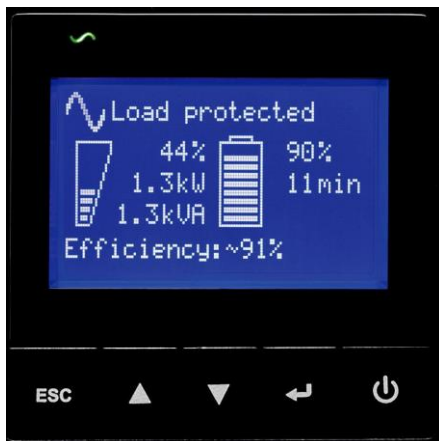# Eaton 9SX (PREMIUM SERIES) UPS

700/ 1000/ 1500/ 2000/ 3000/ 5000/ 6000 VA

9SX Rack & Tower models

9SX graphical LCD

Advanced protection for:

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

Powering Business Worldwide

High Performance Online double-conversion UPS

Performance and Availability

- 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.
- The internal bypass allows service continuity in case of internal fault, a maintenance bypass is also available (as option) for easy replacement of the UPS without powering down critical systems.
- 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.
- Stronger, longer battery life: Eaton ABM® battery management technology uses an innovative three-stage charging technique that extends battery life by up to 50%. 9SX also provides recommended replacement date for batteries.

Manageability

- The new graphical LCD provides clear information on the UPS's status and measurements on a single screen. Enhanced configuration capabilities are also available.
- The 9SX can meter energy consumption. kWh values can be monitored using the LCD or Eaton's Intelligent Power® Software.
- Load segment control enables prioritised shutdowns of nonessential equipment to maximise battery runtime for critical devices.
- 9SX offers Serial, USB connectivity, plus an extra slot for an optional communication card. Eaton's Intelligent Power® Software seamlessly integrates with leading virtualisation environments and cloud orchestrations tools.

Flexibility

- One platform, two factors, dozens of choices. Up to 3000 VA of UPS power is packed into only 2U of rack space. The tower option is about the size of a modern, compact PC.
- More runtime can be added with up to 4 external hot-swappable battery modules, able to run systems for hours if necessary. The additional battery modules are automatically recognized by the UPS.

