

## RD SERIES | INVERTER/CHARGER

### Introduction

The RD Series Inverter/Charger is a new generation modified sine wave inverter designed specifically for renewable energy use. The RD 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 RD Series is ETL Listed to the stringent requirements of UL 1741 (USA only), 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

- Choices – The RD Series comes in four power models and 12 and 24 volt models, allowing you to choose the model that is right for you.
- Versatile mounting – Mount the RD Series on a shelf or wall.
- 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 – 60 Amp transfer service is available on all models.
- Buy with ease – The RD Series is backed by a two-year (24-month) limited warranty.

### Model Numbers

- RD2212
- RD1824
- RD2824
- RD3924

### Available For

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

### Available Accessories

- Auto Generator Start
- Battery Monitor Kit
- Conduit Box
- DC Load Disconnect
- Fuse Blocks
- MagWeb
- Remote - ME-ARC
- Remote - ME-RC
- Remote Switch Adapter



Modified Sine Wave



Battery Voltage Options



Continuous Output Options



# SPECIFICATIONS

	RD2212	RD1824	RD2824	RD3924
<b>INVERTER SPECIFICATIONS</b>				
<b>Input battery voltage range</b>	9 - 16 VDC	18 - 32 VDC	18 - 32 VDC	18 - 32 VDC
<b>Nominal AC output voltage</b>	120 VAC ± 5%	120 VAC ± 5%	120 VAC ± 5%	120 VAC ± 5%
<b>Output frequency and accuracy</b>	60 Hz ± 0.1 Hz	60 Hz ± 0.1 Hz	60 Hz ± 0.1 Hz	60 Hz ± 0.1 Hz
<b>1 msec surge current (amps AC)</b>	60	70	100	150
<b>100 msec surge current (amps AC)</b>	37	40	60	90
<b>5 sec surge power (real watts)</b>	3700	4000	6000	8000
<b>30 sec surge power (real watts)</b>	3450	3300	4800	6400
<b>5 min surge power (real watts)</b>	3100	2850	3950	5800
<b>30 min surge power (real watts)</b>	2400	2400	3500	4750
<b>Continuous power output at 25° C</b>	2200 VA	1800 VA	2800 VA	3900 VA
<b>Maximum continuous input current</b>	293 ADC	120 ADC	186 ADC	260 ADC
<b>Inverter efficiency (peak)</b>	95%	94%	93%	93%
<b>Transfer time</b>	16 msec	16 msec	16 msec	16 msec
<b>Search mode (typical)</b>	5 watts	5 watts	5 watts	5 watts
<b>No load (120 VAC output, typical)</b>	20 watts	12 watts	19 watts	25 watts
<b>Waveform</b>	Modified Sine Wave	Modified Sine Wave	Modified Sine Wave	Modified Sine Wave
<b>CHARGER SPECIFICATIONS</b>				
<b>Continuous output at 25° C</b>	110 ADC	50 ADC	80 ADC	105 ADC
<b>Charger efficiency</b>	85%	85%	85%	92%
<b>Power factor</b>	> 0.95	> 0.95	> 0.95	> 0.95
<b>Input current at rated output (AC amps)</b>	15	15	21	29
<b>GENERAL FEATURES AND CAPABILITIES</b>				
<b>Transfer relay capability</b>	2 legs at 30 A for 120 V/30 A or 240 V/60 A service			
<b>Five stage charging capability</b>	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™			
<b>Battery temperature compensation</b>	Yes, 15 ft Battery Temp Sensor standard			
<b>Internal cooling</b>	0 to 120 cfm variable speed drive using dual 92mm brushless DC fans			
<b>Overcurrent protection</b>	Yes, with two overlapping circuits			
<b>Overtemperature protection</b>	Yes on transformer, MOSFETS, and battery			
<b>Corrosion protection</b>	Yes, PCB's conformal coated, powder coated chassis/top, and stainless steel fasteners			
<b>Listings</b>	ETL listed to UL1741 (USA only)			
<b>Warranty</b>	Two years			
<b>ENVIRONMENTAL SPECIFICATIONS</b>				
<b>Temperature (Operating/Non-operating)</b>	-20° C to +60° C (-4° F to 140° F) to -40° C to +70° C (-40° F to 158° F)			
<b>Operating humidity</b>	0 to 95% RH non-condensing			

PHYSICAL SPECIFICATIONS				
<b>Dimensions (h x w x d)</b>	13.75" x 12.65" x 8.0" (34.9 x 32.1 x 20.3 cm)			
<b>Mounting</b>	Shelf or wall (vents up)			
<b>Weight</b>	37 lb (16.9 kg)	35 lb (15.9 kg)	42 lb (19 kg)	53 lb (24 kg)
<b>Shipping weight</b>	46 lb (20.9 kg)	44 lb (20.0 kg)	51 lb (23.2 kg)	62 lb (28.1 kg)
<b>Max operating altitude</b>	15,000' (4570 m)			



## GENERAL NOTES

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



## AGENCY APPROVALS & CERTIFICATIONS

- ETL listed to UL1741 (USA only)

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