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## Eaton 9PXM 20kVA 18kW 208-240V N+1 Modular Scalable Online Double-Conversion UPS, Hardwired Input, 8x 5-20R, 2 L6-30R, 2 L6-20R, 2 L14-30R Outlets, 21U

MODEL NUMBER: 9PXM12S20K-PD



Provides sine wave output, complete battery backup and power protection for mission-critical colocation and edge data centers or other advanced network applications.

### Features

#### Modular, Scalable Battery Backup for Edge Data Centers and Industrial/Commercial Applications

This 9PXM online double-conversion UPS system is superlative power management. Rugged enough to stand up to mission-critical applications, the 9PXM12S20K-PD's dual network card slots and N+1 redundancy make it a valuable UPS system for colocation and edge data centers, as well as industrial/commercial applications, including retail, financial, government and education. It features hardwired input connections.

#### Protects Mission-Critical Equipment against Damage, Downtime and Data Loss

The 9PXM12S20K-PD provides reliable power protection against blackouts, brownouts, surges and line noise that can damage valuable IT equipment or destroy data. It includes a 21U cabinet, five split-phase 4kVA power modules, 10 internal battery modules (two per slot) and a NETWORK-M2 Gigabit network card.

#### UPS Has a Power Range up to 20kVA

The UPS cabinet accommodates up to six hot-swappable 4kVA power modules (9PXMSPPM, extras sold separately) total for 20kVA N+1 redundancy that eliminates system-level single point of failure. All power modules share the load requirements equally, even if one power module fails or is removed.

#### Expandable Internal Battery Backup Keeps You Operational Through Power Outages

The UPS cabinet requires two hot-swappable extended battery modules (9PXMBAT, extras sold separately) per slot. The valve regulated lead acid (VRLA) battery modules allow you to work through short power failures and give you enough time to safely save files and shut down your system in case of a prolonged blackout. Exclusive ABM® technology increases battery life by 50 percent and closely monitors battery health to provide advanced notice when batteries need replacing.

#### Included Gigabit Network Interface Offers 24/7 Remote Access

The NETWORK-M2 Gigabit network card enables full remote configuration and management, including load shedding, reboots of connected equipment and safe shutdowns. UPS firmware can also be flashed remotely through the NETWORK-M2 without dropping the load, so you don't have to plan for downtime. The card meets both UL 2900-1 and IEC 62443-4-2 standards for cybersecurity, which were developed to address the vulnerability of connected devices to known malware/exploits and to protect business from

### Highlights

- Keeps equipment running during outages to allow time for file saves and safe shutdown
- Exclusive ABM technology with 3-stage charging increases internal battery life by 50%
- Included NETWORK-M2 Gigabit network card enables full remote access and control
- N+1 redundancy for power and logic eliminates system-level single point of failure
- Compliant with the Federal Trade Agreements Act (TAA) for GSA Schedule purchases

### Package Includes

- 9PXM12S20K-PD 9PXM 20000VA 18000W 208/240V Online Double-Conversion UPS
- (5) 9PXMSPPM 9PXM split-phase power modules
- (10) 9PXMBAT 9PXM internal battery modules
- NETWORK-M2 Gigabit network card
- Owner's manual



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these risks. The optional Environmental Monitoring Probe Gen 2 (EMPDT1H1C2, sold separately) provides a variety of environmental monitoring capabilities, including temperature and humidity conditions.

**NEMA Outlets Protect Your Connected Components**

Eight 5-20R, two L6-20R, two L6-30R and two L14-30R outlets provide connected equipment with pure sine wave AC output and allow you to monitor power consumption down to the outlet group level. Power provided by these outlets is filtered to protect connected equipment against damaging surges and line noise.

**Intuitive Control Panel Keeps You Informed at a Glance**

The UPS control panel includes a graphical LCD, light indicators and function buttons. The control panel provides data and control for the UPS, load status, events, measurements and settings.

**Advanced Communications Ports Allow for Automatic Saves and Shutdowns**

RS-232 and USB ports connect to a serial-enabled or USB-enabled device for a variety of communication options (cables are included). EPO and ROO connectors permit emergency shutdown or remote restart of all connected equipment. By adding the optional RELAY-MS interface card (sold separately), a dry-contact relay port can be programmed through the LCD to provide reliable communications to automation and industrial components.

**Versatile Installation Options**

You can install the 9PXM12S20K-PD in 21U of space in an EIA-standard 19-inch rack using the optional rackmount kit (9PXM12S20K-PD-RK2, sold separately). Leveling feet and a caster tray are included for secure floor installation.

**TAA-Compliant for GSA Schedule Purchases**

The 9PXM12S20K-PD is compliant with the Federal Trade Agreements Act (TAA), which makes it eligible for GSA (General Services Administration) Schedule and other federal procurement contracts.

## Specifications

OVERVIEW	
UPC Code	786689053512
UPS Type	On-Line
INPUT	
Input Phase	Single-Phase
Rated input current (Maximum Load)	125A
Nominal Input Voltage(s) Supported	110V AC; 120V AC; 127V AC; 208V AC; 220V AC; 240V AC
UPS Input Connection Type	Hardwire
Input Frequency	50-70 Hz
Input Plug Type	Hard-wire
Power Factor (Input)	0.99
THDi	<5% at nominal input voltage, full load and battery fully charged
OUTPUT	
Output Capacity (VA)	20000
Output Capacity (kVA)	20