Eaton 9SX Premium Series UPS
Technical Specifications

1 Remote Power Off connector (configurable)

2 Slot for Management card

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

4 Relay output

5 USB and serial ports

6 Input/Ouput connections

Technical specifications	700 VA	1000 VA	1500 VA	2000 VA	3000 VA	5000VA	6000 VA
Rating (VA/W)	700 VA/ 630 W	1000 VA/900 W	1500 VA/1350 W	2000 VA/1800 W	3000 VA/2700 W	5000 VA/4500 W	6000 VA/5400 W
Format	Tower	Tower or Rack 2U	Tower or Rack 2U	Tower or Rack 2U	Tower or Rack 2U	Tower	Tower
Electrical characteristics							
Technology	ON-LINE double conversion with automatic bypass and Power factor correction system						
Nominal voltage	200/208/220/230/240V						
Input voltage range	190-276V without derating (up to 120-276V with derating)			200-276V without derating (up to 140-276V with derating)		180-276V without derating (up to 120-276V with derating)	
Input frequency range	40-70Hz, 50/60Hz autoselection, frequency converter mode						
Connections							
Input	1 IEC C14 (10A)	1 IEC C14 (10A)	1 IEC C14 (10A)	1 IEC C14 (10A)	1 IEC C20 (16A)	Ph+N+E Terminal block	Ph+N+E Terminal block
Outputs	6 IEC C13 (10A) sockets	6 IEC C13 (10A) sockets	6 IEC C13 (10A) sockets	8 IEC C13 (10A) sockets	8 IEC C13 (10A) sockets +1 IEC C19 (16A) socket	Ph+N+E Terminal block	Ph+N+E Terminal block
Switched outlet group	2 outlet groups						
Batteries							
Typical backup times*	**300W**	**500W**	**800W**	**1200W**	**1800W**	**2500W**	
9SX 700	14	7,5					
9SX 1000	24	14	7				
9SX 1000 + 1 EBM/+4 EBM	90/320	56/200	33/120				
9SX 1500	39	23	12	7			
9SX 1500 + 1 EBM/+4 EBM	142/520	85/310	50/179	31/115			
9SX 2000 (Tower)	62	36	22	13	7		
9SX 2000 (Tower) + 1 EBM/+4 EBM	280/1050	165/620	100/390	65/250	40/160		
9SX 2000 (Rack)	42	25	14	8	4.5		
9SX 2000 (Rack) + 1 EBM/+4 EBM	210/800	120/480	72/270	45/175	30/118		
9SX 3000 (Tower)	78	45	29	17	10	6	
9SX 3000 (Tower) + 1 EBM/+4 EBM	290/1100	175/630	108/421	68/255	45/168	30/112	
9SX 3000 (Rack)	57	33	20	12	7	4	
9SX 3000 (Rack) + 1 EBM/+4 EBM	220/820	125/490	77/280	50/180	32/121	22/81	
	900W	**1800W**	**2700W**	**3600W**	**4500W**	**5400W**	
9SX 5000	66	28	18	11.5	8		
9SX 5000 + 1 EBM/+4 EBM	250/1016	11/478	67/250	46/180	35/144		
9SX 6000	66	28	18	11.5	8	6	
9SX 6000 + 1 EBM/+4 EBM	250/1016	111/478	67/250	46/180	35/143	28/112	
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 serial RS232 port + 1 mini-terminal block for Remote Power Off + 1 mini-terminal block for Output relay						
Communication slot	1 slot for Network-M2, Network-MS, ModBus-MS or Relay-MS cards						
Operating conditions, standards and approvals							
Operating temeprature	0 to 40°C						
Typical noise level	40dB	41dB	43dB	45dB	45dB	46dB	46dB
Safety	IEC/EN 62040-1, UL 1778, CSA 22.2					IEC/EN 62040-1	
EMC	IEC/EN 62040 -2, FCC Class B, CISPR22 Class B					IEC/EN 62040 -2	
Approvals & markings	CE /CB report (TUV) / cULus / EAC /RCM					CE /CB report (TUV) / EAC /RCM	
Dimensions H x W x D in mm/ Weight							
UPS	252x160x357/11.5kg	Tower: 252x160x387/14.8 kg Rack: 86.5x438x438/15.7 kg	Tower: 252x160x437/18.5 kg Rack: 86.5x438x438/18.4 kg	Tower: 346x214x412/33.3 kg Rack: 86.5x438x608/26.5 kg	Tower: 346x214x412/33.4 kg Rack: 86.5x438x608/26.5 kg	575x244x542/65.5kg	575x244x542/65.5kg
EBM		Tower: 252x160x387/19kg Rack:86.5x438x438/22.2kg	Tower:252x160x387/24.5kg Rack:86.5x438x438/27.4kg	Tower:346x214x412/48.7kg Rack:86.5x438x608/40.5kg	Tower:346x214x412/48.7kg Rack:86.5x438x608/40.5kg	575x244x542/104.9kg	575x244x542/104.9kg
Customer service and support							
Warranty	1 year	1 year	1 year	1 year	1 year	1 year	1 year

* Backup times are approximate and may vary with equipment, configuration, battery age, temperature, etc.

Eaton 9SX (PREMIUM SERIES) UPS

5/6/8/11 kVA

9SX11KI

9SX6KI

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 tower or 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 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 (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 is included with each UPS.

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Eaton 9SX Premium Series UPS

