

Murata Power Solutions

OBSOLETE PRODUCTCI 500 Series 500W 6Ux4HP DC/DC CompactPC TM Power Supply Last time buy: 31 March 2008

SELECTION GUID								
		Output Current					RÖHS	
Model Number	Power	5V	3.3V	12V	-12V	IPMI	Ish1	COMPLIANT 2002/95/EC
CPCI500D-1	500W	55A	Υ	11A	1.7A	N	Р	No
CPCI500D-2	500W	30A	N	11A	1.7A	N	Р	No
-CPCI500D-3	500W	30A	N	11A	1.7A	Y	A	No
-CPCI500D-4	500W	55A	Y	11A	1.7A	Y	A	No
-CPCI500D-5	500W	55A	N	11A	1.7A	N	A	No
CPCI500D-6	500W	30A	N	11A	1.7A	N	A	No
CPCI500D-1C	500W	55A	Υ	11A	1.7A	N	Р	Yes
CPCI500D-2C	500W	30A	N	11A	1.7A	N	Р	Yes
-CPCI500D-3C	500W	30A	N-	11A	1.7A	Y	A	Yes
-CPCI500D-4C	500W	55A	Y	11A	1.7A	Y	A	Yes
-CPCI500D-5C	500W	55A	N	11A	1.7A	N	A	Yes
CPCI500D-6C	500W	30A	N	11A	1.7A	N	A	Yes

INPUT CHARACTERISTICS					
Parameter	Conditions	Min	Тур	Max	Units
Input Operating Voltage		36		72	Vdc
Input Voltage Withstand		34		75	Vdc
Inrush Current	36Vdc input			25	Apk
illiusii current	72Vdc input			50	Apk

OUTPUT CHARACTERISTICS		Output Current				
Output	Nominal Voltage	Min	Max A	Max B	Total Regulation ¹	
V1	+5.0Vdc	0A	55A	30A	±1%	
V2	+3.3Vdc	0A	30A	60A	±1%	
V3	+12Vdc	0A	11A	11A	±1%	
V4	-12Vdc	0A	1.7A	1.7A	±3%	
Parameter	Conditions	Min	Тур	Max	Units	
Temperature Coefficient				0.02	%/°C	
PARD (V1 & V2)	20MHz bandwidth			50	mV _{p-p}	
PARD (V3 & V4)	20MHz bandwidth		120	180	mV _{p-p}	
Output Power	50°C, 400lfm airflow	0		500	W	
Output Power	70°C, 400lfm airflow	0		250	W	
Transient Response	ΔV, 50% load step			±8	%Vnom	
transiem Response	Settling time			200	μsec	
Over-Voltage Protection	All outputs		125	135	%Vnom	
Minimum Load		0			А	
Output Holdup Tim	Full load, low line	12		16	msec	
Remote Sense Compensation	V1, V2 & V3	300			mV	
Current Share Tolerance	V1-V3; full load			±10	%	
	Pri-Sec	4			kVac	
Isolation	Pri-Chassis	1.5			kVac	
	Sec-Chassis	500			Vac	

FEATURES

- 6Ux4HP package
- 500W power at 0-50°C
- PICMG 2.11 compliant
- RoHS compliant
- Widerange 36-72Vdc input range
- IPMI option
- Active or passive current sharing
- 47-pin I/O Connector
- 80% efficiency
- No minimum load
- Hot-swap capable

DESCRIPTION

The cPCl500 is a high-reliability, 500W, 6ux4HP CompactPCI™ power supply operating from widerange DC-input. The use of our patented V-Series topology yields high efficiency which consequently permits packaging of this product in a compact, single card slot format (4HP).

ORing diodes and current sharing allow the cPCl500 to be operated in N+n parallel-redundant configurations. Available with an IPMI interface option, the cPCI500 was designed for hot-swap, redundant configurations to support high-availability (HA) telecom applications.

With a widerange input of 36-72Vdc, safety agency approvals to UL60950 and EN60950, EMI compliance to ETSI and Telcordia standards, the cPCl500 was designed with globally-deployed systems in mind. Additional features include remote sense compensation, unit enable control (EN#), output inhibit control (INH#), output fault signal (FAL#), and thermal warning signal (DEG#). LEDs are provided for visual indication of input power presence and output fault condition.

