

# Eaton 9PXM UPS

A scalable, modular, flexible solution for a wide range of applications.

Plan > Grow > Manage



*Powering Business Worldwide*



# Highest level of reliability.

# Lowest cost of ownership.

The Eaton® 9PXM UPS is a scalable, modular, flexible solution that combines the highest level of reliability with the lowest cost of ownership in the 4–20 kVA range. The 9PXM enables you to build a power solution specific to your needs and to expand redundancy and runtime as your needs change.

The plug-and-play power and battery modules are user replaceable so you can add them as needed without a service call or having to put a redundant system in bypass. With its low initial investment, online double-conversion technology, Eaton ABM® technology and high efficiency mode, you never have to compromise reliability for efficiency.



Easy hot-swappable power and battery modules

# The Eaton 9PXM: A versatile UPS

The versatile 9PXM is well suited for both the IT marketplace and for industrial/commercial applications. The 9PXM's high power rating, small footprint and easy rack conversion make an ideal solution for an array of data center applications. The design features offer harmonious compatibility with 4-post or high density racks, PDU and network gear for seamless integration into an IT infrastructure.

## IT applications include:

Small / medium data center

Colocation data center

Edge data center

Network closets

The 9PXM is rugged enough to stand up to mission-critical applications, and its small footprint, customizable output options and N+X redundancy are valuable features in the retail, financial and government sectors.

## Industrial/commercial applications include:



### Mission critical operations

- Small computer rooms
- Server farms
- 911 call centers



### Retail and financial

- POS equipment
- Banking automaton software systems
- Retail back office inventory management systems

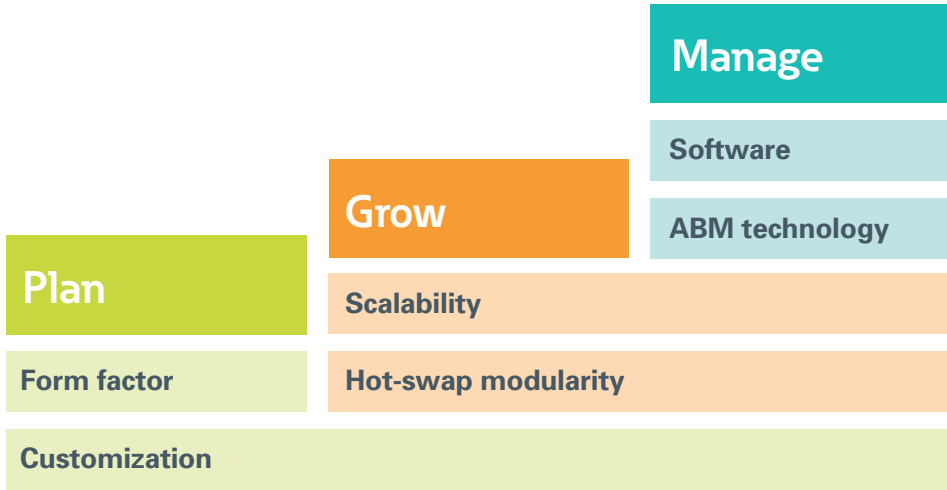


### Government

- Voice and data networks/closets
- Government computer rooms
- School system computer rooms/classrooms



# Build a power solution that is specific for your needs.



## Intelligent Power Manager

### Automate and control

IPM is an on-site policy-based automation software platform that triggers advanced remediation actions—like shedding non-critical workloads to extend battery runtime—during a power event to ensure that critical equipment remains running as long as possible.

In other words, IPM automatically takes action when it notices something awry—once configuration and action policies are set, IPM does the work. This increases uptime and saves time and money by allowing you to remotely solve power issues.

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

# Flexibility for every application.



- 1 **Form factor:** Two tower sizes convertible to rackmount.
- 2 **Configurable back panel:** Build-to-order configurations provide receptacle output options.
- 3 **Redundancy:** N+X redundancy for power and logic eliminates system-level single point of failure.
- 4 **Scalability:** Add power and battery modules to scale up power rating or add redundancy.
- 5 **Flexibility:** Add battery modules to any slot for extended backup runtime in a single unit cabinet.
- 6 **Hot-swappable modules:** Replace lightweight power and battery modules without shutting down.



