

Inverter/Chargers for Emergency Vehicles



MODEL NUMBERS

- MMS1012
- MMS1012-G
- MS2000
- MS2812
- MS4024

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 MS Series



The MMS-G Series

In emergency situations, your inverter must work as expected. There are no second chances. Magnum Energy offers five inverter/chargers that meet the stringent requirements of the KKK-A-1822E specifications for emergency vehicles, the MMS1012, MMS1012-G (with GFCI outlet and 3 ft AC cord), MS2000, MS2812, and MS4024.

KKK-A-1822E specification requirements:

Requirement	Magnum Energy Inverter/Chargers
Deliver 750 watts of sine wave power	All five models deliver pure sine wave power and range from 1000 to 4000 watts.
Minimal harmonic distortion	Each model has a total harmonic distortion of less than 5%.
Maintain a frequency of 60 Hz \pm 4 Hz	The output frequency on all five models is 60 Hz \pm 0.1 Hz.

The Powerful Difference

See the reverse side for more specifications on each model.



Inverter/Chargers for Emergency Vehicles

	MMS1012 & MMS1012-G	MS2000	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 Hz	60 Hz ± 0.1 Hz	60 Hz ± 0.1 Hz	60 Hz ± 0.1 Hz
Total Harmonic Distortion (THD)	< 5%	< 5%	< 5%	< 5%
1 msec surge current (amps AC)	38	50	70	120
100 msec surge current (amps AC)	21	33	40	72
5 sec surge power (real watts)	1750	3300	3900	5800
30 sec surge power (real watts)	1600	3100	3800	5400
5 min surge power (real watts)	1200	2800	3200	4900
30 min surge power (real watts)	1050	2200	3000	4500
Continuous power output at 25° C	1000 VA	2000 VA	2800 VA	4000 VA
Rated input battery current	102 ADC	225 ADC	267 ADC	204 ADC
Inverter efficiency (peak)	87%	89%	88%	87%
Transfer time	16 msec	16 msec	16 msec	16 msec
Search mode (typical)	5 watts	5 watts	7 watts	7 watts
No load (120 VAC output, typical)	19 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	50 ADC	100 ADC	125 ADC	105 ADC
Charger efficiency (peak)	84%	85%	85%	85%
Power factor	> .95	> .95	> .95	> .95
Input current at rated output (AC amps)	7	15	18	29
General Features and Capabilities				
Transfer relay capability	20 AAC	30 A single input	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 59 cfm variable speed	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			
Output circuit breakers	12 A switchable	Optional on MS2000 - AC breakers in 15 or 20 amp ratings		
GFCI Outlet and 3' AC cord	Yes on MMS1012-G	NA	NA	NA
Listings	ETL Listed to UL/cUL 458, UL 1741, CSA C22.2 #107.1-01, meets KKK-A-1822E standard			
Warranty	Two years	Three years	Three years	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)	16.6" x 8.4" x 4.7" (42 x 21 x 12 cm)		13.75" x 12.65" x 8.0" (34.9 x 32.1 x 20.3 cm)	
Mounting	Shelf (top or bottom up) or bulkhead (vents up)			
Weight	20 lb (9.1 kg)	40 lb (18.1 kg)	55 lb (24.9 kg)	55 lb (24.9 kg)
Shipping weight	25 lb (11.3 kg)	45 lb (20.4 kg)	60 lb (27.2 kg)	60 lb (27.2 kg)
Max operating altitude	15,000' (4570 m)			

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The Powerful Difference

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

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