

SCE Model 3200 Power Supply

The SCE 3200 series power supply is a small, modular 400Hz AC to DC supply which outputs +18V @ 2.7A.

The unit is conservatively designed and rated with a minimum MTBF of 300,000 hours under Naval, Sheltered conditions at 50°C per MIL-HDBK-217E. The supply follows the design guidelines in NAVMAT P-4855, and is derated per AS4613 class A.

The supply is equivalent to Abbott Transistor Laboratories W series, with significantly improved performance.

SPECIFICATIONS

Electrical

Input:

- Voltage Current 105VAC - 135VAC, 350Hz to 450Hz single phase

Output:

- Voltage +18V
- Current 2.7 Amp
- Regulation $\pm 0.1\%$ line, $< \pm 20\text{mV}$ load
- Transient 50% to 100% load step: 3% maximum excursion, with recovery to regulation limits in under 100sec.
- Ripple 0.2% p-p maximum
- Efficiency $> 45\%$ at full load over entire input range
- Temperature Coef. $< 0.015\%/^{\circ}\text{C}$ variation over full -55°C to $+90^{\circ}\text{C}$ range

Environmental

- Operating Temperatures -54°C to $+90^{\circ}\text{C}$
- Humidity per MIL-STD-810E meth. 507.3 proc III
- Salt Fog per MIL-STD-810E meth. 509.3 proc I
- Altitude per MIL-STD-810E meth 500.3 proc II
- Shock per MIL-STD-810E meth 516.4 proc I,III
- Temp. Shock per MIL-STD-810E meth 503.3
- Burn-In Each supply is subjected to 10 temperature cycles from -54°C to 70°C , for a total of 60 hours of testing.
- Vibration Each unit is vibrated for 10 minutes at 6.3 G's per NAVMAT P-9492.

Protection Circuits

- Current Limit Foldback type with automatic recovery, will operate into a short circuit with no damage.
- Isolation Input, case and outputs are isolated from each other to 700VDC, with 500M ohms minimum resistance.
- EMI Meets MIL-STD-461B Class A1 (airborne equipment)