Power module



Pair of 9PXMBAT battery modules



## Visual Power Manager

### Monitor IT power infrastructure

VPM excels at remotely monitoring large and distributed deployments of power devices. The easy-to-use, visual interface provides a live floorplan view with alarm notifications for up-to-the-minute health status on your power infrastructure.

Use VPM to better visualize your power infrastructure allowing you to take action as needed to maintain continuous uptime of your critical applications.

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

## Visual Capacity Optimization Manager

### Monitor IT and facilities power infrastructure

VCOM, our data center system optimization (DCSO) platform, provides our greatest level of business intelligence by monitoring both IT and facilities power infrastructure which makes it ideal for large or multisite management.

VCOM features capabilities designed to reduce data center operational expenses, improve system and application reliability and mitigate risk through data analysis.

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

# Designing a 9PXM

You can select a configure-to-order (CTO) number to reflect the cabinet form factor and output configurations.

As you select the options needed, they become part of the CTO number. Order power modules, battery modules, external battery cabinets, bypass switches and other external options as separate line items. Part numbers for external options are provided in the CTO guide found on page 6.

Output connection configuration is designated by five digits within the unit CTO number.

These five digits allow selection of the type and quantity for up to a maximum of five different types of receptacles. For hardwired output, use AAAAA for a 12-slot cabinet and AAXXX for an 8-slot cabinet.

- **8-slot cabinet** maximum 2-outlet output panels
- **12-slot cabinet** maximum of 5-outlet output panels
- **Outlet quantities per panel are pre-set**
- **Enter desired outlet configuration from bottom to top** (digit 9 of the CTO number will be installed in the bottom outlet panel, digit 10 in the panel above it, etc)
- **For an 8-slot cabinet**, digits 9–11 will always be XXX (ex: BE XXX)

## How to build your CTO number

**9PXM08AA XXX**

Base unit		Cabinet style		Output connections		
Base model – (digits 1-4)	CTO order code	Cabinet size – (digits 5-6)	CTO order code	Options – (digits 7-11)	Outlets per panel	CTO order code
9PXM	<b>9PXM</b>	8-slot cabinet	<b>08</b>	Blank	0	<b>A</b>
		12-slot cabinet	<b>12</b>	5-20R	4	<b>B</b>
				C13	8	<b>C</b>
				C19	4	<b>D</b>
				L5-20R	2	<b>E</b>
				L6-20R	2	<b>F</b>
				L5-30R	2	<b>G</b>
				L6-30R	2	<b>H</b>
				L14-30R	2	<b>J</b>
				IEC309	1	<b>K</b>

### Scalable to 20 kVA (N+1)

- 8-slot is scalable 16 kVA in a 14U cabinet
- 12-slot is scalable to 20 kVA (N+1) in a 21U cabinet

### Variety of power distribution options

- Hardwire and connect with an Eaton rack PDU
- Create custom outlet configuration for output
- Bypass power module configured for any application
- External battery cabinet for extended runtime

### Design benefits

- Easy conversion from tower to rackmount
- Single frame cabinet
- Hot-swappable power and battery modules
- ABM technology increases battery service life by 50 percent.
- Two communications ports for system monitoring
- High efficiency mode increases efficiency from 94 to 97 percent



8-slot cabinet is scalable to 16 kVA in a 14U cabinet



12-slot cabinet is scalable to 20 kVA (N + 1) in a 21U cabinet

# External options

External options are ordered as separate line items.

