

Eaton 9PX Li-Ion UPS technical specifications (1500-3000 VA 2U models¹)

Model overview

Catalog number	Power rating (VA/watts)	Input connection	Output receptacles	Dimensions (HxWxD, in.) ²	Weight (lb.)
120V output, 50/60 Hz					
9PX1500RT-L	1500/1350	5-15P ³	(8) 5-15R	3.4 (2U) x 17.3 x 17.7	35.5
9PX1500RTN-L	1500/1350	5-15P ³	(8) 5-15R	3.4 (2U) x 17.3 x 17.7	36.5
9PX2000RT-L	2000/1800 ⁵	5-20P ³	(6) 5-20R, (1) L5-20R	3.4 (2U) x 17.3 x 23.8	50.6
9PX2000RTN-L	2000/1800 ⁵	5-20P ³	(6) 5-20R, (1) L5-20R	3.4 (2U) x 17.3 x 23.8	51.6
9PX3000RT-L	3000/2400 ^{5*}	L5-30P ³	(6) 5-20R, (1) L5-30R	3.4 (2U) x 17.3 x 23.8	52.7
9PX3000RTN-L	3000/2400 ^{5*}	L5-30P ³	(6) 5-20R, (1) L5-30R	3.4 (2U) x 17.3 x 23.8	53.7
208V output, 50/60 Hz bundles					
9PX1500GRT-L	1500/1350 ⁴	C14	(8) C13	3.4 (2U) x 17.3 x 17.7	34.8
9PX2200GRT-L	2200/2000 ⁵	C20 / L6-20P ⁵	(8) C13, (2) C19	3.4 (2U) x 17.3 x 23.8	48.6
9PX3000GRT-L	3000/2400 ^{6*}	C20 / L6-20P ⁴	(8) C13, (2) C19	3.4 (2U) x 17.3 x 23.8	50.2

*2400W at 100% full load for UPS only, 2700W at 100% load for UPS + EBMs

Additional specifications

General	
Topology	Double-conversion, online
Configuration	Rack/tower
Color	Black and silver
Diagnostics	Full system self-test at power up
Warranty	5 years electronics and battery
Rail kit	4-post rail kit included; Max length:30.0in, Min length:17.4in Tower pedestals included <i>Optional 2-post rail kit available, part number: RK2PC(UPS) and RK2PA(EBM)</i>
Remote power off	Remote On/Off (ROO) and Remote Power Off (RPO) rear terminal blocks
Contents (Ships with the following items)	UPS 4-post rail kit Safety manual Output cables (for G models) Input cables (for G models) Cable lockers (for G models) Tower pedestals RS-232 serial cable USB cable

1. Due to continuing product improvement programs, specifications are subject to change without notice.
2. Each 9PX and EBM ships with a 4-post rail kit.
3. Input line cord is 8 feet long.
4. 1500 VA Global model wattage: 200V, 208V: input limited to 1350 watts; 220V, 230V, 240V: 1500 watts
5. C19 to L6-20P input cord is 6 feet long.
6. Models derated at lower voltages due to input cord limitations. See Power ratings table below for further details.

	Communication card (optional)	
Electrical input	208V	120V
Nominal voltage	208V default (200/208/220/230/240V)	120V default (100/110/120/125V)
Input voltage range	Full load: 176-276V, <40% load: 100-276V	Full load: 100-144V, <30% load: 60-144V
Frequency	50/60 Hz	
Frequency range	60 Hz: 50–70 Hz, 50 Hz: 40–60 Hz	
Input power factor	≥.99	
Input current distortion	≤5% (≤10% frequency converter mode)	
Circuit breaker	1500VA: None 2200VA: None 3000VA: None	1500VA: None 2000VA: None 3000VA: (3) 20A for (2) 5-20R each
Electrical output	208V	120V
Power ratings	9PX1500GRT-L 220/230/240V: 1500VA / 1500W 200/208V: 1500VA / 1350 9PX2200GRT-L: 220/230/240V: 2200VA / 2200W 208/200V: 2200VA / 2000W 9PX3000GRT-L(UPS only): 220/230/240V: 3000VA / 2400W 208/200V: 3000VA / 2400W 9PX3000GRT-L(UPS + EBMs): 220/230/240V: 3000VA / 3000W 208/200V: 3000VA / 2700W	9PX1500RT-L: 120/125V: 1500VA / 1350W 110V: 1350VA / 1215W 100V: 1200VA / 1080W 9PX2000RT-L: 120/125V: 2000VA / 1800W 110V: 1800VA / 1620W 100V: 1600VA / 1440W 9PX3000RT-L(UPS only): 120/125V: 3000VA / 2400W 110V: 2700VA / 2400W 100V: 2400VA / 2160W 9PX3000RT-L(UPS + EBMs): 120/125V: 3000VA / 2700W 110V: 2700VA / 2430W 100V: 2400VA / 2160W
Nominal voltage	208V default (200/208/220/230/240V)	120V default (100/110/120/125V)
Output voltage regulation, steady state	±1% normal mode ±2% battery mode	
Voltage THD (online)	Linear: 3% Non-linear: 5%	
Power factor	0.9	
Efficiency	9PX1500GRT-L: 92% online 9PX2200GRT-L: 93% online 9PX3000GRT-L: 93.7% online	9PX1500RT-L: 90% online 9PX2000RT-L: 91.4% online 9PX3000RT-L: 91.6% online
Transfer time	0 ms	
Battery		
Optional extended battery module (EBM)	9PXEbm48RT-L : 1500 VA models (1U form factor) 9PXEbm72RT-L : 2000-3000 models (1U form factor)	
Maximum number of EBMs	Add up to 4 EBMs	
Battery description	Lithium Ion, LiFePO4 chemistry	
Battery management	BMS: Advanced battery management with health monitoring and prediction features	
Battery replacement	Hot-swappable internal batteries and EBMs	
Start on battery	Cold-start enabled; first cold start is always forbidden	
Communications		
User interface	Graphical display. UPS status in a single view.	
LEDs	4 status-indicating LEDs	
Communication ports	RS-232 (RJ45) ports; USB port as standard (HID). 6-foot RS-232 and USB cables included	

