

SEA DEFENCE



1KVA AC/DC UPS 857-117-001

An uninterruptible power supply that continuously provides precise AC and DC output power for critical naval shipboard applications.

Pivotal Power's AC/DC uninterruptible power supply (UPS) produces precise 60 Hz, 115 VAC output power and 28 VDC output power to comply with the stringent system requirements of STANAG 1008 specification for critical naval shipboard applications. Both outputs are electrically isolated from each other. In the event of loss of input power, the UPS is capable of supplying the rated output power for 15 minutes minimum, using internal batteries, with no transient interruptions.

The power conversion of the UPS is based on switch mode technology using high-frequency pulse-width modulation (PWM) which provides excellent DC output voltage regulation with low transients. It also provides sinusoidal AC output voltage with very low distortion even under adverse non-linear loading conditions. The use of power MOSFETs as switching elements ensures high conversion efficiency.

The construction of the UPS is modular with draw-out type sub-assemblies 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 was developed and fully qualified for military applications.

FEATURES

- Isolation switches for input, output and battery
- Draw-out sub-assemblies and printed wiring boards
- Built-in test (BIT) capability
- On-line maintenance of batteries and battery charger
- Output voltmeter
- LED status indication for input, output, back-up mode operation, low battery, over current, over temperature and unit shutdown
- Fault signal for remote indication
- Circular coupling connectors for input and output
- Secondary fuse protection for output

SPECIFICATIONS

INPUT

APPLICABLE STANDARDS	MIL-STD-1399, Section 300 A, Type 1 / STANAG 1008
VOLTAGE	440 VAC nominal, 3 phase
FREQUENCY	60 Hz nominal

OUTPUT

APPLICABLE STANDARD	STANAG 1008
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DC OUTPUT

VOLTAGE	28 VDC
RATING	500W

AC OUTPUT

VOLTAGE	115 VAC single phase
FREQUENCY	60 Hz
RATING	500 VA

BATTERY CHARGING TIME	4 hours for 95% capacity
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ENVIRONMENTAL

OPERATING TEMPERATURE	-30°C to + 45°C
HUMIDITY	up to 95% RH non-condensing
EMI/EMC	MIL-STD-461C, Part 5, Surface Ships
VIBRATION	MIL-STD-167-1, Type 1, 5 Hz to 25 Hz
SHOCK RESISTANCE	MIL-S-901C, Type A, Grade A, Class 1
AIRBORNE NOISE	MIL-STD-740-1, Class B
COOLING METHOD	Forced air convection

PHYSICAL

DIMENSIONS (LxWxH inches)	20.0 x 16.0 x 33.0
WEIGHT (max)	300 lbs.

Pivotal Power has been delivering innovative power conversion solutions for over 20 years. We are a leader in the design, development and manufacture of defence qualified electronic power conversion equipment in the 100W to 30KW power range ideally suited for distributed power applications.

Our expertise is in supplying systems to convert, regulate, monitor and distribute power for mission critical systems. This, coupled with our ability to ensure our equipment exceeds the requirements onboard air, land and sea-based defence vehicles, has allowed us to expand into related industrial and alternative energy applications.

Our internal manufacturing operation allows us to develop, fabricate, assemble and fully test on-site.

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