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Output Capacity (Watts)	18000
Output Capacity (kW)	18
Output Capacity Details	Scalable output capacity from 4kVA to 20kVA
Power Factor	0.9
Crest Factor	3:1
Nominal Voltage Details	110V/220V, 120V/208V, 120V/240V, 127V/220V
Frequency Compatibility	50 / 60 Hz
Output Voltage Regulation (Line Mode)	<5% steady state
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
Nominal Output Voltage(s) Supported	110V; 120V; 127V; 208V; 220V; 240V
Output Receptacles	(8) 5-20R; (2) L6-30R; (2) L6-20R; (2) L14-30R
Individually Controllable Load Banks	No
<b>BATTERY</b>	
Battery Type	Valve Regulated Lead Acid (VRLA)
Runtime Full Load (min.)	6 min. (18000W)
Runtime Half Load (min.)	14 min. (9000W)
Expandable Runtime	Yes
Expandable Runtime Description	&nbsp;<a class="productLink" href="//tripplite.eaton.com/Eaton-Internal-Replacement-Battery-for-9PXM-UPS~9PXMBAT">9PXMBAT</a>&nbsp;&nbsp;&nbsp;(2 required per slot). Additional extended runtime options are available. See pg. 8 of the 9PXM brochure under Documents & Downloads for more details.
DC System Voltage (VDC)	120 per battery string
Battery Access	Battery access door
Internal UPS Replacement Battery Cartridge	&nbsp;<a class="productLink" href="//tripplite.eaton.com/Eaton-Internal-Replacement-Battery-for-9PXM-UPS~9PXMBAT">9PXMBAT</a>&nbsp;&nbsp;&nbsp;
Battery Replacement Description	Hot-swappable internal batteries and extended battery modules (EBMs)
Battery Management	ABM technology (3-stage charging extends battery service life by 50% and provides advance warning for battery replacement)
<b>USER INTERFACE, ALERTS &amp; CONTROLS</b>	
Front Panel LCD Display	LCD graphical display
Switches	RPO / ROO
Alarm Cancel Operation	Press ESC to silence the alarm
Audible Alarm	Audible alarm indicates utility failure, low-battery, overload, other UPS/Battery fault or remote shutdown conditions
LED Indicators	4 status-indicating LEDs
<b>SURGE / NOISE SUPPRESSION</b>	



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UPS AC Suppression Response Time	0 ms
EMI / RFI AC Noise Suppression	Yes
<b>PHYSICAL</b>	
Primary Form Factor	Rackmount; Tower
Rack Height	21U
Cooling Method	Fan
Form Factors Supported	Rack/Tower
Included Battery Pack Weight (lbs.)	33
Included Battery Pack Weight (kg)	14.97
Installation Form Factors Supported with Included Accessories	Tower
Maximum Device Depth (cm)	88.90
Maximum Device Depth (in.)	35
Maximum Device Depth (mm)	889
Minimum Required Rack Depth (cm)	96.52
Minimum Required Rack Depth (inches)	38
Minimum Required Rack Depth with External Battery Pack (cm)	97
Minimum Required Rack Depth with External Battery Pack (in.)	38
Minimum Required Rack Depth without External Battery Pack (cm)	97
Minimum Required Rack Depth without External Battery Pack (in.)	38
Optional Mounting Accessory Notes	&nbsp;<a class="productLink" href="//tripplite.eaton.com/eaton-9pxm-standard-rackmount-kit-9PXM2">9PXM2</a>&nbsp;   - Four post rail kit
Primary UPS Depth (mm)	889
Primary UPS Height (mm)	927
Primary UPS Width (mm)	445
UPS Power Module Weight (kg)	10.21
UPS Power Module Weight (lbs.)	22.5
Unit Dimensions (hwd / in.)	36.500 x 17.500 x 34.500
Unit Weight (lbs.)	690.000
Unit Weight (kg)	312.98
<b>ENVIRONMENTAL</b>	
Operating Temperature Range	32° to 104°F (0° to 40°C)
Relative Humidity	5-95% non-condensing



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AC Mode Efficiency Rating (100% Load)	94
AC Economy Mode Efficiency Rating (100% Load)	97
<b>COMMUNICATIONS</b>	
Network Management Cards	&nbsp;<a class="productLink" href="//tripplite.eaton.com/eaton-secure-gigabit-network-card-for-ups-systems~NETWORK-M2">NETWORK-M2</a>&nbsp;&nbsp;&nbsp;<a class="productLink" href="//tripplite.eaton.com/eaton-industrial-gateway-card-mini-slot-for-ups-systems~INDGW-M2">INDGW-M2</a>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<a class="productLink" href="//tripplite.eaton.com/eaton-relay-serial-interface-card~RELAY-MS">RELAY-MS</a>&nbsp;&nbsp;&nbsp;
Communications Interface	RS-232; USB
<b>FEATURES &amp; SPECIFICATIONS</b>	
High Availability UPS Features	Hot swappable batteries; Hot swappable UPS power module; Remote management
<b>APPLICATIONS</b>	
UPS Applications	Mission Critical Applications
<b>STANDARDS &amp; COMPLIANCE</b>	
Product Certifications	EN 62040-1; IEC 60950-1; EN 62040-2; UL Listed; cUL Listed; IEC 61000; ICES (Canada)
Product Compliance	FCC (USA); RoHS; CE (Europe); Trade Agreements Act (TAA)
<b>WARRANTY &amp; SUPPORT</b>	
Product Warranty Period (U.S. & Canada)	2-year limited warranty
Extended Service Plans	<b>ADVANCED DEPOT EXCHANGE</b> Service Part Number: 9SW5Y-18000UCExpedited parts coverage for 5 yearsParts, electronics and UPS batteries coverageNext business day shippingTechnical support <b>5-YEAR ON-SITE PLAN (US ONLY)</b> Service Part Number: WFLN75XX-18000UCOn-site parts and labor coverage for years 5Parts, electronics and UPS batteries coverage24x7 on-site labor coverage, next-day responseNext-day shippingTechnical support

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