

PowerBuss DC-250-28 ISOLATED 28Vin / 28Vout 250 Watt DC to DC MILITARY Bus Converter **With Integral MIL-STD-461E EMI Filter**



Highlights of the PowerBuss DC-250 Series:

- 250 Watts of Isolated 12V, or 28V out Low Noise, Tightly Regulated Power.
- Complete solution with no NRE (non-recurring engineering).
- Complete Power System with no extra parts required.
- MIL-STD-461E, CE102 Compliant EMI Filtered.
- Input for MIL-STD- 1275D and MIL-STD-704F compliance.
- Maximum Hold-up Time Architecture.
- Multiple Cooling Options:
 - 1) Conduction through Baseplate
 - 2) Convection through optional Finned Heat-sink
 - 3) Convection/Fan Plenum
- Droop & Precision Current Share Options

Features

MIL-STD-704 A-F Compatible
 MIL-STD-1275 A-B Compatible
 16-100V Input Operation
 Conduction Cooled: -55°C to +100°C
 Bias output / Converter Enable
 Overload/Short Circuit Protection
 Shutdown Control
 Over Temperature Protection
 BIT & Converter Enable

Environmental

Operating Temperature..... -55°C to +100°C *
 Storage Temperature..... -55°C to +125°C
 Weight..... TBD

* Baseplate Temperature

Standards

MIL-STD-704 Compatible
 MIL-STD-1275A/B Compatible

Electrical Specifications

Input

Voltage..... 15 – 40 VAC
 Input Voltage Transient..... 100 VDC, 100 mS Max
 Operating Frequency..... 200 Khz (nom)
 Efficiency 83% (typ)
 Turn-on Time..... 500 ms (typ)

Output

Voltage..... 28 VDC
 Output Power..... Up to 250 Watts
 Output Voltage Trim Range..... +/- 10%
 Over Voltage..... 115% (typ)
 Over Current..... 120% (typ)

Isolation

Input/Output.....500 VDC
 Output/Chassis..... 500 VDC
 Input/Chassis..... 500 VDC
 Isolation Resistance..... 10 MegOhm Min

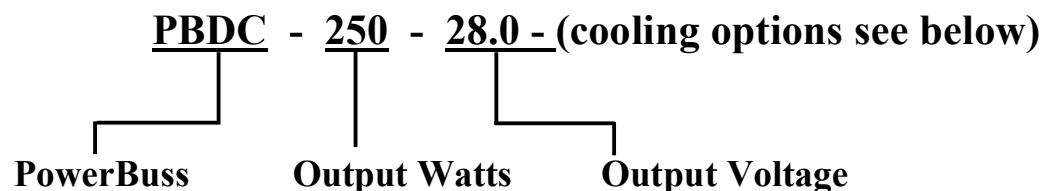


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Specification Table

	Min	Typ	Max	Units
INPUT				
Input Voltage Range	15	28	100	VDC
Efficiency @ 28 Vin	80.0	83.0	N/A	%
Isolation: Input to Chassis	500	N/A	N/A	Vdc
Output				
Voltage Setpoint – No Load	27.72	28.00	28.28	VDC
Load Regulation	N/A	0.5	1.0	%
Line Regulation	N/A	0.2	0.5	%
Ripple (20 Mhz Bandwidth)	N/A	50	280	millivolts Pk-PK
Transient Response: % Voltage Overshoot/Undershoot for 50% load Changes	0	3	5	%
Transient Response: Settling time for output voltage to settle within 1% with 50% load changes	N/A	100	250	usecs
Over-Current Protection	110	120	150	% Iout Rated
Over-Voltage Protection	110	N/A	140	% Vout Rated
Output Power Good				
Isolation: Output to Chassis	200	N/A	N/A	Vdc
Isolation: Input to Output	500	N/A	N/A	Vdc
Signals				
Sense Voltage (Total of output and return)	N/A	N/A	0.5	Volts
On/Off Control	(Option) Consult Factory			
Output Power Good (On/ Off)	5 / 0	N/A	11 / 0.8	Volts
Downstream Converter Enable (On-Open Collector/ Off-Closed Collector – 5 ma)	N/A	N/A	10 / 0.1	Volts

