

PSH98001 High Voltage Power Supply



DESIGN FEATURES

- Compact EW High Voltage Power Supply
- Designed for Airborne Applications
- MIL-STD-704 3 kW AC to DC Converter
- HV Relays to individually control four TWTs
- Dual Depressed Collector and Grid Modulator Voltages
- Grid Pulsed for “look thru” and pulse applications up to 150 KHz
- Multi-Mode, Pulsed and CW Applications
- MTBF > 4,000 hours
- +5 and ±12 VDC Output for Auxiliary Applications

Electrical Specifications

Prime Power 115/208 VAC, 400 Hz, 3-Phase
 Input Current:
 Surge 11 Amps/phase
 Operate 9 Amps/phase
 Cathode Voltage -6800 VDC
 Collector 1 Voltage 3400 V wrt K
 Collector 2 Voltage 1360 V wrt K
 Probe Vk
 Grid Bias Voltage:
 ON State 0 V wrt K
 OFF State 450 V wrt K
 Heater Voltage 6.3 ± 0.3 VDC
 Efficiency 84%

Mechanical Characteristics

Length 19.00 in.
 Height 3.85 in.
 Width..... 7.00 in.
 Weight 29.50 lbs.

Environmental Specifications

Operating Temperature -40 to +85°C
 Operating Altitude 15,000 ft.
 Reliability..... >4,000 hours MTBF A_{UF}

Control and Monitoring

Control Interface

Inputs: Power On, Power Fail, Reset, Pulse/CW,
 Modulation On/Off, Serial Link In, Bite Test Pulse
 Outputs: Fault Flag, Status Flag, Command Ack, Serial
 Link Out

Status Command

HV Enable Command, Ready, HVPS Ready, Refl. Pwr
 Detected, Input RF below Ref., RF Deck Codes

Serial Link Faults

TWT 1-4 AC Helix, TWT 1-4 Heater, TWT 1-4 Temp,
 Helix Average, Main Power Converter, HVPS, HVPS
 Temp, Refl. Pwr (CW), Refl. Pwr (Pulse)