

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

- 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

	MM1512AE	MM1524AE
INVERTER SPECIFICATIONS		
Input battery voltage range	9 to 16 VDC	18 to 32 VDC
Nominal AC output voltage	120 VAC $\pm$ 5%	120 VAC $\pm$ 5%
Output frequency and accuracy	60 Hz $\pm$ 0.1 Hz	60 Hz $\pm$ 0.1 Hz
1 msec surge current (amps AC)	42	45
100 msec surge current (amps AC)	23	24
5 sec surge power (real watts)	2100	2650
30 sec surge power (real watts)	1750	2500
5 min surge power (real watts)	1550	2350
30 min surge power (real watts)	1525	1900
Continuous power output at 25° C (with 1.0 PF)	1500 VA	1500VA
Continuous current output	10 ACC	13 ACC
Maximum input battery current	200 ADC	100 ADC
Inverter efficiency (peak)	95%	91%
Transfer time	16 msec	16 msec
Search mode (typical)	6 watts	4 watts
No load (120 VAC output, typical)	18 watts	9 watts
Waveform	Modified Sine Wave	Modified Sine Wave
CHARGER SPECIFICATIONS		
Continuous output at 25° C	70 ADC	35 ADC
Charger efficiency	88%	88%
Power factor	> 0.95	> 0.95
Input current at rated output (AC amps)	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
Output circuit breaker/Input circuit breaker	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	22 lb (10 kg)	22 lb (10 kg)
Shipping weight	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.

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.