# Eaton 9SX UPS

## 5/6/8/11 kVA



9SX 11kVA



9SX LCD tilts 45° for ease-of-viewing

Advanced protection for:

• Infrastucture, Industrial and Medical

• IT, Networking, Storage and Telecom



## 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 95% 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 on RT versions).

• 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 hot-swappable battery modules, able to run systems for hours if necessary. The additional battery modules are automatically recognized 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 nonessential 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.



Powering Business Worldwide

# Eaton 9SX UPS

1 Remote Off/On and Remote Power Off connectors

2 Slot for Network-MS, ModBus-MS or Relay-MS cards

3 External battery module (EBM) connector with automatic detection (RJ11)

4 DB 9 with output contacts

5 USB and serial ports

6 Input/Ouput connections

Eaton 9SX 11kVA

| Technical Specifications | 5kVA | 6kVA | 8kVA | 11kVA |
|---|---|---|---|---|
| Rating (kVA/kW) | 5kVA/4.5kW | 6kVA/5.4kW | 8kVA/7.2kW | 11kVA/10kW |
| **Electrical Characteristics** | | | | |
| Technology | On-line double conversion with Power Factor Correction (PFC) system | | | |
| Nominal voltage | 200/208/220/230/240V | | 200/208/220/230/240V/250V | |
| Input voltage range | 176-276V without derating (up to 100–276V with derating) | | | |
| Output voltage/THDU | 200/208/220/230/240V +/– 1%; THDU <2% | | 200/208/220/230/240/250V +/– 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 | | Up to 95% in Online mode, 98% in Hi-Efficiency mode | |
| Crest factor/short circuit current | 3:1/90A | 3:1/90A | 3:1/120A | 3:1/150A |
| Overload capacity | 102–110% : 120s, 110–125%: 60s, 125–150%: 10s, >150%: 500ms | | 102–110% : 120s, 110–125%: 60s, 125–150%: 10s, >150%: 900ms | |
| **Connections** | | | | |
| Input | Terminal block (up to 10 mm$_2$) | | Terminal block (up to 16mm$_2$) | |
| Outputs | Terminal block + 2 controlled groups of 4 IEC C13 (10A) + 2 IEC C19 (16A)Terminal block | | | |
| **Batteries** | | | | |
| Typical backup times at 50 and 70% load* | | | | |
| 9SX | 13/10 min | 11/8 min | 15/10 min | 9/5min |
| 9SX + 1 EBM | 60/40 min | 48/34 min | 38/25 min | 22/15 min |
| 9SX + 4 EBM | 220/150 min | 170/120 min | 120/82 min | 80/55 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 | <45dB | <48db | <50db |
| 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 | 440(19'')*130(3U)*685mm/48kg | 440(19'')*260(6U)*700mm/84kg | 440(19'')*260(6U)*700mm/86kg |
| EBM | 440(19'')*130(3U)*645mm/68kg | 440(19'')*130(3U)*645mm/68kg | 440(19'')*130(3U)*680mm/65kg | 440(19'')*130(3U)*680mm/65kg |
| Power module | – | – | 440(19'')*130(3U)*700mm/19kg | 440(19'')*130(3U)*700mm/21kg |
| **Customer Service and Support** | | | | |
| Warranty | 2 years warranty | | | |

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

| Parts Numbers | 9SX 5kVA | 9SX 6kVA | 9SX 8kVA | 9SX 11kVA |
|---|---|---|---|---|
| UPS | – | – | 9SX8Ki | 9SX11Ki |
| UPS with Rack Kit | 9SX5KiRT | 9SX6KiRT | 9SX8KiRT | 9SX11KiRT |
| EBM | – | – | 9SXEBM240 | 9SXEBM240 |
| EBM with Rack Kit | 9SXEBM180RT | 9SXEBM180RT | – | – |
| Power Module | – | – | 9SX8KiPM | 9SX11KiPM |
| HotSwap Maintenance ByPass | MBP6Ki | MBP6Ki | MBP11Ki | MBP11Ki |
| Transformer Module | TFMR11Ki | TFMR11Ki | TFMR11Ki | TFMR11Ki |
| Supercharger with Rack Kit | – | – | SC240RT | SC240RT |
| 1.8m Battery Connection Cable | EBMCBL180 | EBMCBL180 | EBMCBL240 | EBMCBL240 |
| Battery Integration System | BINTSYS | BINTSYS | BINTSYS | BINTSYS |
| Rack Kit | 9RK | 9RK | 9RK | 9RK |