

Eaton EX

700/1000/1500/2200/3000 VA

Eaton EX 1500

Eaton EX Rack/Tower versatility

Ideal protection for:

- Servers, data storage and network equipment
- Telephony - VoIP
- Medical equipment - Industrial processes

Double conversion (on-line)

Maximum availability

- **Topology:** 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 maximise 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
- **Long backup times:** 1 to 4 EXB battery units can be added to the Eaton EX. The Eaton EX 3000XL has a built-in super charger for extra long backup times

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:** EX 700 to 1500 are available in tower format or RT2U convertible rack/tower format (compatible with short-depth rack). EX 2200 & 3000 are available in RT2U format (optimised for rack mounting) or 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 is rated for 0.9 power factor (700 VA/630 W, 1000 VA/900 W, 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 UPS

700/1000/1500/2200/3000 VA

- 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

| | 700 | 1000 - 1000 RT2U | 1500 - 1500 RT2U | 2200 | 3000 - 3000 XL |
|---------------|----------------|------------------------------------|---------------------------------|---|---------------------------------|
| Rating (VA/W) | 700 VA / 630 W | 1000 VA / 900 W ⁽¹⁾ | 1500 VA / 1350 W ⁽¹⁾ | 2200 VA / 1980 W | 3000 VA / 2700 W ⁽¹⁾ |
| Format | Mini tower | Mini tower or RT2U (tower/rack 2U) | | RT2U (tower / rack 2U) and RT3U (tower / rack 3U) | |

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 ⁽²⁾ to 284V - 40 to 70 Hz | | | 100/120/160/184 V ⁽²⁾ to 284V - 40 to 70 Hz | |
| Output voltage and frequency | 230 V (adjustable to 200/208/220/240/250 V), 50/60 Hz auto-select or frequency converter mode ⁽³⁾ | | | 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 independent groups: 2 + 1 IEC C13 (10A) sockets | | 2 groups of 2 x IEC C13 (10A) on Eaton EX | | |
| 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 ⁽⁶⁾ except for Eaton EX 3000 XL ⁽⁵⁾ | | | | | |
| EX | 16 min / 10 min | 18 min / 12 min | 13 min / 9 min | 17 min / 12 min | 15 min / 10 min |
| EX + 1 EXB | / | 75 min / 50 min | 50 min / 35 min | 85 min / 60 min | 60 min / 40 min |
| EX + 4 EXB | / | 250 min / 200 min | 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 ⁽⁴⁾ + 1 mini terminal block for remote ON/OFF and emergency stop | | | | |
| Communications card slots | 1 slot for NMC Ministart 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 (IRD), IEC/EN 62 040-2 C1 Class | | | | |
| Approvals | CE, TÜV GS, CB report, cTUV-US | | CE, TÜV, CB Report, UL | | CE, TÜV, CB Report, UL |

Dimensions (H x W x D) / Weight

| | | | | |
|-------------|------------------------------|-------------------------------|-------------------------------|--|
| EX | 242 x 153 x 440 mm / 12.5 kg | 242 x 153 x 440 mm / 15 kg | 242 x 153 x 490 mm / 18 kg | 440 x 131 x 490 mm ⁽⁷⁾ / 30 kg (3000 XL = 18 kg) |
| EX RT2U | / | 86.5 x 438 x 483 mm / 18 kg | 86.5 x 438 x 483 mm / 20.5 kg | 86 x 440 x 640 mm / 31 kg |
| EX EXB | / | 242 x 153 x 440 mm / 21 kg | | 440 x 131 x 490 mm ⁽⁷⁾ |
| EX EXB RT2U | / | 86.5 x 438 x 483 mm / 24.5 kg | | / |

Customer Service & Support

| | | | | | |
|------------------|---|--|--|--|--|
| 2 years warranty | Standard product exchange, including the battery | | | | |
| Warranty + | Optional 3-years warranty (depending on the country please visit www.eaton.com/powerquality) | | | | |

1: Maximum rating with EXB battery units: Eaton EX 1000 = 800 W, Eaton EX 1500 = 1200 W and Eaton EX 3000 = 2400W. **2:** Lower limits for <20%, <33%, <66%, >=66% of nominal power (VA). For active output power greater than 0.7 and 0.8 nominal rating, the lower limit is 180V and 190V respectively. **3:** Derated by 15% when used as a frequency converter. **4:** USB and RS232 serial ports cannot be used simultaneously. **5:** Except Eaton EX 3000 XL: UPS with high speed charger, without built-in batteries, for custom configurations: ask us for details. **6:** Runtimes are shown at 0.7 power factor. Backup times are approximate and may vary with equipment, configuration, battery age, temperature, etc. **7:** compatible with 600 mm deep rack

Part Numbers

| | 700 | 1000 | 1500 | 2200 | 3000 |
|--|--------|--------|--------|--|--|
| EX | 68 180 | 68 181 | 68 183 | 68 400 | 68 402 - XL: 68 404 |
| EX RT2U (includes rack kit) | / | 68 182 | 68 184 | 68 401 | 68 403 |
| EX RT3U HotSwap. (includes rack kit + HotSwap MBP) | / | / | / | FR: 68406 DIN: 68407 BS: 68408 IEC: 68409 HW: 68410 | FR: 68412 DIN: 68413 BS: 68414 IEC: 68415 HW: 68416 |
| EX RT2U Netpack (includes rack kit and NMC card) | / | / | / | 68 411 | 68 417 |
| EX EXB | / | 68 185 | 68 185 | 68 405 | 68 405 |
| EX EXB (includes rack kit)RT2U | / | 68 186 | 68 186 | / | / |
| EX Rack Kit 2U/3U | / | / | / | 68 441 | 68 441 |

