

Eaton 93E UPS

80/100/120/160/200/300/400 kVA



93E 80-200 kVA

Advanced power protection for:

- Financial services
- Building management
- Telecommunications
- Industrial automation equipment
- Healthcare
- Government
- Data centres



Double conversion UPS

Simply effective power protection

- Double conversion provides the highest level of protection available by isolating the output power from all input anomalies.
- With a transformer-free design and sophisticated sensing and control circuitry the 93E UPS delivers an efficiency of up to 98,5%.
- Active power factor correction (PFC) provides unbeatable 0,99 input power and <5% ITHD, thus eliminating interference with other critical equipment in the same network and enhancing compatibility with generators.
- The UPS is optimized for protecting modern 0,9 p.f. rated IT equipment without the need to oversize.

True reliability

- Patented Powerware Hot Sync® technology makes possible to parallel up to 3 UPSs in capacity and up to 4 UPSs in redundancy. The technology enables load sharing without any communication line, thus eliminating single point of failure and increasing power availability.
- ABM testing and charging cycle helps you to prevent battery problems and in addition lessens corrosion prolonging battery servicelife up to 50%.

Extensive configurability

- The 93E offers over 20% smaller footprint compared to competitive UPS offerings.
- A multilingual graphical LCD display makes possible to monitor the UPS status easily.
- Wide software and connectivity options provide monitoring, management and shutdown capabilities over the network.
- Connectivity options are available to suit nearly any communication requirements, from standard serial communications to secure remote monitoring over the Web.

Cost savings and sustainability

- A new technical platform used in Eaton's three-phase UPS products guarantee easy upgrades, low MTTR, similarity on service trainings and documentation, thus lowering total cost of ownership.
- A range of service agreement options can be easily customized for customers' needs and budget.



Powering Business Worldwide

Eaton 93E UPS 80-400 kVA Technical Specifications

General	
UPS output power rating (0.9 p.f.)	80 100 120 160 200 300 400 kVA 72 90 108 144 180 270 360 kW
Efficiency in double conversion mode (full load)	94%
Distributed paralleling with Hot Sync technology	3 + 1
Inverter/rectifier topology	Transformer-free IGBT with PWM
Audible noise	≤65 dB (80-120kVA), ≤70dB (160-200kVA) and ≤73dB (300-400kVA) at 1 m, 75% load
Altitude (max)	1000 m without derating (max 2000 m)
Dimensions W x D x H	600 x 800 x 1876 (mm) 80-200 kVA 1600 x 820 x 1880 (mm) 300-400 kVA
UPS ambient service temperature	0°C to +40°C

Input	
Input wiring	3 ph + neutral
Nominal voltage rating (configurable)	220/380, 230/400, 240/415 V 50/60 Hz
Input voltage range	+20% / -15% at 100% load +20% / -50% at 50% load
Input frequency range	42-70 Hz
Input Power Factor	0,99
Input ITHD	< 5%
Soft start capability	Yes
Internal backfeed protection	Yes

Battery	
Battery type	VRLA
Charging method	ABM technology or Float
Battery nominal voltage (lead-acid)	432 V (36 x 12 V, 216 cells) 456 V (38 x 12 V, 228 cells) 480 V (40 x 12 V, 240 cells)
Charging current / Model	80 100 120 160 200 300 400 kVA
Default	20 20 20 20 20 20 20 A
Max*	40 40 40 80 80 120 160 A

*May be limited by maximum UPS input current rating

Output	
Output wiring	3 ph + neutral
Nominal voltage rating (configurable)	220/380, 230/400 (default), 240/415 V 50/60 Hz
Output UTHD	<2% (100% linear load)
Output power factor	0.9
Permitted load power factor	0.7 lagging – 0.9 leading
Overload on inverter	10 min 102-125% load 1 min 126-150% load 150 ms >151% load
Overload when bypass available	Continuous <115% load, 20 ms 1000% peak current. Note! External bypass fuses may limit the overload capability.

Accessories

External battery cabinets, internal manual bypass switch up to 120 kVA, external maintenance bypass switch, MiniSlot connectivity (Web/SNMP, ModBus/Jbus, Relay)

Communications	
MiniSlot	2 communication bays
Serial ports	USB, RS232
Relay inputs/outputs	Three Signal inputs

Compliance with standards	
Safety (CB certified)	IEC 62040-1
EMC	IEC 62040-2, EMC Category C3
Performance	IEC 62040-3

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



93E 300-400 kVA