

# EATON 9SX TOWER TECHNICAL SPECIFICATION ANZ

UPS Model (Part Number):	9SX700I-AU	9SX1000I-AU	9SX1500I-AU	9SX2000I-AU	9SX3000I-AU	9SX6KI-AU
<b>GENERAL</b>						
Rating (VA/W)	700/630	1000/900	1500/1350	2000/1800	3000/2700	6000/5400
UPS Topology	IGBT PWM Double Conversion					
UPS Performance Classification	VFI-SS-111					
<b>MECHANICAL</b>						
UPS Dimensions (W x D x H), mm	160 x 354 x 252	160 x 387 x 252	160 x 434 x 252	214 x 412 x 346	214 x 412 x 346	244 x 542 x 575
UPS Gross Weight, kg	12	14	19	35	35	105
<b>External Battery Module (EBM) Model</b>	<b>None</b>	<b>9SXEBM36T</b>	<b>9SXEBM48T</b>	<b>9SXEBM96T</b>		<b>9SXEBM240T</b>
<b>EBM Dimensions (W x D x H), mm</b>	<b>None</b>	<b>160 x 387 x 252</b>	<b>160 x 434 x 252</b>	<b>214 x 412 x 346</b>		<b>244 x 542 x 575</b>
<b>EBM Gross Weight, kg</b>	<b>None</b>	<b>19</b>	<b>24</b>	<b>50</b>		<b>111</b>
Input Connection	C14 (10A)	C14 (10A)	C14 (10A)	C14 (10A)	C20 (16A)	Hardwired (10mm <sup>2</sup> Max)
Output Connection	(4) AU 10A	(4) AU 10A	(4) AU 10A	(5) AU 10A, (1) C19	(5) AU 16A, (1) C19	Hardwired (10mm <sup>2</sup> Max)
Degree of Protection (EN 60529)	IP20					
Colour	Black; RAL 9005					
<b>ENVIRONMENTAL</b>						
Acoustic Noise: 1m, 25°C ambient temperature	<50dBA	<50dBA	<50dBA	<50dBA	<50dBA	<52dBA
Ambient storage temperature range	-25°C to 55°C without batteries 0°C to 40°C with batteries					
Ambient service temperature range UPS	0 °C to + 40 °C					
Ambient service temperature range Batteries	+ 5 °C to + 25 °C recommended for optimized battery life time					
Relative humidity range	5 to 96%, no condensation allowed					
Maximum service altitude	3000m above sea level at 35 °C					
<b>EFFICIENCY</b>						
Efficiency in double-conversion, 100% load	90%	90%	90%	90%	91%	>94%
Efficiency in High Efficiency mode, 100% load	>93%	>93%	>93%	>93%	>93%	>98%
Efficiency in battery mode, 100% load	>79.5%	>82%	>82%	>84%	>84%	>92%
Heat dissipation in double-conversion mode (W)	70	100	150	200	267	345
Heat dissipation in battery mode (W)	163	198	296	343	514	470
<b>ELECTRICAL CHARACTERISTICS (INPUT)</b>						
Number of Input Phases	1 Ph 3 wire	1 Ph 3 wire	1 Ph 3 wire	1 Ph 3 wire	1 Ph 3 wire	1 Ph 3 wire, with separate bypass input
Nominal Input Voltage	240V					
Input Voltage Range @ 33% load	120V-276V					
Input Voltage Range @ 100% load	190V-276V					
Max current @ 240V	3.3A	4.6A	6.9A	9.1A	13.2A	27A
Max current @ 200V	3.9A	5.5A	8.1A	10.8A	15.6A	31.7A
Inrush Current (A) <1ms	45	45	45	45	45	150
Leakage current (mA)	1.5					
Input current distortion at rated input current	<8% THDi	<8% THDi	<8% THDi	<8% THDi	<8% THDi	<5% THDi
Bypass tolerance	204-264V (-15% / +10% of nominal voltage)					
Rated input frequency	50 or 60 Hz, user configurable					
Frequency tolerance	40 to 70 Hz					
Input power factor, double conversion 100% load	> 0.99					
Input Surge Rating	MOV: 510V 296Joules					
Back feed protection	Active and Neutral	Active and Neutral	Active and Neutral	Active and Neutral	Active and Neutral	None

