



# THE MMS SERIES INVERTER/CHARGER Sine Wave Power for Rugged Mobile Applications







Pure Sine Wave

Battery Voltage Options

Continuous Output Options

#### **Model Numbers**

- MMS1012
- MMS1012-G

#### Available For

- · Emergency Vehicles
- · Marine Systems
- RV Systems

#### Available Accessories

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

The MMS Series Inverter / Charger is a pure sine wave inverter providing a cost effective solution for those with smaller power needs in mobile applications. Versatile, easy-to-use, and lightweight, the MMS Series provides a reliable base for your energy system.

**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 MMS Series 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.

# FEATURES Standard transfer relay:

The standard 20 amp transfer relay will pass AC power through the inverter when using shore or generator power.

### Low/high battery protection:

If your battery voltage reaches below 10 VDC or above 17 VDC, the MMS Series will automatically shut down.

## Versatile mounting:

Mount the MMS Series on a shelf, bulkhead, or even upside down.

#### Fan cooled:

The MMS 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 MMS Series will auto-matically shut down if its output wattage is exceeded or it detects a short in the wiring, saving the unit from costly damage.

#### Convenient switches:

The MMS Series comes with an on/off front-mounted switch with an easy-to-read LED indicator.

#### Circuit breaker protection:

This model comes with built in input and output circuit breakers for ease of installation.

#### Battery temp sensor:

The standard battery temp sensor monitors temperatures from 0 - 50° C.

#### Buy with ease:

The MMS Series is backed by a two-year (24-month) parts and labor warranty.

