Eaton EX M

1500/2200/3000 VA

Eaton EX 1500

Eaton EX Rack/Tower versatility

Advanced vessel or rig power protection for:

- Bridge systems
- Navigation systems
- Communication systems
- Small computer systems

Double conversion (on-line)

Maximum availability

- DNV and ABS type approved UPS
- Double conversion on-line UPS with automatic by-pass and power factor correction
- Powershare: the Eaton EX output sockets are individually controlled to provide load-shedding to maximize the backup time and provide remote reboot and sequential start-up as standard
- Continuous power supply: Hot swappable batteries. The HotSwap MBP (Maintenance By-Pass) module allows the UPS to be replaced without interrupting the power supply

Minimum total cost of ownership

- Easy operation: the LCD gives you access to a wide range of measurements and set-up menus
- Remote supervision: the Eaton software suite offers a wide range of communication option including: SNMP and HTML, ModBus/JBus and relay outputs

Total flexibility

Eaton EX has unmatched Flexibility.

- Format: Eaton EX Marine 1500 is available in RT2U convertible rack/tower format (compatible with short-depth rack). EX 2200 & 3000 Marine models are available in RT3U (for tower or short-depth racks)
- Connections: with FlexPDU and HotSwap MBP, the RT2U and RT3U models can be connected by sockets or terminal blocks. They can be installed as required, on the side or on top of the unit
- Compatible with high power factor loads: Eaton EX Marine is rated for 0.9 power factor (1500 VA/1350 W, 2200 VA/1980 W and 3000 VA/2700 W)
- Communication: the EX includes both serial and USB ports, plus remote On/Off connector and an extra slot for optional communication cards. The UPS comes with a complete Eaton software suite.

Powering Business Worldwide

Eaton EX M UPS

1 LCD Multilingual display
- 6 languages,
- displays measurements,
- displays alarms,
- access to control and set-up menus.

2 Panel for batteries replacement (Hot swappable)

Eaton EX RT

3 1 USB port + 1 serial port + remote ON/OFF and emergency stop inputs.

4 EXB battery unit connector.

5 EXB units recognised automatically.

6 8 IEC 10A sockets, including 4 Powershare programmable sockets and 1 IEC 16A socket.

7 Communication card slot.

8 Mountings for HotSwap MBP and FlexPDU.

TECHNICAL SPECIFICATIONS	**1500**	**2200**	**3000**
Rating (VA/W)	1500 VA / 1350 W (1)	2200 VA / 1980 W	3000 VA / 2700 W (1)
Format	RT2U	RT3U	RT3U
Electrical characteristics			
Architecture	On-line double conversion with automatic by-pass and power factor correction		
Input voltage and frequency ranges without using batteries	100/120/140/160 V to 284V - 40 to 70 Hz for load level <20% / <33% / <66% / >=66% of rated output	100/120/160/184 V to 284V - 40 to 70 Hz for load level <20% / <33% / <66% / >=66% of rated output	
Output voltage and frequency	230 V (adjustable to 200/208/220/240/250 V), 50/60 Hz auto-select or frequency converter mode (2)	230 V (adjustable to 200/208/220/240 V), 50/60 Hz auto-select or frequency converter mode	
Connections			
Input	1 IEC C14 (10A) socket	1 IEC C20 (16A) or terminal block on HotSwap MBP HW (Hard-Wired)	
Outputs	6 IEC C13 (10A) sockets	8 IEC C13 (10A) sockets + 1 IEC C19 (16A) socket	
Remotely controlled Powershare sockets	2 independet groups: 2+1 IEC C13 (10A) sockets	2 groups of 2 x IEC C13 (10A) sockets	
Additional outputs with HotSwap MBP FR/DIN/BS/IEC/HW	4 FR/Schuko sockets or 3 BS sockets or 6 IEC 10A sockets or terminal blocks (HW version)		
Additional outputs with FlexPDU FR/DIN/BS/IEC	8 FR/Schuko sockets or 6 BS sockets or 12 IEC 10A sockets		
Battery			
Typical backup times for 50 and 70% load (4)			
EX	13 min / 9 min	17 min / 12 min	15 min / 10 min
EX + 1 EXB	50 min / 35 min	85 min / 60 min	60 min / 40 min
EX + 4 EXB	180 min / 120 min	285 min / 200 min	190 min / 150 min
Battery management	Automatic weekly test (period adjustable using LCD display or in software supplied), automatic recognition of external battery units => continuous maximisation of backup time + deep discharge protection		
Interfaces			
Indicators and display	3 LEDS + adjustable multilingual display: display of measurements, access to control and set-up menus		
Communication ports	1 USB port + 1 RS232 serial port and relay contacts (3) + 1 mini terminal block for remote ON/OFF and emergency stop		
Communications card slots	1 slot for NMC Minislot card (included in Netpack version) or NMC ModBus/JBus or MC Contacts/Serial		
Operating conditions, standards and approvals			
Operating temperature, noise level	0°C to 40°C continuous, 45 dBA		
Performance - Safety - EMC	IEC/EN 62 040-3 (VFI-SS-113) - IEC/EN 62 040-1-1, IEC/EN 60 950-1 (RD) - IEC/EN 62 040-2 C1 Class, IEC/EN 60945		
Approvals	CE, TüV, GS, CB report, cTüV-US,UL, DNV, ABS		
Customer Service & Support			
2 years warranty	Standard product exchange, including the battery		

1: Maximum rating with EXB battery units: Eaton EX 1500 =1200 W and Eaton EX 3000=2400W. **2**: Derated by 15% when used as a frequency converter. **3**: USB and RS232 serial ports cannot be used simultaneously. **4**: Runtimes are shown at 0.7 power factor. Backup times are approximate and may vary with equipment, configuration, battery age, temperature, etc.

Part Numbers

Description	**Part Number**	**Dimensions (H x W x D)**	**Weight**
EX 1500 RT2U Marine	68188	87 x 438 x 483	18 kg
EX 2200 RT3U Marine	68449	131 x 440 x 490	30 kg
EX 3000 RT3U Marine	68473	131 x 440 x 490	30 kg

Options

Description	**Part Number**
Marine Filter 3000 VA(*)	66886
EX EXB RT2U	68186
EX EXB	68405
EX Rack kit 2U/3U	68441
Network Management Card Minislot 2006 Edition	66102
Network Management Card ModBus/Jbus	66103
Management Card Dry Contacts/Serial	66104

*)The Marine Filter is required for the DNV and ABS compliance

www.eaton.com/powerquality/marine