

# MS3748AEJ | INVERTER/CHARGER

## Introduction

Sensata Technologies now offers the MS3748AEJ Inverter/Charger for 120/240 VAC/50 Hz installations (Jamaica). The MS3748AEJ comes with all of the features you've come to expect from a Magnum brand product, including: 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. Safe and reliable: The MS3748AEJ is listed to the stringent CE requirements, ensuring the inverter/charger is safe and reliable. Easy-to-install: Install the MS3748AEJ 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.



## 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%.
- Versatile mounting – Mount the MS3748AEJ on a shelf, bulkhead, or even upside down.
- Lightweight – The lightweight aluminum base and cover also provides noise reduction and corrosion resistance.
- Multiple ports – The MS3748AEJ provides multiple ports, including an RS485 communication port for network expansion, and a remote port.
- 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.
- Convenient switches – The MS3748AEJ comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.
- Buy with ease – The MS3748AEJ is backed by a two-year (24-month) limited warranty.

## Model Number

- MS3748AEJ

## Available For

- Renewable Energy Systems
  - Off-grid Power
  - Back-up Power
- Marine Systems
- Caravan Systems
- Truck Systems

## Available Accessories

- AGS
- Battery Monitor Kit
- Conduit Box
- DC Load Disconnect
- Fuse Blocks
- Ignition Switch Lockout
- MMP-E
- Remote - ME-RC
- Remote - ME-ARC
- Remote Switch Adapter





## SPECIFICATIONS

<b>MS3748AEJ</b>	
<b>INVERTER SPECIFICATIONS</b>	
<b>Input battery voltage range</b>	36 - 67.6 VDC
<b>Nominal AC output voltage</b>	120/240 VAC $\pm$ 5%
<b>Output frequency and accuracy</b>	50 Hz $\pm$ 0.4 Hz
<b>Total Harmonic Distortion (THD)</b>	< 5%
<b>1 msec surge current (amps AC)</b>	70
<b>100 msec surge current (amps AC)</b>	32
<b>5 sec surge power (real watts)</b>	6200
<b>30 sec surge power (real watts)</b>	6000
<b>5 min surge power (real watts)</b>	5400
<b>30 min surge power (real watts)</b>	4000
<b>Continuous power output at 25° C</b>	3700 VA
<b>Maximum continuous input current</b>	90 A @ 50.4 V
<b>Inverter efficiency (peak)</b>	91%
<b>Transfer time</b>	~ 20 ms
<b>Search mode (typical)</b>	10 watts
<b>No load (230 VAC output, typical)</b>	22 watts
<b>Waveform</b>	Pure Sine Wave
<b>CHARGER SPECIFICATIONS</b>	
<b>Continuous output at 25° C</b>	60 ADC
<b>Charger efficiency (peak)</b>	91%
<b>Power factor</b>	> .95
<b>Input current at rated output (AC amps)</b>	16 A @ 240 V (8 A per leg)
<b>GENERAL FEATURES AND CAPABILITIES</b>	
<b>Transfer relay capability</b>	30 amps AC per leg
<b>Five stage charging capability</b>	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™
<b>Battery temperature compensation</b>	Yes, 4.6 m (15') Battery Temp Sensor standard
<b>Internal cooling</b>	0 to 120 cfm variable speed drive using dual 92mm brushless DC fans
<b>Overcurrent protection</b>	Yes, with two overlapping circuits
<b>Overtemperature protection</b>	Yes on transformer, MOSFETS, and battery
<b>Corrosion protection</b>	Yes, PCB's conformal coated, powder coated chassis/top, and stainless steel fasteners
<b>Listings</b>	CE
<b>Warranty</b>	Two years
<b>ENVIRONMENTAL SPECIFICATIONS</b>	
<b>Temperature (Operating/Non-operating)</b>	-20° C to +60° C (-4° F to 140° F) to -40° C to +70° C (-40° F to 158° F)
<b>Operating humidity</b>	0 to 95% RH non-condensing

PHYSICAL SPECIFICATIONS	
<b>Dimensions (l x w x h)</b>	34.9 cm x 32.1 cm x 20.3 cm (13.75" x 12.65" x 8.0")
<b>Mounting</b>	Shelf (top or bottom up) or wall
<b>Weight</b>	25.0 kg (55 lb)
<b>Shipping weight</b>	28.6 kg (63 lb)
<b>Max operating altitude</b>	4570 m (15,000')



## GENERAL NOTES

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

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