



# Eaton 9PX lithium-ion UPS

## Double-conversion UPS that offers a set it and forget it deployment

The 9PX lithium-ion UPS is part of the Eaton 9 series single-phase double-conversion UPS line, best applied to mission-critical equipment for constant power conditioning. The 9PX lithium-ion UPS provides 8 to 10 years of life expectancy for UPS and its batteries, and has power ratings ranging from 1–6 kVA, while also offering up to four external battery modules (EBM) for extra runtime. The 9PX lithium-ion UPS has the same reliable features as the 9PX lead-acid UPS, including load segments for prioritized shutdowns, remote power on (RPO), remote on/off (ROO) and output relay ports that increase control capabilities. For connectivity, the 9PX is compatible with the Gigabit Network Card, which is the first UPS connectivity device to meet both UL and IEC cybersecurity standards. This network interface card improves power system reliability by providing warnings of pending issues and helping to perform orderly graceful shutdown of servers and storage.



2U UPS with 1U EBM in 4-post rack

# EATON

Powering Business Worldwide

## Key features and benefits

### Save money

- **2–3X longer battery life:** minimize battery maintenance expense—ideal for large deployments and edge applications
- **Runtime:** UPS provides up to 2–3X more runtime at full load compared to lead-acid batteries
- **Warranty:** 5-year all-inclusive (electronics and battery) warranty

### Save space

- **1U lithium EBM vs. 2U lead-acid EBM** (1–3 kVA models)
- **2U lithium EBM vs. 3U lead-acid EBM** (6 kVA model)
- **Lightweight design** up to 40% less weight than a comparable lead-acid UPS allowing easier installation and saving time

### Reduce risk

- **24/7 monitoring:** battery management system (BMS) improves reliability and performance by actively monitoring temperature and charge
- **Cybersecure:** remote monitoring service and network connectivity card options provide cybersecurity protection and keeps you connected with your UPS status updates
- **On-board BMS monitoring** in combination with proven lithium iron phosphate (LiFePO<sub>4</sub>) chemistry provides a reliable and safe offering, giving you peace of mind

## Remotely automate and monitor your UPS with Brightlayer Data Centers suite software

### The power of automation.

With our Disaster Avoidance software, also known as Intelligent Power Manager (IPM), you can create triggering alerts and automate resolutions to keep applications running. This software enables you to:

- Leverage Eaton's integrations with industry leaders such as VMware, Microsoft and VirtualBox
- Migrate workloads to increase system uptime and minimize generator load by suspending non-critical virtual machines
- Power cap servers to keep critical loads running longer by limiting server power consumption

Learn more at [Eaton.com/IPM](http://Eaton.com/IPM)

### The power of monitoring.

With our Distributed IT Performance Management (DITPM) software, you can remotely monitor up to thousands of PDUs and UPSs—no matter where they're located. This software enables you to:

- Know what's happening with real-time reports, trend charts, dashboards and alerts that are prioritized by severity and escalated when unacknowledged to speed resolution
- Troubleshoot and resolve issues
- Remotely control UPS load segments regardless of vendor, automating device response and diagnosing equipment performance
- Update firmware remotely to improve cybersecurity and eliminate the need for in-person firmware updates

Learn more at [Eaton.com/DITPM](http://Eaton.com/DITPM)

### The power of predictability.

Our Remote Monitoring Service, also known as PredictPulse, is the industry's first cloud-based 24x7 remote monitoring and predictive analytics subscription service to forecast data center power component failure and proactively replace components before failure.