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<b>ELECTRICAL CHARACTERISTICS (OUTPUT)</b>						
Number of output phases	1 Ph 3 wire					
Crest factor	3:1					
Rated output voltage	200*/208**/220/230/240 V configurable					
	*Output derated by 20%, **Output derated by 10%					
Output voltage variation, steady state	±2%					
Total voltage harmonic distortion, linear load	<3%					
Total voltage harmonic distortion, non-linear load	<5%					
Load power factor range	0.7-1.0					
Voltage transient (r.m.s) at 20%-100%-20% step load	6%					
Rated output frequency	50 or 60 Hz, configurable					
Output frequency variation	± 0,1 Hz					
Slew rate	0.8 - 1 Hz/s					
Maximum frequency range for synchronization with bypass	± 5% as default. User settable 1 to 10%					
Maximum slew-rate when synchronizing	1 Hz/s					
Overload Capability	102-130% load: 12s					102-130% load: 2 mins
	130-150% load: 2s					130-150% load: 30s
	>150%: Transfers to bypass immediately for online mode, shuts down after 300ms for battery mode					
<b>SAFETY &amp; COMPLIANCE</b>						
Agency markings	CE, RCM					
EMC Emission (IEC 62040-2: 2006)	Cat C1	Cat C1	Cat C1	Cat C1	Cat C1	Cat C2
Immunity - ESD (IEC 61000-4-2)	Criteria B, Level 4: 8kV Contact Discharge / 15kV Air Discharge					
Immunity - RIM (IEC 61000-4-3)	Criteria A, Level 3: 10V/m					
Immunity - EFT (IEC 61000-4-4)	Criteria B, Level 4: 4kV Power / 2kVA Ethernet port					
Immunity - SIT/Surge (IEC 61000-4-5)	Criteria B, Level 3: 2kV Differential Mode /Criteria B, Level 4: 4kV Common Mode					
Immunity - CIM (IEC 61000-4-6)	Criteria A, Level 3: 10V					
Immunity - MFI (IEC 61000-4-8)	Criteria A, Level 4: 30A/m					
<b>BATTERY</b>						
Battery type	12 V, VRLA, AGM					
Battery design life	5 years					
Battery Management	Advanced Battery Management (ABM®) with temperature compensated charging					
Max Charger Current	1.4	1.4	1.4	1.6	1.6	1.7
UPS Battery Nominal Voltage (Amps)	24V (12 Cells)	36V (18 Cells)	48V (24 Cells)	96V (48 cells)	96V (48 cells)	240V (120 Cells)
UPS Internal Battery Configuration	2 x 12V9Ah	3 x 12V9Ah	4 x 12V9Ah	8 x 12V9Ah	8 x 12V9Ah	20 x 12V7Ah
External Battery Module (EBM) Compatibility	None	Up to 4	Up to 4	Up to 4	Up to 4	Up to 4
<b>External Battery Module (EBM) Model</b>	<b>None</b>	<b>9SXEBM36T</b>	<b>9SXEBM48T</b>	<b>9SXEBM96T</b>		<b>9SXEBM240T</b>
<b>EBM Internal Battery Configuration</b>	<b>None</b>	<b>2 Strings of 3 x 12V9Ah</b>	<b>2 Strings of 4 x 12V9Ah</b>	<b>2 Strings of 8 x 12V9Ah</b>		<b>2 Strings of 20 x 12V7Ah</b>
<b>COMMUNICATION CIRCUITS</b>						
Standard connectivity ports	1 Mini-slot port for optional cards, 1 USB, 1 DB9 port for RS232 or 2 optocoupler signal outputs					
	1 mini-terminal block for signal input, 1 mini-terminal block for relay output					
Compatible communications cards	NETWORK-MS, NETWORK-M2, RELAY-MS, MODBUS-MS					