

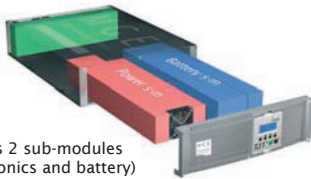
Single phase UPS Pulsar MX

4/5/8/10/15/20 kVA

High performance UPS upgradeable
from 4 kVA to 20 kVA

Continuous power supply

- ▶ Two front access hot-swappable sub-modules (power and battery) for maintenance without load interruption.
- ▶ Automatic battery test (test period can be set).
- ▶ Internal bypass built-in to supply the load even if the UPS fails.
- ▶ Large input voltage and frequency ranges to avoid using the batteries unnecessarily.



Pulsar MX has 2 sub-modules (power electronics and battery) which are hot swappable.

Flexible

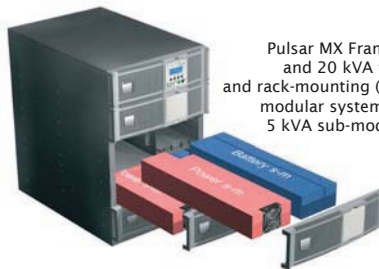
- ▶ Can be used as a free-standing tower unit or 19" rack-mounted: only 3U for Pulsar MX 4000 and 5000, 16U for Pulsar MX Frame
- ▶ LCD multilingual display with mimic and LEDs for rapid view of the UPS status, diagnostics and event log
- ▶ Outputs: IEC 10A and 16A outlet sockets and hardwired outputs
- ▶ Built-in Powershare system for remote reboot of the equipment connected, sequential start-up or load shedding while operating from battery to maintain the power to critical loads.
- ▶ Pulsar MX Frame is compatible with three phase or single phase supplies.
- ▶ Backup time: 10 mins up to 2 hours by adding 3U battery extension modules.



Pulsar MX: 10 minutes backup, tower/rack mounting (3U), mimic, LCD display.

Minimum total cost of ownership (TCO)

- ▶ More power with an output power factor of 0.9.
- ▶ When the power supply needs to be upgraded, the Pulsar MX 4000 and 5000 can be paralleled to provide 8 kVA or 10 kVA using the ModularEasy kit: without extra cost on the initial purchase.
- ▶ Pulsar MX Frame is a modular system with 5 kVA sub-modules paralleled to provide up to 20 kVA or 15 kVA with redundancy.



Pulsar MX Frame 15 and 20 kVA tower and rack-mounting (16U), modular system with 5 kVA sub-modules.



Paralleling 2 Pulsar MXs using ModularEasy for 2N or N+1 redundancy.

Can be used for 20 to 110 servers, ideal for:

- ▶ departmental networks, servers and workstations



The power level can be upgraded simply and without interruption for the existing loads as the number of loads supplied is increased.



Can be built in to high density racks.



Redundancy for highly critical applications.

M G E

Office Protection Systems

An Eaton Brand

Communications

- Solution Pac 2 suite supplied for remote supervision.
- Enterprise Power Manager for supervision via Ethernet and Teleservice. EPM is compatible with standard network management systems (Tivoli, CA uncenter, HP Openview).
- Compatible with Network Shutdown Module for monitoring a number of UPSs and shutting down the servers on the network.

Customer Service & Support

- 1 year guarantee, including batteries.

Associated services ⁽¹⁾

- Extended guarantee.
- Commissioning.
- Teleservice (in-band and out-of-band).
- Personalised maintenance contracts.

1: Depending on the country, see www.mgeops.com/services.

