international standards and wiring regulations, the total equipment connected to the output of this UPS must not have an earth leakage current greater than 1.5 milliamperes.
- To guarantee sufficient convection cooling, please keep a clearance of 50mm above, 180mm below, and 10mm lateral distance of between devices.
- Note that the enclosure of the device can become very hot depending on the ambient temperature and load of the power supply. Risk of burns!
- Do not introduce any objects into the unit.
- The UPS and EBM unit should be installed in minimum IP54 rated enclosure.
- The units must be installed in a cabinet or room (condensation free environment and indoor location) that is relatively free of conductive contaminants.

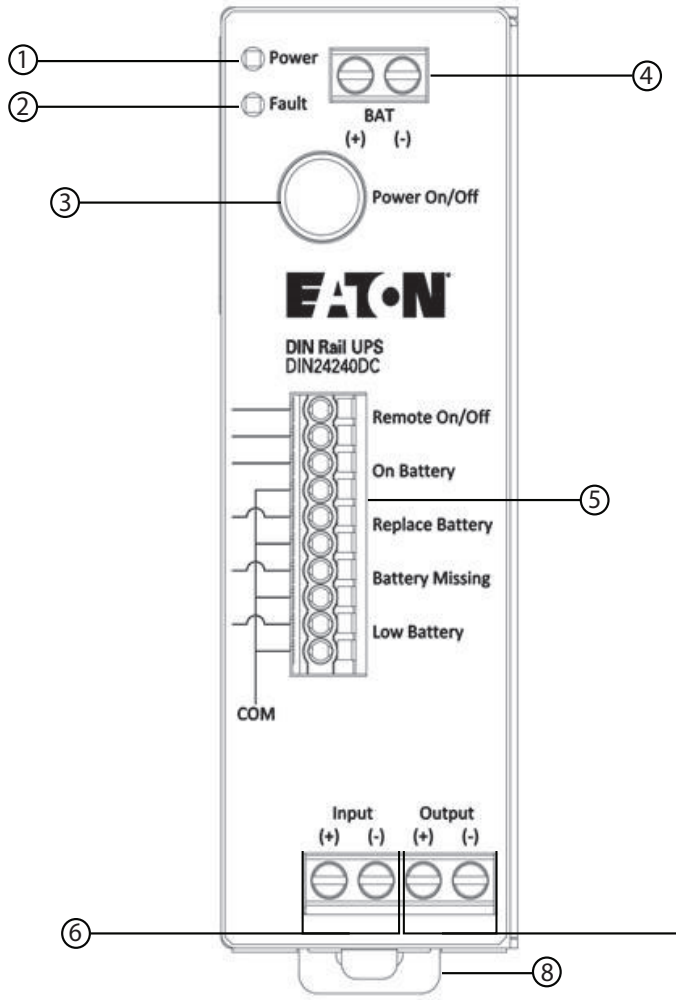
⚠DANGER

This UPS contains **LETHAL VOLTAGES**. All repairs and service should be performed by **AUTHORIZED SERVICE PERSONNEL ONLY**. There are **NO USER SERVICEABLE PARTS** inside the UPS.

