

Eaton 93E UPS 15-400 kVA Technical Specs

Power

Ratings 15kVA/13.5kW, 20kVA/18kW, 30kVA/27kW, 40kVA/36kW, 60kVA/54kW, 80kVA/72kW, 100kVA/90kW, 120kVA/108kW, 160kVA/144kW, 200kVA/180kW, 300kVA/270kW, 400kVA/360kW

Topology Double-conversion online UPS

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

Operating frequency 50/60 Hz (40 to 72 Hz)

Input power factor >0.99 typical

Input current distortion ≤5% THD

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 192 to 240 Cells (Continual selectable for 15-80kVA)
216/222/228/234/240 Cells (Selectable for 100-400kVA)

Charging method ABM Cyclic Charging

General

Efficiency Up to 98% High-efficiency mode(15-80kVA)
Up to 98.5 % High-efficiency mode(100-400kVA)
Up to 94% Double-conversion mode

UPS bypass Automatic on overload or UPS failure

Dimensions W x D x H	500 x 710 x960 (mm) 15-20kVA (optional for internal battery)
	500 x 710 x 1230 (mm) 30kVA (optional for internal battery)
	500 x 710 x 1500(mm) 40kVAk (optional for internal battery)
	600 x 800 x 1876 (mm) 60-200kVA
	1600 x 820 x 1880 (mm) 300/400kVA

Cabinet rating	IP20 with standard washable dust filters
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Weights without internal battery	15 /20kVA -72 kg, 30 kVA -91 kg, 40 kVA -120 kg, 60 kVA -202 kg, 80 kVA -245 kg, 100 kVA - 283 kg, 120kVA - 311 kg, 160/200kVA - 457 kg, 300kVA - 860 kg, 400kVA - 970 kg
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Weights with internal battery	15 /20kVA -272 kg, 30 kVA -376 kg, 40 kVA -490kg
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Overload	150% for 1 minute, 125% for 10 minutes, >150% for 150ms
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Communications

Display	Graphical LCD with blue backlight
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LEDs	(4) LEDs for notice and alarm
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Audible alarms	Yes
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Communication ports	(1) RS-232, (1) USB, (1) EPO
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Communication slots	(2) Mini-slot communication bays
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Environmental

Operating temperature	0°C to +40°C Batteries recommended max. +25°C
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Storage temperature	-25°C to +55°C without batteries +15°C to +25°C with batteries
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Relative humidity	5–95%, non-condensing
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Audible noise	15-20kVA ≤55 dBA at 1m typical
	30-40kVA ≤62 dBA at 1m typical
	60-120kVA ≤65 dBA at 1m typical
	160-200kVA ≤70 dBA at 1m typical

300-400kVA ≤ 73 dBA 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)

System Accessories

Battery Cabinets & Battery Circuit Breakers(60-200kVA)

Maintenance Bypass Switches(MBS)(100-200kVA, standard on 15-80kVA)

Top Cable Entry(60-200kVA, standard on 300-400kVA)

System Parallel Modules(60-200kVA)

Dual input kit(15-80kVA)

IP21 hood(15-200kVA)

Rear Chimney(60-200kVA)

In the interests of continuous product improvement all specifications are subject to change without notice.