

# The MM-E Series Inverter/Charger



#### **MODEL NUMBERS**

- MM1012E
- MM1324E

#### **AVAILABLE FOR**

Renewable
 Energy Systems
 Off-grid Power
 Back-up Power

#### **AVAILABLE ACCESSORIES**

- Battery Monitor Kit
- Fuse Blocks
- Remotes MM-RC/ME-RC

Magnum Energy now offers the MM-E Series Inverter/Charger for 230 VAC / 50 Hz installations. The MM-E Series comes with all of the features you've come to expect from a Magnum 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.

**Battery temp sensor:** The standard battery temp sensor monitors temperatures from  $0 - 50^{\circ}$  C.

**Convenient switches:** All models come with an on/off invertermounted switch with an easy-to-read LED indicator.

#### **Features**

#### **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.

Fan cooled: The MM-E 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.

**Versatile mounting:** Mount the MM-E Series on a shelf, wall, or even upside down.

**Battery and inverter protection:** The MM-E Series protects your batteries and itself with low battery, high battery, current overload, and circuit breaker protection.



## **MM-E Series Inverter/Charger Specifications**

	MM1012E	MM1324E
nverter Specifications		
Input battery voltage range	9 - 16 VDC	18 - 32 VDC
Nominal AC output voltage	230 VAC ± 5%	230 VAC ± 5%
Output frequency and accuracy	50 Hz ± 0.4 Hz	50 Hz ± 0.4 Hz
1 msec surge current (amps AC)	21	42
100 msec surge current (amps AC)	11	14
5 sec surge power (real watts)	1750	2600
30 sec surge power (real watts)	1600	2100
5 min surge power (real watts)	1350	1850
30 min surge power (real watts)	1180	1650
Continuous power output at 25° C	1000 VA	1300 VA
Maximum continuous input current	133 ADC	87 ADC
Inverter efficiency (peak)	87%	87%
Transfer time	30 ms	30 ms
Search mode (typical)	< 6 watts	< 8 watts
No load (230 VAC output, typical)	16 watts	18 watts
Waveform	Modified Sine Wave	Modified Sine Wave
Charger Specifications	FO A	40.4
Continuous output at 25° C	50 A	40 A
Charger efficiency (peak)	84%	83%
Power factor	> 0.95	> 0.95
Input current at rated output (AC amps)	3.5	5.5
General Features and Capabilities		
Transfer relay capability	20 AAC	
Five stage charging capability	Bulk, Absorb, Float, Equalize (require	s remote), and Battery Saver
The stange stangers of the standard of the sta		
Battery temperature compensation	Yes, 15 ft Battery Temp Sensor standa	ard
Battery temperature compensation	Yes, 15 ft Battery Temp Sensor standa	rd
Internal cooling	0 to 59 cfm variable speed	rd
Internal cooling Overcurrent protection	0 to 59 cfm variable speed Yes, with two overlapping circuits	
Internal cooling Overcurrent protection Overtemperature protection	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and b	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and b	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and beyond	
Internal cooling  Overcurrent protection  Overtemperature protection  Conformal coating on PCB's for corrosion protection  Powder coated chassis & top for corrosion protection  Stainless steel fasteners for corrosion protection	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be Yes Yes Yes	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be Yes Yes Yes 7 AAC	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be Yes Yes Yes 7 AAC 8 AAC	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be Yes Yes Yes 7 AAC 8 AAC None	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be Yes Yes Yes 7 AAC 8 AAC	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be Yes Yes Yes 7 AAC 8 AAC None	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings Warranty	0 to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be Yes Yes Yes 7 AAC 8 AAC None	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings Warranty Environmental Specifications	O to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be Yes Yes Yes 7 AAC 8 AAC None Two years	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings Warranty  Environmental Specifications Operating temperature	O to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and because Yes Yes Yes 7 AAC 8 AAC None Two years	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings Warranty Environmental Specifications Operating temperature Nonoperating temperature Operating humidity	O to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be yes Yes Yes 7 AAC 8 AAC None Two years  -20° C to +60° C (-4° F to 140° F) -40° C to +70° C (-40° F to 158° F)	
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings Warranty  Environmental Specifications Operating temperature Nonoperating temperature Operating humidity  Physical Specifications	O to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and beyond Yes Yes Yes 7 AAC 8 AAC None Two years  -20° C to +60° C (-4° F to 140° F) -40° C to +70° C (-40° F to 158° F) O to 95% RH non condensing	attery
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings Warranty  Environmental Specifications Operating temperature Nonoperating temperature Operating humidity  Physical Specifications Dimensions (h x w x d)	O to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and be yes Yes Yes 7 AAC 8 AAC None Two years  -20° C to +60° C (-4° F to 140° F) -40° C to +70° C (-40° F to 158° F) O to 95% RH non condensing	attery
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings Warranty  Environmental Specifications Operating temperature Nonoperating temperature Operating humidity  Physical Specifications Dimensions (h x w x d) Mounting	O to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and beyond the second transformer, MOSFETS, and beyond the second transformer, MOSFETS, and beyond the second transformer, MOSFETS, and beyond transformer, MOSFETS, and beyo	attery
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings Warranty  Environmental Specifications Operating temperature Nonoperating temperature Operating humidity  Physical Specifications Dimensions (h x w x d) Mounting Weight	O to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and beyond the second transformer, MOSFETS, and beyond the second transformer, MOSFETS, and beyond the second transformer, MOSFETS, and beyond transformer, MOSFETS, and beyo	attery
Internal cooling Overcurrent protection Overtemperature protection Conformal coating on PCB's for corrosion protection Powder coated chassis & top for corrosion protection Stainless steel fasteners for corrosion protection Output circuit breaker Input circuit breaker Listings Warranty  Environmental Specifications Operating temperature Nonoperating temperature Operating humidity  Physical Specifications Dimensions (h x w x d) Mounting	O to 59 cfm variable speed Yes, with two overlapping circuits Yes on transformer, MOSFETS, and beyond the second transformer, MOSFETS, and beyond the second transformer, MOSFETS, and beyond the second transformer, MOSFETS, and beyond transformer, MOSFETS, and beyo	attery

### Magnum Energy, Inc.

2211 West Casino Road Everett, Washington 98204 USA **Phone:** 425-353-8833 **Fax:** 425-353-8390

**Web:** www.magnumenergy.com

Testing for specifications at 25° C

Specifications subject to change without notice.

August 2012, Rev E Part #64-0485

**Authorized Magnum Dealer**