

PSH99007 High Voltage Power Supply



DESIGN FEATURES

- Compact High Voltage Power Supply
- Designed for Military Airborne Applications
- MIL-STD-704 1.6 kW AC to DC Converter
- Power Converters Sync to External Clock
- Dual Depressed Collector and Grid Modulator Voltages
- MTBF > 10,000 hours

Electrical Specifications

Input Voltage

Prime Power 115 VAC, 400 Hz, 3-Phase
 +15 VDC \pm 5% @ 300 mA, max.
 -15 VDC \pm 5% @ 75mA, max.
 +5 VDC \pm 5% @ 200mA, max.

Output Power 1600W, max.
 Cathode Voltage..... -11 to -13 kV
 Current 2.2A, max.
 Pulse Width 100 μ S
 Pulse Repetition Rate 1.1 kHz
 Collector 1 Voltage 7920 V wrt K
 Collector 2 Voltage 5040 V wrt K
 Filament Voltage 6.3 \pm 0.3 VDC

Modulator

Positive Pulse 160 to 240 VDC
 Negative Pulse -200 VDC \pm 10%
 Pulse Rate Frequency 200 Hz to 160 kHz
 Pulse Width 300 nS to 100 μ S
 Duty Cycle 11%, max.
 Pulse Rise Time 25 nS, max.

Efficiency 84%

Mechanical Characteristics

Length 14.50 in.
 Height 5.50 in.
 Width..... 4.75 in.
 Weight 27.00 lbs.

Environmental Specifications

Operating Temperature -54 to +95°C
 Operating Altitude 65,000 ft.
 Reliability..... > 10,000 hours MTBF A_{UF}

Control and Monitoring

Remote Control Interface

TTL discrete
 RE-485 serial (9600 bps)

Protection

Helix Average and Pulse Trip Cathode
 Pulse Current Trip
 Cathode Overvoltage Trip/Undervoltage Lock-out
 Heater Over/Undervoltage Trip/Lock-out