MODEL NUMBER



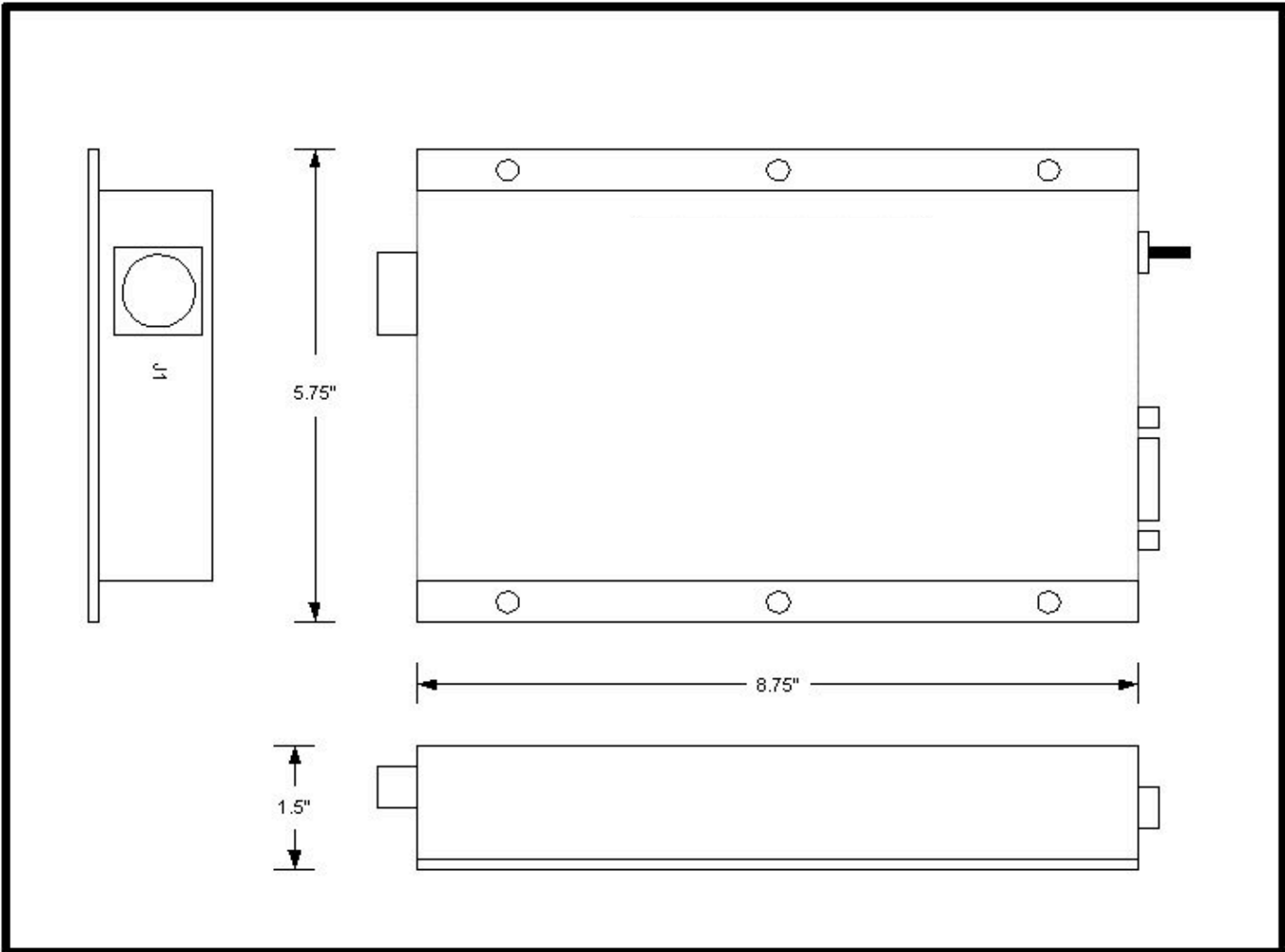
Options:

Add suffix F = Finned Heat-sink (consult factory for operating temp.)

Add suffix FP = Finned Heat-sink with Fan Plenum (consult factory for operating temp.)

Add suffix HU = Additional Hold-Up Time Capacitor Option (Consult Factory)

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DC/DC POWER BUSS 250W