## Power modules

Type	Description	Catalog number
Split-phase 110/120, 120/208, 120/240, 127/220V	4 kVA / 3.6 kW	9PXMSPPM

## Batteries and battery accessories

Description	Catalog number
Battery module (two required per slot)	9PXMBAT
20-amp optional charger module <sup>1</sup>	9PXMCHGR
8-slot standard external battery enclosure	9PXM08SEBM
12-slot standard external battery enclosure	9PXM12SEBM
8-slot connected external battery enclosure	9PXM08SEBM-C
12-slot connected external battery enclosure	9PXM12SEBM-C

<sup>1</sup> Same form factor as power module

## External bypass power module

Cabinet description	Receptacle configuration	Catalog number
125A	None	BPM125HW
	(6) L14-30R	BPM125AR
	(3) L14-30R, (3) L6-20R	BPM125BR
	(6) C19, (3) L14-30R	BPM125CR
	(3) 5-20R, (3) L14-30R	BPM125DR
	(3) 5-20R, (3) L6-30R	BPM125ER
	(3) L6-30R, (3) L6-20R	BPM125FR

## Other external options

Description	Catalog number
Standard rackmount kit	9PXM RK2
Legacy rackmount kit	9PXM RK
Floor anchoring kit	9PXM FAK

## Communication options

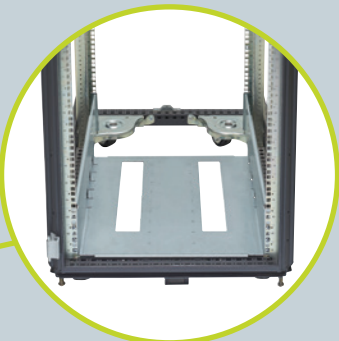
Description	Catalog number
Network communication card	Network-M2
Industrial gateway card	INDGW-M2
Relay card	Relay-MS
Modbus card	Modbus-MS



Smart EBM technology identifies batteries automatically



Protect against downtime during equipment maintenance with an external bypass power module



Convert from tower to rackmount with an easily installed rack kit



2 mini-slot ports for options using Network-M2 gives access to Eaton's software offerings

# 9PXM pre-configured systems

Eaton 9PXM cabinets can be ordered using pre-configured catalog numbers or by using the configure-to-order (CTO) process. Outlined in the table below, pre-configured catalog numbers include a cabinet with power modules, battery modules and outlet configurations appropriate for the power rating and input/output configurations. To order options not offered by pre-configured catalog numbers, please see page 5.

Pre-configured systems with hardwire input and output						
Catalog number	Power rating – split-phase	Input connection	Output connection	Included items	Description	Quantity
9PXM8S4K	4 kVA expandable to 12 kVA (N+X)	Hardwired	Hardwired	9PXM08AAXXX	Eaton 9PXM tower UPS 8-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	1
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	2
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM8S8K	8 kVA expandable to 12 kVA (N+X)	Hardwired	Hardwired	9PXM08AAXXX	Eaton 9PXM tower UPS 8-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	2
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	4
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM8S12K	12 kVA expandable to 12 kVA (N+1)	Hardwired	Hardwired	9PXM08AAXXX	Eaton 9PXM tower UPS 8-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	3
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	6
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM8S16K	16 kVA	Hardwired	Hardwired	9PXM08AAXXX	Eaton 9PXM tower UPS 8-slot chassis – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	4
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	8
				Network-M2	Network-M2 card, mini slot, ethernet, sensor	1
9PXM12S8K	8 kVA expandable to 20 kVA (N+X)	Hardwired	Hardwired	9PXM12AAAAA	Eaton 9PXM tower UPS 12-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	2
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	4
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM12S12K	12 kVA expandable to 20 kVA (N+X)	Hardwired	Hardwired	9PXM12AAAAA	Eaton 9PXM tower UPS 12-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	3
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	6
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM12S16K	16 kVA expandable to 20 kVA (N+X)	Hardwired	Hardwired	9PXM12AAAAA	Eaton 9PXM tower UPS 12-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	4
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	8
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM12S20K	20 kVA expandable to 20 kVA (N+1)	Hardwired	Hardwired	9PXM12AAAAA	Eaton 9PXM tower UPS 12-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	5
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	10
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
Pre-configured systems with hardwire input						
Catalog number	Power rating – split-phase	Input connection	Output connection	Included items	Description	Quantity
9PXM8S4K-PD	4 kVA expandable to 12 kVA (N+X)	Hardwired	(4) 5-20R (2) L6-30R	9PXM08BHXXX	Eaton 9PXM tower UPS 8-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	1
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	2
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM8S8K-PD	4 kVA expandable to 12 kVA (N+X)	Hardwired	(4) 5-20R (2) L6-30R	9PXM08BHXXX	Eaton 9PXM tower UPS-8 slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	2
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	4
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM12S8K-PD	8 kVA expandable to 20 kVA (N+X)	Hardwired	(8) 5-20R (2) L6-20R (2) L6-30R (2) L14-30R	9PXM12BBFHJ	Eaton 9PXM tower UPS 12-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	2
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	4
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM12S12K-PD	12 kVA expandable to 20 kVA (N+X)	Hardwired	(8) 5-20R (2) L6-20R (2) L6-30R (2) L14-30R	9PXM12BBFHJ	Eaton 9PXM tower UPS 12-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	3
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	6
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM12S16K-PD	16 kVA expandable to 20 kVA (N+X)	Hardwired	(8) 5-20R (2) L6-20R (2) L6-30R (2) L14-30R	9PXM12BBFHJ	Eaton 9PXM tower UPS 12-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	4
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	8
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1
9PXM12S20K-PD	20 kVA expandable to 20 kVA (N+1)	Hardwired	(8) 5-20R (2) L6-20R (2) L6-30R (2) L14-30R	9PXM12BBFHJ	Eaton 9PXM tower UPS 12-slot cabinet – convertible to rackmount	1
				9PXMSPPM	Eaton 9PXM split-phase power module 4 kVA	5
				9PXMBAT	Eaton 9PXM battery module (2 per slot)	10
				Network-M2	Network-M2 card, mini-slot, ethernet, sensor	1

