

SCE Model 3700 Power Supply

The SCE 3700 series of military power supplies are small, modular 60/400Hz to DC switching power supplies, 100W, available as single-output, dual-output, or main-output with single or dual auxiliary outputs.

All units are conservatively designed and rated with a minimum MTBF of 100,000 hours under Naval Sheltered conditions at +50°C per MIL-HDBK-217E. The supply follows design guidelines in NAVMAT P-4855, and is derated per AS4613 Class A.

The series is equivalent to Abbott Transistor Laboratories MB series with significantly improved performance.

SPECIFICATIONS

Electrical

- Operating Temperature Range: -55°C to 90°C

Input Power:

- 45 to 450Hz single phase
105-135VAC (210V-250V available)

Output Power:

- Single main output from 4V to 90V. Also available as single +4V to +10V main output with either single or dual auxiliary outputs from +5V to +28V.

Regulation:

- Line: +0.1% max. deviation
- Load: 10mV variation on main output, 0 - 100% load. 30mV variation on auxiliary outputs.
- Transient: 50% to 100% load step change.
- Main: 10% max. excursion, recover to regulation limits in 500µsec.
- Auxiliary: 3% max. excursion with recovery to regulation limits in 200µsec. Note: power supply will maintain regulation limits with no load conditions.
- Ripple: 0.2% RMS, 100mV p-p for any output or load.
- Temperature Coef. 0.015%/°C over full temperature range (-55°C to +90°C)
- Current Limit: Main: constant current type with automatic recovery. Auxiliary(s): Independent foldback type with automatic recovery. Dual output voltages will track

during current limit. Power Supply will operate continuously into any combinations of output overloads or short circuits.

- Efficiency: > 65% at maximum output for any input voltage