SCE Model 3001 Power Supply

The SCE 3001 is a hermetically sealed AC input, dual DC output power supply, used in the Aids to Navigation (ATON) equipment. It is a large linear supply that controls a flashing buoy. Noteworthy for its very tight transient requirements - 0 to full load can cause no more than a few percent overshoot. The power supply output circuit is capable of providing power to flashing incandescent lamps.

Voltage sag and overshoot on the flashing 3.05 Amp lamp must be less than 1% of the lowest operational output voltage (12VDC).

The unit must operate in a marine environment.

SPECIFICATIONS

Electrical

Input:

- Voltage +95VAC to +130VAC
  47 Hz to 440 Hz

Output:

- Voltage 12.0VDC to 15VDC adjustable
- Current > 4.0 Amps each output
- Ripple < 2.0mV RMS
- Regulation + 0.1%

Circuit Protection

- Short Circuit automatic shutdown on short, automatic recovery
- Thermal automatic shutdown when max base temp > +65ºC automatic recovery when base temp < +65ºC
- Operating Temperature -20ºC to +65ºC
- Storage Temperature -55ºC to +85ºC
- Humidity To > 95%
- Shock MIL-STD-202 Method 210A
- Vibration MIL-STD-202 Method 213
- Temperature Coef. .015%/ºC or 1mV, whichever is greater
- Transient Response < 50 msec half load to full load

Reliability

- MTBF 44,000 hrs. @ 80ºC

Construction: Aluminum baseplate, steel case

- Size 5" x 8" x 14"
- Weight
- < 50 lbs.
- Paint Urethane coating conforming to MIL-C-83268B
- Connectors 120V: MS3106R-16S-8S / 12VDC: MS3106R-16-9P