# MMS SERIES SPECIFICATIONS

	MMS1012	MMS1012-G
INVERTER SPECIFICATIONS		
Input battery voltage range	9 to 17 VDC	9 to 17 VDC
Nominal AC output voltage	120 VAC ± 5%	120 VAC ± 5%
Output frequency and accuracy	60 Hz ± 0.1 Hz	60 Hz ± 0.1 Hz
Total Harmonic Distortion (THD)	< 5%	< 5%
1 msec surge current (amps AC)	38	38
100 msec surge current (amps AC)	21	21
5 sec surge power (real watts)	1750	1750
30 sec surge power (real watts)	1600	1600
5 min surge power (real watts)	1200	1200
30 min surge power (real watts)	1050	1050
Maximum continuous input current	133 ADC	133 ADC
Inverter efficiency (peak)	87%	87%
Transfer time	16 msecs	16 msecs
Search mode (typical)	5 watts	5 watts
No load (120 VAC output, typical)	19 watts	19 watts
Waveform	Pure Sine Wave	Pure Sine Wave
CHARGER SPECIFICATIONS		
Continuous output at 25° C	50 ADC	50 ADC
Charger efficiency	84%	84%
Power factor	> .95	> .95
Input current at rated output (AC amps)	7	7
GENERAL FEATURES AND CAPABILITIES		
Transfer relay capability	20 AAC (input current for charging and pass through)	
Transfer rolly supublify		
Battery temperature compensation	Yes, 15 ft Battery Temp Sensor standard	
	Yes, 15 ft Battery Temp Sensor standard  0 to 59 cfm variable speed	
Battery temperature compensation Internal cooling	, ,	
Battery temperature compensation	0 to 59 cfm variable speed	
Battery temperature compensation Internal cooling Overcurrent protection	0 to 59 cfm variable speed Yes, with two overlapping circuits	
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS	
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible	Hardwire/3 ft cord
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote	Hardwire/3 ft cord NA/20AAC
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire	NA/20AAC
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker	O to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC	NA/20AAC
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker Listings	O to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC ETL Listed to UL/cUL458, CSA C22.2 #107.1-01, meets KKK-A-1	NA/20AAC
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker Listings Warranty	O to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC ETL Listed to UL/cUL458, CSA C22.2 #107.1-01, meets KKK-A-1	NA/20AAC 822E standard
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker Listings Warranty ENVIRONMENTAL SPECIFICATIONS	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC ETL Listed to UL/cUL458, CSA C22.2 #107.1-01, meets KKK-A-1. Two years	NA/20AAC 822E standard
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker Listings Warranty ENVIRONMENTAL SPECIFICATIONS Temperature (Operating/Non-operating)	O to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC ETL Listed to UL/cUL458, CSA C22.2 #107.1-01, meets KKK-A-1. Two years -20° C to +60° C (-4° F to 140° F) to -40° C to +70° C (-40° F to 150°)	NA/20AAC 822E standard
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker Listings Warranty ENVIRONMENTAL SPECIFICATIONS Temperature (Operating/Non-operating) Operating humidity	O to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC ETL Listed to UL/cUL458, CSA C22.2 #107.1-01, meets KKK-A-1. Two years -20° C to +60° C (-4° F to 140° F) to -40° C to +70° C (-40° F to 150°)	NA/20AAC 822E standard
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker Listings Warranty ENVIRONMENTAL SPECIFICATIONS Temperature (Operating/Non-operating) Operating humidity PHYSICAL SPECIFICATIONS	O to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC ETL Listed to UL/cUL458, CSA C22.2 #107.1-01, meets KKK-A-1: Two years -20° C to +60° C (-4° F to 140° F) to -40° C to +70° C (-40° F to 150° to 95% RH non-condensing	NA/20AAC 822E standard
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker Listings Warranty ENVIRONMENTAL SPECIFICATIONS Temperature (Operating/Non-operating) Operating humidity PHYSICAL SPECIFICATIONS Dimensions (I x w x h)	O to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC ETL Listed to UL/cUL458, CSA C22.2 #107.1-01, meets KKK-A-1: Two years -20° C to +60° C (-4° F to 140° F) to -40° C to +70° C (-40° F to 150 to 95% RH non-condensing	NA/20AAC 822E standard
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker Listings Warranty ENVIRONMENTAL SPECIFICATIONS Temperature (Operating/Non-operating) Operating humidity PHYSICAL SPECIFICATIONS Dimensions (I x w x h) Mounting	O to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC ETL Listed to UL/cUL458, CSA C22.2 #107.1-01, meets KKK-A-1: Two years  -20° C to +60° C (-4° F to 140° F) to -40° C to +70° C (-40° F to 150 to 95% RH non-condensing  16.6" x 8.4" x 4.7" (42 cm x 21 cm x 12 cm) Shelf (top or bottom up) or bulkhead (vents up)	NA/20AAC 822E standard
Battery temperature compensation Internal cooling Overcurrent protection Overtemperature protection On/Off with status indicator Low battery cutout AC output/AC input Output circuit breaker/Input circuit breaker Listings Warranty ENVIRONMENTAL SPECIFICATIONS Temperature (Operating/Non-operating) Operating humidity PHYSICAL SPECIFICATIONS Dimensions (I x w x h) Mounting Weight	O to 59 cfm variable speed Yes, with two overlapping circuits Yes, on transformer and MOSFETS Yes, front mounted and easily accessible 10 VDC, adjustable with the ME-RC remote Hardwire/Hardwire 15A/20AAC ETL Listed to UL/cUL458, CSA C22.2 #107.1-01, meets KKK-A-1: Two years  -20° C to +60° C (-4° F to 140° F) to -40° C to +70° C (-40° F to 150 to 95% RH non-condensing  16.6" x 8.4" x 4.7" (42 cm x 21 cm x 12 cm) Shelf (top or bottom up) or bulkhead (vents up) 23 lb (10.4 kg)	NA/20AAC 822E standard



#### OFFICES

2211 West Casino Road Everett, Washington 98204 USA

425-353-8833

4467 White Bear Pkwy St. Paul, MN 55110 USA

800-553-6418

Testing for specifications at  $25^{\circ}$  C. Specifications subject to change without notice.

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