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:

• Infrastructure, Industrial and Medical
• IT, Networking, Storage and Telecom
**What's in the box:**
- Rackmount kit
- Pedestal feet
- USB cable
- Serial cable
- Cable retention brackets
- User guide
- Software suite CD

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**Technical Specifications**

### Rating (kVA/kW)

<table>
<thead>
<tr>
<th></th>
<th>5kVA/4.5kW</th>
<th>6kVA/5.4kW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rating (kVA/kW)</strong></td>
<td>5kVA/4.5kW</td>
<td>6kVA/5.4kW</td>
</tr>
</tbody>
</table>

### 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*

<table>
<thead>
<tr>
<th></th>
<th>9SX</th>
<th>9SX + 1 EBM</th>
<th>9SX + 4 EBM</th>
</tr>
</thead>
<tbody>
<tr>
<td>5kVA</td>
<td>10/18 min</td>
<td>30/34 min</td>
<td>170/120 min</td>
</tr>
<tr>
<td>6kVA</td>
<td>11/8 min</td>
<td>48/34 min</td>
<td>170/120 min</td>
</tr>
</tbody>
</table>

#### 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
<40dB

#### 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 (TÜV), UL

### Dimensions H x W x D/Weight

<table>
<thead>
<tr>
<th></th>
<th>9SX</th>
<th>9SX + 1 EBM</th>
<th>9SX + 4 EBM</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPS</td>
<td>440/19&quot;/11283U/845mm/48kg</td>
<td>570/19&quot;/11283U/845mm/68kg</td>
<td></td>
</tr>
<tr>
<td>EBM</td>
<td>440/19&quot;/11283U/845mm/68kg</td>
<td>570/19&quot;/11283U/845mm/68kg</td>
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</tr>
</tbody>
</table>

### Customer Service and Support

#### Warranty
2 years warranty

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**Part Numbers**

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>9SX 5kVA</th>
<th>9SX 6kVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPS with Rack Kit</td>
<td>9SX5KrT</td>
<td>9SX6KrT</td>
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<tr>
<td>EBM with Rack Kit</td>
<td>9SEXEBM180RT</td>
<td>9SEXEBM180RT</td>
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<tr>
<td>HotSwap Maintenance ByPass</td>
<td>MBP6Ki</td>
<td>MBP6Kr</td>
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<tr>
<td>Transformer Module</td>
<td>TFM11Ki</td>
<td>TFM11Ki</td>
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<tr>
<td>1.8m Battery Connection Cable</td>
<td>EBMCBL180</td>
<td>EBMCBL180</td>
</tr>
<tr>
<td>Battery Integration System</td>
<td>BINTSYS</td>
<td>BINTSYS</td>
</tr>
</tbody>
</table>

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