Pulsar MX UPS
5 to 20 kVA

EAT•N

Powering Business Worldwide

High performance UPS scalable from 5 to 20 kVA

Availability
- Two front access hot-swappable sub-modules (power and battery) for maintenance without system shutdown
- Large input voltage and frequency ranges to avoid using the batteries unnecessarily
- Automatic failover for power availability even if the UPS fails
- Automatic battery test (test period can be set)

Flexibility
- Can be used as a free-standing tower unit or 19" rack-mounted: only 3U for Pulsar MX 5 kVA and 10U/16U for Pulsar MX Frames
- Multilingual LCD with mimic and LEDs for rapid view of the UPS status, diagnostics and event log
- Outputs: NEMA L6-30R, 30A outlets and terminal block for hardwired installations
- Backup time: five minutes up to two hours by adding 3U battery modules

Minimum total cost of ownership (TCO)
- More power with an output power factor of 0.9 and compatibility with last generation server power supplies
- Pulsar MX Frame is a modular system with 5 kVA units paralleled to provide up to 20 or 15 kVA with redundancy

Ideal protection for:
- Departmental networks
- Rack cabinets
- Blade servers
- Storage networks
- Telecom—Switches/VoIP

Pulsar MX . . . pay as you grow!
Seamless migration from 5 kVA to 20 kVA at optimized cost

The Pulsar MX is a truly scalable optimized rack solution that allows you to add power as your business grows. You are able to easily expand your system from 5 kVA up to 20 kVA, while protecting your initial investment, by simply adding an MX Frame and/or more submodules.

Also, you can build in the level of redundancy into the system that is required for your mission-critical application.

Pulsar MX RT 5 kVA
4.5 kW

MX 10U Frame
| 5 kVA | 10 kVA |
| 4.5 kW | 9 kW |

MX 16U Frame
| 15 kVA | 15 kVA |
| 13.5 kW | 13.5 kW |

MX 16U Frame
in standard 19-inch
enclosure

5 kVA Standalone → 20 kVA Frame

Standalone 5 kVA
MX 3U chassis

20 kVA 16U Frame

Power
sub-modules

Battery
sub-modules

Fully assembled 20 kVA
16U Frame

Add POWER AND BATTERY SUB-MODULES to complete a 20 kVA 16U Frame

Scalability—Add the backup time you need!

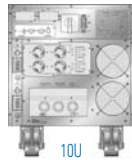## Pulsar MX Frame: Extended runtime recommendations

With the Pulsar MX Frame, you are able to add additional battery modules to provide you with the amount of backup time that you need. Please refer to the chart below for your extended battery configuration options.

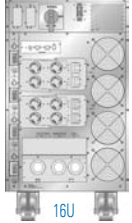Note: For configurations with extended battery modules, output power factor is 0.7.

How to order a Pulsar MX 16U Frame with extended runtime		UPS with 1 runtime extension			UPS with 2 runtime extensions			UPS with 3 runtime extensions		
		Qty	Part No.	Description	Qty	Part No.	Description	Qty	Part No.	Description
10U 10 kVA Frame	5 kVA	1	87015	5 kVA UPS bundle (upgradeable to 10 kVA)	1	87015	5 kVA UPS bundle (upgradeable to 10 kVA)	1	87015	5 kVA UPS bundle (upgradeable to 10 kVA)
		1	68528	6-foot battery cable	1	68528	6-foot battery cable	1	68528	6-foot battery cable
		1	87103	Ext. battery module (3U)	2	87103	Ext. battery module (3U)	3	87103	Ext. battery module (3U)
	10 kVA	1	87010	10 kVA UPS bundle	1	87010	10 kVA UPS bundle	1	87010	10 kVA UPS bundle
		2	68528	6-foot battery cable	2	68528	6-foot battery cable	2	68528	6-foot battery cable
		2	87103	Ext. battery module (3U)	4	87103	Ext. battery module (3U)	6	87103	Ext. battery module (3U)
16U 20 kVA Frame	15 kVA	1	87415	15 kVA UPS bundle (upgradeable to 20 kVA)	1	87415	15 kVA UPS bundle (upgradeable to 20 kVA)	1	87415	15 kVA UPS bundle (upgradeable to 20 kVA)
		3	68528	6-foot battery cable	3	68528	6-foot battery cable	3	68528	6-foot battery cable
		3	87103	Ext. battery module (3U)	6	87103	Ext. battery module (3U)	9	87103	Ext. battery module (3U)
	20 kVA	1	87420	10 kVA UPS bundle	1	87420	10 kVA UPS bundle	1	87420	10 kVA UPS bundle
		4	68528	6-foot battery cable	4	68528	6-foot battery cable	4	68528	6-foot battery cable
		4	87103	Ext. battery module (3U)	8	87103	Ext. battery module (3U)	12	87103	Ext. battery module (3U)