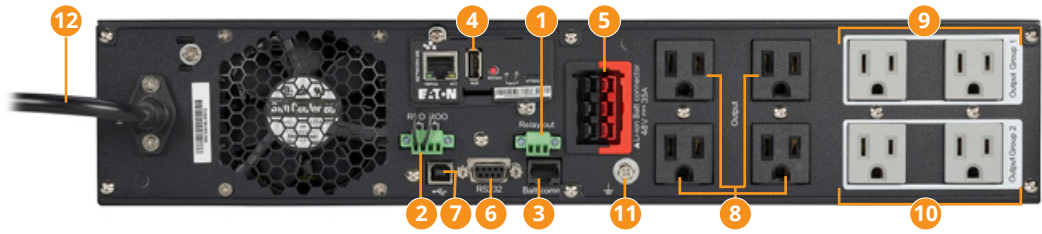
This software enables you to:

- Focus on other critical IT tasks while our experts remotely monitor your IT infrastructure power quality equipment around the clock and dispatch field service technicians when needed
- Eliminate surprise maintenance expenses—this subscription-based service includes parts, labor, on-going preventive maintenance and expedited repairs
- Propriety algorithms, based on data from thousands of installed devices, predict UPS component failure so we can proactively replace parts before issues arise

Learn more at [Eaton.com/RemoteMonitoringService](http://Eaton.com/RemoteMonitoringService)

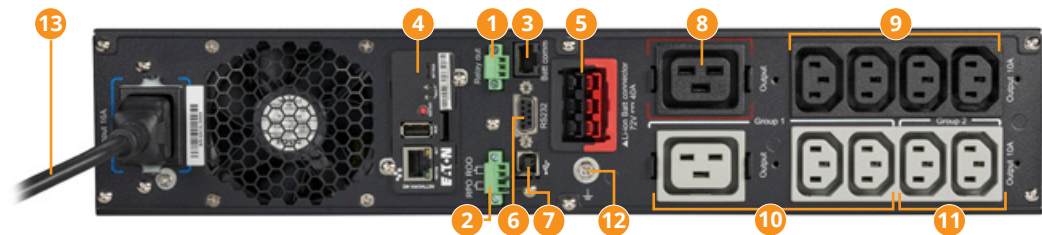
## Rear panel overview

### Model 9PX1500RT-L



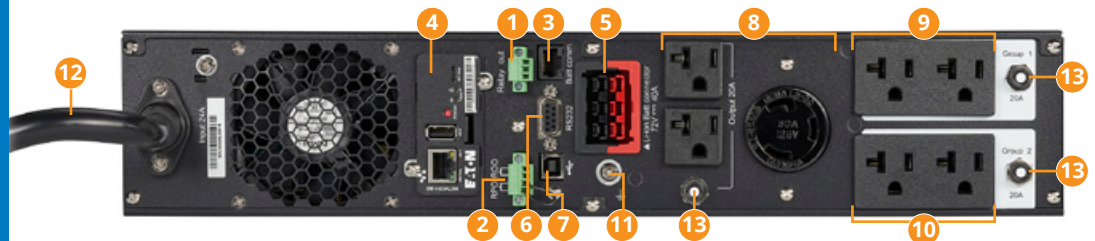
- |   |   |                                     |
|---|---|-------------------------------------|
| 1 Output relay port                                   | 5 EBM connector                                     | 9 (2) 5-15R (load segment group 1)  |
| 2 Remote power off (RPO) and remote on/off (ROO) port | 6 RS-232 serial communication port (cable included) | 10 (2) 5-15R (load segment group 2) |
| 3 External battery module (EBM) detection port        | 7 USB port (cable included)                         | 11 Ground bonding screw             |
| 4 Gigabit Network Card (optional)                     | 8 (2) 5-15R managed outlets (primary group)         | 12 8-foot line cord with 5-15P      |

### Model 9PX2200GRT-L and 9PX3000GRT-L



- |   |   |   |
|---|---|---|
| 1 Output relay port                                   | 6 RS-232 serial communication port (cable included) | 10 (1) C19 and (2) C13 managed outlets (load segment group 1)                       |
| 2 Remote power off (RPO) and remote on/off (ROO) port | 7 USB port (cable included)                         | 11 (2) C13 managed outlets (load segment group 2)                                   |
| 3 External battery module (EBM) detection port        | 8 (1) C19 outlet                                    | 12 Ground bonding screw   |
| 4 Gigabit Network Card (optional)                     | 9 (4) C13 managed outlets (primary group)           | 13 C20/L6-20P input connection (detachable L6-20P to C19 input cord is 6-foot long) |
| 5 EBM connector                                       |   |   |

