

# Eaton 9PX UPS Business continuity for edge computing

When you need flexible protection for equipment in IT racks, network closets and mission-critical applications, look no further than the Eaton 9PX UPS. Providing solutions that are reliable, versatile, powerful and efficient, the 9PX integrates seamlessly into just about any environment.

With double-conversion topology for constant power conditioning and ENERGY STAR qualification, the 9PX supports your overall goal of business continuity. It's also built for scalable deployment and features a graphical LCD interface that enables local access to configurations and settings, history and diagnostics, energy consumption and load segment control.

# Take a closer look

## **Key applications**

As a stand-alone, online double-conversion UPS, 9PX rackmount/ tower (RT) models can withstand harsh electrical environments for a variety of critical applications including IT, edge networks, industrial automation, healthcare and K-12. For edge networks and on-premise installations, Eaton focuses on integration within the virtualized environment. This means you can improve your infrastructure performance through virtual machine (VM) centric management, disaster recovery and validated integration capabilities.

The right 9PX solution may also include a software client that supports 2N (or N+1) UPS-protected graceful shutdown, a maintenance bypass to keep loads running during UPS replacement, or a rack to organize all of your IT equipment and cabling. It's all about ensuring seamless integration and compatibility.



## You choose: rackmount or tower

Products need to work anywhere. The 9PX's rackmount or tower form factor makes it adaptable to your environment. (The LCD interface, surrounding bezel and logo even rotate to match your installation.) RT models are available in multiple voltage and wattage variations to meet your needs and include a four-post rail kit.



The 9PX can withstand harsh electrical environments, but still works in a variety of applications—industrial automation, K-12, healthcare, IT and more

The Eaton 9PX (except for the 700, 1000, and 1500 VA models) is an ENERGY STAR® qualified UPS. ENERGY STAR is intended to help consumers save money and protect the environment through energy efficient products and practices.



### **Graphical LCD**

Speed of deployment, configuration and troubleshooting are more critical to businesses today than ever. With the 9PX easyto-read local menu, 13 measurements, 25 settings, 15 control functionalities, six points of identification and optional password protection are available at your fingertips. The LCD also tilts 45 degrees for optimal viewing when configured in the bottom of a rack and rotates to match rack or tower installations, making local management a breeze.



#### Power more for less and sustainable operation

The 9PX is ENERGY STAR qualified, providing up to 93 percent efficiency in online mode. This means you can reduce energy and cooling costs, while powering more IT and networking equipment. Plus, you'd be supporting greener, more cost-effective deployments.

"We have moved from an era where it was nice just to have a network to rely on, to one in which the network sustains education... So the UPS has moved from something that used to be just in the data center to something that is now an essential part of keeping sites up and running all the time. The resilience we used to have only in our data center we now have in all of our schools."

Adams 12 Five Star Schools after deploying more than 100 Eaton 9PX UPSs

#### **Optional communication cards**

Adding a network card allows your UPS to connect to an Ethernet network and the internet, supporting real-time monitoring and control. With the Gigabit Network Card, you can record event history and log data for historic trending and analysis, reboot protected devices over SNMP/web, initiate live migration of virtual machines, remotely notify and send email/SMS notifications and alarms and more. It also enables you to integrate with industryleading virtualization platforms and perform customizable actions like automatic shutdown in the event of an extended power failure.

Including a Modbus Card in your UPS is ideal when you need a way to connect industrial electronic devices on the same network. It also provides continuous, reliable and accurate network monitoring of UPSs through a building management system.

## Ideal for industrial control environments

Typically used for safety considerations, the remote power off (RPO) port allows a remote, normally open or normally closed, contact to signal the UPS to cut power to all connected equipment. With RPO functionality, you must restart the UPS manually.

The remote on/off (ROO) port allows you to remotely shut down the UPS and restart it automatically when the remote contact is reset. ROO functionality is well-suited for industrial automation and remote environments where systems need to control the UPS on/off state. The port can also be programmed to be a remote signal input.





Remote power off (RPO) and remote on/off (ROO) port

#### Informed power management

Know your power consumption down to the load segment with built-in energy metering that's accessible through the graphical LCD menu and optional Gigabit Network Card (NETWORK-M2). This allows you to better understand your power consumption and make informed decisions about how to manage it.

The 9PX's load segments provide the intelligent outlet level management. Among other things, you can use them to:

- Set up prioritized shutdown and automated restart protocols in the event of an outage
- Program daily or weekly schedules (often during off-hours) to reboot or shutdown equipment proactively
- Remotely cycle power to critical, frozen IT equipment without deploying costly resources

These capabilities come in handy in many circumstances for instance, powering off outlets to extend runtime during a power event.

## **Extended battery life**

Batteries are one of the biggest lifecycle costs of any UPS. Our proven 30-day, three-stage ABM charging and monitoring technology keeps batteries cool and stretches their lifetime by up to 50 percent. In addition, the ABM cycle tests batteries proactively, giving you advanced audible and remote alerts of risks to battery health.