The 4HP package and complement of global safety agency approvals provide for an advanced. high-density, high-efficiency power solution for your CompactPCI requirements.





cPCI500 Series

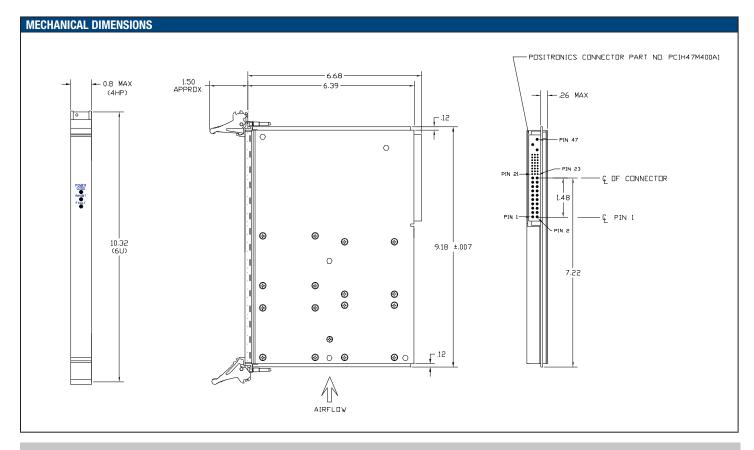
CPCI500 Series500W 6Ux4HP DC/DC CompactPCITM Power Supply

Efficiency 48/06 input, 500W load (dependent upon load profile) 58 72 8 8 77 78 8 8 78 78 8 9 78 8 9 9 78 9 9 9 78 9 9 78 9 9 78 9 9 78 9 9 78 9 9 78 9 9 78 9 9 78 9 9 78 9			000W 00X IIII 20/2		-			
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More than 1986 Calculated per MIL-HD8K-217F, 25°C, ground benign 84 s		48Vdc input, 500W load (dependent upon load profile)						%
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Remember			Unpackaged			3.6		kg
Parameter Conditions/Response Automatic recovery upon restoration to operational temperatures Upput Protection Internal Binutuse Automatic recovery upon restoration to operational temperatures Upput Protection Internal line fuse, Littlefuse BLN 2SP ROMS or equivalent Output VI, Latching Parameter Conditions/Response Output VI, Latching Output VI, Latch	PROTECTION							
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Internal line fuse, Littlefuse BLN 25P RORS or equivalent Output VI, latching Output Overload Protection Output VI, latching Output Overload Protection Output VI, latching Output Overload Protection Design Verification Testing (OVT) confirms that voltage excursions on the output buses resulting from insertion/extraction events do not excursions. I addition, performance can be critically affected by load characteristics including resistance, negative resistance, and reactive components. With the confrol loop responses have been designed for optirum thor I-way performance over a wide range of characteristics, there may be instance where the voltage excursions exceed published specifications. In such cases, the control loop responses can be modified to perform optimally output I inhibit is control loop responses that be an extension of the control loop responses can be modified to perform optimally output Inhibit Secondary referenced. Description Stratus & Contrato Listena and the backplaine. Unit output will be inhibited as pin is disengaged from the making connector. Doubt Inhibit Secondary referenced, per collector signal with an internal 2.2k pull-up resistor is connected to the +5V output. TTL signal will transition he when all outputs are brewene 10% and 110% of their norminal voltage. Connection of the sense leads across the load at the desired point of regulation will compensate for voltage distribution drops up to 700mV between the output terminals of the power supply and the point of connection. The unit reverts to local sensing if the sense lines are opened any research. The output be minimated when the output voltages is present and above the minimum requirement. Power Stepthy Present A green LED will be extinguished if any of the output voltages is present and above the minimum requirement. A present LED will be extinguis	Thermal Shutdown	Automatic recovery upon r	estoration to operational temperatures			90		°C
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when all outputs are between 90% and 110% of their nominal voltage. Connection of the sense leads across the load at the desired point of regulation will compensate for voltage distribution drops up to 700mV between the output terminals of the power supply and the point of connection. The unit reverts to local sensing if the sense lines are opened any reason. The output is protected against shorted or open leads. Applies to all outputs. Fan Alarm Secondary referenced; TTL compatible; active low. Signal transitions to a Logic 0 denotes a thermal warning. Power Present Indicator LED A green LED will be illuminated when the input voltage is present and above the minimum requirement. A green LED will be illuminated when the output voltages are within 90-110% of specification, coincident with assertion of the DC Good signal This LED will be extinguished if any of the output voltages is outside of this range. Fan Good Indicator LED A green LED will be illuminated when the fan is operational, coincident with de-assertion of the Fan Alarm signal. This LED will be extinguished the event of a fan failure. A power supply generated signal used to simultaneously start power supplies connected in parallel when the load on any output exceeds a simple of the event of a fan failure. Power Supply Present This pin presents a DC ground signal to the mating pin in the backplane. It is intended to be used by the system to detect the presence of a power supply when the supply is mated into an available position. ENVIRONMENTAL CHARACTERISTIGS Parameter Conditions Min Typ Max U Ambient Storage Temperature De-rate output power linearly above 40°C to 250W at 60°C. 0 60 Ambient Storage Temperature De-rate output power linearly above 40°C to 250W at 60°C. 5 95 H125 4 Attitude Operating, De-rate ambient temperature by 2C° per 1000ft above 5000ft. -200 10000 10000	Output Inhibit							
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Cooling Self-cooled by internal fan			•	-200	1		40000	ft



