Powerstax plc

F501-385 Full Brick

DC Input: 385V, Single DC Output: 24V to 56V, 500W

DC–DC SERIES

- **500W DC-DC**
- **HIGH POWER DENSITY: 5.53W/cm^3 (0.34W/inch^3)**
- **90% EFFICIENCY TYPICAL**
- **ACTIVE LOAD SHARING**
- **REMOTE ON / OFF**
- **TRIM VOLTAGE RANGE 80-110%**
- **LOW STARTUP TEMPERATURE: -40°C**
- **2 YEAR WARRANTY**

CE RoHS Compliant

POWER SUPPLY DESIGN EXCELLENCE

The F501-385 DC-DC full brick produces a complete base plate cooled AC-DC power supply when used with the Powerstax FP series. It embraces established and proven technology, in use in critical process control installations worldwide. It yields a full brick which is designed to operate as an integral part of a complete distributed power system. This efficient design means reduced energy costs, a greater return on your investment, greater reliability and longer product life.

COMPLETE PROTECTION

A comprehensive list of in-built protection functions such as over-voltage protection, under-voltage protection and short-circuit protection are complemented by unique features such as a thermal monitoring signal to provide early warning of potential system faults.

UNMATCHED FLEXIBILITY

By combining a number of F501-385 bricks in series a significantly higher output voltage can be produced. When up to twenty F501-385 bricks are paralleled a 10kW system can be produced.

APPLICATIONS

Typical applications for the F501-385 include military and commercial wireless systems, radar and communication systems, process control installations, signage, telecom infrastructure and security systems.

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	POWER	MAXIMUM CURRENT
F501-385-240	355-400V	24V	500W	20.8A
F501-385-280	355-400V	28V	500W	17.9A
F501-385-480	355-400V	48V	500W	10.4A
F501-385-560	355-400V	56V	500W	8.9A

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OUTPUT SPECIFICATIONS	
Output Voltage Adjust (V trim)	80-110%
Load Regulation (0A to full load)	0.3% typical
Line Regulation (over Vin range)	0.02% typical
Ripple (20Hz to 20MHz)	2% Vp-p maximum
Current Limit Trip Point	110% F.L. typical
Transient Response Peak Deviation * (Load change from 25% to 75% F.L.)	5% Vout typical
Transient Response Settling Time * (Vout within 1% Vout nominal)	100µsec typical
External Load Capacitance	0µF minimum 1000µF maximum
Power Sharing Accuracy (10 to 100% Full Load)	±5% F.L
Remote Sense Compensation	0.5VDC
Turn ON Delay (Vout within 1% or steady state)	500msec typical at F.L

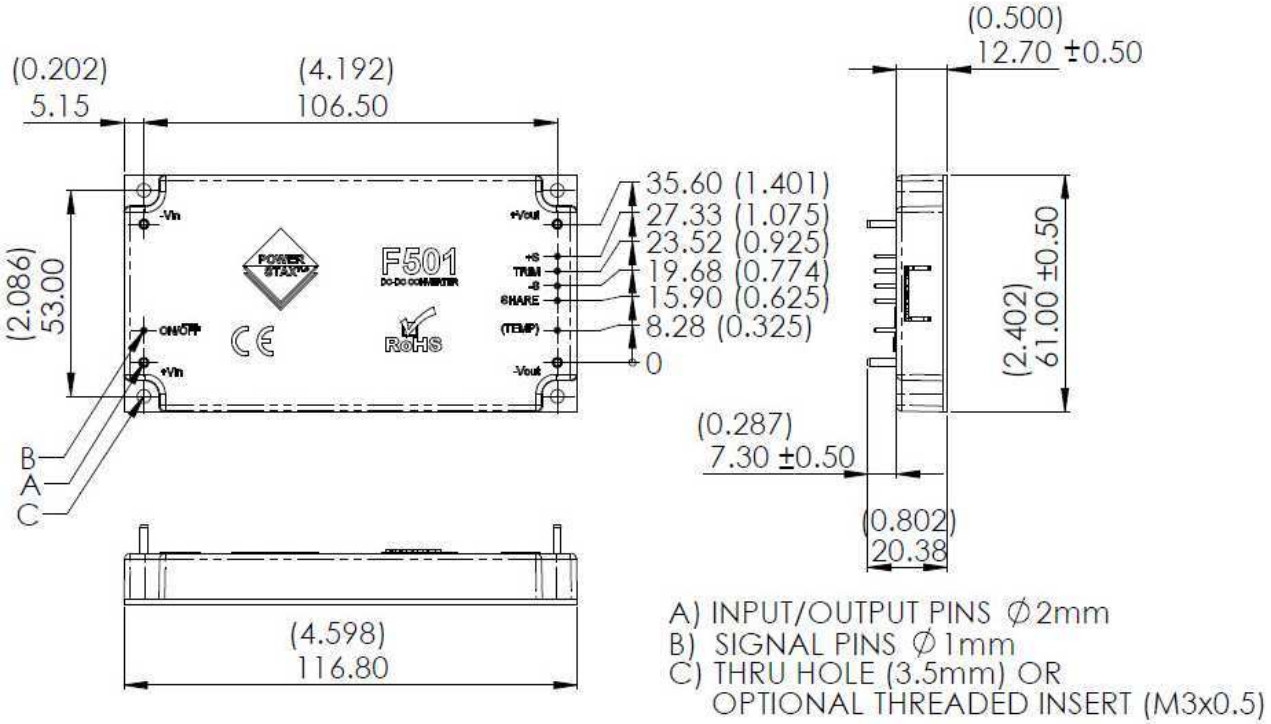
ENVIRONMENTAL CHARACTERISTICS	
Input/Output Isolation	3000VDC maximum
Input/Baseplate Isolation	2500VDC maximum
Output/Baseplate Isolation	500VDC maximum
Input to Output Resistance	>10Mohms
Weight	170g
Size	116.8 x 61x 12.7mm 4.6 x 2.4 x 0.5inches
Shock	20g, ½ sine wave
Vibration	Non operating 10-55Hz (sweep for 1min) Amplitude 0.825mm constant (max 5g) X, Y, Z 1 hour each axis

* 0.5A/µsec slew rate

PROTECTION	
Overvoltage	115% maximum
Overcurrent	Constant current until output voltage drops to below 20%. Output enters trip and restart below this level
Overtemperature shutdown (Case temperature)	105°C minimum 110°C maximum
Short-Circuit	Trip and restart, average less than 50% F.L.

Typical Mechanical Drawing:

(Inches) mm



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