



## The RD Series Inverter/Charger For Off Grid Applications



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



**The Powerful Difference**

### Reliable Off Grid Power from Magnum Energy

Introducing the RD Series Inverter/Charger from Magnum Energy – a new generation inverter designed specifically for off grid use. The RD Series is powerful, easy-to-use, and best of all, cost effective.

**Safe and reliable:** The RD Series is ETL Listed to the stringent requirements of UL/cUL 1741, ensuring that the inverter is safe and reliable.

**Easy-to-install:** Install the RD Series in four easy steps: simply connect the inverter's output to your distribution circuits or electrical panel, connect your power cable (AC) to the inverter's easy-to-reach terminal block, connect the batteries, and switch on the power.

### Features

**You asked and Magnum listened.**

The RD Series Inverter/Charger is loaded with features:

**Efficient:** The **sine wave charger** efficiently charges your batteries even at low AC voltage, while the modified sine wave inverter keeps the cost down. Additionally, the battery temperature sensor works with the charger for optimum battery charging.

**Choices:** The RD Series comes in three power models, allowing you to choose the model that is right for you.

**Upgradeable memory:** The inverter is designed with Flash programming for easy memory upgrades.

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

**Lightweight:** The lightweight aluminum base and cover also provides noise reduction and corrosion resistance.

**Multiple ports:** The RD 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 RD Series comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.

**Expanded transfer relay:** 50 Amp transfer service is available on all models.

**Buy with ease:** The RD Series is backed by a two-year (24-month) limited warranty.

### Accessories and Options\*

**Remote control:** For convenient finger-tip operation, including the new one-knob™ programming.

**AGS module:** Automatically starts and stops your generator based on temperature or battery voltage.

*\* For more detailed information and specifications on these accessories, please see the accessories data sheet.*



# The RD Series Inverter/Charger

## Specifications

	RD1824	RD2824	RD3924
<b>Inverter Specifications</b>			
Input battery voltage	25.2 VDC	25.2 VDC	25.2 VDC
Nominal AC output voltage	120 VAC	120 VAC	120 VAC
Output frequency and accuracy	60 Hz ± 0.04%	60 Hz ± 0.04%	60 Hz ± 0.04%
1 msec surge current (amps AC)	70	100	150
100 msec surge current (amps AC)	40	60	90
5 sec surge power (real watts)	4000	6000	9000
30 sec surge power (real watts)	3300	4800	6400
5 min surge power (real watts)	2850	3950	5800
30 min surge power (real watts)	2400	3500	4750
Continuous power output at 25° C	1800 VA	2800 VA	3900 VA
Rated input battery current	88 ADC	133 ADC	188 ADC
Inverter efficiency	87%	89%	90%
Transfer time	16 msec	16 msec	16 msec
Search Mode (with remote)	.3 ADC	.3 ADC	.3 ADC
No Load (120 VAC output with remote)	.5 ADC	.6 ADC	.6 ADC
Waveform	Modified Sine Wave	Modified Sine Wave	Modified Sine Wave

## Charger Specifications

Continuous output at 25° C	50 ADC	80 ADC	105 ADC
Charger efficiency	85%	85%	92%
Power factor	0.98	0.98	0.98
Input current at rated output (AC amps)	15.0	21.0	29.5

## General Features and Capabilities

Transfer relay capability	2 legs at 30 A for 120 V/30 A or 240 V/50 A service
Five stage charging capability	Bulk, Absorb, Float, Equalize, and Battery Saver™
Battery temperature compensation	With available temp sensor (battery temp 0 – 50° C)
Remote inverter on/off switch	With available pigtail to connect to dry contact
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

## 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 (h x w x d)	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	38 lb (17 kg)	42 lb (19 kg)	45 lb (20 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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