Chapter 1 Installation

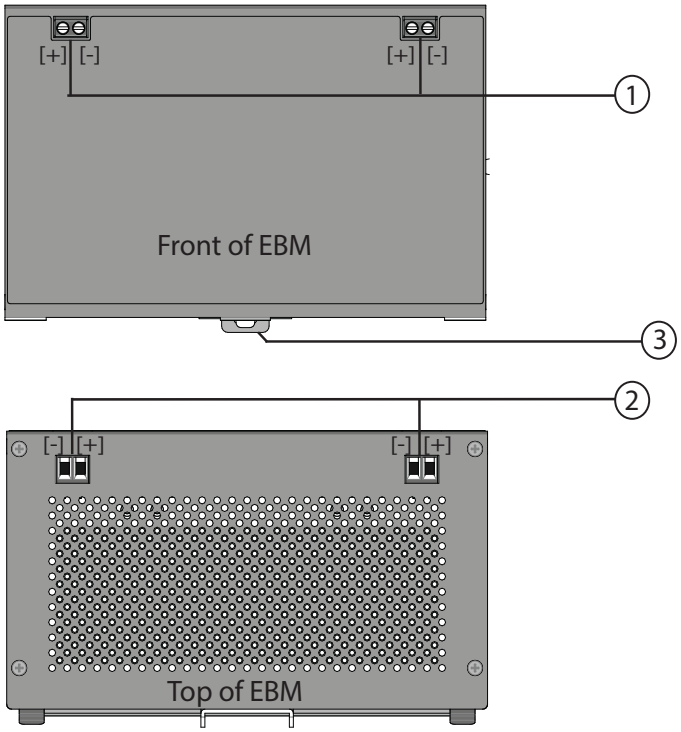
1.1 Physical Features

Figure 1. DIN24240DC / DIN24480DC UPS Features



① LED (Green) Input OK (Solid)/ On Battery (Flashing)
② LED (Red) - Fault
③ Power ON/Off Button
④ Battery Pack Terminal Block
⑤ Dry Contact Relay Terminals
⑥ DC Mains Input Terminal Block
⑦ DC Load Output Terminal Block
⑧ DIN Rail Mounting Clamp

Figure 2. BPDIN24XL Features



① DC Terminals
② DC Terminals
③ DIN Rail Clamp

1.2 Mounting the UPS to the DIN Rail

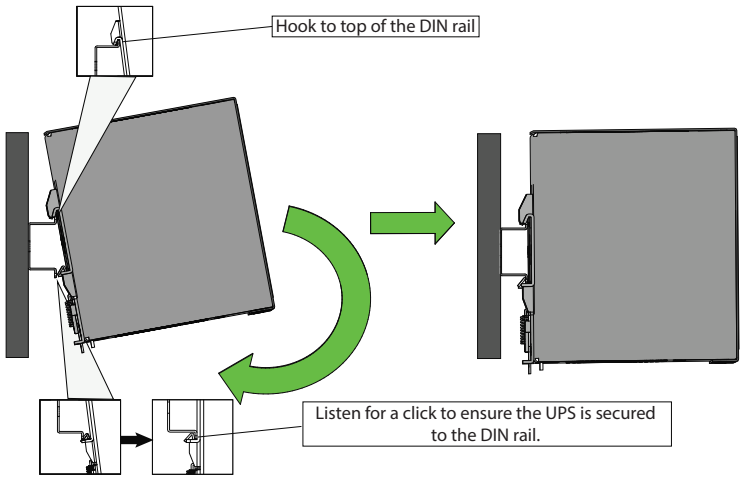
The EATON DIN500AC and DIN850AC UPS can be mounted on "top hat" 35mm DIN rail in accordance with EN60715.

The DIN24240DC and DIN24480DC UPS can be mounted on a 35 mm DIN rail in accordance with EN60715. For vertical mounting, the device should be installed with the input terminal block facing down.

To Mount the UPS:

1. Locate the top hook of the DIN rail mounting system on the unit with the unit slightly titled.
2. Rotate the unit till the latch of the rail mount system snaps on to the bottom of the DIN rail and the unit cannot be rotated any further.
3. Shake the UPS slightly to ensure that it is secure.
4. Check if the UPS is facing upright and not tilting downward.

