

# Eaton EX RT

7/11 kVA single phase input / single phase output  
5/7/11 kVA three phase input / single phase output



Eaton EX RT



Battery Integration system

**Advanced protection for:**  
Rack servers enclosures and industrial environment



## Double conversion (on-line)

High performance UPS for single phase applications.

### Maximum availability

- Hot swappable UPS and battery modules
- Internal bypass and maintenance bypass included as standard
- The UPS can be connected to two independent electrical sources (sources 1 and 2 can be common or separate)
- Large input voltage range without draining the battery: 230V + 20% to - 30% single phase and 400V + 15% to - 20% three phase
- Batteries tested automatically at regular intervals and protected against deep discharge
- N+1 redundancy supported by two single units

### Wide choice of backup times

- From 10 minutes to 2 hours with battery modules or up to 8 hours using the CLA charger module
- Automatic recognition of battery modules and easy battery installation with battery integration system

### Ergonomy

- Multilingual LCD display and LEDs for rapid view of the UPS status and the operating log
- Self diagnosis and fault messages

### Can be integrated into even the most demanding environments:

#### Computer

- Tower / 6U Rack convertible
- Comprehensive range of Power Distribution Units for convenient power distribution within the rack

#### Industrial

- Compatible with all types of generator set
- Can be integrated into building management systems
- Steel casing
- Operating temperature up to 45° C
- Meets Marine vibration test requirements



- 1 Slot for Eaton minislot communication card
- 2 9-pin D output connector
- 3 RJ11 port for remote emergency power off
- 4 Connectors for automatic detection of battery module(s)
- 5 RS 232 communication port
- 6 Connector for EXB modules

- 7 Manual bypass for hot maintenance
- 8 Output connectors
- 9 Source switch 1
- 10 Source 1 connector
- 11 Source 2 connector
- 12 Battery circuit breaker

## Technical Specifications

	5 kVA	7 kVA	11 kVA
Active power kVA / kW	5 kVA / 4 kW (single phase input not available for 5kVA)	7 kVA / 4.9 kW	11 kVA / 8 kW
Technology	On-line double conversion with PFC (Power Factor Correction) system (applicable to single phase models)		
Rated input voltage	200/208/220/230/240/250 V single phase 380/400/415V three phase		
Input voltage range	(- 30%; + 20%) 230 V; (- 20%, + 15%) 400 V		
Input, output frequency range	40-70 Hz, 50 / 60 HZ autoselection, frequency converter as a standard		
Output voltage / THDU	200/208/230/240 / 250 V +/- 2%; THDU < 2%		
Overall efficiency	Normal mode 91%, eco mode 97%		
THDI	THDI < 5% (single phase input value)		
Crest factor / short circuit current	3:1 / 100 A	3:1 / 100 A	3:1 / 150 A
Overload capacity	>150% 500 ms; 150% 30 s; 125% 60 s; 110% 120 s		
Temperature operating	45°C for 8 Hrs (at nominal output power for 230 V or 400V input and 230V output), 40°C continuous		
<b>Back-up times* at 70% load</b>			
From 10 up to 15 minutes	Standard: 1 power mod. 3U + 1 battery mod. EXB 3U = 6U		
From 15 up to 20 minutes	Standard + 1 battery mod. EXB 3U = 9U		
From 40 up to 65 minutes	Standard + 2 battery mod. EXB 3U = 12U		
<b>Connection</b>			
Input /output	Terminal block for 13 mm <sup>2</sup> (stranded cable) or 10 mm <sup>2</sup> (solid cable)		
<b>Communication</b>			
Port type	6 voltage free contacts DB9 2 A 48 V DC, 1 RS 232, RJ11 for remote emergency power off		
Slot	1 slot for Eaton inter-unit communication card		
<b>Standards and certification</b>			
Performance and safety	IEC 62040-1/IEC 60950/UL 1778 and CSA 22.2 (applicable to single phase models)		
EMC	IEC 62040-2; EN 50091-2; FCC class A (applicable to single phase models), EMC B level (option for single phase model)		
Certification	UL (applicable to single phase models)/TÜV, GS mark,CB, C-Tick,CE, IEC 68-2-6 (vibration tests Marine approval)		
<b>Dimensions H x W x D / Weight (single phase input / three phase input)</b>			
Eaton EX RT standard backup tower	444.5 x 261.2 x 700 mm 89.5 kg	444.5 x 261.2 x 700 mm 88.3 kg / 89.5 kg	444.5 x 261.2 x 700 mm 94.2 kg / 95.3 kg
Eaton EX RT standard backup Network Pack rack mounting	261.2 (6U) x 444.5 x 700 mm 97.3 kg	261.2 (6U) x 444.5 x 700 mm 96.1 kg / 97.3 kg	261.2 (6U) x 444.5 x 700 mm 102 kg / 103.1 kg
Eaton EX RT Power module	444.5 x 130.6 x 700 / 130.6 (3U) x 444.5 x 700 mm 24.2 kg	444.5 x 130.6 x 700 / 130.6 (3U) x 444.5 x 700 mm 23 kg / 24.2 kg	444.5 x 130.6 x 700 / 130.6 (3U) x 444.5 x 700 mm 24.9 kg / 26 kg
Battery module Eaton EXB RT	444.5 x 130.6 x 650 / 130.6 (3U) x 444.5 x 650 mm 64.5 kg	444.5 x 130.6 x 650 / 130.6 (3U) x 444.5 x 650 mm 64.5 kg	444.5 x 130.6 x 650 / 130.6 (3U) x 444.5 x 650 mm 68.5 kg
EX RT CLA module / EX RT Transformer	130.6 (3U) x 444.5 x 650 mm / 12 kg / 87 kg	130.6 (3U) x 444.5 x 650 mm / 12 kg / 87 kg	130.6 (3U) x 444.5 x 650 mm / 12 kg / 87 kg
<b>Customer Service &amp; Support</b>			
1 year warranty, including battery	Free standard replacement for faulty units, including the batteries		
Warranty+	Optional 3-years warranty (depending on the country please visit <a href="http://www.eaton.com/powerquality">www.eaton.com/powerquality</a> )		

