

Central Lighting Inverter Emergency Power Systems

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

The Wave Rider is always online, eliminating noise, spikes, sags and brownouts. 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.

KEY FEATURES of the Wave Rider:

- **Built-in Power Factor Correction**
(Saves approx. 10% on utility bill)
- **Double Conversion, "no-break" online system powers all lamp types, including HID.**
- **Latest technology microprocessor controlled electronics with PWM (Pulse Width Modulated) design for true Sine 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)**
- **Sealed maintenance-free lead calcium batteries with 10 year prorata warranty.**
- **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**
- **1 Year Warranty**



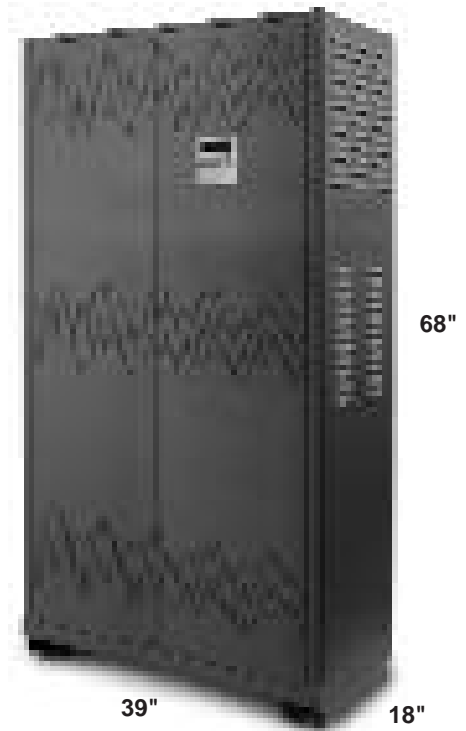
LIFE-LINE Wave Rider™ I CENTRAL LIGHTING INVERTER

Applications

For a wide range of commercial and industrial applications, from 2,100 to 15,000 watts.

Typical installations:

- Office Buildings
- Factories
- Hospitals
- Hotels & Motels
- Schools & Universities
- Shopping Centers
- Casinos
- Airports
- Military Installations
- Apartment Buildings
- Supermarkets
- Train & Bus Terminals



**2.1 to 15 KW,
Single Phase**

**HID, Incandescent, Fluorescent
120, 208, 240, or 277 Volts**

**Listed to UL924 Lighting
and UL1778 UPS Standards, by CSA**

A Full Line Power Protection Company.

Wave Rider I Specifications

POWER RATING:

2.1, 3, 3.5, 5, 5.25, 7, 7.5, 8.8, 10, 10.5, 12.5, 14, and 15 KW

Input Voltage

2.1 - 5KW120, 208, 240, or 277 VAC (-20% to +15%)
5.25 - 15kW 208, 240 or 277VAC (-15% to +15%)

Output Voltage

2.1 - 5KW120, 208, 240, or 277 VAC
5.25 - 15kW 208, 240 or 277VAC

OUTPUT FREQUENCY

(Inverter Operation): 60Hz ±0.5Hz.

VOLTAGE REGULATION: ±3%

OUTPUT WAVE FORM: Sine-wave

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.

OUTPUT PROTECTION:

Internal Electronic overload protection. Circuit breaker provides inherent overload 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 internally mounted transformer is required.

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.

NOISE ISOLATION:

-120 dB. Common-Mode.
60 dB. Transverse-Mode

EFFICIENCY: 90% minimum

CREST FACTOR:

3.1 Typical (may vary by model)

BATTERY: Sealed maintenance free (SMF), Lead Calcium

Battery Management System:

Utilizes a microprocessor 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

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 25°C. (-4 to 77°F)

SAFETY AGENCIES:

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

STANDARD FEATURES

- Back-lit LCD Display for monitoring
- RS 232 & RS 485 ports for metering, measuring, and diagnostic.
- System pre-wired for optional Global Monitoring System (GMS)
- Automatically tests every 30 days and 12 months.
- Battery Breaker
- Inverter Test Switch
- Generator Compatible with Automatic Governor (Slew Rate 2Hz/sec.)
- Battery Management Software
- High Frequency PWM with Digital Signal Processing Technology
- **Built-in Input Power Factor Correction**

OPTIONS

- Secondary Auxiliary Circuit Breakers (up to 12 one-pole OCB's): Normally On, Normally Off, Normally Off w/ Delay, Trip Alarm
- Form 'C' Contacts (5), (N.o.)
- 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)
- Built-in Secondary Distribution
- Input Transient Voltage Surge Suppressor (TVSS)
- Harmonic Tolerance (up to K-50)
- EMI Filter
- Stackable Cabinet Rack to save floor space
- Certified Zone 4 Seismic Bracket
- Extended Warranty and Service Plans
- Auto Test Parameters
- Event Logger
- **G-Battery (Sealed Lead-Calcium VRLA Battery):** Maintenance free battery that requires no addition of water over the life of the battery. **20-years Warranty Life at 77°F (25°C).** Warranty is two-years full replacement plus an additional 18 years pro-rata.
- **Global Monitoring System (GMS)**

LOCAL

- Local PC via RS232 and RS485
- Event logging up to 500

REMOTE

- **Dial-up**
 - Voice (10 event logging), numeric pager
 - Voice, data, fax, pager, PC, e-mail, event logging up to 500
 - Voice, data, fax, pager, PC, e-mail, and measurement (500 event logging plus graphic)

● Web/SNMP:

System status, measurement, alarm notification, event logging and password protected configuration.

Consult Factory for more features and choices of remote communication.

Ordering Information

Sample Part #: WR-12.5-R-X-02-IMB

Unit Name	Output Capacity	Input/Output Voltage	Battery Type	Normally ON Output Breaker	Options
WR	12.5	R	X	02	IMB
Wave Rider	@ Unity 1.0 pf				
	2.1				
	3.0				
	3.5				
	5.0				
	5.2	X= Standard 10 year VRLA			
	7.0	Y= Long Life 20 year VRLA			
	7.5	N= NiCad 20 year			
	10				
	10.5	A = 120/120 (up to 5.2 kW)			
	12.5	B = 208/208			
	14	D = 240/240			
	15	R = 277/277			
		(A,B,C, or R) + T = other Output Voltage			
		*** Ask factory for 120V input above 5.2 kW			
		***480V input/output also available			
			Quantity - 01 - 14		
				2WTY - Extended 2 year Warranty	
				RSP - Remote Status Panel	
				RMS - Remote Monitoring System	
				IMB - Internal Maintenance Bypass	
				EMB - External Maintenance Bypass	
				FCC - (5) Form "C" Contact	
				ASW - Alarm & Silencer Switch	
				NOF - Normally-Off Output Breaker	

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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