



Product Data Sheet

(07/06/2018)

M168 Power Supply



Aircraft 115 VAC Power Supply Model M-168

The Aircraft Power Supply has three regulated outputs and will operate from 115 VAC 400 Hz aircraft power. All outputs have individual short circuit and over-voltage protection. All outputs are isolated from each other, chassis, and from primary power. Fault indicators are provided on the front panel for all outputs. Output isolation enables the user to configure the power supply for different output combinations such as +12 VDC output with isolated ground, and + 5 VDC output with isolated ground. The Power Supply is qualified to meet the EMC requirements of MIL-STD-461C and environmental requirements of MIL-STD-810E. The Power Supply includes EMI and RFI filtering for both input and output. The power supply withstands transient voltages defined by Mil Std 704A.

Primary Power

- Primary Power: 115 VAC 400Hz, Isolated from output.
- Maximum Power: <300 Watts.
- Power Switch: Locking Toggle.
- Fuse protection.

Environmental

- Operating Temperature: -0°C to +55°C
- Degraded Performance: -25°C to <0°C
- Non-Operating Temperature: -40°C to +71°C
- Shock: 10g's for 10-12mS.
- Vibration: .01g/2/Hz random vibration spectrum from 15 to 2000 Hz. 4-prop tones simulated by spike accelerated .spectral densities centered at F=68Hz, 136Hz, 204 Hz, 272 Hz each.
- Cooling: Conducted through aluminum chassis

EMI

- Mil Std 461C -CE03, CE06,CS01,CS02,CS03,CS04,CS05,CS06

Output Voltages

- + 12.0 to 12.5VDC @ 12.5 amps
- +5.0 to 5.5VDC @ 20.0 amps
- Regulation over Line, Load, and Temperature.
- Individual short circuit protection on all outputs at a minimum of 110% of rated output current.
- All outputs isolated from each other, prime power, and chassis.
- Individual fault indicators for each output illuminate only when output voltages are within specification.
- Ripple and noise less than 40mV p-p when measured at connector.

Mechanical

- WEIGHT APPROXIMATELY: 7 pounds.
- SIZE: Depth 9.50" Max, Width 11.025" Max, 0 Height 2.875" Max.
- MOUNTING: 6 each 0.218 diameter through holes.
- INPUT VOLTAGE: 115 VAC 400Hz, Current <2.5 A
- FINISH: CHEM FILM
- MAX OUTPUTS, +5VDC 13.6A, +12VDC 11A
- APPROXIMATE OVERALL PS EFFICIENCY = 80%

Connector J2 D38999/20WD19SN

Pin	Function
A,B,C,D	+12VDC OUTPUT
E,F,G,H	+12VDC RETURN
J,K,L,M	+5VDC OUTPUT
N,P,R,S	+5VDC RETURN
T	SPARE
U	SPARE
V	Chassis GND

Connector J1 D38999/20WA98PN

Pin	Function
A	115 VAC Hot
B	115 VAC Neutral
C	Chassis GND

Outline and Mount Drawing

