Uninterruptible Power System
3 Phase Systems 4.8kVA to 50kVA

**STANDARD FEATURES**

- 98% efficient
- PWM/IGBT technology
- Micro-processor control
- User programmable with password protection
- UL 924 Listed
- Automatic event and alarm log
- RS232 communications port
- Input circuit breaker
- Modular design
- Low audible noise
- Internal battery circuit breaker/fuse

**OPTIONAL FEATURES**

- Auto dialer
- External maintenance bypass
- Summary form C contacts
- Modem
- Remote meter panel
- Output circuit breakers
- Extended factory warranty
- Factory startup and training

**SPECIFICATIONS**

- Input 120/208 or 277/480 VAC 3 phase 4 wire Wye configuration
- Output 120/208 or 277/480 VAC 3 phase Wye or Delta configuration
- Output load power factor .5 lag to .5 lead
- Electronic and magnetic ballast compatible
- Output distortion less than 3% THD for linear loads
- Forced air cooling only during emergency operation, no filters required
- Generator compatibility
- 90 minute runtime standard; other runtimes available upon request
## General Specifications effective 5/01/05

### Input
- **Voltage:** 120/208 or 277/480VAC 3-phase 4-wire +10% -15%. (Wye configuration)
- **Frequency:** 60Hz, +/- 3%
- **Synchronizing Slew Rate:** 1Hz per second nominal
- **Protection:** Input Circuit Breaker
- **Harmonic Distortion Power Factor:** < 10%

### Output
- **Voltage:** 120/208 or 277/480VAC 3-phase 4-wire. (Wye or Delta configuration)
- **Static Voltage:** Load current change +/-4%, battery discharge +/-4%
- **Dynamic Voltage Harmonic Distortion:** < 3% THD for linear load
- **Output Frequency:** 60Hz +/- .05Hz during emergency mode
- **Load Power Factor:** .5 lag to .5 lead
- **Inverter Overload Protection:** 115% for 5 minutes

### Battery
- **Type:** Valve-regulated sealed lead-calcium. Contact factory for additional battery types.
- **Charger:** Microprocessor controlled for various battery types and temperature compensating (recharge per UL924 spec)
- **Protection:** Automatic low-battery disconnect, automatic restart upon utility return.
- **Disconnected:** Fuse-and-Fuse/ Circuit breaker above 24KVA

### Environmental
- **Altitude:** < 10,000 feet (above sea level) without derating
- **Operating Temperature:** 20 to 30 degrees Celsius
- **Storage Temperature:** -20 to 70 degrees Celsius (electronics only)
- **Relative Humidity:** < 95% (non-condensing)

### General
- **Design:** Stand-By UPS. PWM inverter type utilizing IGBT technology with 2ms transfer time.
- **Generator Input:** Compatible with generators.
- **Control Panel:** Microprocessor controlled 2 x 20-character display with touch pad controls & functions
- **5 LED indicators & alarm with ring-back feature**: Input & Output Voltage, Battery Voltage, Battery & Output Current, Output VA, Temperature, Inverter Wattage
- **High/Low Battery Charger Fault, Near Low Battery, Low Battery, Load Reduction Fault, Output Overload**: 115% for 5 minutes
- **Output Frequency:** 60Hz +/- .05Hz during emergency mode
- **Heat Loss (BTU):** Batteries
- **Battery Cabinets:** Optional Runtimes Extended runtimes available. Consult factory for additional information.

### Physical
- **Cabinet:** Freestanding NEMA Type 1
- **Cooling:** Forced Air during emergency mode.
- **Cable Entry Access:** Top and side on 4.8KVA - 16.7KVA; side only on 24KVA - 50KVA

### UPS Electronics Module
- **Power Rating (kVA):**
  - **Model Number:** D-1-S
  - **4.8**
  - **6.0**
  - **8.0**
  - **10.0**
  - **12.5**
  - **16.7**
  - **24.0**
  - **33.0**
  - **40.0**
  - **50.0**
- **Audible Noise (dBA @ 1m):**
  - **47/120**
  - **47/120**
  - **47/120**
  - **47/120**
  - **47/120**
  - **47/120**
- **Efficiency (60% load):**
  - **535**
  - **535**
  - **535**
  - **535**
  - **535**
  - **535**
  - **535**
- **Power Rating (kW):**
  - **8.884**
  - **11.105**
  - **14.808**
  - **17.788**
  - **22.200**
  - **29.600**
  - **44.404**
  - **60.000**
  - **74.000**
  - **91.200**
- **Total Battery Weight:**
  - **8.0**
  - **15.0**
  - **20.0**
  - **24.0**
  - **30.0**
  - **40.0**
  - **60.0**
  - **40.0**
  - **100.0**
  - **60.0**

### Batteries
- **Voltage (VDC):**
  - **120/77**
  - **120/77**
  - **120/77**
  - **120/77**
  - **120/77**
  - **120/77**
  - **120/77**
  - **120/77**
  - **120/77**
  - **120/77**
- **Number of Batteries:**
  - **112**
  - **112**
  - **112**
  - **112**
  - **112**
  - **112**
  - **112**
  - **112**
  - **112**
  - **112**
- **Battery Module Physical Mass (lbs/kg):**
  - **210**
  - **210**
  - **210**
  - **210**
  - **210**
  - **210**
  - **210**
  - **210**
  - **210**
  - **210**

Specifications are subject to change without notice to reflect improvements and upgrades.