

# High performance Online double conversion UPS

#### **Performance and Efficiency**

- Double conversion topology. The Eaton 9SX constantly monitors power conditions and regulates voltage and frequency.
- With up to 94% efficiency in online double conversion mode the 9SX provides the highest efficiency level in its class to reduce energy & cooling costs.
- With a 0.9 power factor the 9SX delivers 28% more power than UPS in its class. It powers more servers than other UPSs with equivalent VA ratings and lower power factors.

#### **Availability and Flexibility**

- The internal bypass allows service continuity in case of internal fault. Batteries are hot-swappable from the front panel without powering down critical systems.
- With its rack/tower versatile form factor the 9SX can be installed in any environment (rack kit provided as standard).
- Stronger, longer battery life: Eaton ABM® battery management technology uses an innovative three-stage charging technique that extends battery life by up to 50%.
- More runtime can be added with up to 12 external hotswappable battery modules, able to run systems for hours if necessary. The additional battery modules are automatically recognised by the UPS.

#### Manageability

- The new graphical LCD provides clear information on the UPS's status and measurements on a single screen (in seven languages). LCD display position can be adjusted to offer the best viewable angle for tower and rack usage.
- The 9SX can meter energy consumption. kWh values can be monitored using the LCD or Eaton's Intelligent Power® Software Suite.
- Load segment control enables prioritised shutdowns of non-essential equipment to maximise battery runtime for critical devices. It can also be used to remotely reboot locked-up equipment or to manage scheduled shutdowns and sequential start-ups.
- The 9SX offers Serial, USB and relay (4 dry contacts) connectivity, plus an extra slot for an optional card (Modbus, Network or Relay). 9SX also provides Remote Power off function. Eaton's Intelligent Power® Software Suite is included with each UPS.

## **Advanced protection for:**

- Infrastucture, Industrial and Medical
- IT, Networking, Storage and Telecom



Rack/Tower versatile



9SX LCD tilts 45° for





### What's in the box:

- Rackmount kit
- Pedestal feet
- USB cable
- Serial cable
- Cable retention brackets
- User guide
- Software suite CD



Eaton 9SX UPS















- 1 Remote Off/On connector
- 2 Remote Power Off connectors
- 3 Slot for Network-MS, ModBus-MS or Relay-MS cards
- 4 External battery module (EBM)
  connector with automatic detection (RJ11)
- **5** DB 9 with output contacts
- 6 USB and serial ports
- 7 Input/Output connections

Technical Specifications	5kVA	6kVA	
Rating (kVA/kW)	5kVA/4.5kW	6kVA/5.4kW	
Electrical Characteristics			
Technology	On-line double conversion with Power Factor Correction (PFC) system		
Nominal voltage	200/208/220/230/240V		
Input voltage range	176-276V without derating (up to 100–276V with derating)		
Output voltage/THDU	200/208/220/230/240V +/- 1%; THDU <2%		
Input frequency range/THDI	40-70Hz, 50/60Hz autoselection, frequency converter as standard, THDI < 5%		
Efficiency	Up to 94% in Online mode, 98% in Hi-Efficiency mode		
Crest factor/short circuit current	3:1/90A		
Overload capacity	102–110% : 120s, 110–125%: 60s, 125–150%: 10s, >150%: 500ms		
Connections			
Input	Terminal block (up to 10 mm2)		
Outputs	Terminal block + 2 controlled groups of 4 IEC C13 (10A) + 2 IEC C19 (16A)		
Batteries			
Typical backup times at 50 and 70% load*			
9SX	13/10 min	11/8 min	
9SX + 1 EBM	60/40 min	48/34 min	
9SX + 4 EBM	220/150 min	170/120 min	
Battery management	ABM® and Temperature compensated charging method (user selectable), automatic battery test, deep discharge protection, automatic recognition of external battery units.		
Communication			
Communication ports	1 USB port, 1 RS232 serial port (USB and RS232 ports cannot be used simultaneously), 4 dry contacts (DB9), 1 mini terminal block for remote On/Off and 1 for remote power Off.		
Communication slot	1 slot for Network-MS card, ModBus-MS or Relay-MS cards.		
Operating conditions, standards and approvals			
Operating temperature	0 to 40°C continuous		
Noise level	<45dB		
Safety	IEC/EN 62040-1, UL 1778, CSA 22.2		
EMC, performance	IEC/EN 62040 -2 , FCC Class A, IEC/EN 62040-3 (Performance)		
Approvals	CE, CB report (TUV), UL		
Dimensions H x W x D/Weight			
UPS	440(19")*130(3U)*685mm/48kg		
EBM	440(19")*130(3U)*645mm/68kg		
Customer Service and Support			
Warranty	2 years warranty		

<sup>\*</sup> Runtimes are shown at 0.7 power factor. Backup times are approximate and may vary with equipment, configuration, battery age, temperature, etc

Part Numbers	9SX 5kVA	9SX 6kVA
UPS with Rack Kit	9SX5KiRT	9SX6KiRT
EBM with Rack Kit	9SXEBM180RT	9SXEBM180RT
HotSwap Maintenance ByPass	МВР6Кі	MBP6Ki
Transformer Module	TFMR11Ki	TFMR11Ki
1.8m Battery Connection Cable	EBMCBL180	EBMCBL180
Battery Integration System	BINTSYS	BINTSYS





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