



The MS Series Pure Sine Wave Inverter/Charger



The MS Series Inverter/Charger is powerful, easy-to-use, and cost effective.

MODEL NUMBERS

- MS2000
- MS2000-20B
- MS2012
- MS2012-20B
- MS2812
- MS4024 (series stackable)

AVAILABLE FOR

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

AVAILABLE ACCESSORIES

- AGS
- Battery Monitor Kit
- Conduit Box
- DC Load Disconnect
- Fuse Blocks
- Remote - ME-RC
- Remote Switch Adapter
- Series Stacking Interface (MS4024 only)

The Powerful Difference

The MS Series Inverter/Charger from Magnum Energy – a pure sine wave inverter designed specifically for the most demanding mobile and off grid applications. The MS Series is powerful, easy-to-use, and best of all, cost effective.

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 MS2000, MS2012, MS2812, and MS4024 are ETL Listed to the stringent requirements of UL/cUL 458 for mobile use and the MS2012, MS2812, and MS4024 are ETL Listed UL 1741 and CSA C22.2 #107.1-01 for renewable energy installations. All models also meet KKK-A-1822E standards for emergency vehicle use.

Easy-to-install: Install the MS 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.

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%.

Choices: The MS Series comes in 12 and 24 volt configurations, allowing you to choose the model that is right for you.

Versatile mounting: Mount the MS Series 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 MS Series 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 MS Series comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.

Expanded transfer relay: 60 Amp transfer service is available on all models.

Buy with ease: The MS Series is backed by a three-year (36-month) limited warranty.



MS Series Specifications

| | MS2000 | MS2012 | MS2812 | MS4024 |
|--|--|-----------------|-----------------|-----------------|
| Inverter Specifications | | | | |
| Input battery voltage range | 9 - 17 VDC | 9 - 17 VDC | 9 - 17 VDC | 18 - 34 VDC |
| Nominal AC output voltage | 120 VAC | 120 VAC | 120 VAC | 120 VAC |
| Output frequency and accuracy | 60 Hz ± 0.1% | 60 Hz ± 0.1% | 60 Hz ± 0.1% | 60 Hz ± 0.1% |
| Total Harmonic Distortion (THD) | < 5% | < 5% | < 5% | < 5% |
| 1 msec surge current (amps AC) | 50 | 50 | 70 | 120 |
| 100 msec surge current (amps AC) | 33 | 33 | 40 | 72 |
| 5 sec surge power (real watts) | 3300 | 3300 | 3900 | 5800 |
| 30 sec surge power (real watts) | 3100 | 3100 | 3800 | 5400 |
| 5 min surge power (real watts) | 2800 | 2800 | 3200 | 4900 |
| 30 min surge power (real watts) | 2200 | 2200 | 3000 | 4500 |
| Continuous power output at 25° C | 2000 VA | 2000 VA | 2800 VA | 4000 VA |
| Maximum continuous input current | 266 ADC | 266 ADC | 373 ADC | 266 ADC |
| Inverter efficiency (peak) | 89% | 89% | 88% | 87% |
| Transfer time | 16 msec | 16 msec | 16 msec | 16 msec |
| Search mode (typical) | 5 watts | 7 watts | 7 watts | 7 watts |
| No load (120 VAC output, typical) | 25 watts | 25 watts | 30 watts | 25 watts |
| Waveform | Pure Sine Wave | Pure Sine Wave | Pure Sine Wave | Pure Sine Wave |
| Charger Specifications | | | | |
| Continuous output at 25° C | 100 ADC | 100 ADC | 125 ADC | 105 ADC |
| Charger efficiency | 85% | 85% | 85% | 85% |
| Power factor | > .95 | > .95 | > .95 | > .95 |
| Input current at rated output (AC amps) | 15 | 15 | 18 | 29 |
| General Features and Capabilities | | | | |
| Transfer relay capability | MS2000: 30 A single input MS2012, MS2812, MS4024: 2 legs at 30 A for 120 V/30 A or 240 V/60 A service | | | |
| Five stage charging capability | Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™ | | | |
| Battery temperature compensation | Yes, 15 ft Battery Temp Sensor standard | | | |
| Remote available (optional) | Yes, MM-RC or ME-RC | | | |
| 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 | | | |
| Conformal coating on PCB's for corrosion protection | Yes | | | |
| Powder coated chassis & top for corrosion protection | Yes | | | |
| Stainless steel fasteners for corrosion protection | Yes | | | |
| Dual AC branch rated output breakers | Optional on the MS2000 and MS2012 - AC breakers in 15 or 20 amp ratings | | | |
| Listings | ETL Listed to UL/cUL 458, UL 1741, CSA C22.2 #107.1-01, meets KKK-A-1822E standard | | | |
| Warranty | Three 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) | 13.75" x 12.65" x 8.0" (34.9 cm x 32.1 cm x 20.3 cm) | | | |
| Mounting | Shelf (top or bottom up) or bulkhead (vents up) | | | |
| Weight | 40 lb (18.1 kg) | 42 lb (19.1 kg) | 55 lb (24.9 kg) | 55 lb (24.9 kg) |
| Shipping weight | 45 lb (20.4 kg) | 47 lb (21.3 kg) | 60 lb (27.2 kg) | 60 lb (27.2 kg) |
| Max operating altitude | 15,000' (4570 m) | | | |

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

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Authorized Magnum Dealer

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