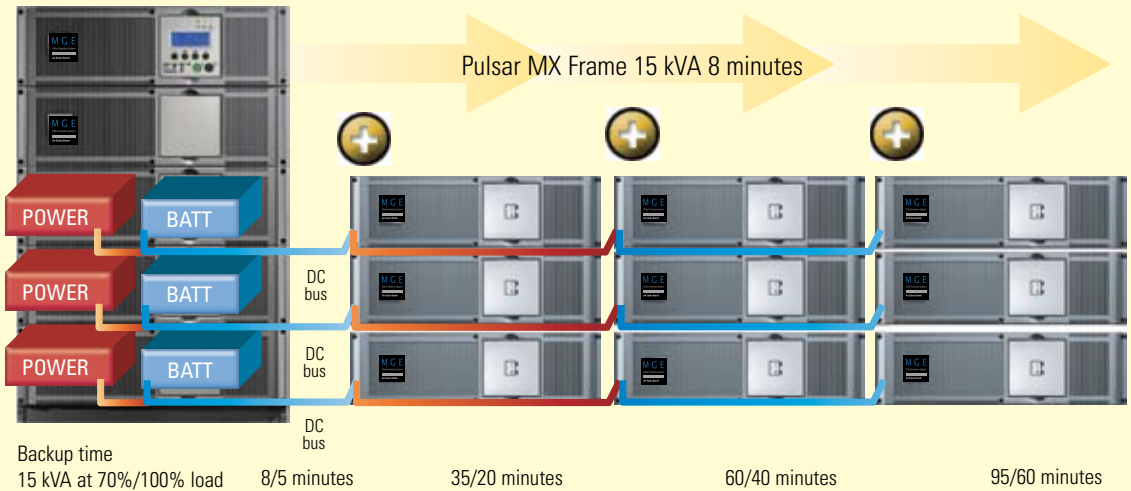| Options	Part No.	Description
For freestanding installation, add: (various configurations available—consult factory for options)	87410	Caster kit for Pulsar MX Frames—wheels/floormounts/seismic brackets to attach directly to Pulsar MX Frame
	86005	Caster cart/integration kit—platform with wheels/floormounts/seismic brackets to stack EXBs and/or Frame
For 120V output, add: (various configurations available—consult factory for options)	87102	Pulsar MX 5000 RT (2U) Transformer—plug-and-play (one or two for 10U to frame/up four for 16U frame)
	87482	Pulsar MX-K 20 kVA Transformer—hardwired input and output

Pulsar MX Frame rear view (with optional casters)

10U   16U

Example:
Battery extension for Pulsar MX Frame 15 kVA configuration

Pulsar MX Frame 15 kVA 8 minutes

POWER   BATT

POWER   BATT   DC bus

POWER   BATT   DC bus

DC bus

Backup time
15 kVA at 70%/100% load   8/5 minutes   35/20 minutes   60/40 minutes   95/60 minutes

Power management
- SNMP and Web-based remote management using the optional Network Management Card
- Network-based power management suite included for monitoring and automatic action setup like the orderly shutdown of multiple servers running different operating systems or management of servers with redundant power supplies
- Temperature/humidity monitoring within a rack cabinet with optional Environmental Sensor (requires NMC)

