Eaton 93E XL UPS

10 - 40 kVA

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Applications:

- Data Center
- Telecom
- Manufacturing
- Healthcare
- Commercial Buildings

The Eaton® 93E XL UPS delivers superior power protection with the highest power and energy density in the industry.

The 93E XL range provides the lowest total cost of ownership in its class by combining extremely compact footprint, tremendous flexibility and unprecedented ease of installation. It also provides the suite of advance technologies of Eaton's UPS to achieve maximum availability for the critical loads.

The 93E XL is ideal for applications where long backup times is needed and space is a constraint.

82% more energy

65% savings on installation

32% less footprint

32% savings on real state

Minimizing Total Cost of Ownership

The 93E XL is the clear choice if you're seeking to maximize your return on investment (ROI). Delivering the lowest TCO of any UPS in its class, the 93E XL offers a unique blend of energy, space and installation savings.

Extremely compact footprint

- Internal battery design with extended runtime design to save footprint, no extra battery cabinet needed.
- Pre-installed batteries to simplify setup and lower costs
- Internal maintenance bypass switch

Ease of installation

- Pre-installed battery modules to minimize installation costs and improve reliability
- Internal maintenance bypass switch (MBS) as standard to avoid additional installation cost

Flexible and scalable runtime

- Delivers up to almost 30 minutes of backup time for 40kVA in a single frame
- Increase backup time by adding more battery modules
- Provides greater runtime at lower costs

Maximum availability

Eaton 93E XL UPS has been designed to maximize availability at both the facility and IT layer. The 93E XL design and Eaton's patented technologies provide a high level of resiliency while Eaton's Intelligent Power Software (IPM) allows enhanced monitoring and load shedding capabilities.

True reliability

- Patented Powerware Hot Sync® paralleling technology eliminating single point of failure
- power Active factor correction (PFC) provides 0.99 input factor powerand <5% ITHD
- Optimized for protecting modern 0.9 p.f. rated IT equipment
- Factory system tested solution for enhanced reliability

Minimize downtime

- Slide out battery trays for easy replacement
- Washable dust filters
- Easy Capacity Test allow the 93E XL to test its entire Power Train without the need of an external load bank.

Cloud and Virtualization Ready

- Utilizing Eaton's Intelligent Power Manager 93E XL integrates with leading virtualization and storage platforms, and allows users to view, monitor and administer physical and virtual servers, UPSs, PDUs and other power devices, from a single pane of glass.
- Simple load-shedding policy-based for extending backup time in case of undesired events. A 50% drop in load equates to up to 250% more battery runtime.

User Interface

- Large LCD graphically displays UPS status and offers easy access to measurements, controls and settings.

Connectivity

- With Eaton® Mini-Slot connectivity cards, you can monitor, manage and remotely shutdown UPSs across the network.
- Network Card–MS Web/SNMP Card allows you to connect your 93E XL UPS directly to the Ethernet network and the Internet.
- Network and MODBUS Card-MS provides remote monitoring of a UPS system through a Building Management BMS) or Industrial Automation System (IAS).
- Relay Card-MS provides an RS232 port and/or dry-contact interface between your Eaton UPS and any relay connected interface.

Eaton 93E XL UPS Technical Specifications

Power	
Ratings	10kVA/9kW 15kVA/13.5kW 20kVA/18kW 30kVA/27kW 40kVA/36kW
Topology	Double-conversion online UPS
Operating frequency	50/60 Hz (40 to 72 Hz)
Input power factor	>0.99 typical
Input current distortion	≤5% THD
Electrical input	
Nominal input voltage	400/230V, 4 wire (380/415V selectable)
Input voltage range	-15%, +20% from nominal (400V) at 100% load without depleting battery
Electrical output	
Nominal output voltage	400/230, 4 wire (380/415V selectable)
Output voltage regulation	±1% Static; <5% dynamic at 100% resistive load change, <20 ms response time
Battery	
Battery	432V (216 Cells * 6 strings(max), Default with internal batteries)
Charging method	ABM Cyclic Charging
General	
Efficiency	>98% High-efficiency mode >94% Double-conversion mode
Overload	150% for 1 minute, 125% for 10 minutes, >150% for 150ms
UPS bypass	Automatic on overload or UPS failure
Parallel technology	Hot Sync® Technology
Dimensions W x D x H (mm)	600 x 800 x 1876
Cabinet rating	IP20 with standard washable dust filters
Weights with 6 strings internal battery	10kVA 770kg 15kVA 770kg 20kVA 770kg 30kVA 780kg 40kVA 790kg

Communications	
Display	Graphical LCD with blue backlight
LEDs	(4) LEDs for notice and alarm
Audible alarms	Yes
Communication ports	(1) RS-232, (1) USB, (1) EPO
Communication slots	(2) Mini-slot communication bays
Environmental	
Operating temperature	0ºC to +40ºC Batteries recommended max. +25ºC
Storage temperature	-25ºC to +55ºC without batteries +15ºC to +25ºC with batteries
Relative humidity	5-95%, non-condensing
Audible noise	10kVA ≤55 dB(A) at 1m typical 15kVA ≤55 dB(A) at 1m typical 20kVA ≤55 dB(A) at 1m typical 30kVA ≤62 dB(A) at 1m typical 40kVA ≤62 dB(A) at 1m typical
Altitude	<1000m at +40°C
Certifications	
EMI standards	EN55022/EN55024
EMC compliance	IEC 62040-2
Quality	ISO 9001: 2000 and ISO 14001:1996
Communication accessories	
Network-MS	Web/SNMP Card
Modbus-MS	Web/SNMP and Modbus Card
Relay-MS	Relay (Dry Contact) Card -DB9 Connection
Industrial Relay	Relay (Dry Contact) Card -Terminal Connection
116750224-001	Environmental Monitor Probe (EMP) kit (need to plug into Web/SNMP Card or Web/SNMP and Modbus Card to work

Due to continuous product improvements, specifications are subject to change without notice.

Scalable Runtime *

Power Rating	Model No.	Backup Time (min)
10kVA	93EXL-10-2S-40M-E	40
	93EXL-10-3S-60M-E	60
	93EXL-10-4S-90M-E	90
15kVA	93EXL-15-3S-40M-E	40
	93EXL-15-4S-55M-E	55
	93EXL-15-5S-72M-E	72
	93EXL-15-6S-92M-E	92
20KVA	93EXL-20-3S-27M-E	27
	93EXL-20-4S-40M-E	40
	93EXL-20-5S-50M-E	50
	93EXL-20-6S-60M-E	60
30KVA	93EXL-30-3S-15M-E	15
	93EXL-30-4S-24M-E	24
	93EXL-30-5S-30M-E	30
	93EXL-30-6S-40M-E	40
40KVA	93EXL-40-4S-15M-E	15
	93EXL-40-5S-22M-E	22
	93EXL-40-6S-27M-E	27

*Notes: Approximate backup time (min) based on the condition with 80% load at 0.9PF

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