Wave Rider™
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 Sentinel 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 ™ 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/o condensation
- **Operating temperature:** UPS: -0°C to 40°C. (32°F to 104°F)
- **BATTERY:** 20°C to 25°C (68°F 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/NFPA C62.45 category A and B.

<table>
<thead>
<tr>
<th>KW</th>
<th>INPUT/OUTPUT VOLTAGES</th>
<th>MODEL NUMBERS</th>
<th>DC VOLTS</th>
<th>BTU/HR</th>
<th>CABINET SIZE (W x H x D)</th>
<th>WGT (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>*96</td>
<td>1037</td>
<td>39’ x 68’ x 18’</td>
<td>896</td>
</tr>
<tr>
<td></td>
<td>Y / 277 &amp; 480</td>
<td>WRL.0A0100N1-VA</td>
<td></td>
<td></td>
<td>48’H Optional</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>96</td>
<td>1037</td>
<td>39’ x 68’ x 18’</td>
<td>1066</td>
</tr>
<tr>
<td></td>
<td>Y / 277 &amp; 480</td>
<td>WRL.0A0100N1-VA</td>
<td></td>
<td></td>
<td>48’H Optional</td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>120</td>
<td>1146</td>
<td>39’ x 68’ x 18’</td>
<td>1171</td>
</tr>
<tr>
<td></td>
<td>Y / 277 &amp; 480</td>
<td>WRL.0A0100N1-VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>144</td>
<td>1965</td>
<td>39’ x 68’ x 18’</td>
<td>1284</td>
</tr>
<tr>
<td></td>
<td>Y / 277 &amp; 480</td>
<td>WRL.0A0100N1-VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*7.5</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>120</td>
<td>2300</td>
<td>51’ x 70’ x 30.5’</td>
<td>1074</td>
</tr>
<tr>
<td></td>
<td>Y / 277 &amp; 480</td>
<td>WRL.0A0100N1-VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*8.0</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>192</td>
<td>2600</td>
<td>39’ x 68’ x 18’</td>
<td>1464</td>
</tr>
<tr>
<td></td>
<td>Y / 277 &amp; 480</td>
<td>WRL.0A0100N1-VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*10</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>192</td>
<td>3057</td>
<td>51’ x 70’ x 30.5’</td>
<td>2870</td>
</tr>
<tr>
<td></td>
<td>Y / 277 &amp; 480</td>
<td>WRL.0A0100N1-VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*12.5</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>192</td>
<td>3700</td>
<td>51’ x 70’ x 30.5’</td>
<td>3777</td>
</tr>
<tr>
<td></td>
<td>Y / 277 &amp; 480</td>
<td>WRL.0A0100N1-VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*15</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>240</td>
<td>5000</td>
<td>51’ x 70’ x 30.5’</td>
<td>4512</td>
</tr>
<tr>
<td></td>
<td>Y / 277 &amp; 480</td>
<td>WRL.0A0100N1-VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*17</td>
<td>X / 208, 277, 120/240</td>
<td>WRL.0A0100N1-VA</td>
<td>240</td>
<td>5400</td>
<td>51’ x 70’ x 30.5’</td>
<td>4512</td>
</tr>
</tbody>
</table>

**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 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

**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
- 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 notice

* 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