MGE PowerServices™
- Two-year warranty, including batteries

Associated services
- Extended warranties (three and five years)
- Commissioning

Environmental Sensor:
part number 66846

Pulsar MX + Transformer 5000,
120V output: part number 87150

Pulsar MX EXB battery
extension module:
part number 87103

Network Management
Card, 2006 edition:
part number 66102

Specifications

	Standalone RT 5 kVA (3U)	Scalable Frame (10U)		Scalable Frame (16U)	
Rating kVA/kW	5 kVA/4.5 kW	5 kVA/4.5 kW	10 kVA/9 kW	15 kVA/13.5 kW	20 kVA/18 kW
Inputs					
Technology		Double conversion with power factor correction, convection cooled static bypass switch			
Input connections	Terminal block w/standard NEMA L6-30P, 10' cord	Terminal block		Terminal block	
Nominal voltage		200/208 (default) /220/230/240/250 V			
Voltage range without using battery [1]		120–280 V			
Input frequency range, THDI		40–70 Hz, <7%			
Outputs					
Output connections	Terminal block + (4) NEMA L6-30R	Terminal block + (4) NEMA L6-30R		Terminal block + (8) NEMA L6-30R	
Output voltage and frequency, THDU, efficiency [2]		200/208/230/240/250V, 50/60 Hz autoselect, frequency converter as standard, <2%, 97%			
Transformer 5000 120V					
Input connection		NEMA L6-30P			
Output connections		(2) NEMA L5-20R (6) NEMA 5-15/20R			
Backup time [3]					
Pulsar MX standard backup time		5 min			
Pulsar MX + EXB / MX + 2 EXB / MX + 3 EXB	22/41/62 min	22 min (1 EXB)/41 min (2 EXB)/62 min (3 EXB)	22 min (2 EXB)/41 min (4 EXB)/62 min (6 EXB)	22 min (3 EXB)/41 min (6 EXB)/62 min (9 EXB)	22 min (4 EXB)/41 min (8 EXB)/62 min (12 EXB)
Communications					
Slots	(1) Mini-Slot compatible w/Mini-Slot NMC, NMC ModBus/JBus, MC Contacts/serial	(2) Mini-Slot compatible w/Mini-Slot NMC, NMC ModBus/JBus, MC contacts/Serial		(2) Mini-Slot compatible w/Mini-Slot NMC, NMC ModBus/JBus, MC contacts	
Ports		Remote power off (RJ12), (5) output contacts (DB-9), setup using Solution-Pac [4] USB and DB-9 serial ports			
		EXB module detection (RJ45)			
Operating conditions, standards & approvals					
Performance, safety, EMC, surge protection		IEC/EN 62 040-3, IEC/EN 62 040-1-1, IEC/EN 62 040-2 class A, UL 1778 and CSA 22.2			
Operating temperature, noise, approvals		0°C to 40°C continuous, 45 dbA [5], UL, cUL, TüV, GS mark, CB, C-Tick, CE, IEC 61 931			
Dimensions/weight					
Pulsar MX RT standard backup tower/rack configuration (H x W x D)*	17.5 x 5.14 x 27.6 (444.5 x 130.6 x 700)	17.5 x 20.9 x 29.1 (445 x 531 x 738)		17.5 x 31.3 x 29.1 (445 x 795 x 738)	
Rackmount 3U x*	5.14 x 17.5 x 27.6 (130.6 x 444.5 x 700)	16.7 x 17.5 x 29.1 (424 x 445 x 738)		27.1 x 17.5 x 29.1 (688 x 445 x 738)	
Weight	125.7 lb/57 kg	190 lb/86 kg	280 lb/127 kg	428 lb/194 kg	517 lb/235 kg
Pulsar MX RT Transformer 5000 rack configuration (H x W x D)*, weight	1 per UPS	3.5 (2U) x 17.5 x 25.6 (88.9 x 444.5 x 650), 84 lb/38 kg			
		1	up to 2	up to 3	up to 4
MX EXB battery unit rack config (W x H x D)*, weight		5.14 (3U) x 17.5 x 25.6 (130.6 x 444.5 x 650), 154 lb/70 kg			
		maximum three per power module			

* inches (mm)

Warranty		Two-year [6]			

Part numbers					
Pulsar MX UPS–standard backup time [3]	87050	87015 [7]	87010 [8]	87415 [9]	87420 [10]
Pulsar MX UPS–standard backup time with 120V Transformer (2U)	87150	--	--	--	--
Pulsar MX EXB RT: battery extension module (3U)	87103				
Pulsar MX Frame–empty	--	87011		87021	
Caster/Floor Mount Kit for Pulsar MX Frame	--			87410	
Frame Rail Kit	--			87418	
Pulsar MX Transformer 5000 RT with rails (2U)		87102			
Pulsar MX-K 20 kVA Transformer (hardwired input/output with casters)				87482	
Pulsar MX Power/electronics sub-module		87100			
Pulsar MX Battery/sub-module		87101			
Battery Integration System		86005			
Pulsar MX 6-foot battery cable		68528			
MX/EX RT Rail Kit		86002			

1: At 70% load

2: Economy mode, 91% in normal mode

3: At 70% nominal rating with power factor 0.7 typical values after three charge/discharge cycles, with three-five-year-old batteries. Weekly battery test without interrupting the load (daily or monthly if required). EXB compatible with 0.8 power factor loads

4: Solution-Pac CDROM supplied as standard

5: 50 dbA above 5 kVA.

6: Depending on the country, see www.mgeops.com

7: 87015 = 87011 (empty Pulsar MX 10U Frame) + (1) 87100 + (1) 87101

8: 87010 = 87011 (empty Pulsar MX 10U Frame) + (2) 87100 + (2) 87101

9: 87415 = 87021 (empty Pulsar MX 16U Frame) + (3) 87100 + (3) 87101

10: 87420 = 87021 (empty Pulsar MX 16U Frame) + (4) 87100 + (4) 87101

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