

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 RiderTM 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 compatible**

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, UL 1778, 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.

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 different 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
 - 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)
 - 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

- * Input Voltage "X": A = 120, B = 208, D = 240, R = 277, H = 480 VAC
- * Input Voltage "Y": R = 277 or H = 480 VAC
- * Output Voltage "5800" = 120/240, or 208, or 277 VAC
- * Output Voltage "5899" = 277 & 480 VAC

Consult factory for 120V and other voltages
 All units are 90 minutes Battery Back-up time @ Full Load
 For other back-up times (up to 6 hours), consult factory

KW	INPUT/OUTPUT VOLTAGES	MODEL NUMBERS	DC VOLTS	BTU/HR <small>Approx.</small>	CABINET SIZE (W x H x D)	WGT (lbs)
2.1	120/120 208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR3.0A0100N1-VA WR3.0B1300N1-VA WR3.0D0400N1-VA WR3.0R2500N1-VA WR3.0H2500N1-VA *WR3.0X5800T1-VA *WR3.0Y5899T1-VA	96	1037	39" x 68" x 18" 48" H Optional	896
3.0	120/120 208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR3.0A0100N1 WR3.0B1300N1 WR3.0D0400N1 WR3.0R2500N1 WR3.0H2500N1 *WR3.0X5800T1 *WR3.0Y5899T1	96	1037	39" x 68" x 18" 48" H Optional	1066
3.5	120/120 208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR5.0A0100N1-VA WR5.0B1300N1-VA WR5.0D0400N1-VA WR5.0R2500N1-VA WR5.0H2500N1-VA *WR5.0X5800T1-VA *WR5.0Y5899T1-VA	120	1146	39" x 68" x 18"	1171
5.0	120/120 208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR5.0A0100N1 WR5.0B1300N1 WR5.0D0400N1 WR5.0R2500N1 WR5.0H2500N1 *WR5.0X5800T1 *WR5.0Y5899T1	120	1419	39" x 68" x 18"	1284
6.0	120/120 208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR6.0A0100N1 WR6.0B1300N1 WR6.0D0400N1 WR6.0R2500N1 WR6.0H2500N1 *WR6.0X5800T1 *WR6.0Y5899T1	144	1965	39" x 68" x 18"	1284
*7.5	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR7.5B1300N1 WR7.5D0400N1 WR7.5R2500N1 WR7.5H2500N1 *WR7.5X5800T1 *WR7.5Y5899T1	120	2300	51" x 70" x 30.5"	1074
*8.0	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR8.0B1300N1 WR8.0D0400N1 WR8.0R2500N1 WR8.0H2500N1 *WR8.0X5800T1 *WR8.0Y5899T1	192	2600	39" x 68" x 18"	1464
*10	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR10B1300N1 WR10D0400N1 WR10R2500N1 WR10H2500N1 *WR10X5800T1 *WR10Y5899T1	192	3057	51" x 70" x 30.5"	2870
*12.5	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR12B1300N1 WR12D0400N1 WR12R2500N1 WR12H2500N1 *WR12X5800T1 *WR12Y5899T1	192	3700	51" x 70" x 30.5"	3777
*15	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR15B1300N1 WR15D0400N1 WR15R2500N1 WR15H2500N1 *WR15X5800T1 *WR15Y5899T1	240	5000	51" x 70" x 30.5"	4512
*17	208/208 240/240 277/277 480/277 X / 208, 277, 120/240 Y / 277 & 480	WR17B1300N1 WR17D0400N1 WR17R2500N1 WR17H2500N1 *WR17X5800T1 *WR17Y5899T1	240	5400	51" x 70" x 30.5"	4512