

# P R B X

POWERBOX Defense Line  
PBUS10412  
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 12VDC  
Voltage tolerance +10% to -5% max. 0-100% load, -40°C to +60°C  
Ripple and noise 150mV p-p max.  
Power 80W  
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 85% 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 |
|--------------|----------------|----------------|-------------|
| PBUS10412    | -40°C to +60°C | UL62368-1      | US          |
| PBUS10412-01 | -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 options 1. 9 pin female D Sub  
2. Cinch  
3. 38999 Amphenol MS3475L10-6S  
4. Power D Sub  
Connectors pin out TBD

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

## Standards

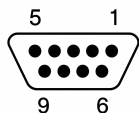
Safety Certified against UL 62368-1  
EMI Fulfills below listed requirements. Limits for Army ground shall apply except for where the Fixed Wing External/Helicopter limit per figure RE102-3 per page 104 of MIL-STD-416F dated December 2007 shall apply

| Requirement | Description  |
|-------------|--|
| CE102       | Conducted Emissions on Power Line, 10 kHz to 10 MHz  |
| RE102       | Radiated Emissions, Electric Field, 10 kHz to 18 GHz<br>(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 Excitation                                 |
| CS116       | Conducted Susceptibility, Damped Sinusoidal Transients   |
| RS103       | Radiated Susceptibility, Electric Field, 2 MHz to 18 GHz, 50 V/m                                   |

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Fig 1

Pin out: TBD



**DB-9 Female**

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