### Model 9PX3000RT-L



- |   |  |   |
|---|--|---|
| 1 Output relay port                                   | 6 RS-232 serial communication port (cable included)        | 10 (2) 5-20R managed outlets (load segment group 2) |
| 2 Remote power off (RPO) and remote on/off (ROO) port | 7 USB port (cable included)                                | 11 Ground bonding screw                             |
| 3 External battery module (EBM) detection port        | 8 (2) 5-20R and (1) L5-30R managed outlets (primary group) | 12 L5-30P input cord (8-foot long)                  |
| 4 Gigabit Network Card (optional)                     | 9 (2) 5-20R managed outlets (load segment group 1)         | 13 AC output branch protector                       |
| 5 EBM connector                                       |  |   |

For additional rear panel views, please visit [Eaton.com/9PX](http://Eaton.com/9PX).

## 9PX 1 to 3 kVA lithium-ion rackmount and tower model selection guide

The 9PX lithium-ion comes as a stand-alone UPS or as part of a network bundle for easy configuration and deployment. For complete specifications, including interactive battery runtime graphs, visit [Eaton.com/9PX](http://Eaton.com/9PX).

### 120V (default), 100V, 110V, 115V, 125V RT models

Catalog number	Rating (VA/Watts)	Input connection	Output connections	Dimensions (H x W x D), in.	Weight, lb.
9PX1500RT-L	1500 / 1350	5-15P, 8 ft.	(8) 5-15R	3.41 (2U) x 17.32 x 17.72	35.5
9PX2000RT-L	2000 / 1800	5-20P, 8 ft.	(1) L5-20R, (6) 5-20R	3.41 (2U) x 17.32 x 23.83	50.6
9PX3000RT-L	3000 / 2700	L5-30P, 8 ft.	(1) L5-30R, (6) 5-20R	3.41 (2U) x 17.32 x 23.83	52.7

### Global UPS, 208V (default), 230V, 240V RT models

Catalog number	Rating (VA/Watts)	Input connection	Output connections	Dimensions (H x W x D), in.	Weight, lb.
9PX1500GRT-L	1500 / 1350	C14	(8) C13	3.41 (2U) x 17.32 x 17.72	34.8
9PX2200GRT-L	2200 / 2000	C20 / L6-20P	(8) C13, (2) C19	3.41 (2U) x 17.32 x 23.83	48.6
9PX3000GRT-L	3000 / 2700	C20 / L6-20P	(8) C13, (2) C19	3.41 (2U) x 17.32 x 23.83	50.2

### 120V (default), 100V, 110V, 115V, 125V RT network card bundles

Catalog number	Rating (VA/Watts)	Input connection	Output connections	Dimensions (H x W x D), in.	Weight, lb.
9PX1500RTN-L (includes NETWORK-M3 network card)	1500 / 1350	5-15P, 8 ft.	(8) 5-15R	3.41 (2U) x 17.32 x 17.72	36.5
9PX2000RTN-L (includes NETWORK-M3 network card)	2000 / 1800	5-20P, 8 ft.	(6) 5-20R, (1) L5-20R	3.41 (2U) x 17.32 x 23.83	51.6
9PX3000RTN-L (includes NETWORK-M3 network card)	3000 / 2700	L5-30P, 8 ft.	(6) 5-20R, (1) L5-30R	3.41 (2U) x 17.32 x 23.84	53.7

## 9PX 1 to 3 kVA lithium-ion extended battery module (EBM) options

Catalog number	Description	Rack size	Weight, lb.
9PXEBM48RT-L	Extended battery module for 9PX1500RT-L and 9PX1500GRT-L	1U	36.5
9PXEBM72RT-L	Extended battery module for 9PX2000RT-L, 9PX2200GRT-L, 9PX3000RT-L and 9PX3000GRT-L	1U	46.6

