



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

Pure Sine Wave for Renewable Energy Applications



The MS-AE Inverter/Charger is powerful, easy-to-use, and cost effective.

MODEL NUMBERS

- MS4448AE

AVAILABLE FOR

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

AVAILABLE ACCESSORIES

- AGS
- Battery Monitor Kit
- DC Load Disconnect
- Remote



The Powerful Difference

The MS-AE 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-AE Series is powerful, easy-to-use, and best of all, cost effective.

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

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-AE Series is ETL Listed to the stringent requirements of UL 1741 and CSA STD C22.2 No.107.1-01 for renewable energy installations.

Easy-to-install: Install the MS-AE Series in four easy steps: simply connect the inverter's output to your distribution circuits or electrical panel, connect your utility power cable (AC) to the inverter's easy-to-reach terminal block, connect the batteries, and switch on the power.

Features

You asked and Magnum listened. The MS-AE Series Inverter/Charger is loaded with 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-AE Series comes in 24 and 48 volt configurations, allowing you to choose the model that is right for you.

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

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

Multiple ports: The MS-AE 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-AE Series comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.

Expanded transfer relay: Two legs at 30A per leg transfer service is standard on all models.

Buy with ease: The MS-AE Series is backed by a two-year (24-month) limited warranty.

Accessories and Options*

Remote control: For convenient finger-tip operation, including the new one-knob™ programming.

AGS module: Automatically starts your generator based on temperature or battery voltage.

*For more detailed information and specifications on these accessories, please see the accessories data sheet.



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Specifications

MS4448AE

Inverter Specifications	
Input battery voltage	36 - 68 VDC
Nominal AC output voltage	120/240 VAC split phase
Output frequency and accuracy	60 Hz \pm 0.005%
Total Harmonic Distortion (THD)	< 5%
1 msec surge current (amps AC)	110
100 msec surge current (amps AC)	75
5 sec surge power (real watts)	8500
30 sec surge power (real watts)	6000
5 min surge power (real watts)	5400
30 min surge power (real watts)	4800
Continuous power output at 25° C	4400 VA
Rated input battery current	105 ADC
Inverter efficiency (peak)	94%
Transfer time	16 msec
Search Mode	0.2 ADC
No Load (120 VAC output)	.5 ADC
Waveform	Pure Sine Wave

Charger Specifications

Continuous output at 25° C	60 ADC
Charger efficiency	85%
Power factor	> 0.95
Input current at rated output (AC amps)	17 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, and Battery Saver™
Battery temperature compensation	With available temp sensor (battery temp 0 – 50° C)
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 UL1741 and CSA STD C22.2 No.107.1-01
Warranty	Two years

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 or wall (no vents on bottom)
Weight	58 lb (26.3 kg)
Max operating altitude	15,000' (4570 m)

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