Crucial Power Products

SHAKER TABLE TESTED

Central Lighting Inverter

Wave Rider™ 4

Three Phase, 8 to 400KW

Three Phase
208Y/120 or 480Y/277 VAC
Modular design, Front access
Listed to UL924 and UL1778
Hybrid Fast Transfer Green Mode - 98% Efficiency (Typical)
Online Continuous Mode
- 94% Efficiency (Typical)

Seismic Certied to SDS Level 1.6g Listed to CBC2016, IBC2015, AC156

HCAI CERTIFIED

(Formerly OSHPD)

OSP No.: OSP-0660

Key Features:

- **HCAI Compliant (Formerly OSHPD) Certification OSP-0660**
- **Automatic monthly and annual self-testing**
- **Multiple design configurations**
- **True Galvanic isolation design**
- **Designed to protect against a floating neutral**
- **Advanced digital signal processing**
- **Modular design for ease of troubleshooting and maintenance**
- **Redundant Multi-CPU design allows the software and hardware to work together as a team**
- **The most intelligent and safe battery test circuitry available today**
- **Individualized inverter support on each phase**
- **Intelligent, fully temperature compensated battery charger**
- **Hi-Tech fan speed control**
- **Optimum design for heat dissipation**
- **Battery power start feature**
- **2 Year Warranty* (optional)**

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

The Wave Rider 4 has met the highest standards of seismic testing. Shaker table testing is in accordance with ICC-ES-AC-156 to an SDS level of 1.6g. We also meet the requirement for CBC 2016, IBC 2015 and test criteria ICC-ES AC156. The Wave Rider 4 have also met the certification for HCAI (formerly OSHPD).

A selection of optional accessories to meet your particular needs are available:

- **Remote Control Panel**
- **3-Phase PC monitoring software**
- **Battery Sentinel (Battery Monitoring)**
- **3-Phase SNMP card**
- **Input Harmonic Filter – reduces T.H.D. (Total Harmonic Distortion) of the input current**
- **Customizable backup time of 120 minutes or more**
- **12 Pulse up to 60 kVA to reduce Harmonic in the input side for facility**
- **Thermal Runaway Control (IFC 1206.2)**

HCAI Wave Rider™ 4 Specifications

(Formerly OSHPD)

Power Rating:
8, 16, 24, 32, 40, 48, 64, 80, 96, 128, 160, 192, 240, 320 and 400kW

Input Voltage:
208Y/120V or 480Y/277 VAC (-15% to +15%)

Output Voltage:
208Y/120V or 480Y/277 VAC

Output Frequency (Inverter Operation):
60Hz ± 7Hz

Voltage Regulation:
±1% at 100% unbalanced load

Output Voltage Wave Form:
Sinusodial < 2% THD.

Crest Factpr: 3:1 Typical

Surge Protection:
The UPS will protect itself and the load against surges as defined in ANSI/IEEE C62.41 Categories A and B.

Isolation: True galvanic isolated

Battery: Sealed, Maintenance-Free, VRLA Standard 10 Year

Recharge Time: Varies per KVA and conforms to UL924

Environmental:

Humidity: 0 - 90% (non-condensing)

Operating Temperature:
UPS: 0˚ to 40˚C. (32˚ - 104˚F)
Battery: 20˚ to 25˚C. (68˚ - 77˚F)
Higher temperature batteries are available for special order.

Storage Temperature:
-20˚ to 70˚C. (-4˚ - 158˚F)
Electronics only.

Altitude: Up to 5,000 ft

Cabinet Sizes:
(Including Floor Brackets)

	(Width")	(Height")	(Depth")
8-48kW:	40.75"	63"	31.5"
64-128kW:	62.5"	63"	31.5"
300-400kW:	Consult Factory.		
Battery Cab:	58.75"	70"	30.5"