# 9PXM battery backup times (in minutes)

## Battery modules (part number 9PXMBAT).

You must order two battery modules to occupy one slot.

Load													
kVA	kW	2	4	6	8	10	12	14	16	18	20	22	24
4 kVA	3.6 kW	6	17	28	39	52	65	78	92	107	121	136	152
8 kVA	7.2 kW		6	11	17	22	28	33	39	45	52	58	65
12 kVA	10.8 kW			6	9	13	17	20	24	28	31	35	39
16 kVA	14.4 kW				6	8	11	14	17	19	22	25	28
20 kVA	18.0 kW					6	8	10	12	14	17	19	21
kVA	kW	26	28	30	32	34	36	38	40	42	44	46	48
4 kVA	3.6 kW	167	183	200	216	233	250	267	284	302	320	338	356
8 kVA	7.2 kW	71	78	85	92	99	107	114	121	129	136	144	152
12 kVA	10.8 kW	43	48	52	56	60	65	69	74	78	83	87	92
16 kVA	14.4 kW	30	33	36	39	42	45	49	52	55	58	61	65
20 kVA	18.0 kW	23	25	28	30	32	35	37	39	42	44	47	49
kVA	kW	50	52	54	56	58	60	62	64	66	68	70	72
4 kVA	3.6 kW	374	393	411	430	449	468	487					
8 kVA	7.2 kW	160	167	175	183.4	192	200	208	216	224	233	241	250
12 kVA	10.8 kW	97	102	107	111	116	121	126	131	136	141	147	152
16 kVA	14.4 kW	68	71	75	78	82	85	89	92	96	99	103	107
20 kVA	18.0 kW	52	54	57	59	62	65	67	70	73	75	78	81
kVA	kW	74	76	78	80	82	84	86	88	90	92	94	96
4 kVA	3.6 kW												
8 kVA	7.2 kW	258	267	276	284	293	302	311	320	329	338	347	356
12 kVA	10.8 kW	157	162	16	173	178	183	189	194	200	205	211	216
16 kVA	14.4 kW	110	114	118	121	125	129	133	136	140	144	148	152
20 kVA	18.0 kW	84	87	89	92	95	98	101	104	107	109	112	115
kVA	kW	98	100	102	104	106	108	110	112	114	116		
4 kVA	3.6 kW												
8 kVA	7.2 kW	365	374	383	393	402	411	421	430	440	449		
12 kVA	10.8 kW	222	227	233	238	244	250	256	261				
16 kVA	14.4 kW	156	160	163	167	171	175	179					
20 kVA	18.0 kW	118	121	124	127	130	133						

Battery runtimes are approximate and may vary with equipment, configuration, battery age, temperature, etc.

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