

## Three Phase Uninterruptible Power Supply

The Wave Rider IV is the ultimate UPS solution – providing uninterrupted power and protection against noise, lightning, and leakage current.

### KEY FEATURES:

- 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
- A selection of optional accessories to meet your particular needs are available
  - Remote control panel (UPS only)
  - 3-Phase PC monitoring software
  - Battery monitoring module
  - 3-Phase SNMP card
  - Input harmonic filter – reduces T.H.D. (Total Harmonic Distortion) of the input current



## Wave Rider™ IV-HYBRID

### Three Phase, 8 to 400 kW

208Y/120 or 480Y/277 VAC

Modular Design, Front Access

Listed to UL1778 and UL924

**Hybrid Fast Transfer Green Mode - 98% Efficiency**

Online Continuous Mode - 94% Efficiency



### Applications

Computer Room, Production Facility, Testing Lab, Telecommunications, Industrial, Government Buildings, Public Building, Schools, Healthcare, Cruise & Cargo Ship, Banking, Printing Facility

**A Full Line Power Protection Company.**

# Wave Rider IV

## SPECIFICATIONS

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

**Input Voltage:**

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

**Output Voltages:**

208Y/120V or 480Y/277VAC

**Output Frequency (Inverter Operation):** 60 Hz ±1 Hz

**Voltage Regulation:** ±1% at 100% unbalanced load

**Output Voltage Wave Form:** Sine-Wave <2% THD.

**Crest Factor:** 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 or Long Life Battery (available upon request)

**Recharge Time:** Varies per KVA and conforms to UL924.

**Environmental:**

**Humidity:** 0 - 90% (non-cond.)

**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 60°C. (-4° - 140°F)  
electronics only.

**Altitude:** Up to 5,000 ft

**Cabinet Size (UPS only)**

(Width" x Height" x Depth"):

**8-48kW:** 34" x 63" x 31.5"

**64-128kW:** 55.5" x 63" x 31.5"

**160-240kW:** 86.5" x 63" x 31.5"

**320kW:** 133" x 71" x 39.5"

**400kW:** 178" x 71" x 39.5"

**Battery Cab:** 51" x 70" x 30.5"

KW	Input - Output Voltages	MODEL NUMBERS	DC Voltages	**Weights (lbs)	
				UPS	Each Battery Cab (#) of cab
8	208/120 - 208/120 480/277 - 480/277	WR010B05ATT3 WR010H09ATT3	348	840 840	2187 (1)
16	208/120 - 208/120 480/277 - 480/277	WR020B05ATT3 WR020H09ATT3	348	1083 1083	4014 (1)
24	208/120 - 208/120 480/277 - 480/277	WR030B05ATT3 WR030H09ATT3	348	1260 1260	4594 (1)
32	208/120 - 208/120 480/277 - 480/277	WR040B05ATT3 WR040H09ATT3	348	1414 1414	3536 (2)
40	208/120 - 208/120 480/277 - 480/277	WR050B05ATT3 WR050H09ATT3	348	1525 1525	3536 (2)
48	208/120 - 208/120 480/277 - 480/277	WR060B05ATT3 WR060H09ATT3	348	1724 1724	4594 (2)
64	208/120 - 208/120 480/277 - 480/277	WR080B05ATT3 WR080H09ATT3	348	2276 2276	3888 (3)
80	208/120 - 208/120 480/277 - 480/277	WR100B05ATT3 WR100H09ATT3	348	2984 2984	3231 (3)
96	208/120 - 208/120 480/277 - 480/277	WR120B05ATT3 WR120H09ATT3	348	3138 3138	14420 (4)
128	208/120 - 208/120 480/277 - 480/277	WR160B05ATT3 WR160H09ATT3	348	3868 3868	14130 (4)
160	208/120 - 208/120 480/277 - 480/277	WR200B05ATT3 WR200H09ATT3	348	5746 5746	18840 (5)
* 192	208/120 - 208/120 480/277 - 480/277	WR240B05ATT3 WR240H09ATT3	348	6229 6229	**
* 240	208/120 - 208/120 480/277 - 480/277	WR300B05ATT3 WR300H09ATT3	348	7293 7293	**
* 320	208/120 - 208/120 480/277 - 480/277	WR400B05ATT3 WR400H09ATT3	348	9061 9061	**
* 400	208/120 - 208/120 480/277 - 480/277	WR500B05ATT3 WR500H09ATT3	348	10166 10166	**

\* Units are available only upon request.

\*\* Consult Factory.

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## STANDARD FEATURES

- 6 pulse or 12 pulse controlled rectifier (12 pulse for 80 kVA & up)
- Input main circuit breakers
- Data and events LCD display
- Built-in Transient Voltage Surge Suppressor
- EMI suppression
- PWM methodology (DSP)
- Isolation transformer at output for True galvanic isolation
- Internal Maintenance Bypass Breakers
- Integral Auxillary Output Circuit Breakers (consult factory)
- Modular design to facilitate ease and speed of service
- Cold start function: UPS can be started with battery power only without an AC source
- Multi-CPU design: Several CPUs are employed in control circuit and critical functions are designed with parallel redundancy for added reliability
- Protection against misuse: circuit breaker on/off sensor, and power supply sensor; the user cannot cause UPS damage by operator error.
- Intelligent charger: UPS will automatically recharge with temperature compensation.
- Intelligent battery test
- Redundant power supply
- DB9 Connection- (4) RS-485 & (1) RS-232:

The following are some connection examples of optional modules

- CNR21 (RS-232): UPSCOM- Software for PC Monitoring, SNMP card
- CNR9 (RS-485): DCMAN- Battery Monitoring Module
- CNR10 (RS-485): UPSCAN- Remote Control Panel
- CNR12,13,14,15,17,18,19 (RS-485): UPSCALL- Auto Dialing Module
- CNR11: for transferring RS-485 into RS-232

## OPTIONS

- RS-232 / RS-485 for varies accessory
- 8 Dry contacts: INVON,OVL,FAULT, SS, BYPASS, BACK-UP, BATL, COM.
- Remote control panel UPSCAN™
- Software for PC monitoring UPSCAN™
- Auto dialing module UPSCAN™
- Battery Monitoring module DCMAN™
- Output Aux CB's
- Main Output Breaker
- WIFI Monitoring (GMS)

Consult Factory for more features and choices of remote communication.



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