

Eaton 93E UPS

80 - 400 kVA



Applications:

- Data centre
- Telecom
- Manufacturing
- Healthcare

Double conversion UPS

Double conversion provides the highest level of protection available by isolating the output power from all input anomalies.

Energy-efficient design

With a transformer-free design and sophisticated sensing and control circuitry the 93E is capable of achieving up to a 98.5% efficiency rating, making it one of the most energy-efficient UPSs in its class - and it still provides maximum load protection. Unlike most high efficiency UPSs, the 93E:

- Provides surge suppression for the load
- Detects the location of faults (utility or load) and takes the appropriate action
- Switches to double-conversion operation in less than 4ms

High system efficiency reduces utility cost, extends battery run times and ensures cooler operating conditions.

The Eaton® 93E UPS delivers superior power protection for ever-expanding loads in today's space-constrained data centres.

Facilitating a lower total cost of ownership (TCO) through a combination of energy-efficiency, high reliability and a compact footprint the 93E is an ideal solution for small - to medium - sized data centres and other applications desiring highly reliable power protection.

Real compatibility

Active power factor correction (PFC) provides 0.99 input power factor and <5% ITHD, thus eliminating interference with other critical equipment in the same network and enhancing compatibility with generators. The 93E is optimised for protecting modern 0.9 p.f. rated IT equipment without the need to oversize.

True reliability

Patented Eaton Hot Sync® technology makes it possible to parallel up to four UPSs to increase availability or add capacity. The technology enables load sharing without any communication line, thus eliminating single point of failure.

Compact & serviceable design

Small footprint occupies minimal floor space:

- Up to 30% smaller than similar competitive solutions
- Allows dedication of more floor space to revenue producing equipment

The 93E is easily and quickly serviced to provide the highest level of availability with Mean Time to Repair (MTTR) <30 minutes



Powering Business Worldwide

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 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 System (BMS) or Industrial Automation System (IAS).
- Relay Card-MS provides an RS232 port and the dry-contact interface between your Eaton UPS and any relay-connected computer.
- Industrial Relay Card-MS provides a hard-wired dry-contact relay interface for industrial applications



Software

Eaton's Intelligent Power® Software Suite incorporates two important applications for ensuring quality power and uptime: monitoring and management of power devices across the network combined with automatic, graceful shutdown when faced with an extended power outage.



To learn more, please visit www.eaton.com/intelligentpower

TECHNICAL SPECIFICATIONS¹

Power		Communications	
Ratings	80kVA/72kW, 100kVA/90kW, 120kVA/108kW, 160kVA/144kW, 200kVA/180kW, 300kVA/270kW, 400kVA/360kW	Display	Graphical LCD with blue backlight
Topology	Double-conversion online UPS	LEDs	(4) LEDs for notice and alarm
Electrical Input	400/230V, 4 wire (380/415V selectable)	Audible Alarms	Yes
Input Voltage Range	-15%, +20% from nominal (400V) at 100% load without depleting battery	Communication Ports	(1) RS-232, (1) USB, (1) EPO
Operating Frequency	50/60 Hz (40 to 72 Hz)	Communication Slot	(2) Mini-slot communication bays
Input Power Factor	>0.99 typical	Environmental	
Input Current Distortion	≤5% THD	Operating Temperature	0°C to +40°C ; Batteries recommended max. +25°C
Electrical output		Storage Temperature	-25°C to +55°C without batteries +15°C to +25°C with batteries
Nominal Output Voltage	400/230, 4 wire (380/415V selectable)	Relative Humidity	5–95%, non-condensing
Output Voltage Regulation	±1% Static; ±5% dynamic at 100% resistive load change, <20 ms response time	Audible Noise	80-120kVA ≤65 dBA at 1m typical 160-200kVA ≤70 dBA at 1m typical 400kVA ≤73 dBA at 1m typical
Battery		Altitude	<1000m at +40°C
Battery	216/240 Cells (Selectable)	Certifications	
Charging Method	ABM Cyclic Charging	EMI Standards	EN55022/EN55024
General		EMC Compliance	IEC 62040-2
Efficiency	Up to 98.5% High-efficiency mode Up to 94% Double-conversion mode	Quality	ISO 9001: 2000 and ISO 14001:1996
UPS Bypass	Automatic on overload or UPS failure	Accessories	
Dimensions W x D x H	600 x 800 x 1880 (mm) 80-200kVA 1600 x 820 x 1900 (mm) 300/400kVA	Top Cable Entry	(80-200kVA, standard on 300-400kVA)
Cabinet rating	IP20 with standard washable dust filters	Maintenance Bypass Switches and System Parallel Modules	
Weights	80/100 kVA - 283 kg, 120kVA - 311 kg 160/200kVA - 457 kg, 300/400kVA - 970 kg	Battery Cabinets & Battery Circuit Breakers, IP21 hood (80-200kVA)	
Overload	150% for 1 minute, 125% for 10 minutes >150% for 150ms	1. Due to continuous product improvements, specifications are subject to change without notice.	

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