Crucial Power Products

Central Lighting Inverter

Single Phase
Online or Fast Transfer (under 2ms)
LED, Incandescent, Fluorescent, HID
120, 208, 240, 277, 480 Volts
Listed to UL924 lighting
and UL1778 UPS Standards, by CSA

Wave Rider™ I

2.1 to 17KW

Key Features:

- **Fast Transfer-Standby and Double Conversion, "no-break" online systems available.**
- **Efficiency: 98% Standby - Fast Trans / 94% On-Line (Typical)**
- **Automatic monthly and annual self testing**
- **Latest technology microprocessor controlled electronics with PWM (Pulse Width Modulated) design for true Sign Wave output**
- **Continuous self-diagnostic and self-testing system**
- **LCD backlit panel for comprehensive monitoring of power line conditions and inverter status**
- **Optional remote monitoring, including the advanced Global Monitoring System (GMS)**
- **Optional Battery Sentinal Battery Monitoring System**
- **Battery Exerciser**
- **Modular cabinet design for ease of installation, small footprint with shallow 18" depth, convenient front access, optional certified Zone 4 seismic brackets available**
- **Generator compatiable**

The Wave Rider I incorporates state of the art technology with PWM (Pulse Width Modulated), standby design for emergency lighting applications.

The Wave Rider "Energy Conserver" is available in both Fast Transfer and standby models.

When utility power fails, the Inverter provides uninterrupted output power to the emergency lighting circuits, in compliance with UL924 Life Safety Code for 90 minutes of egress illumination.

The Wave Rider is the best design solution for emergency lighting power for a wide range of commercial and industrial applications.

- **Built-in Power Factor correction (Saves approx. 10% on utility bill)**
- **Sealed maintenance-free lead calcium batteries with 10 year prorata warranty.**
- **2 Year Warranty* (optional)**

**Second Year, months 13 to 24 only valid with factory performed preventive maintenance*

Wave Rider™ I Specifications

POWER RATING: 2.1, 3, 3.5, 5, 6, 7.5, 8, 10, 12.5, 15, and 17 KW

INPUT VOLTAGE: 2.1 - 6KW; 120, 208, 240, 277, or 480 VAC (-15% to +10%)
7.5 - 17KW; 208, 240, 277, or 480 VAC (-15% to +10%)

OUTPUT VOLTAGE: 120, 208, 240, 277, or 480 VAC

OUTPUT FREQUENCY (Inverter Operation): 60Hz ±0.5Hz.

VOLTAGE REGULATION: ±3% Typical

OUTPUT WAVE FORM: Sine-wave

NOISE ISOLATION: -120 dB. Common-Mode.; 60 dB. Transverse-Mode

EFFICIENCY: 98% Standby - Fast Transfer / 94% Online (Typical)

CREST FACTOR: 3:1 Typical (may vary by model)

ENVIRONMENTAL:
Humidity: 0-95% RH w/no condensation
Operating temperature: UPS: -0˚ to 40˚C. (32˚ to 104˚F)
BATTERY: 20˚ to 25˚C (68˚ to 77˚F)
Storage temperature: -20˚ to 70˚C. (-4 to 158˚F)

SAFETY AGENCIES:
CSA Listed to UL 924, UL 924A, UL1778, NFPA101, NFPA70, NEC, and OSHA.

SURGE PROTECTION: The inverter will protect itself and the load against surge as defined in ANSI/IEEE C62.45 category A and B.

