MAGNUM ENERGY

The MS-PAE 120/240V Series Inverter / Charger

MODEL NUMBERS

- MS4024PAE
- MS4448PAE

AVAILABLE FOR

- Renewable Energy Systems
  - Off-grid Power
  - Back-up Power

AVAILABLE ACCESSORIES

- Auto Generator Start - ME-AGS-N
- Battery Monitor Kit
- Conduit Box
- Fuse Blocks
- Remote - ME-ARC
- Remote - ME-RC
- Router - ME-RTR
- MP and MMP Panels

NEW WARRANTY!

Three-year warranty standard. Five-year warranty if installed on an MP or MMP panel.

The MS-PAE 120/240V Series Inverter / Charger from Magnum Energy is a pure sine wave inverter designed specifically for the most demanding renewable energy applications. The MS-PAE Series is powerful, easy-to-use, and best of all, cost effective.

No series stacking required: The unique design of the MS-PAE Series can provide 120 and 240 volts output in one unit, eliminating the need to stack two units together to get 240 volts.

Parallel stacking: You can parallel up to four inverter / chargers for up to 17.6kw of power at 120/240V. The MP panels and router are required for parallel stacking the MS-PAE Series.

Power Factor Corrected (PFC) Charger: Our PFC charger is built into all of our inverter chargers. It uses less energy from a generator than a standard charger – using 25-30% less AC current than standard chargers.

Safe and reliable: The MS-PAE Series is ETL Listed to the stringent requirements of UL 1741, 1st edition, and CSA C22.2 #107.1-01 for renewable energy installations.

Features

Pure sine wave: Power your T.V.s, stereos, plasma screens, and other sensitive electronics without worry. The pure sine wave inverter and power factor corrected charger provide clean, reliable inverter power with low total harmonic distortion (THD) of less than 5%.

Choices: The MS-PAE Series comes in 24 and 48 volt configurations, allowing you to choose the model that is right for you.

Versatile mounting: Mount the MS-PAE Series on a shelf or wall.

Lightweight: The lightweight aluminum base and cover also provides noise reduction and corrosion resistance.

Multiple ports: The MS-PAE Series provides multiple ports, including an RS485 communication port for network expansion, and a remote port.

Accessible design: The extra large AC access cover with terminal screw block and 360° DC connection terminals with covers make this inverter more accessible when it needs to be.

Convenient switches: The MS-PAE Series comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.

Buy with ease: The MS-PAE Series is backed by a three-year (36-month) limited warranty, and a five-year limited warranty when installed on an MMP or MP system.

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MS-PAE 120/240V Series Specifications

	MS4024PAE	MS4448PAE
Inverter Specifications		
Input battery voltage range	18.0 - 34.0 VDC	36.0 - 64.0 VDC
Nominal AC output voltage	120/240 VAC split phase (± 5%)	120/240 VAC split phase (± 5%)
Output frequency and accuracy	60 Hz ± 0.1 Hz	60 Hz ± 0.1 Hz
Total Harmonic Distortion (THD)	< 5%	< 5%
1 msec surge current (amps AC)	Line-Neutral: 120, Line-Line: 70	Line-Neutral: 120, Line-Line: 70
100 msec surge current (amps AC)	Line-Neutral: 72, Line-Line: 40	Line-Neutral: 75, Line-Line: 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
Continuous power output at 25° C	4000 VA (L-L)	4400 VA (L-L)
Maximum continuous input current	266 A	144 A
Inverter efficiency (peak)	93%	94%
Transfer time	16 msecs	16 msecs
Search mode (typical)	< 6 watts	< 6 watts
No load (120 VAC output, typical)	27 watts	25 watts
Waveform	Pure Sine Wave	Pure Sine Wave
Charger Specifications		
Continuous output at 25° C	105 ADC	60 ADC
Charger efficiency	85%	85%
Power factor	> 0.95	> 0.95
Input current at rated output (AC amps)	15 AAC per leg at 120/240 VAC split phase	17.5 AAC per leg at 120/240 VAC split phase

General Features and Capabilities	
Transfer relay capability	2 legs at 30A per leg transfer standard on all models
Five stage charging capability	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™
Battery temperature compensation	Yes, 15 ft Battery Temp Sensor standard
Internal cooling	0 to 120 cfm variable speed drive using dual 92mm brushless DC fans
Overcurrent protection	Yes, with two overlapping circuits
Overtemperature protection	Yes on transformer, MOSFETS, and battery
Conformal coating on PCB's for corrosion protection	Yes
Powder coated chassis & top for corrosion protection	Yes
Stainless steel fasteners for corrosion protection	Yes
Listings	ETL Listed to ANSI / UL1741, 1st edition, and CSA STD C22.2 No.107.1-01
Warranty	Three years parts and labor (five years when installed on MMP or MP system)
Environmental Specifications	
Operating temperature	-20° C to +60° C (-4° F to 140° F)
Nonoperating temperature	-40° C to +70° C (-40° F to 158° F)
Operating humidity	0 to 95% RH non condensing

Physical Specifications		
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)	
Mounting	Shelf, wall (no vents on bottom), MP or MMP panels	
Unit Weight	55 lb (24.9 kg)	55 lb (24.9 kg)
Shipping Weight	62 lb (28.2 kg)	63 lb (29.6 kg)
Max operating altitude	15,000' (4570 m)	

Magnum Energy, Inc.
2211 West Casino Road
Everett, Washington 98204 USA

Phone: 425-353-8833
Fax: 425-353-8390
Web: www.magnumenergy.com

Testing for specifications at 25° C
Specifications subject to change without notice.

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The Powerful Difference

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