

## 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
- 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	RD2824	RD3924
<b>INVERTER SPECIFICATIONS</b>			
<b>Input battery voltage range</b>	9 - 16 VDC	18 - 32 VDC	18 - 32 VDC
<b>Nominal AC output voltage</b>	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
<b>1 msec surge current (amps AC)</b>	60	100	150
<b>100 msec surge current (amps AC)</b>	37	60	90
<b>5 sec surge power (real watts)</b>	3700	6000	8000
<b>30 sec surge power (real watts)</b>	3450	4800	6400
<b>5 min surge power (real watts)</b>	3100	3950	5800
<b>30 min surge power (real watts)</b>	2400	3500	4750
<b>Continuous power output at 25° C</b>	2200 VA	2800 VA	3900 VA
<b>Maximum continuous input current</b>	293 ADC	186 ADC	260 ADC
<b>Inverter efficiency (peak)</b>	95%	93%	93%
<b>Transfer time</b>	16 msecs	16 msecs	16 msecs
<b>Search mode (typical)</b>	5 watts	5 watts	5 watts
<b>No load (120 VAC output, typical)</b>	20 watts	19 watts	25 wattts
<b>Waveform</b>	Modified Sine Wave	Modified Sine Wave	Modified Sine Wave
<b>CHARGER SPECIFICATIONS</b>			
<b>Continuous output at 25° C</b>	110 ADC	80 ADC	105 ADC
<b>Charger efficiency</b>	85%	85%	92%
<b>Power factor</b>	> 0.95	> 0.95	> 0.95
<b>Input current at rated output (AC amps)</b>	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)	42 lb (19 kg)	53 lb (24 kg)
<b>Shipping weight</b>	46 lb (20.9 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)

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, valuation, and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular datasheet. Sensata may make corrections, enhancements, improvements, and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata datasheets with the Sensata component(s) identified in each particular datasheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATASHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATASHEETS OR USE OF THE DATASHEETS, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATASHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at [www.sensata.com](http://www.sensata.com). SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY, AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA

## CONTACT US

### Regional head offices: United States of America

Sensata Technologies  
 Attleboro, MA  
 Phone: 508-236-3800  
 E-mail: [support@sensata.com](mailto:support@sensata.com)

### Netherlands

Sensata Technologies Holland B.V.  
 Hengelo  
 Phone: +31 74 357 8000  
 E-mail: [support@sensata.com](mailto:support@sensata.com)

### China

Sensata Technologies China Co., Ltd.  
 Shanghai  
 Phone: +8621 2306 1500  
 E-mail: [support@sensata.com](mailto:support@sensata.com)