KVA/ KW	INPUT - OUTPUT VOLTAGES	MODEL NUMBERS	UPS (LBS)	STANDARD (10YR)				LONG LIFE (20YR)				POWER MODE (BTU/HR)	
				90MIN		120MIN		90MIN		120MIN			
				QTY	LBS	QTY	LBS	QTY	LBS	QTY	LBS	UPS	GREEN
10/8	208/120 - 208/120 480/277 - 480/277	SV-WR010B05ATT3 SV-WR010H09ATT3	840	1	2430	1	2430	1	2975	1	2975	3374	1742
20/16	208/120 - 208/120 480/277 - 480/277	SV-WR020B05ATT3 SV-WR020H09ATT3	1083	1	3213	1	3416	1	3990	1	3990	6747	2873
30/24	208/120 - 208/120 480/277 - 480/277	SV-WR030B05ATT3 SV-WR030H09ATT3	1260	1	4361	1	4535	1	4135	1	5034	10120	4310
40/32	208/120 - 208/120 480/277 - 480/277	SV-WR040B05ATT3 SV-WR040H09ATT3	1414	2	3213	2	3416	1	5034	2	3990	12131	5747
50/40	208/120 - 208/120 480/277 - 480/277	SV-WR050B05ATT3 SV-WR050H09ATT3	1525	2	3427	2	3867	2	3990	2	4135	15164	5687
60/48	208/120 - 208/120 480/277 - 480/277	SV-WR060B05ATT3 SV-WR060H09ATT3	1724	2	3867	2	4923	2	4135	2	5034	18197	6824
***80/64**	208/120 - 208/120 480/277 - 480/277	SV-WR080B05ATT3 SV-WR080H09ATT3	2276	2	4615	1 2	3707 4729	2	5034	3	5034	24263	9099
***100/80**	208/120 - 208/120 480/277 - 480/277	SV-WR100B05ATT3 SV-WR100H09ATT3	2984	1 2	3707 4729	2 2	3416 4923	3	5034	3	5034	30329	11373
***120/96**	208/120 - 208/120 480/277 - 480/277	SV-WR120B05ATT3 SV-WR120H09ATT3	3138	2 2	3416 4923	4	4923	3	5034	4	5034	32395	10130
160/128	208/120 - 208/120 480/277 - 480/277	SV-WR160B05ATT3 SV-WR160H09ATT3	3868	*	*	*	*	4	5060	5	5060	43193	13507
200/160	208/120 - 208/120 480/277 - 480/277	SV-WR200B05ATT3 SV-WR200H09ATT3	5746	*	*	*	*	5	5060	6	5060	53992	16884
240/192	208/120 - 208/120 480/277 - 480/277	SV-WR240B05ATT3 SV-WR240H09ATT3	6229	*	*	*	*	6	5060	*	*	64790	20206
300/240	208/120 - 208/120 480/277 - 480/277	SV-WR300B05ATT3 SV-WR300H09ATT3	7293	*	*	*	*	*	*	*	*	80988	25326
400/320	208/120 - 208/120 480/277 - 480/277	SV-WR400B05ATT3 SV-WR400H09ATT3	9061	*	*	*	*	*	*	*	*	94942	33768
500/400	208/120 - 208/120 480/277 - 480/277	SV-WR500B05ATT3 SV-WR500H09ATT3	10166	*	*	*	*	*	*	*	*	118678	42210

*64kW - Standard Battery (10Yr) 120min: 3 cabinets
*80kW - Standard Battery (10Yr) 90min: 3 cabinets, 120min: 4 cabinets
*96kW - Standard Battery (10Yr) 90min: 4 cabinets

*The approximation is worst case BTU output, measured during recharge following a discharge.

kW equates to real power. These units come in one capacity at 0.8 power factor. Example: 10kVA/8kW
Specifications are subject to change without prior notification.

Standard Features

- Independent Phase Control Circuitry:
  - Phase Imbalance Tolerant.
  - Will operate completely unbalanced.
- Field Selectable Modes:
  - Online Double Conversion
  - Green Mode / Fast Transfer
- Pulse Width Modulation Rectifier:
  - 06-pulse (24kW to 64kW).
  - 12-pulse (80kW and above).
- Main Input/Output Circuit Breakers.
- Internal Maintenance Bypass.
- Transient Voltage Surge Suppression (TVSS).
- LCD Display for Viewing Unit Status and Events.
- Modular Design for Ease of Service.
- Multiple CPU Design:
  - Individual CPUs for Control Circuit Functions.
  - Parallel Redundancy for Critical Circuits.
- Intelligent Charger w/ Temperature Compensation.
- Redundant Power Supply.
- Integral Protection Against Operator Error.
- Power Conditioning Using PWM Methodology.
- Output Isolation Transformer for True Galvanic Isolation on the Load Side of the Inverter.
- Cold Start Function:
  - Power Up the Unit Using Its Batteries.

Options

- 8 Terminals of Dry Contacts Are Available:
  INVON, OVL, FAULT, SS BYPASS, BACKUP, BATL, COM
- Form C Dry Contacts Normally Closed
- Integral Auxiliary Output Circuit Breakers (Consult Factory)
- Delta Input/Output
- RS-232 / RS-485 Connectors for External Modules:
  - Remote Status Panel UPSCAN™
  - Software for PC Monitoring UPSCOM™
  - Auto Dialing Module UPSCALL™
  - Battery Monitoring Module DCMAN™
- Event Logging up to 500 Events
- Battery Cabinet Exhaust Fan
- Battery Cabinet Exhaust Fan Dry Contact
- External Wrap Around Bypass**
- WiFi Monitoring (GMS)
- Wireless Battery Monitoring System:
  (Monitors Battery Health, Including Impedance)
  - String Monitoring
  - Individual Battery Monitoring
- Thermal Runaway Control (IFC 1206.2)

Consult Factory for more features and choices of remote communication.
**Second Year, months 13 to 24 only valid with factory performed preventive maintenance.*
*** Not Compatible with Integral Auxiliary Output Circuit Breakers.*

CRUCIAL POWER PRODUCTS

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