

MM-AE SERIES | INVERTER/CHARGER

COST EFFECTIVE INVERTER/CHARGERS

Introduction

The Magnum Energy MM-AE Series Inverter/Charger 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 25-30% less AC current than 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

- 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 and 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.

Model Numbers

- MM612AE
- MM1512AE
- MM1524AE

Available For

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

Available Accessories

- Battery Monitor Kit
- Fuse Blocks
- MagWeb
- Remote - ME-ARC
- Remote - ME-RC



Modified Sine Wave



Battery Voltage Options



Continuous Output Options



SPECIFICATIONS

	MM612AE	MM1512AE	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 ± 0.1 Hz	60 Hz ± 0.1 Hz	60 Hz ± 0.1 Hz
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
30 sec surge power (real watts)	1000	1750	2500
5 min surge power (real watts)	950	1550	2350
30 min surge power (real watts)	675	1525	1900
Continuous power output at 25° C (with 1.0 PF)	600 VA	1500 VA	1500VA
Continuous current output	5 ACC	10 ACC	13 ACC
Maximum input battery current	80 ADC	200 ADC	100 ADC
Inverter efficiency (peak)	95%	95%	91%
Transfer time	16 msec	16 msec	16 msec
Search mode (typical)	3 watts	6 watts	4 watts
No load (120 VAC output, typical)	10 watts	18 watts	9 watts
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, 15 ft Battery Temp Sensor standard		
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/AC input	Hardwire	Hardwire	Hardwire
Output circuit breaker/Input circuit breaker	7A / 8AAC	15A / 20AAC	15A / 20AAC
Listings	NA		
Warranty	Two years		

ENVIRONMENTAL SPECIFICATIONS			
Temperature (Operating/Non-operating)	-20° C to +60° C (-4° F to 140° F) to -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	16 lb (7.3 kg)	22 lb (10 kg)	22 lb (10 kg)
Shipping weight	18 lb (8.2 kg)	24 lb (10.9 kg)	24 lb (10.9 kg)
Max operating altitude	15,000' (4570 m)		
Construction	ABS plastic top and cast aluminum bottom		



GENERAL NOTES

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

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