Communications card	Network Card-M2 optional , standard on network bundles (bundled models include an N)	
Power management software	Integrates with Eaton Intelligent Power Manager software	
Environmental & standards		
RoHS compliance	Yes	
Surge protection	MOV: 510V, 296Joules	MOV ratings : 271Volt (from L-N) and 510 Volt (from L-G and N-G), 190 Joules
EMC markings	IEC 62040-2 Class B Cat C2 / CISPR22 Class B / FCC part 15 Class B / VCCI Class B	IEC 62040-2 Cat C1 / CISPR22 / FCC part 15 Class B / VCCI Class B
Heat dissipation (BTU)	9PX1500GRT: 494 online, 731 battery 9PX2200GRT: 513 online, 741 battery 9PX3000GRT: 619 online, 1150 battery	9PX1500RT: 512 online, 897 battery 9PX2000RT: 578 online, 974 battery 9PX3000RT: 844 online, 1462 battery
Audible noise	≤47 dB at 1 meter	
Operating temperature	0 to 40°C (32°F to 104°F)	
Altitude operating temperature range	0-1500m @ 0°C - 40°C 1500m-3000m @ 0°C - 35°C	
Safety conformance	CE / cULus	CE / cULus / NOM
Storage temperature	-20 to 35°C (-4°F to 95°F); without batteries: -13 to 55°C (5°F to 131°F)	
Relative humidity	0 to 96% non-condensing	

9PX Li-Ion 1-3kVA Battery Backup Times (in minutes)**

Load(Watts)	Internal batteries	+1 EBM	+2 EBMs	+3 EBMs	+4 EBMs
9PX1500RT-L					
1350		11.2	30.0	47.1	81.4
1215		12.6	33.5	52.7	91.0
1080		14.2	38.0	59.7	103.0
945		16.3	43.5	68.4	118.1
810		19.1	50.8	79.8	137.9
675		22.9	61.0	95.9	165.6
540		28.1	74.8	117.6	203.1
405		37.0	98.6	154.9	267.5
270		54.4	145.2	228.1	394.0
9PX1500GRT-L					
1350		12.0	31.9	50.2	86.7
1215		13.3	35.5	55.8	96.3
1080		15.0	39.9	62.7	108.2
945		17.0	45.2	71.0	122.7
810		19.7	52.5	82.5	142.5
675		23.4	62.5	98.2	169.6
540		28.7	76.4	120.1	207.5
405		37.1	99.0	155.6	268.7
270		52.0	138.7	218.0	376.6
9PX2000RT-L					
1800		13.6	36.3	57.0	98.5
1620		15.2	40.4	63.5	109.7
1440		17.1	45.5	71.6	123.6
1260		19.5	52.0	81.7	141.1

1080	22.6	60.3	94.8	129.3	163.8
900	27.1	72.3	113.6	154.8	196.1
720	33.5	89.3	140.3	191.4	242.4
540	43.8	116.7	183.4	250.1	316.8
360	62.6	167.0	262.4	357.8	453.2
9PX2200GRT-L					
2000	12.3	32.8	51.5	70.2	88.9
1800	13.6	36.3	57.1	77.8	98.6
1600	15.2	40.6	63.8	87.0	110.2
1400	17.3	46.2	72.6	99.0	125.4
1200	20.2	53.8	84.5	115.3	146.0
1000	23.9	63.8	100.3	136.7	173.2
800	29.4	78.4	123.1	167.9	212.7
600	38.2	101.8	159.9	218.1	276.2
400	54.3	144.7	227.4	310.1	392.9
9PX3000RT-L (UPS + EBMs)					
2700	-	24.1	37.9	51.7	65.5
2400	10.2	26.9	42.2	57.6	72.9
2160	11.3	30.3	47.7	65.0	82.3
1890	12.9	34.7	54.5	74.3	94.1
1620	14.8	40.4	63.5	86.5	109.6
1350	18.0	48.3	75.9	103.5	131.1
1080	23.0	59.9	94.2	128.4	162.6
810	28.0	79.1	124.3	169.5	214.7
540	43.0	114.3	179.5	244.8	310.1
9PX3000GRT-L (UPS + EBMs)					
2700	-	24.2	38.0	51.8	65.6
2400	10.5	26.9	42.2	57.5	72.9
2160	11.3	30.2	47.5	64.7	82.0
1890	12.8	34.6	54.4	74.2	94.0
1620	14.9	40.3	63.3	86.3	109.4
1350	18.0	47.9	75.3	102.7	130.0
1080	23.0	59.4	93.4	127.4	161.4
810	30.0	77.6	121.9	166.3	210.6

**Runtimes shown at full load with maximum power factor, are approximate and may vary with equipment, configuration, battery age, temperature, etc. View interactive graphs at www.eaton.com/9PX