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POWERBOX Defense Line
PBUS10016
80W
AC/DC Single Output Switch Mode Adaptor

Features

Meets MIL-STD-461F
Operating temperature -40°C to +60°C
Rugged design, partly potted
Overload, over voltage protection with auto recovery
Desktop or shelf mount

Input

Voltage range	100-240VAC nominal
Rated voltage	90-264VAC
Frequency	47-63Hz

Output

DC output	5.1VDC
Voltage tolerance	+10% to -5% max. 0-100% load, -40°C to +60°C
Ripple and noise	150mV p-p max.
Power	80W (5.0VDC nominal at 16ADC)
Minimum load	0A
Hold up time	10ms min. at 75% load
Overvoltage protection	At 135% max.
Over current	Short circuit and over current protection (auto-resetting).
Over temp. protection	Yes, limits output power, auto-resetting
Efficiency	75% or better at 75% load

Environmental

Operating temperature	See table
Storage temperature	–40°C to +71°C
Humidity	Operating: Up to 95% relative humidity without condensation. Storage: Up to 95% relative humidity without condensation
Cooling	Natural convection
Altitude	0-50,000 ft operating, 0-60,000 ft storage
Shock and vibration	The power supply shall be capable of withstanding without damage the shock, jars, strain, vibration and other conditions incident with normal maintenance or handling
Transportation	The power supply shall be capable of withstanding any standard means of transportation without damage, assuming that suitable packaging procedures are applied

Art Code	Temp Limits	Certifications	Mains Cable
PBUS10016	–40°C to +60°C	UL62368-1	US
PBUS10016-01	–40°C to +50°C	UL62368-1	Australia

General

Dimensions (H x W x L)	41 x 101 x 153mm / 1.65"x3.96"x6.0"
Weight	max. 1.5kg (3lbs) including cables
Input cable	IEC 60320-C16 power entry
Output connector	15 pin female D subminiature connector with a minimum of 30 micro-inches gold plating. Max width of 0.64 inches, refer to Figure 1.
Output cable length	3 feet ±6 inches
Design and construction	The power supply shall meet UL listing UL62368-1
MTBF	>100000h @ 25°C, ground benign
Lifetime prediction	>15 years at 25°C
Marking	Pin 1 and output cable shield is connected to ground Pins 2, 3, 4, 5, 10, 11, 12: +5.1VDC Pins 6, 7, 8, 9, 13, 14, 15: +5.1VDC Return

Standards

Safety	Certified against UL 62368-1
EMI	Fulfills below listed requirements. Limits for Army ground shall apply except for where the Fixed Wing External/Helicopter limit per figure RE102-3 per page 104 of MIL-STD-416F dated December 2007 shall apply

Requirement	Description
CE102	Conducted Emissions on Power Line, 10 kHz to 10 MHz
RE102	Radiated Emissions, Electric Field, 10 kHz to 18 GHz
	(Limit for Fixed Wing External/Helicopter)
CS101	Conducted Susceptibility, Power Leads 120Hz to 150 kHz
CS114	Conducted Susceptibility, Bulk Cable Injection 10 kHz to 200 MHz
CS115	Conducted Susceptibility, Bulk Cable Injection, Impulse Exitation
CS116	Conducted Susceptibility, Damped Sinusoidal Transients
RS103	Radiated Susceptibility, Electric Field, 2 MHz to 18 GHz, 50 V/m

Fig 1

Pin 1: Chassis ground

Pins 2, 3, 4, 5, 10, 11, 12: +5.1VDC

Pins 6, 7, 8, 9, 13, 14, 15: +5.1VDC Return

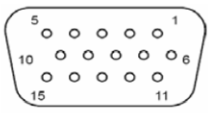

Figure 1 – Face view of DC power connector

The connector shall not use protruding features that capture the connector to the shell.
The connector shall be equipped with thumbscrew fasteners (tool-less).

Fig 2