

Eaton 9PXM8S4K-PD

Eaton 9PXM Uninterruptible Power Supply (UPS)

USER MANUAL

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Eaton 9PXM Uninterruptible Power Supply (UPS). The Eaton 9PXM is a scalable, modular UPS designed to provide reliable power protection for critical applications in edge data centers and industrial/commercial environments. It offers high reliability and flexibility through its plug-and-play power modules and N+X redundancy capabilities.

2. Safety Information

Please read and understand all safety instructions before installing, operating, or servicing the UPS. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Electrical Hazard:** This unit contains high voltage. Do not open the UPS enclosure. Servicing should only be performed by qualified personnel.
- **Battery Hazard:** Batteries can present a risk of electrical shock and high short-circuit current. Observe proper precautions when working with batteries.
- **Weight Hazard:** The UPS is heavy. Use appropriate lifting techniques and equipment during installation to prevent injury.
- **Ventilation:** Ensure adequate airflow around the UPS. Do not block ventilation openings.
- **Environment:** Install the UPS in a controlled environment, free from excessive dust, moisture, and extreme temperatures.

3. Product Overview

The Eaton 9PXM UPS is a robust power protection solution. It features a modular design, allowing for easy expansion and maintenance. The system consists of a main enclosure that can house multiple 4 kVA plug-and-play power modules, providing N+X redundancy for enhanced reliability.



Figure 3.1: Eaton 9PXM UPS System. This image shows the modular UPS unit in a tower configuration, highlighting its multiple bays for power modules and the front display panel.

The 9PXM is available in eight or twelve-slot tower enclosures, which can be converted into 14U and 21U rackmount solutions, offering versatility for various installation environments.

4. Setup and Installation

Proper installation is crucial for the performance and longevity of your Eaton 9PXM UPS. This section outlines the general steps for setting up the unit.

4.1 Unpacking and Inspection

- Carefully unpack the UPS and all accessories.
- Inspect the unit for any shipping damage. Report any damage to your carrier and Eaton representative immediately.
- Verify that all components listed in the packing list are present.

4.2 Placement

- Place the UPS in a location with stable temperature and humidity.
- Ensure sufficient clearance around the unit for proper ventilation and access for maintenance.
- The unit can be configured for tower or rackmount installation. Refer to the specific mounting kit instructions for detailed steps.

4.3 Electrical Connection

The Eaton 9PXM UPS is a hardwired unit. All electrical connections must be performed by a qualified electrician in accordance with local and national electrical codes.

- Connect the input power source to the UPS. The input voltage is 208 Volts (AC).
- Connect your critical loads to the UPS output terminals.
- Ensure proper grounding of the unit.
- Verify all connections are secure before applying power.

5. Operating Instructions

Once installed, the Eaton 9PXM UPS is designed for straightforward operation. The front panel display provides real-time status and configuration options.

5.1 Initial Startup

1. After all electrical connections are made and verified, apply input power to the UPS.
2. The UPS will perform a self-test and then typically enter bypass mode or online mode, depending on its configuration and the presence of power modules.
3. Observe the front panel display for status messages and indicators.

5.2 Front Panel Display and Controls

The integrated LCD display provides critical information such as input/output voltage, load percentage, battery status, and alarm conditions. Navigation buttons allow users to scroll through menus and adjust settings.

5.3 Power Module Operation

The 9PXM's modular design allows for hot-swappable power modules. This enables N+X redundancy, meaning the system can continue to operate even if one module fails, or allows for capacity expansion without downtime.

6. Maintenance

Regular maintenance ensures the optimal performance and longevity of your Eaton 9PXM UPS.

- **Routine Inspection:** Periodically check the UPS for any visible damage, loose connections, or unusual noises.
- **Ventilation Check:** Ensure that air vents are clear of dust and obstructions. Clean as necessary.
- **Battery Maintenance:** While the UPS performs automatic battery tests, it is recommended to monitor battery health via the display or management software. Batteries have a finite lifespan and will require replacement over time.
- **Module Replacement:** Power modules are designed for easy replacement. Refer to the specific module replacement guide for detailed instructions. Always follow safety precautions when handling modules.

7. Troubleshooting

This section provides guidance for common issues you might encounter with your Eaton 9PXM UPS. For complex problems, contact Eaton technical support.

Problem	Possible Cause	Solution
UPS not turning on	No input power; UPS switch off; Internal fault.	Check input power source; Ensure UPS switch is ON; Contact support if fault persists.
Alarm sounding	Overload; Battery low/fault; Internal fault.	Reduce load; Check battery status; Refer to display for specific alarm code; Contact support.
Short backup time	Overload; Batteries need replacement; Batteries not fully charged.	Reduce load; Check battery health and replace if necessary; Allow batteries to fully charge.

8. Specifications

Key technical specifications for the Eaton 9PXM UPS (Model: 9PXM8S4K-PD).

Attribute	Value
Model Number	9PXM8S4K-PD
Product Dimensions	34.5 x 17.5 x 25 inches
Item Weight	229 pounds
Voltage	4000 Volts (Output Capacity)
Input Voltage	208 Volts (AC)
Color	Black
Manufacturer	Eaton Corporation
Date First Available	November 10, 2019

9. Warranty and Support

For warranty information, technical support, or service requests, please contact Eaton customer support. Keep your product model number (9PXM8S4K-PD) and serial number ready when contacting support.

You can find more information and contact details on the official Eaton website or through your authorized Eaton reseller.

Note: Specific warranty terms and conditions may vary by region and purchase agreement.