Specifications

Pulsar MX RT	4 kVA	5 kVA	15 kVA ⁽¹⁾	20 kVA ⁽¹⁾
Rating (kVA) / (kW)	4 kVA / 3,6 kW	5 kVA / 4,5 kW	15 kVA / 13,5 kW	20 kVA / 18 kW
Paralleling				
Maximum rating / redundancy ⁽²⁾	8 kVA / 4 kVA + 4 kVA redundancy	10 kVA / 5 kVA + 5 kVA redundancy	15 kVA / 10 kVA + 5 kVA redundancy 5 kVA + 2 x 5 kVA redundancy	20 kVA / 15 kVA + 5 kVA redundancy 10 kVA + 2 x 5 kVA redundancy
Inputs	VFI-SS-113, on-line double conversion with power factor correction, convection cooled static bypass switch			
Technology	L + N, terminals up to 6 mm ²			
Number of phases, input connections			L + N or 3P + N, terminals up to 35 mm ² , separate or common AC normal and AC bypass	
Nominal voltage	200/208/220/230/240/250 V		200/208/220/230/240/250 V (L + N) or 380/400/415 V (3P + N)	
Voltage range without using battery ⁽³⁾	120 - 280 V		120 - 280 V (L + N), 250 - 465 V (3P + N)	
Input frequency range, THDI	40-70 Hz, < 7%			
Outputs				
Output connections ⁽⁴⁾	terminals + 8 IEC C13 (10A) + 2 IEC C19 (16A)		terminals + 8 IEC C13 (10A) + 4 IEC C19 (16A)	
Remotely controlled Powershare sockets	2 groups (2 IEC C13 10A per group)		2 groups (2 IEC C13 10A per group)	
Output voltage and frequency ⁽⁵⁾ , THDU, efficiency ⁽⁶⁾	200/208/230/240 /250 V, 50 / 60 Hz autoselect, frequency converter as standard, <2%, 97%			
Backup time ⁽⁷⁾				
Pulsar MX standard backup time	10 minutes	8 minutes	8 minutes	
Pulsar MX + EXB / MX + 2 EXB / MX + 3 EXB	45 / 80 / 120 minutes	35 / 60 / 95 minutes	35 min (3 EXB)/60 min (6 EXB)/90 min (9 EXB) ⁽⁸⁾	35 min (4 EXB)/60 min (8 EXB)/90 min (12 EXB)
Communications	1 slot or 2 slots (Frame) compatible with ConnectUPS, ModBus/JBus, Contacts/Serial			
Slots	Remote Power off (RJ11), 5 output contacts (DB9), setup using Solution-Pac ⁽⁹⁾ (USB and DB9-serial ports), EXB module detection (RJ45), paralleling (DB 15)			
Ports				
Operating conditions, standards and approvals				
Performance, safety, EMC, surge protection	IEC/EN 62 040-3, IEC/EN 62 040-1-1, IEC/EN 62 040-2 class A (class B as option), 4 kV IEC 61 643, UL 1778 and CSA 22.2 ⁽¹⁰⁾			
Operating temperature, noise, approvals, guarantee	0°C to 40°C continuous, 45 dbA ⁽¹¹⁾ , UL, TÜV, GS mark, CB, C-Tick, CE, IEC 61 931, one year ⁽¹²⁾			
Dimensions / weight				
Pulsar MX RT standard backup tower	444.5 mm high x 130.6 mm wide x 735 mm deep / 57 kg		Tower 690 mm high (795 mm casters) x 444.5 mm wide x 735 mm deep /	
Pulsar MX RT standard backup rack	3U x 444.5 mm wide compatible with 800-1000 mm deep rack		250 kg Rack 16U x 444.5 mm wide, compatible with 800-1000 mm deep rack	
MX EXB battery unit tower / rack	444.5 mm high x 130.6 mm wide x 650 mm deep / 3U x 444.5 mm wide / 70 kg		dimensions same as MX Frame / 194 kg for 15 kVA, 239 kg for 20 kVA	
Pulsar MX ModularEasy, paralleling kit	dimensions same as EXB battery unit / 10 kg			

1: Available from June 2007. 2: 2 Pulsar MXs can be paralleled using ModularEasy. 3: At 70% load. 4: 4 IEC C13 (10A) 2 m long cables for use with retention clips (8 cables for use with Pulsar MX Frame). 5: Frequency conversion for non-paralleled units only. 6: Economy mode, 91% in normal mode. 7: At 70% nominal rating with power factor 0.7 typical values after 3 charge/discharge cycles, with 3-5 year old batteries. Weekly battery test without interrupting the load (daily or monthly if required). EXB compatible with 0.8 power factor loads. 8: With Pulsar MX Frame EXB (4 battery units). 9: Solution-Pac CD-ROM supplied as standard. 10: Applicable to US models. 11: 50 dbA above 5 kVA. 12: Depending on the country, see www.mgeops.com/service. 13: 68 513 = 68 526 (empty Pulsar MX Frame) + 3 x 68 524 + 3 x 68 523. 14: 68 514 = 68 526 (empty Pulsar MX Frame) + 4 x 68 524 + 4 x 68 523.

Part numbers

	Pulsar MX 4000 RT	Pulsar MX 5000 RT	Pulsar MX 15000 Frame 16U	Pulsar MX 20000 Frame 16U
Pulsar MX RT Tower or rack-mounting: standard backup time	M68 501	M68 504	M68 513 ⁽¹³⁾	M68 514 ⁽¹⁴⁾
Pulsar MX RT Netpack: standard backup time + NMC + rack kit	M68 502	M68 505	(with rack kit, casters, NMC card)	(with rack kit, casters, NMC card)
Pulsar MX EXB RT : battery extension module		M68 515	add multiple MX EXB : M68 515	
Pulsar MX ModularEasy: paralleling kit (2 Pulsar MX)		M68 520	-	
MX / EXB RT Rack Kit: rail kit for 19" rack mounting		M68 002	-	
IEC 32 A kit , 2 X 2 m long cables: male to hardwired and female to hardwired		M68 525	-	
MX RT 1,8 m Battery extension cable	M68 528			
Pulsar MX Battery / Power electronics sub-module	M68 524 / M68 522	M68 524 / M68 523	M68 524 / M68 523	M68 526
Pulsar MX Frame empty chassis	M68527			
Battery Integration System (up to 9 EXB)	M68527			

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