

# PowerRide 4-HYBRID

## Three Phase, 48 to 400 kW

208Y/120 or 480Y/277 VAC

Modular Design, Front Access

ETL Certified to UL1778 and UL924

Hybrid Fast Transfer Green Mode - 98% Efficiency

Online Continuous Mode - 94% Efficiency

### Multiple Design Configurations

Can be configured as dual conversion online system or fast transfer standby system.

### True Galvanic isolation design

The ultimate UPS solution – providing uninterrupted power and protection against noise, lightning and leakage current.

### Designed to protect against a floating neutral

Ensures the safety of personnel and UPS.

### Advanced digital signal processing

Increased reliability and efficiency through the use of DSP, IGBT and advanced switching components.

### Modular design for ease of troubleshooting and maintenance

Quick change components speed repairs and cut down time.

### Redundant Multi-CPU design allows the software and hardware to work together as a team

This results in the highest reliability possible.

### The most intelligent and safe battery test circuitry available today

- No risk of AC output failure during test of failed batteries
- Maximizes battery bank protection when leakage or a ground fault is present

### Individualized inverter support on each phase

Maintains specified characteristics, even with 100% unbalanced load.

### Intelligent, fully temperature compensated battery charger

- Prolongs battery life
- Selectable high charging capacity for large capacity extended backup time battery banks

### Hi-Tech fan speed control

Increases fan life expectancy while reducing audible noise.

### Optimum design for heat dissipation

The control and power circuits are separated to reduce operating temperature for high reliability under adverse operating conditions.

### Battery Power start feature

The unit can be started with or without the AC mains using battery power alone eliminating large surge currents.

### Typical installations:

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



### Optional accessories:

- Remote control panel
- 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



# PowerRide 4

- Power Rating:** 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  $\pm$  1 Hz
- Voltage Regulation:**  $\pm$ 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-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 Temp.:** -20° to 60°C. (-4° - 140°F) electronics only.
  - Altitude:** Up to 5,000 ft
- Cabinet Size (UPS only)**
  - 48kW:** 34"W x 63"H x 31.5"D
  - 64-128kW:** 55.5"W x 63"H x 31.5"D
  - 160-240kW:** 86.5"W x 63"H x 31.5"D
  - 320kW:** 133"W x 71"H x 39.5"D
  - 400kW:** 178"W x 71"H x 39.5"D
- Battery Cabinet:** 51"W x 70"H x 30.5"D

| KW    | Input - Output Voltages                | MODEL NUMBERS                | DC Voltages | Weights (lbs)  |                             |
|-------|--|------------------------------|-------------|----------------|-----------------------------|
|       |  |                              |             | UPS            | Each Battery Cab (#) of cab |
| 48    | 208/120 - 208/120<br>480/277 - 480/277 | PD060B05ATT3<br>PD060H09ATT3 | 348         | 1724<br>1724   | 4594 (2)                    |
| 64    | 208/120 - 208/120<br>480/277 - 480/277 | PD080B05ATT3<br>PD080H09ATT3 | 348         | 2276<br>2276   | 3888 (3)                    |
| 80    | 208/120 - 208/120<br>480/277 - 480/277 | PD100B05ATT3<br>PD100H09ATT3 | 348         | 2984<br>2984   | 3231 (3)                    |
| 96    | 208/120 - 208/120<br>480/277 - 480/277 | PD120B05ATT3<br>PD120H09ATT3 | 348         | 3138<br>3138   | 14420 (4)                   |
| 128   | 208/120 - 208/120<br>480/277 - 480/277 | PD160B05ATT3<br>PD160H09ATT3 | 348         | 3868<br>3868   | 14130 (4)                   |
| * 160 | 208/120 - 208/120<br>480/277 - 480/277 | PD200B05ATT3<br>PD200H09ATT3 | 348         | 5746<br>5746   | 18840 (5)                   |
| * 192 | 208/120 - 208/120<br>480/277 - 480/277 | PD240B05ATT3<br>PD240H09ATT3 | 348         | 6229<br>6229   | Consult Factory             |
| * 240 | 208/120 - 208/120<br>480/277 - 480/277 | PD300B05ATT3<br>PD300H09ATT3 | 348         | 7293<br>7293   | Consult Factory             |
| * 320 | 208/120 - 208/120<br>480/277 - 480/277 | PD400B05ATT3<br>PD400H09ATT3 | 348         | 9061<br>9061   | Consult Factory             |
| * 400 | 208/120 - 208/120<br>480/277 - 480/277 | PD500B05ATT3<br>PD500H09ATT3 | 348         | 10166<br>10166 | Consult Factory             |

Contact factory for units smaller than 48 kW.  
 \* Units are available only upon request.  
 Specifications are subject to change without prior notification.

## 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)
- Internal Maintenance Bypass Breakers
- Integral Auxillary Output Circuit Breakers (consult factory)
- Isolation transformer at output for true galvanic isolation
- 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 of RS-485 & 1 of 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 various 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)
- Zone 4 Seismic Cabinet Brackets

Consult Factory for more features and choices of remote communication.