For even more runtime, add an extended battery module (EBM) to your UPS

## **Rear panel overview**

## Model 9PX2000RT

Model 9PX2200GRT and 9PX3000GRT



## 1 Output relay port (1) C19 and (2) C13 managed RS-232 serial communication outlets (load segment group 1) port (cable included) Remote power off (RPO) and Ð remote on/off (ROO) port USB port (cable included) (2) C13 managed outlets (load segment group 2) External battery module (EBM) 8 (1) C19 outlet Ground bonding screw detection port (4) C13 managed outlets NETWORK-M2 card (optional) (primary group) C20/L6-20P input connection (detachable L6-20P to C19 EBM connector input cord is 6-feet long) Model 9PX3000RT A 7 Æ 10 Output relay port 6 RS-232 serial communication (2) 5-20R managed outlets port (cable included) (load segment group 2) Remote power off (RPO) and

- L5-30P input cord (8-feet long)
  - AC output branch protector

# IPM 2 – Intelligent Power Manager

## The power of automation.

IPM 2 is an easy-to-use disaster avoidance platform with sophisticated capabilities that include triggering alerts and automating resolutions to keep applications running. IPM 2 enables vou to:

- Leverage Eaton's integrations with industry leaders to keep critical applications running and automate resolutions for your entire network risking potential downtime.
- · 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

## VPM – Visual Power Manager

## The power of monitoring.

With Visual Power Manager (VPM), you can remotely monitor the power of thousands of PDU and UPS devices through a user-friendly, visual interface that simplifies data for quick action. VPM enables you to:

- Gain vendor agnostic insight. Monitor a mixed environment through VPM's unique protocol-based data collection.
- Know what's coming. Analyze power devices visually and get notified ahead of replacement through custom reports.
- Get real-time, rack-level statistics. Quickly remediate through up-to-theminute analytics, notifications and alarms for events exceeding what any branch can support.

Learn more at Eaton.com/VPM

# PredictPulse<sup>\*\*</sup> Insight

## The power of predictability.

PredictPulse Insight 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. PredictPulse enables you to:

- Save time. Focus on other critical IT tasks while this predictive analytics service and Eaton's remote monitoring team oversees power remotely.
- Save money. Eliminate surprise maintenance expenses — this subscription-based service includes parts, labor, on-going preventive maintenance and expedited repairs.
- Reduce risk. Utilize Eaton's propriety algorithms, based on data from thousands of installed devices to predict UPS component failure and proactively replace parts before issues arise

Learn more at Eaton.com/PredictPulse

remote on/off (ROO) port USB port (cable included) Ground bonding screw 8 (2) 5-20R and (1) L5-30R External battery module (EBM) managed outlets (primary group) detection port NETWORK-M2 card (optional) (2) 5-20R managed outlets (load segment group 1) EBM connector

For additional rear panel views, please visit Eaton.com/9PX.

## 9PX model selection guide

The 9PX 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**.

## 9PX - 120/110/100V' RT models

Catalog number	Description	Rating (VA/Watts)	Input <sup>2</sup>	Output	Dimensions (HxWxD, in.)	Weight (lb.)
9PX700RT	9PX 700 120V RT	700/630	5-15P	(8) 5-15R	3.4 (2U) x 17.3 x 17.7	36.4
9PX1000RT	9PX 1000 120V RT	1000/900	5-15P	(8) 5-15R	3.4 (2U) x 17.3 x 17.7	36.4
9PX1500RT	9PX 1500 120V RT	1500/1350	5-15P	(8) 5-15R	3.4 (2U) x 17.3 x 17.7	42.5
9PX1500RTN	9PX 1500 120V RT w/NETWORK-M2 card	1500/1350	5-15P	(8) 5-15R	3.4 (2U) x 17.3 x 17.7	42.5
9PX2000RT	9PX 2000 120V RT	2000/1800	5-20P	(6) 5-20R, (1) L5-20R	3.4 (2U) x 17.3 x 23.8	61.5
9PX2000RTN	9PX 2000 120V RT w/NETWORK-M2 card	2000/1800	5-20P	(6) 5-20R, (1) L5-20R	3.4 (2U) x 17.3 x 23.8	61.5
9PX3000RT	9PX 3000 120V RT	3000/2700	L5-30P	(6) 5-20R, (1) L5-30R	3.4 (2U) x 17.3 x 23.8	63.1
9PX3000RTN	9PX 3000 120V RT w/NETWORK-M2 card	3000/2700	L5-30P	(6) 5-20R, (1) L5-30R	3.4 (2U) x 17.3 x 23.8	63.1

1. Model voltages: 120V, 110V (20% output derating), 100V (20% output derating). The default nominal voltage is 120V. 2. Input linecords are 8-feet long.