\* (typical values after 3 discharge cycles, batteries 3-5 years, longer backup times available using the CLA or EXB module, ask for details)

## Part Numbers

Input voltage	EX RT 5		EX RT 7		EX RT 11	
	Single-phase	Three-phase	Single-phase	Three-phase	Single-phase	Three-phase
Eaton EX RT standard back-up time Tower	/	68 054	68 070	68 074	68 110	68 114
Network Pack Rack Format <sup>(1)</sup>	/	68 056	68 072	68 076	68 112	68 116
EXBRT battery module / EXBRT battery module with EPO built-in	/	68 078 / 68 079	68 078 / 68 079	68 078 / 68 079	68 118 / 68 119	68 118 / 68 119
Eaton EX RT Power module (for use with EXB or CLA module)	/	68 057	68 075	68 077	68 115	68 117
Rack kit for Eaton EX RT Power module / Eaton EXB RT and CLA	/	68 001 / 68 002	68 001 / 68 002	68 001 / 68 002	68 001 / 68 002	68 001 / 68 002
Eaton EX RT Transformer module	/	68 003	68 003	68 003	68 003	68 003
Eaton EX RT CLA module (2 to 8 hours)	/	68 004	68 004	68 004	68 004	68 004
EX RT Battery Integration System <sup>(2)</sup>	/	68 005	68 005	68 005	68 005	68 005
EMC B level filter module	/	/	68 008	/	68 008	/
EX RT PDU 19" rack format <sup>(3)</sup>	/	66 857	66 857	66 857	66 857	66 857
1.8 m battery connection cable <sup>(4)</sup>	/	68 006	68 006	68 006	68 006	68 006
UPS Control, remote UPS monitor display	/	66 080	66 080	66 080	66 080	66 080

1: the Network Pack version comprises standard back-up time unit + Network Management Card + rack mounting kit. 2: trolley capacity 8 modules max, casters, adjustable feet. 3: 12 sockets 4 X IEC 16 A + 8 X IEC 10 A. 4: for non standard inter-module spacing.