KW	INPUT/OUTPUT VOLTAGES	MODEL NUMBERS	DC VOLTS	BTU/ HR Approx.	CABINET SIZE (W x H x D)	WGT (lbs)
2.1	120/120 208/208 240/240 277/277 120/240,208,277,or 480	WR3.0A0100N1-VA WR3.0B1300N1-VA WR3.0D0400N1-VA WR3.0R2500N1-VA **WR3.0X5800T1-VA	96	1037 1037 1037 1037 1037	39″ x 68″ x 18″ *48″ H Optional*	896 896 896 896 896
3.0	120/120 208/208 240/240 277/277 120/240,208,277,or 480	WR3.0A0100N1 WR3.0B1300N1 WR3.0D0400N1 WR3.0R2500N1 **WR3.0X5800T1	96	1037 1037 1037 1037 1037	39″ x 68″ x 18″ *48″ H Optional*	1066 1066 1066 1066 1066
3.5	120/120 208/208 240/240 277/277 120/240,208,277,or 480	WR5.0A0100N1-VA WR5.0B1300N1-VA WR5.0D0400N1-VA WR5.0R2500N1-VA **WR5.0X5800T1-VA	120	1146 1146 1146 1146 1146	39″ x 68″ x 18″	1171 1171 1171 1171 1171
5.0	120/120 208/208 240/240 277/277 120/240,208,277,or 480	WR5.0A0100N1 WR5.0B1300N1 WR5.0D0400N1 WR5.0R2500N1 **WR5.0X5800T1	120	1419 1419 1419 1419 1419	39″ x 68″ x 18″	1284 1284 1284 1284 1284
6.0	120/120 208/208 240/240 277/277 120/240,208,277,or 480	WR6.0A0100N1 WR6.0B1300N1 WR56.0D0400N1 WR6.0R2500N1 **WR6.0X5800T1	144	1965 1965 1965 1965 1965	39″ x 68″ x 18″	1284 1284 1284 1284 1284
*7.5	208/208 240/240 277/277 120/240,208, 277,or 480	WR7.5B1300N1 WR7.5D0400N1 WR7.5R2500N1 **WR7.5X5800T1	120	2300 2300 2300 2300	51″ x 70″ x 30.5″	1074 1074 1074 1074
*8.0	208/208 240/240 277/277 120/240,208,277,or 480	WR8.0B1300N1 WR8.0D0400N1 WR8.0R2500N1 **WR8.0X5800T1	192	2600 2600 2600 2600	39″ x 68″ x 18″	1464 1464 1464 1464
*10	208/208 240/240 277/277 120/240,208, 277,or 480	WR010B1300N1 WR010D0400N1 WR010R2500N1 **WR010X5800T1	192	3057 3057 3057 3057	51″ x 70″ x 30.5″	2870 2870 2870 2870
*12.5	208/208 240/240 277/277 120/240,208, 277,or 480	WR012B1300N1 WR012D0400N1 WR012R2500N1 **WR012X5800T1	192	3700 3700 3700 3700	51″ x 70″ x 30.5″	3777 3777 3777 3777
*15	208/208 240/240 277/277 120/240,208, 277,or 480	WR015B1300N1 WR015D0400N1 WR015R2500N1 **WR015X5800T1	240	5000 5000 5000 5000	51″ x 70″ x 30.5″	4512 4512 4512 4512
*17	208/208 240/240 277/277 120/240,208, 277,or 480	WR017B1300N1 WR017D0400N1 WR017R2500N1 **WR017X5800T1	240	5400 5400 5400 5400	51″ x 70″ x 30.5″	4512 4512 4512 4512

ISOLATION: Output is completely isolated from input, and with multi voltages, when input & output is different.

BATTERY: Sealed maintenance free (SMF), Lead Calcium

BATTERY MANAGEMENT SYSTEM: Utilizes a micro-processor technology to monitor the batteries critical levels and apply charging cycles in a method to substantially increase battery life.

HOUSING: Free standing NEMA 1 Enclosure powder coated paint Front access only Multiple conduit entries Refer to chart for dimensions

RECHARGE TIME: Per conform UL924

OPTIONAL INPUT PROTECTION: Input Circuit Breaker provided protection to the unit, load, and personnel. Input Circuit Breaker is rated at (10 KAIC) standard and higher interruption up to 65 (KAIC) optional.

OPTIONAL OUTPUT PROTECTION: Internal Electronic overload protection. Circuit breaker provides inherent over-load protection. Factory selectable voltage 120, 208, 240, or 277 for input or output voltages. If input is different from output or output differnet from input, an interally mounted transformer is required.

Options

- Secondary Auxiliary Circuit Breakers (Up to 16 or 24 one-pole OCB's; Up to 42 with side panel): Normally On, Normally Off, Normally Off w/Delay, Trip Alarm
- Dry Contact: With Single Common, N/O, N/C contacts individual isolated Common
- Battery Thermal Runaway with Dry Contact
- Secondary Normally On/Off Terminal Block selection
- Remote status panel unit with audio alarm and silence switch
- Local Audio Alarm with Silence Switch
- Make before break internal Maintenance bypass switch
- External Maintenance Bypass Switch (wrap around type) Main Input and/or Output Circuit Breaker (with custom KAIC)
- Input Transient Voltage Surge Suppressor (TVSS)
- Harmonic Tolerance (up to K-50)
- EMI Filter
- Certified Zone 4 Seismic Bracket
- Extended Warranty and Service Plans
- 12 Hour battery charger
- Long Life Battery (May change cabinet size)
- Wireless battery monitoring system: Ability to monitor individual batteries including battery impedance
- Global Monitoring System (GMS)
  LOCAL
  - Local PC via RS232 and RS485
  - Event logging up to 500

  REMOTE
  - Web/SNMP:
    System status, measurement, alarm notification, event logging and password protected configuration.

Consult Factory for more features and choices of remote communication
Specifications are subject to change without prior notification
* Consult factory for other Power Ratings
** Input Voltage "X": A=120 (2.1 - 6KW only)
B=208, D=240, R=277, H=480 VAC
Output Voltage " 5 8 " : 120/240, 208, 277, and 480 VAC
All units are 90 minutes Battery Back-up time @ Full Load
For other back-up times (up to 6 hours), consult factory

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