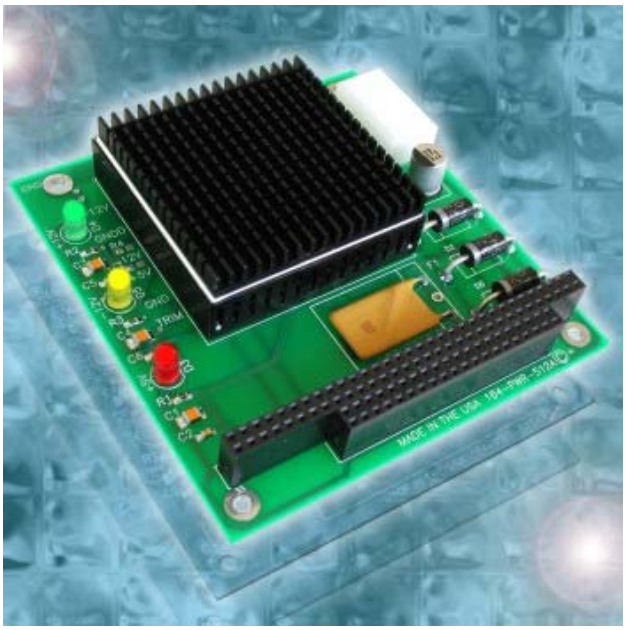
104-PWR-500A - Wide Range DC/DC PC/104 Power Module

FEATURES

- **PC/104 Bus 30/40Watt DC/DC Power Supply**
- **Up to 84% Efficiency**
- **Three Wide Input Voltage Ranges:**
  - **12V Nominal, 9VDC-18VDC(30W)**
  - **24V Nominal, 18VDC-36VDC(40W)**
  - **48V Nominal, 36VDC-75VDC(40W)**
- **Output Voltage and Current:**
  - **+12V Input: +5VDC at 6A Max**
  - **+24V Input: +5VDC at 8A Max**
  - **+48V Input: +5VDC at 8A Max**
- **Voltage Status LEDs**
- **Reverse Power Protection on Inputs**
- **Resettable Fused Input Line**
- **Fully Protected Outputs**
- **Can be populated on either side of the board to allow for heat-sinking in fanless application requirements**
- **Temperature range with heatsink -40 to +65°C, up to 105°C with derating of 2% per °C (no air flow)**



FUNCTIONAL DESCRIPTION

The design incorporates a 16-bit pass through PC/104 connector, molex type power input connector and voltage status LED's. Since heat is always a factor to consider in any system design project, this module can be populated on either side of the board to facilitate heat sinking to one end of an enclosure, with the CPU heat sinking to the other end of the enclosure.

This single output version can be ordered with or without a heatsink. At up to 84% efficiency, a dynamic input range and full protection on inputs and outputs, this power supply is very versatile and appropriate for many PC/104 based applications.

The Input Power Connector is a Four-pin standard Molex type connector at the edge of the board. It's the same connector as used on a CD-ROM so it's easy to set up and test a system with a local +12V Computer type power supply.

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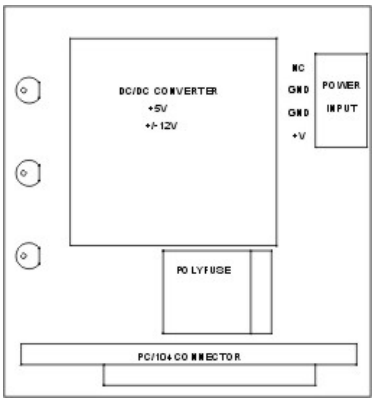
Block Diagram



Specifications

Output Characteristics				
OutputVoltage Set Point on 5V:	±1%, Factory set			
Load Regulation	±0.5% Measured from Full Load to 10% load			
Temperature Coeffcient	±0.01%/°C			
Ripple/Noise on 5V	60mV P-P measured at 20MHz bandwidth			
Short Circuit Protection	Indefinite, Automatic Recovery			
Overvoltage Protection	120% Clamp type			
Input Characteristics	**12**	**24**	**48**	**Unit/Comments**
Input Voltage	9-18	18-36	36-75	VDC
Under Voltage Shut Down	8	16	33	VDC (min)
Over Voltage Shut Down	20	40	80	VDC (max)
Minimum Input Current	0	0	0	A (min)
Full Load Input Current	3.2	2	1	A (max)
Efficiency by Model	81	83	84	%
Switching Frequency	360 to 440	360 to 440	360 to 440	KHz Factory set
Operating Temperature	-40 to +65	-40 to +65	-40 to +65	°C up to 105°C with derating of 2% per °C (no air flow)
Storage Temperature	-55 to +125	-55 to +125	-55 to +125	°C
Relative Humidity	5 to 95	5 to 95	5 to 95	% non-condensing
Note: CE testing & approval must be done at the system level, in the designed enclosure, and is not done on individual boards.				

Ordering Information

104-PWR-500A-12	12V power supply
104-PWR-500A-24	24V power supply
104-PWR-500A-48	48 V power supply

NOTE - Specify "-HS" as a suffix for heat sink version. Specify "-R" for population of DC/DC converter on reverse side of board.

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