## Power distribution (PDU) and maintenance bypass (MBP) options

Catalog number	Description	Input connection	Output connections	Dimensions (H x W x D), in.
EHBPL1500R-PDU1U	HotSwap MBP for use with 9PX1500RT-L, 9PX1500GRT-L	5-15P	(6) 5-15R	2.1 (2U) x 17.3 x 3.8
EHBPL2000R-PDU1U	HotSwap MBP for use with 9PX2000RT-L, 9PX2200GRT-L	5-20P	(6) 5-20R	2.1 (2U) x 17.3 x 3.8
EHBPL3000R-PDU1U	HotSwap MBP for use with 9PX3000RT-L, 9PX3000GRT-L	L5-30P	(5) 5-20R	2.1 (2U) x 17.3 x 3.8
PDUV20-72	Basic PDU	L5-20P	(36) 5-15/20R	72.47 x 1.50 x 1.64
PDU2430	Basic PDU	L5-30P	(24) 5-15R	1.75 x 17.25 x 4.50
PDUV20HVL6-72	Basic PDU	L6-20P	(32) C13, (6) C19	63.75 x 3.50 x 2.25
EATS115	Eaton ATS, 120V, 1U rackmount PDU	(2) 5-15P	(10) 5-15R	1.7 (1U) x 17.25 x 9.94
EATS120	Eaton ATS, 120V, 1U rackmount PDU	(2) 5-20P	(10) 5-20R	1.7 (1U) x 17.25 x 9.84

\* For additional Eaton PDU options, please visit [Eaton.com/RackPDUSelector](http://Eaton.com/RackPDUSelector)

Catalog number	Description
NETWORK-M3*	Gigabit Network Card (with UL 2900-1 and IEC 62443-4-2 cybersecurity certifications)
EMPDT1H1C2	Environmental Monitoring Probe (EMP) Gen 2 for use with NETWORK-M3
RELAY-MS	Relay / Serial Interface Card

### Mounting hardware

RK2PA	1U two-post rail kit (optional for EBM)
RK2PC	2-post rack mounting rail kit (one kit required for each UPS)
BINTSYS	Battery integration – vertical mounting platform with wheels

\* Included with N and 6K models

## Lithium-ion vs lead-acid

Characteristic	VRLA (lead-acid) battery	Lithium-ion battery	Lithium-ion benefit
Average battery lifespan	3–5 years	8–10 years	<b>2–3X longer life</b>
Weight	43–150 lb.	34.8–79 lb.	<b>20% lighter UPS, 40% lighter EBM</b>
EBM footprint	2U 3U	1U (1–3 kVA models) 2U (6 kVA model)	<b>Increased U space for critical equipment</b>
Warranty	3 years	5 years	<b>1.7X warranty coverage</b>
Battery replacement cost	\$650 (1–3 kVA models) or \$1000 (6 kVA models)*	\$0	<b>Reduced TCO</b>

\* Battery and labor cost for one replacement

### What's in the box

- 9PX UPS
- RS-232 communication cable
- USB communication cable
- Software leaflet
- Safety instructions
- Quick start guide
- 4-post mounting rail kit for 19-inch enclosures
- 2 pedestals for tower position
- Gigabit Network Card included with N and 9PX6K-L models



Eaton's Gigabit Network Card adds advanced control with Disaster Avoidance software for remote management and integration into leading virtualization platforms. [Eaton.com/Network-M3](http://Eaton.com/Network-M3)

## 9PX 6 kVA lithium-ion rackmount and tower model selection guide

### Global UPS, 208V (default) 200V, 208V, 220V, 230V, 240V models

Catalog number	Rating (VA/Watts)	Input connection	Output connections	Dimensions (H x W x D), in.	Weight, lb.
9PX6K-L	6000 / 5400*	L6-30P, 10 ft. Hardwire	(2) L6-30R (2) L6-20R Hardwire	5.12 x 17.33 x 28.43	81.2

\* Derated at 200, 208, 220V. See 9PX6K-L technical specifications for full information.

