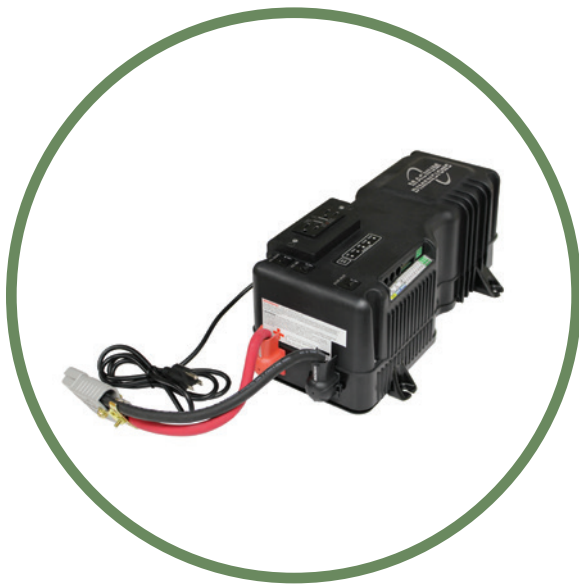


MMA SERIES | INVERTER/CHARGER

WATERPROOF LED PANEL FOR RUGGED CONDITIONS

Introduction

The Magnum Energy MMA Series Inverter/Charger from Sensata Technologies is a modified sine wave inverter providing a cost effective solution for those with smaller power needs in mobile applications. Ideal for Emergency Vehicles, the MMA is versatile, easy-to-use, lightweight, and provides a reliable base for your energy system. Connect with Ease: The MMA comes with DC cables with Anderson quick connectors, a GFCI outlet, and an AC input cord. Auxiliary DC Output Port: Add a small load, such as an interior lamp or backup camera, of less than 20 amps. MMA must be connected to the battery for the AUX output to be available. 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.



Features

- **Waterproof Panel** – The MMA boasts a waterproof switch and LED panel for use in the most rugged territory.
- **Safe and Reliable** – The MMA Series Inverter/Charger is ETL Listed to the stringent requirements of UL/cUL 458 and CSA C22.2 #107.1-01 for mobile use.
- **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.
- **Versatile Mounting** – Mount the MMA Series on a shelf, bulkhead (with DC terminals to the right), or even upside down.
- **Low/High Battery Protection** – If your battery voltage reaches below 10 VDC or above 16 VDC, the MMA Series will automatically shut down.
- **Fan Cooled** – The MMA 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.
- **Current Overload Protection** – The MMA Inverter/Charger will automatically shut down if its output wattage is exceeded or it detects a short in the wiring, saving the unit from costly damage.
- **Integrated Programming** – The MMA Series comes with an on/off front-mounted switch with an easy-to-read LED indicator. And easily toggle through settings with the accessible DIP switch.
- **Battery Temp Sensor** – Automatically adjusts the voltage set-points based on temperature for better charging performance and longer battery life.
- **Buy with Ease** – The MMA Inverter/Charger is backed by a two-year (24-month) parts and labor warranty.

Model Numbers

- MMA1212

Available For

- Emergency Vehicle Systems
- Marine Systems
- RV Systems
- Trucks

Available Accessories

- DC Load Disconnect
- Fuse Blocks
- MagWeb
- Remote Monitor - MM-C
- Remote - ME-ARC
- Remote - ME-RC
- Remote - MM-RC



SPECIFICATIONS

	MMA1212
INVERTER SPECIFICATIONS	
Input battery voltage	9 to 16 VDC
Nominal AC output voltage	120 VAC $\pm$ 5%
Output frequency and accuracy	60 Hz $\pm$ 0.1 Hz
1 msec surge current (amps AC)	42
100 msec surge current (amps AC)	23
5 sec surge power (real watts)	2100
30 sec surge power (real watts)	1750
5 min surge power (real watts)	1450
30 min surge power (real watts)	1375
Continuous power output at 45° C	1200 VA
Maximum continuous input current	160 ADC
Inverter efficiency (peak)	95%
Transfer time (typical)	16 msec
Search mode (typical)	5 watts (with no remote)
No load (120 VAC output, typical)	18 watts (with no remote)
Waveform	Modified Sine Wave
CHARGER SPECIFICATIONS	
Continuous output at 45° C	70 ADC
Charger efficiency (peak)	88%
Power factor	> 0.95
Input current at rated output (AC amps)	9
GENERAL FEATURES AND CAPABILITIES	
Transfer relay capability	20 AAC (input current for charging and pass through)
Battery temperature compensation	Yes, with ME-BTS
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 VDC, adjustable with the ME-RC or ME-ARC remote
AC output	15 amp GFCI outlet
AC input	3 ft AC cord
Output circuit breaker	15 AAC
Input circuit breaker	15 AAC
Listings	ETL Listed to UL/cUL458, CSA C22.2 #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)	16.6" x 8.4" x 6.75" (42 cm x 21 cm x 17 cm)
Mounting	Shelf (top or bottom up) or bulkhead (DC terminals to the right)
Weight	24 lb (10.9 kg)
Shipping weight	25 lb (11.3 kg)
Max operating altitude	15,000' (4570 m)



GENERAL NOTES

Testing for specifications at 45° C, unless otherwise noted.
Specifications subject to change without notice.



AGENCY APPROVALS & CERTIFICATIONS

- ETL Listed to UL/cUL458, CSA C22.2 #107.1-01

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.

CONTACT US

651-653-7000
800-553-6418
InverterInfo@sensata.com

Power Conversion
www.magnum-dimensions.com



This manual is provided courtesy of **RV Tech Cheat Sheet**



Professional resources for the whole RV industry — free.

We put manuals, wiring diagrams and hard-won tech knowledge in every technician's hands, so repairs get done right the first time, techs work faster, and RV owners everywhere get better service.



rvtechcheatsheet.com/manuals

Find thousands more RV manuals, wiring diagrams and parts lists

RV techs: share fixes, ask questions and learn from each other.

Join our free Facebook group →



Follow proper safety practices. If in doubt, consult a professional RV technician.