

# Eaton MX

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



## Double conversion (on-line)

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

### Total flexibility

- Can be used as a free-standing tower unit or 19" rack-mounted: only 3U for Eaton MX 4000 and 5000, 16U for Eaton 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
- Eaton 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



### 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 Eaton 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
- Eaton MX Frame is a modular system with 5 kVA sub-modules paralleled to provide up to 20 kVA or 15 kVA with redundancy



Eaton MX Frame

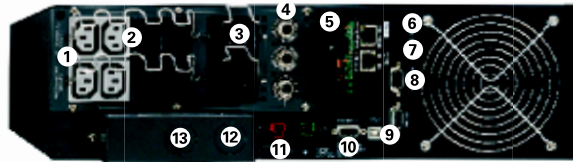
### Advanced protection for:

- Departmental networks, servers and workstations

# Eaton MX UPS

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

- 1 8 x IEC 10A sockets
- 2 Retention clips
- 3 2 x IEC 16A sockets
- 4 Output circuit protection
- 5 1 x minislot for NMC, Modbus/JBus or MC Contacts/Serial card
- 6 RJ11 remote power off



Eaton MX 4000/5000

- 7 RJ45 EXB battery module detection
- 8 DB 9 with 5 output contacts
- 9 DB 9 serial and USB ports
- 10 DB 15 for paralleling
- 11 EXB battery extension module power connector
- 12 Input
- 13 Output

### Technical Specifications

	4000	5000	MX Frame 15000	MX Frame 20000
Rating (kVA/kW)	4 kVA / 3.6 kW	5 kVA / 4.5 kW	15 kVA / 13.5 kW	20 kVA / 18 kW
<b>Paralleling</b>				
Maximum rating / redundancy <sup>(1)</sup>	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
<b>Inputs</b>				
Technology	VFI-SS-113, on-line double conversion with power factor correction, convection cooled static bypass switch			
Number of phases, input connections	L + N, terminals up to 6 mm <sup>2</sup>	L + N, terminals up to 6 mm <sup>2</sup>	L + N or 3P + N, terminals up to 35 mm <sup>2</sup> , separate or common AC normal and AC bypass	
Nominal voltage	200/208/220/230/240/250 V	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 <sup>(2)</sup>	120 - 280 V	120 - 280 V	120 - 280 V (L + N), 250 - 465 V (3P + N)	
Input frequency range, THDI	40-70 Hz, < 7%			
<b>Outputs</b>				
Output connections <sup>(3)</sup>	Terminals + 8 x IEC C13 (10A) + 2 x IEC C19 (16A)		Terminals + 8 x IEC C13 (10A) + 4 IEC C19 (16A)	
Remotely controlled Powershare sockets	2 groups (2 IEC C13 10A per group)			
Output voltage and frequency <sup>(4)</sup> , THDU, efficiency <sup>(5)</sup>	200/208/230/240 / 250 V, 50 / 60 Hz autoselect, frequency converter as standard, < 2%, 97%			
<b>Backup time<sup>(6)</sup></b>				
Eaton MX standard backup time	10 minutes	8 minutes	8 minutes	8 minutes
Eaton 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) <sup>(7)</sup>	35 min (4 EXB)/60 min (8 EXB) /90 min (12 EXB)

### Communications

Slots	1 slot (MX) or 2 slots (MX Frame) for Network Management Card, NMC ModBus/JBus card or MC Contacts/Serial card			
Ports	Remote Power off (RJ11), 5 output contacts (DB9), setup via Solution-Pac <sup>(8)</sup> , (USB and DB9-serial ports), EXB detection (RJ45), paralleling (DB 15)			

### 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 <sup>(9)</sup>			
Operating temperature, noise, approvals, guarantee	0°C to 40°C continuous, 45 dbA <sup>(10)</sup> , UL, TÜV, GS mark, CB, C-Tick, CE, IEC 61 931, one year <sup>(11)</sup>			

### Dimensions H x W x D / Weight

Eaton MX standard backup tower	444.5 mm x 130.6 mm x 735 mm / 57 kg	Tower 690 mm high (795 mm casters) x 444.5 mm wide x 735 mm deep /		
Eaton MX standard backup rack	3U x 444.5 mm wide compatible with 800-1000 mm deep rack	Rack 16U x 444.5 mm wide, compatible with 800-1000 mm deep rack		
Eaton MX EXB battery unit tower / rack	444.5 mm x 130.6 mm x 650 mm / 3U x 444.5 mm wide / 70 kg	Dimensions same as MX Frame / 194 kg for 15 kVA, 239 kg for 20 kVA		
Eaton MX ModularEasy, paralleling kit	Dimensions same as EXB battery unit / 10 kg /			

### Customer Service & Support

	1 year guarantee, including batteries.			
Warranty+	Optional 3-years warranty (depending on the country please visit <a href="http://www.eaton.com/powerquality">www.eaton.com/powerquality</a> )			

**1:** Eaton MXs can be paralleled using ModularEasy. **2:** At 70% load. **3:** 4 IEC C13 (10A) 2 m long cables for use with retention clips (8 cables for use with Eaton MX Frame). **4:** Frequency conversion for non-paralleled units only. **5:** Economy mode, 91% in normal mode. **6:** At 70% nominal rating with power factor 0.7 typical values after 3 charge/discharge cycles, with 3-5 years old batteries. Weekly battery test without interrupting the load (daily or monthly if required). EXB compatible with 0.8 power factor loads. **7:** With Eaton MX Frame EXB (4 battery units). **8:** Solution-Pac CD-ROM supplied as standard. **9:** Applicable to US models. **10:** 50 dbA above 5 kVA. **11:** Depending on the country, see [www.eaton.com/powerquality](http://www.eaton.com/powerquality).

### Part Numbers

	MX 4000	MX 5000	MX Frame 15000	MX Frame 20000
Eaton MX Tower or rack-mounting: standard backup time	M68501	M68504	M68513 <sup>(1)</sup>	M68514 <sup>(2)</sup>
Eaton MX EXB: battery extension module	M68515	M68515	add multiple MX EXB : M68515	
Eaton MX ModularEasy: paralleling kit (2 Eaton MX)	M68520	M68520	/	/
Eaton MX / EXB Rack Kit: rail kit for 19" rack mounting	M68002	M68002	/	/
IEC 32 A kit , 2 X 2 m long cables: male to hardwired and female to hardwired	M68525	M68525	/	/
MX 1,8 m Battery extension cable	M68528	M68528	M68528	M68528
MX Battery / Power electronics sub-module	M68524 / M68522	M68524 / M68523	M68524 / M68523	M68524 / M68523
Eaton MX Frame empty chassis	/	/	M68526	M68526
Battery Integration System (up to 9 EXB)	/	/	M68527	M68527

**1:** (with rack kit, casters, NMC card) M68513 = M68526 (empty Eaton MX Frame) + 3 x M68524 + 3 x M68523. **2:** (with rack kit, casters, NMC card) M68514 = M68526 (empty Eaton MX Frame) + 4 x M68524 + 4 x M68523.



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