

Sustainment Systems
Power Solutions



DRS Pivotal Power's 5 kW Uninterruptible Power Supply (UPS) produces high-quality 400 hertz, 3-phase power, which exceeds the stringent system requirements of MIL-STD-1399, Section 300, Type III specification for critical naval shipboard applications. In the event of loss of input power, the UPS is capable of supplying the rated output power for 15 minutes minimum, using storage batteries, without any transient interruption.

The power conversion of the UPS is based on switch mode technology using high-frequency Pulsewidth Modulation (PWM), which provides sinusoidal output voltage with very low distortion even under adverse non-linear loading conditions. The UPS output is controlled using a microprocessor based system which provides a high precision regulation and a very fast transient response. The use of power Insulated Gate Bipolar Transistors (IGBTs) as switching elements ensures high conversion efficiency.

The construction of the UPS is modular with draw-out subassemblies for ease of maintenance.

The system reliability is an order of magnitude greater than other static conversion equipment due to the use of high reliability components and stringent quality screening standards.

The UPS is fully qualified for military applications.

DRS PIVOTAL POWER



Features

- Isolation switches for input, output and battery
- Draw-out sub-assemblies and printed wiring boards
- Built-In-Test (BIT) capability
- LED status indication for input, output, backup mode operation, low battery, over current, over temperature and unit shutdown
- Indicator and fault signals for remote control panel

Input

Applicable standards. MIL-STD-1399, section 300 A, Type 1/CS-F 24999
Voltage. 115 VAC nominal, 3-phase or 440 VAC nominal, 3-phase
Frequency. 60 Hz nominal

Output

Applicable standards. MIL-STD-1399 Section 300 A, Type 3, CS-F-24999
Voltage. 120 VAC, 3-phase
Power rating. 5 kW, minimum 0.8 power factor (lag)
Frequency 400 Hz
Efficiency 80% at rated load

Environmental

Operating temperature. 0°C to 50°C / 32°F to 122°F
Relative humidity up to 95%
EMI/EMC MIL-STD-461C, Part 5, surface ships
Vibration. MIL-STD-167-1, Type 1, 5 Hz to 15 Hz
Shock resistance MIL-S-901C, Type A, Grade A Class 1
Airborne noise MIL-STD-740-1, Class B
Structureborne noise MIL-STD-740-2, Type 3
Cooling method forced air convection

Physical

Dimensions. 27.7 L x 19.6 W x 39.6 H inches
704 L x 498 W x 1006 H mm
Weight (excluding batteries) 630 lbs. (max)
286 kg (max)

Specifications subject to change without notice.

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