#### 9PX - 208/230/240V3 RT models

Catalog number	Description	Rating (VA/Watts)	Input⁴	Output	Dimensions (HxWxD, in.)	Weight (lb.)
9PX1000GRT	9PX 1000G 208V RT	1000/900	C14	(8) C13	3.4 (2U) x 17.3 x 17.7	38.6
9PX1500GRT	9PX 1500G 208V RT	1500/1350	C14	(8) C13	3.4 (2U) x 17.3 x 17.7	41.4
9PX2200GRT	9PX 2000G 208V RT	2200/2000	C20 / L6-20P <sup>5</sup>	(8) C13, (2) C19	3.4 (2U) x 17.3 x 23.8	60.4
9PX3000GRT	9PX 3000G 208V RT	3000/3000 <sup>3</sup>	C20 / L6-20P⁵	(8) C13, (2) C19	3.4 (2U) x 17.3 x 23.8	60.4
9PX3000GLRT	9PX 3000GL 208V RT	3000/3000 <sup>3</sup>	C20 / L6-20P⁵	(1) L6-30R, (2) L6-20R	3.4 (2U) x 17.3 x 23.8	60.4
9PX3K3UN	9PX 3000 3U 208V RT w/NETWORK-M2 card	3000/3000	Terminal Block with L6-30P	(2) L6-30R, (2) L6-20R	5.1 (3U) x 17.3 x 28.4	106

3. 2U Global model voltages: 240V, 230V, 220V, 208V (derated to 2700 watts), 200V (derated to 2700 watts). The default nominal voltage is 208V. 4. Detachable L6-20P to C19 input linecords are 6-feet long. 5. Output wattages derated at 200V and 208V.

## 9PX - 208/240V to 120/240V<sup>6</sup> RT bundles

Catalog number	Description	Rating (VA/Watts)	Input <sup>7</sup>	Output	Dimensions (HxWxD, in.)	Weight (lb.)
9PX3K3UNTF5	9PX 3000 3U 208V RT UPS and 5 kVA Transformer w/NETWORK-M2 card	3000/3000	Terminal Block with L6-30P	(2) L6-20R, (1) L6-30R, (18) 5-20R	10.2 (6U) x 17.3 x 28.4	201
9PX3K3UNP1	9PX 3000 3U 208V RT UPS and PPDM1 w/NETWORK-M2 card	3000/3000	L6-30P	(1) L14-30R, (1) L6-30R, (6) 5-20R	10.2 (6U) x 17.3 x 28.4	203
9PX3K3UNP2	9PX 3000 3U 208V RT UPS and PPDM2 w/NETWORK-M2 card	3000/3000	Hardwired	Hardwired	10.2 (6U) x 17.3 x 28.4	201

6. For more information on transformers and PPDMs, see the 9PX 5-6 kVA specifications at Eaton.com/9PX. 7. L6-30P input cords are 6-feet long.

9PX options		1	
Catalog number	Description	Dimensions (HxWxD, in.)	Weight (lb.)
9PXEBM36RT	Extended battery module for 9PX1000RT, 9PX700RT	3.4 (2U) x 17.3 x 17.7	48.1
9PXEBM48RT	Extended battery module for 9PX1500RT, 9PX1500RTN, 9PX1500GRT, 9PX1000GRT	3.4 (2U) x 17.3 x 17.7	59.1
9PXEBM72RT	Extended battery module for 9PX 2-3 kVA 2U UPS (excludes 9PX3K3UN models)	3.4 (2U) x 17.3 x 23.8	86.4
9PXEBM180RT	Extended battery module for 9PX3K3UN models	5.1 (3U) x 17.3 x 25.4	150
NETWORK-M2	NETWORK-M2 card Web/SNMP	Fits in option slot on rear panel	-

### Mounting hardware (all models include 4-post rail kits)

Catalog number	Description	Dimensions (HxWxD, in.)	Weight (lb.)
RK2PC	2-post rack mounting rail kit (one kit required for each UPS and EBM)	Fits 2-post racks	5
BINTSYS	Battery integration system – vertical mounting platform with wheels	7.9 x 20.5 x 31.5	30

## 9PX power distribution (PDU) and maintenance bypass (MBP) options

Catalog	Description	Input connection	Output connections	Dimensions (H x W x D), in.
EHBPL1500R-PDU1U	HotSwap MBP for use with 700-1500 VA 9PX models		(6) 5-15R	2.1 (2U) x 17.3 x 3.8
EHBPL2000R-PDU1U	HotSwap MBP for use with 9PX2000RT		(6) 5-20R	2.1 (2U) x 17.3 x 3.8
EHBPL3000R-PDU1U	HotSwap MBP for use with 9PX3000RT		(5) 5-20R	2.1 (2U) x 17.3 x 3.8
ePBZ71	Basic 2 kVA, 120V, 0U rackmount PDU	5-20P / L5-20P	(30) 5-20R	72 (0U) x 1.5 x 1.5
ePBZ78	Basic 3 kVA, 120V, 0U rackmount PDU	L5-30P	(20) 5-20R	1.7 (1U) x 17 x 5.1
ePBZ93	Basic 3 kVA, 208V, 0U rackmount PDU	L6-20P	(20) C13, (4) C19	35 (0U) x 1.9 x 2.4
ePBZ90	Basic 3 kVA, 120V, 0U rackmount PDU	L5-30P	(24) 5-20R	40 (0U) x 1.9 x 2.1

\*For additional Eaton PDU options, please visit Eaton.com/RackPDUSelector

See the full suite of 9PX UPSs and interactive battery runtime graphs at Eaton.com/9PX

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