MSH-RE SERIES | INVERTER / CHARGER

Introduction

The MSH-RE Series Inverter / Charger from Sensata Technologies – a pure sine wave inverter that combines the tried and tested engineering of Sensata's MS line with hybrid technology to make it an optimal choice for your renewable and backup power needs. Hybrid technology: Most inverters only use one source of energy to power loads, either from incoming AC power – utility or AC generator – or from the batteries. The MSH-RE Series combines the energy from both sources to power loads. This allows the inverter to recharge the batteries when there is surplus power or deliver more power to the loads if they require more than the AC input can supply by itself. Load support: Load support parallels the inverter output with incoming AC sources allowing it to run larger loads from smaller generators.

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%.
- Easy-to-install – Install the MSH-RE Series in four easy steps: simply connect the inverter's output to your distribution circuits or electrical panel, connect your utility power cable to the inverter's easy-to-reach terminal block, connect the batteries, and switch on the power.
- Dual AC inputs – The MSH-RE Series comes with two 60 amp AC inputs – a grid input at 60A and a generator input at 60A.
- 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.
- Interchangeable – The MSH-RE is interchangeable with the Magnum MS Series and uses the same accessories as the MS Series.
- Lightweight – The lightweight aluminum base and cover also provides noise reduction and corrosion resistance.
- Multiple ports – The MSH-RE Series provides multiple ports, including an RS485 communication port for network expansion, and a remote port.
- Convenient switches – The MSH-RE Series comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.
- Buy with ease – The MSH-RE Series is backed by a three-year (36-month) limited warranty, and a five-year limited warranty when purchased with and installed on an MMP system.

Model Numbers

- MSH4024RE

Available For

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

Available Accessories

- Auto Generator Start - ME-AGS-N
- Battery Monitor Kit
- Conduit Box
- DC Load Disconnect
- Fuse Blocks
- MagWeb
- MMP Panels
- Remote - ME-ARC*
- Remote - ME-RC*
- Remote Switch Adapter
- Smart Battery Combiner

Pure Sine Wave

24 Battery Voltage Options

4000 VA Continuous Output Options

* New status displays require ME-RC v2.7 or ME-ARC v3.0 or higher.

SPECIFICATIONS

	MSH4024RE
INVERTER SPECIFICATIONS	
Input battery voltage range	18 - 34 VDC
Nominal AC output voltage	120 VAC ± 3%
Output frequency and accuracy	60 Hz ± 0.05 Hz
Total Harmonic Distortion (THD)	< 5%
1 msec surge current (amps AC)	120
100 msec surge current (amps AC)	82
5 sec surge power (real watts)	5800
30 sec surge power (real watts)	5400
5 min surge power (real watts)	4900
30 min surge power (real watts)	4500
Continuous power output at 25° C	4000 VA
Maximum continuous input current	267 ADC
Inverter efficiency (peak)	93.7%
Transfer time	< 16 msecs
Search mode (typical)	< 7 watts
No load (120 VAC output, typical)	25 watts
Waveform	Pure Sine Wave
CHARGER SPECIFICATIONS	
Continuous output at 25° C	110 ADC
Charger efficiency	85%
Power factor	> .95
Input current at rated output (AC amps)	29
GENERAL FEATURES AND CAPABILITIES	
Transfer relay capability	60 AAC maximum each input
Five stage charging capability	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™
Battery temperature compensation	Standard with available temp sensor connected (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
Corrostion protection	Yes, PCB's conformal coated, powder coated chassis/top, and stainless steel fasteners
Dual AC branch rated output breakers	No
Listings	ETL listed to UL/cUL 1741, CSA C22.2 No. 107.1-01
Warranty	Three years parts and labor

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)	13.75" x 12.65" x 8.0" (34.9 cm x 32.1 cm x 20.3 cm)
Shipping dimensions (l x w x h)	19" x 17" x 13" (48.3 cm x 43.2 cm x 33 cm)
Mounting	Shelf or wall (vents not allowed to face downward unless ME-CB or MMP is installed)
Weight	58 lb (26.3 kg)
Shipping weight	60 lb (27.2 kg)
Max operating altitude	15,000' (4570 m)

GENERAL NOTES

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

AGENCY APPROVALS & CERTIFICATIONS

- ETL listed to UL/cUL 1741, CSA C22.2 No. 107.1-01

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