### 9PX 6 kVA lithium-ion extended battery module (EBM) and accessories

Catalog number	Description	Rack size	Weight, lb.
9PXEBM192RT-L	Extended battery module for 9PX6K-L	2U	79
EBMCL192-L	EBM cable extension, 6 feet (1.8 meters)		

### Power distribution (PDU), maintenance bypass (MBP), PowerPass distribution (PPDM) and transformer options

Catalog number	Description	Input connection	Output connections	Dimensions (H x W x D), in.	Weight, lb.
MBP6K208	208V maintenance bypass module	L6-30P*	(2) L6-30R Hardwired	5.1 (3U) x 7.0 x 4.3	5.5
PDUV30HV	Basic PDU	L6-30P	(32) C13, (6) C19	63.75 x 3.5 x 2.25	8
PDU1230	Basic PDU	L6-30P	(16) C13, (4) C19	1.75 (1U) x 17.5 x 5.2	7.5
9PXTFMR5	9PX stepdown transformer	L6-30P	(18) 5-20R	5.1 (3U) x 17.3 x 25.4	95
9PXPPDM1	9PX PowerPass distribution module	L6-30P	(1) L6-30R, (1) L14-30R, (6) 5-20R outlets	5.1 (3U) x 17.3 x 25.4	97
9PXPPDM2	9PX PowerPass distribution module	Hardwired	Hardwired	5.1 (3U) x 17.3 x 25.4	95

\* Terminal block with L6-30P cord (included with UPS)

For additional Eaton PDU options, please visit [Eaton.com/RackPDUSelector](https://www.eaton.com/RackPDUSelector)

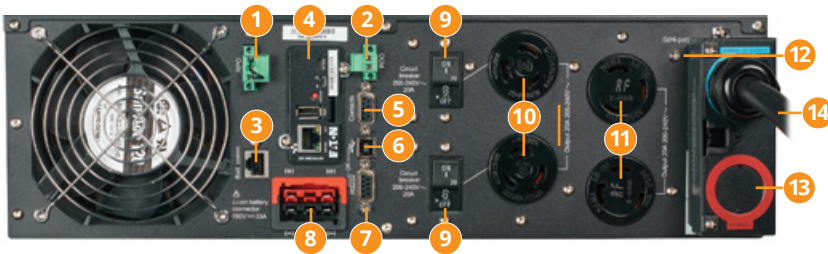
Catalog number	Description
NETWORK-M3	Gigabit Network Card (with UL 2900-1 and IEC 62443-4-2 cybersecurity certifications)
EMPDT1H1C2	Environmental Monitoring Probe (EMP) Gen 2 for use with NETWORK-M3
RELAY-MS	Relay / Serial Interface Card

### Mounting hardware

RK2PC	2-post rack mounting rail kit (one kit required for each UPS)
BINTSYS	Battery integration – vertical mounting platform with wheels

## Rear panel overview

### Model 9PX 6 kVA lithium-ion UPS



- 1 Remote power off (RPO) port
- 2 Remote on/off (ROO) port
- 3 External battery module (EBM) detection port
- 4 Gigabit Network Card (optional)
- 5 Output relay contact - DB-9 dry contact
- 6 USB port (cable included)
- 7 RS-232 serial communication port (cable included)
- 8 EBM connector
- 9 Output circuit breaker protection
- 10 (2) L6-20R
- 11 (2) L6-30R
- 12 Ground bonding screw
- 13 Output terminal block for hardwired applications
- 14 10-foot line cord with L6-30P

To view battery runtimes and interact with the Eaton 9PX lithium-ion UPS, please visit: [Eaton.com/9PX](https://www.eaton.com/9PX)

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Printed in USA  
Publication No. BR153145EN / GG / 23-11-055  
March 2024

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