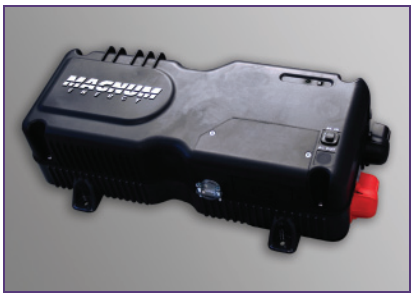
MAGNUM ENERGY

The MM-AE Series Inverter/Charger

For Renewable Energy Applications



The MM-AE Series Inverter/ Charger is the cost effective solution for smaller power needs.

MODEL NUMBERS:

- MM612AE
- MM1212AE
- MM1524AE

AVAILABLE FOR:

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

AVAILABLE ACCESSORIES:

- Fuse Blocks
- Remote

The Powerful Difference

Cost Effective Inverter/Chargers from Magnum Energy

The MM-AE Series Inverter/ Charger from Magnum Energy is a modified sine wave inverter providing a cost effective solution for those with smaller power needs in renewable energy applications. Versatile, easy-to-use, and lightweight, the MM-AE Series provides a reliable base for your energy system.

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 only 7.5 amps per 50 amps versus 12.5 amps used by standard chargers.

Attractive styling: The modern, hourglass case, paired with the die cast aluminum base combines form with function, creating an attractive unit that uses its base as a heat sink for superior high temperature operation.

Features

You asked and Magnum listened. The MM-AE Series Inverter/ Charger is loaded with features:

Standard transfer relay: The standard 20 amp transfer relay will pass AC power through the inverter when using grid or generator power.

Versatile mounting: Mount the MM-AE Series on a shelf, wall, or even upside down.

Fan cooled: The MM-AE Series is fan cooled, enabling the unit to work well in confined spaces. If the inverter does exceed its temperature limits, it will automatically shut down and then restart when it cools down.

Low battery protection: If your battery voltage goes below the cut-out setting the MM-AE Series will automatically shut down, saving your batteries.

High battery protection: If your battery voltage reaches over the cut-out setting the MM-AE Series will shut down.

Current overload protection: The MM-AE Series will automatically shut down if its output wattage is exceeded or it detects a short in the wiring, saving the unit from costly damage.

Convenient switches: The MM-AE Series comes with an on/off front-mounted switch with an easy-to-read LED indicator.

Circuit breaker protection: Every model comes with built in input and output circuit breakers for ease of installation.

Battery temp sensor: The standard battery temp sensor monitors temperatures from 0 - 50° C.

Buy with ease: The MM-AE Series is backed by a two-year (24-month) parts and labor warranty.

Accessories and Options*

Remote control: Optional remotes are available for the MM-AE Series, including the MM-RC, and the ME-RC. A four wire phone jack comes standard with the unit to connect the remote.

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

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Specifications

	MM612AE	MM1212AE	MM1524AE
Inverter Specifications			
Input battery voltage range	9 to 16 VDC	9 to 16 VDC	18 to 32 VDC
Nominal AC output voltage	120 VAC ± 5%	120 VAC ± 5%	120 VAC ± 5%
Output frequency and accuracy	60 Hz ± 0.005%	60 Hz ± 0.005%	60 Hz ± 0.005%
1 msec surge current (amps AC)	27	42	45
100 msec surge current (amps AC)	11	23	24
5 sec surge power (real watts)	1100	2100	2650
10 sec surge power (reall watts)	1050	1900	2575
30 sec surge power (real watts)	1000	1750	2500
5 min surge power (real watts)	950	1450	2350
30 min surge power (real watts)	675	1375	1900
Continuous power output at 25° C (with 1.0 PF)	600 VA	1200 VA	1500 VA
Continuous current output	5 AAC	10 AAC	13 AAC
Rated input battery current	60 ADC	125 ADC	70 ADC
Inverter efficiency (peak)	95%	95%	91%
Transfer time	16 msecs	16 msecs	16 msecs
Search mode	.1	.15	.12
No load (120 VAC output)	.77 ADC	1.3 ADC	.63 ADC
Waveform	Modified Sine Wave	Modified Sine Wave	Modified Sine Wave
Charger Specifications			
Continuous output at 25° C	30 ADC	70 ADC	35 ADC
Charger efficiency	85%	88%	88%
Power factor	> 0.95	> 0.95	> 0.95
Input current at rated output (AC amps)	4	9	9
General Features and Capabilities			
Transfer relay capability	20 AAC (input current for charging and pass through)		
Battery temperature compensation	Yes,standard temp sensor (battery temp 0 – 50° C)		
Remote available (optional)	Yes, MM-RC or ME-RC		
Internal cooling	0 to 59 cfm variable speed		
Overcurrent protection	Yes, with two overlapping circuits		
Overtemperature protection	Yes on transformer and MOSFETS		
On/Off with status indicator	Yes, front mounted and easily accessible		
Low battery cutout	10 or 20 VDC, adjustable on most models with the ME-RC remote		
AC output and input	Hardwire	Hardwire	Hardwire
Output circuit breaker	7 A switchable	12 A switchable	12 A switchable
Input circuit breaker	8 A	16 A	16 A
Listings	NA		
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)	16.6” x 8.4” x 4.7” (42 cm x 21 cm x 12 cm)		
Mounting	Shelf (top or bottom up) or wall (vents up)		
Weight	14 lb (6.4 kg)	20 lb (9 kg)	20 lb (9 kg)
Max operating altitude	15,000’ (4570 m)		
Construction	ABS plastic top and cast aluminum bottom		