Product Bulletin

Product Line:	3 Phase UPS, 9E/93E
Bulletin No. & Date:	21st July 2013
Author:	Bernard Lee
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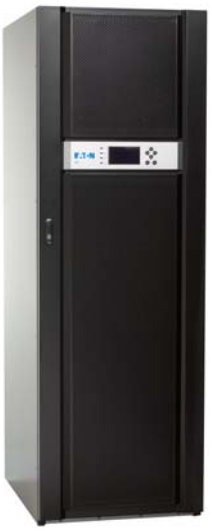
Subject: 9E renamed 93E, & with increased efficiency!



The Eaton 9E 80-200kVA UPS range has renamed "93E" to line up with the new naming system that was recently updated with the introduction of the 93PM UPS.

Along with the new name comes an increase in efficiency; the 93E is now more efficient than the 9390 across the entire load range.

	Eaton 93E					Eaton 9390				
System Efficiency	80kVA	100kVA	120kVA	160kVA	200kVA	60kVA	80kVA	100kVA	120kVA	160kVA
100% Linear Load	94.0%					93.4%	93.8%	93.6%		
75% Linear Load	93.8%					92.9%	93.6%	92.9%		
50% Linear Load	93.1%		93.3%			93.1%	93.1%	92.5%		
25% Linear Load	90.3%		90.5%			89.6%	89.6%	89.6%		

Systems shipped from the factory in July 2013 will include the new naming and higher efficiency.

The following sales tools have been updated and uploaded to the Salesweb:

- Technical Specification
- Guide Specification
- Site Planning Guides
- Dimension Drawings
- Sales presentation
- Sales training presentation
- User manual

Attached to this bulletin is the updated brochure.

Also included in the aforementioned sales tools is data on the new 300kVA-400kVA 93E models, which are being released simultaneously. This announcement will be on a separate Product Bulletin.

Stay tuned for further 93E announcements on available accessories in Q3 2013.

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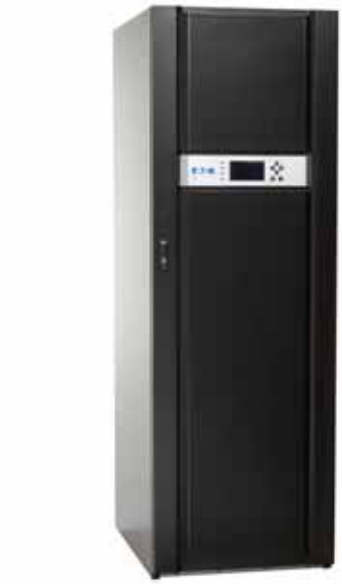
Eaton 93E UPS

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.

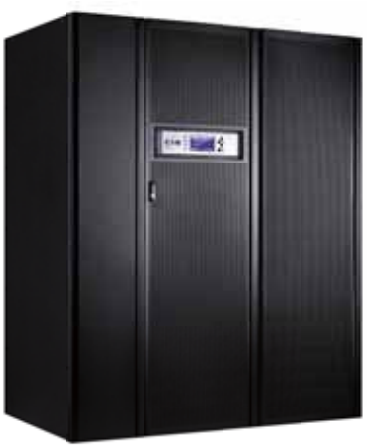
Compact & serviceable design

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.

With its Easy Capacity Test feature, the 93E can test its entire power train under full load stress without the requirement of an external load.



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 SPECIFICATIONS[1]

Power	
Ratings	80kVA/72kW, 100kVA/90kW, 120kVA/108kW, 160kVA/144kW, 200kVA/180kW, 300kVA/270kW, 400kVA/360kW
Topology	Double-conversion online UPS
Electrical Input	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	216/240 Cells (Selectable)
Charging Method	ABM Cyclic Charging
General	
Efficiency	Up to 98.5% High-efficiency mode Up to 94% Double-conversion mode
UPS Bypass	Automatic on overload or UPS failure
Dimensions W x D x H	600 x 800 x 1880 (mm) 80-200kVA 1600 x 820 x 1900 (mm) 300/400kVA
Cabinet rating	IP20 with standard washable dust filters
Weights	80/100 kVA - 283 kg, 120kVA - 311 kg 160/200kVA - 457 kg, 300/400kVA - 970 kg
Overload	150% for 1 minute, 125% for 10 minutes >150% for 150ms

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 Slot	(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	80-120kVA ≤65 dBA at 1m typical 160-200kVA ≤70 dBA at 1m typical 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
Accessories	
Network-MS	Network Card-MS
Modbus-MS	Network and Modbus Card-MS
Relay-MS	Relay Card-MS
116750224-001	Environmental Monitor Probe (EMP) kit (need to plug into Network Card-MS or Modbus Card-MS to work)

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

SINGAPORE
Tel : +65 6825 1684
Fax : +65 6825 1689
EatonSEA@eaton.com

INDONESIA
Tel : +62 21 2949 9000
Fax : +62 21 2949 9001

MALAYSIA
Tel : +603 7804 3618
Fax : +603 7803 6193

THAILAND
Tel : +66 2575 0530
Fax : +66 2575 1579

VIETNAM
Hanoi
Tel : +84 4 3936 5303
Fax : +84 4 3936 5307

Ho Chi Minh
Tel : +84 8 6255 6737
Fax : +84 8 6255 6801

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