Figure 3. Mounting the UPS

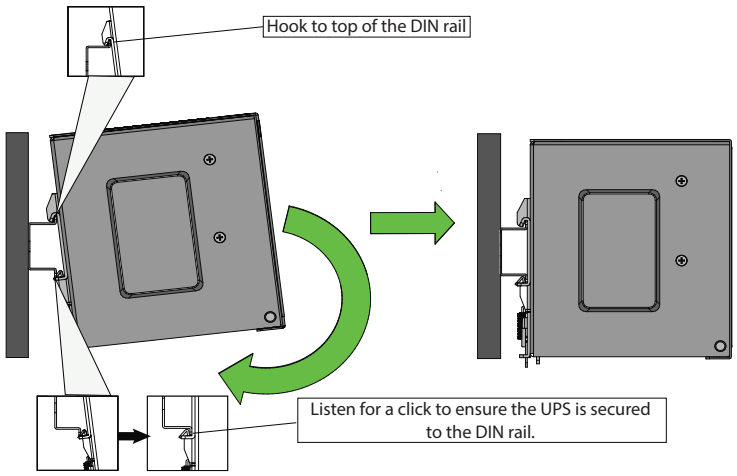


1.3 Mounting the EBM to the DIN Rail

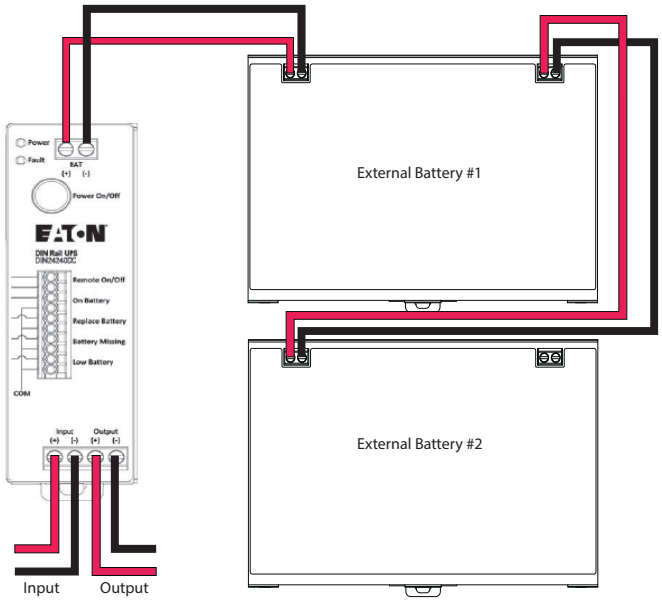
To Mount the BPDIN24XL EBM:

1. Locate the top hook of the DIN rail mounting system on the unit with the unit slightly titled.
2. Rotate the unit till the latch of the rail mount system snaps on to the bottom of the DIN rail and the unit cannot be rotated any further.
3. Shake the UPS slightly to ensure that it is secure.
4. Check if the UPS is facing upright and not tilting downward.
5. Add additional BPDIN24XL extended battery modules by following the above steps and ensure that each EBMs are at a minimum distance of 0.39in (10mm) between each module. Up to four EBM modules can be used per UPS.

Figure 4. Mounting the BPDIN24XL EBM



1.4 DC Mains and Battery Pack Connections



To install the DC input / output wiring to the UPS:

1. Use the recommended user-supplied wiring to connect the DC UPS Input and Output terminals.
2. Use the recommended user-supplied EBM wiring from Table 1 to connect to the DC UPS battery (BAT + / -) terminals.
3. Connect other end of BAT wiring from the DC UPS to the closet set of +/-terminals of the EBM.
4. Add additional BPDIN24XL extended battery modules by following the above steps. Ensure each of the EBMs are at a minimum distance of 0.39 in. (10 mm) between each module. Up to four EBM modules can be used per UPS.
5. Turn on Mains DC power and check with a voltmeter to verify 24V DC is present across all positive and negative terminals. Power the UPS ON by pressing the button for 3 seconds. As long as live 24V DC is supplied to input terminals the output terminals will be live in bypass and Line operation modes.
6. For connection to remote ON/OFF, dry contacts and support information, refer to the Advanced User's Guide at Eaton.com.

Table 1. Recommended DC Input and Output Wire Sizes

Terminal	Recommended Wire Gauge AWG (mm2)		Torque N-m (in-lb)
	DIN24240DC	DIN24480DC	
DC Input/Output	16 (1.5)	12 (4)	0.6 (5.3 in-lb)
Recommended EBM Wire Size			
Connection	Wire Size (AWG)		Torque N-m (in-lb)
Battery Terminals	12 AWG (4 sq. mm)		0.6 (5.3 in-lb)

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