1 Remote Off/On and Remote Power Off connectors

2 Slot for Management card

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 11 kVA

Technical specifications

	5 kVA	6 kVA	8 kVA	11 kVA
Rating (kVA/kW)	5 kVA/4.5 kW	6 kVA/5.4 kW	8 kVA/7.2 kW	11 kVA/10 kW
Format	Tower or RT (Rack/Tower)	Tower or RT (Rack/Tower)	RT (Rack/Tower)	RT (Rack/Tower)
Electrical characteristics				
Technology	On-line double-conversion with Power Factor Correction (PFC) system			
Nominal voltage	200/208/220/230/240 V		200/208/220/230/240 V/250 V	
Input voltage range	176-276V without derating (RT models: 100-276V with derating, Tower models: 120-276V with derating)			
Input frequency range	40-70 Hz, 50/60 Hz autoselection, frequency converter as standard			
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 3:1/90 A	3:1/90 A		3:1/120 A	3:1/150 A
Overload capacity	Tower models: 102-110% : 120s, 110-125%: 60s, 125-150%: 10s, >150%: 500ms		102–110% : 120 s, 110–125%: 60 s, 125–150%: 10 s, >150%: 900 ms	
	RT models: 102-130% : 120s, 130-150%: 30s, 125-150%: 10s, >150%: 100ms			
Connections				
Input	Terminal block (up to 10 mm2)		Terminal block (up to 16 mm2)	
Outputs	Tower models: Terminal block		Terminal block	
	RT models: : Terminal block + 2 controlled groups of 4 IEC C13 (10A) + 2 IEC C19 (16A)			
Batteries				
Typical backup times at 50 and 70% load*				
9SX	Tower: 30/19 min RT: 13/10 min	Tower: 24/15 min RT: 11/8 min	15/10 min	9/5 min
9SX + 1 EBM	Tower: 120/70 min, RT: 60/40 min	Tower: 90/57 min RT: 48/34 min	38/25 min	22/15 min
9SX + 4 EBM	Tower : 485/275 min, RT: 220/150 min	Tower: 385/220 min, RT: 170/120 min	120/82 min	80/55 min
Battery management	ABM® & Temperature compensated charging method , Automatic battery test, deep discharge protection, automatic recognition of external battery units			
Communication				
Communication ports	USB and Serial ports (cannot be used simultaneously), Dry contact, 1 Remote Power Off (all models), 1 Remote On/Off (RT format models)			
Communication slot	1 slot for Network-M2, Network-MS, ModBus-MS or Relay-MS cards.			
Operating conditions, standards and approvals				
Operating temperature	0 to 40°C continuous			
Typical noise level	<46dB	<46dB	<48 dB	<50 dB
Safety	IEC/EN 62040-1, UL 1778 & CSA 22.2 (5 & 6kVA RT only)			
EMC, performance	IEC/EN 62040 -2 , IEC/EN 62040-3			
Approvals	CE, CB report (TUV), UL (5 & 6kVA RT only)			
Dimensions H x W x D/Weight				
UPS	Tower: 575x244x542mm/65.5kg, RT: 440(19")x130(3U)x685mm/48kg		440(19")*260(6U)*700mm/84kg	440(19")x260(6U)x700 mm/86 kg
EBM	Tower: 575x244x542mm/104,9kg, RT: 440(19")x130(3U)x645mm/68kg		440(19")*130(3U)*680mm/65kg	440(19")x130(3U)x680 mm/65 kg
Power module	–	–	440(19")x130(3U)x700 mm/19 kg	440(19")x130(3U)x700 mm/21 kg

* 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 5 kVA	9SX 6 kVA	9SX 8 kVA	9SX 11 kVA
UPS (Tower)	9SX5KI	9SX6KI	-	-
UPS (RT format)*	-	-	9SX8KI	9SX11KI
UPS (RT with rack kit)*	9SX5KIRT	9SX6KIRT	9SX8KIRT	9SX11KIRT
EBM (Tower)	9SXEBM240T	9SXEBM240T	-	-
EBM (RT format)	-	-	9SXEBM240	9SXEBM240
EBM (RT with rack kit)	9SXEBM180RT	9SXEBM180RT	-	-
Power Module	-	-	9SX8KIPM	9SX11KIPM
HotSwap Maintenance ByPass	MBP6KI	MBP6KI	MBP11KI	MBP11KI
Supercharger with Rack Kit	-	-	SC240RT	SC240RT
1.8m Battery Connection Cable	Tower: EBMCBL240T, RT: EBMCBL180	Tower: EBMCBL240T, RT: EBMCBL180	EBMCBL240	EBMCBL240
Rack Kit	-	-	9RK	9RK

* For 8 & 11 kVA UPS: Power Module + EBM

F·A·T·O·N

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