

# Appendix A – Specifications and Optional Equipment

**Table A-1, MS-PAE Specifications (at 25°C)**

Models	MS4024PAE	MS4448PAE
Inverter Specifications		
Input battery voltage range	18.0 to 34.0 VDC	36.0 to 64.0 VDC
Absolute maximum DC input	50 VDC	68 VDC
Nominal AC output voltage	120/240 VAC split phase	
AC output voltage accuracy	L-N: 120 VAC ±5%, L-L: 240 VAC ±5% (≤ continuous power)	
Output frequency and accuracy	60 Hz ± 0.1 Hz	
Total Harmonic Distortion (THD)	< 5%	
Continuous power output at 25°C	4000 VA (L-L)	4400 VA (L-L)
Continuous AC output current	L-N: 27.0 A/120 VAC, L-L: 16.7 A/240 VAC	L-N: 29.7 A/120 VAC, L-L: 18.3 A/240 VAC
1 msec surge current (AAC)	L-N: 120, L-L 70	
100 msec surge current (AAC)	L-N: 72, L-L 40	L-N: 75, L-L 40
5 sec surge power (real watts)	5800	8500
30 sec surge power (real watts)	5200	6000
5 min surge power (real watts)	4800	5400
30 min surge power (real watts)	4500	4800
Max. continuous input current	266A	144A
Inverter efficiency (peak)	93%	94%
Transfer time	16 mSecs	
Search mode (typical)	< 6 watts	
No load (120 VAC output, typical)	27 watts	25 watts
Waveform	Pure Sine Wave	
Charger Specifications		
AC input range	60 to 140 VAC / 50 to 70 Hz	
Continuous output at 25°C	105 ADC	60 ADC
Charger efficiency	85%	
Power factor	> 0.95	
Input current at rated output	15 AAC/leg at 120/240 VAC split phase	17.5 AAC/leg at 120/240 VAC split phase
General Features and Capabilities		
Transfer relay capability	2 legs at 30A per leg transfer standard	
Five-stage charging capability	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™	
Battery temp compensation	Yes, 15 ft Battery temp sensor standard	
Internal cooling	0 to 120 cfm variable speed drive using dual 92 mm brushless DC fans	
Overcurrent protection	Yes, with two overlapping circuits	
Over-temperature protection	Yes on transformers, MOSFETS, and battery	
Corrosive protection	PCBs conformal coated, powder-coated chassis & top, stainless steel fasteners	
Listings	ETL Listed to ANSI/UL1741, 1st edition, and CSA STD C22.2 No. 107.1-01	
Warranty (Parts & Labor)	3 yrs parts and labor (extends to 5 yrs when purchased with and installed on MP/MMP system)	
Environmental Specifications		
Operating temperature	-20°C to +60°C (-4°F to 140°F)	
Non-operating temperature	-40°C to +70°C (-40°F to 158°F)	
Operating humidity	0 to 95% RH non-condensing	
Physical Specifications		
Unit Dimensions (L x W x H)	13.75" x 12.65" x 8.0" (34.9 cm x 32.1 cm x 20.3 cm)	
Shipping dimensions (L x W x H)	18.5" x 17.5" x 12.5" (47 cm x 44.5 cm x 31.8 cm)	
Mounting	Shelf, wall (no vents on bottom), MP or MMP panels	
Unit/Shipping weight	55 lb (24.9 kg) / 62 lb (28.2 kg)	55 lb (24.9 kg) / 63 lb (29.6 kg)