cPCI500 Series500W 6Ux4HP DC/DC CompactPCI™ Power Supply

CERTIFICATIONS						
Agency/Characteristic	Standard					
UL	UL1950					
CSA	CSA950 (per cUL)					
VDE	EN60950					
CE	LVD Directive; self-certified					
RoHS	EN Directive 2002/95/EC; self-certified; see Selection Guide table for specific model compliance					
SELV	Self-certified					
Vibration	MIL-STD-810F, Method 514.5, Procedure I; self-certified					
Shock	MIL-STD-810F, Method 516.5, Procedure I; self-certified					
ELECTROMAGNETIC COMPATABILITY (EMC)						
Conducted Emissions	EN 300 386, NEBS GR-1089					
Electrostatic Discharge (ESD)	EN61000-4-2, Level 3, Criteria B					
Radiated Immunity	EN61000-4-3, Level 3, Criteria A					
Conducted Immunity	EN61000-4-4, Level 3, Criteria A					
Line Voltage Surge	EN61000-4-5, Class 3, Criteria B					



cPCl500 Series

500W 6Ux4HP DC/DC CompactPCI™ Power Supply

PACKAGE SPECIFICATIONS

CONNECTO	CONNECTOR						
Pin #1	Staging ²	Signal Name	Description				
1-4	М	V1	V1 Output				
5-12	M	RTN	V1 and V2 Return				
13-18	М	V2	V2 Output				
19	M	RTN	V3 Return				
20	M	V3	V3 Output				
21	M	V4	V4 Output				
22	М	RTN	Signal Return				
23	M	RESERVED	Reserved				
24	M	RTN	V4 Return				
25	M	GA0	Geographic Address Bit 0				
26	M	RESERVED	Reserved				
27	S	EN#	Enable				
28	M	GA1	Geographic Address Bit 1				
29	М	V1ADJ	V1 Adjust				
30	M	V1 SENSE	V1 Remote Sense				
31	М	GA2	Geographic Address Bit ²				
32	М	V2ADJ	V2 Adjust				
33	M	V2 SENSE	V2 Remote Sense				
34	М	S RTN	Sense Return				
35	M	V1 SHARE	V1 Current Share				
36	M	V3 SENSE	V3 Remote Sense				
37	М	IPMB SCL	IPMB Serial Clock Line				
38	M	DEG#	Degrade Signal				
39	M	INH#	Inhibit				
40	M	IPMB SDA	IPMB Serial Data Line				
41	M	V2 SHARE	V2 Current Share				
42	М	FAL#	Fail Signal				
43	М	IPMB PWR	IPMB Power Input				
44	М	V3 SHARE	V3 Current Share				
45	L	CGND	Chassis Grnd (Safety Grnd)				
46	М	ACN/+DC IN	AC Input Neutral/+DC Input				
47	М	ACL/-DC IN	AC Input Line/-DC Input				

IPMI/IPMB POWER SUPPLY SATELLITE CONTROLLER FEATURES

- Complies with IPMI V1.5 Rev 1.1 and IPMB V1.0
- Complies to PICMG2.9 (CompactPCI Systems Management Specification)
- 8 Analog inputs configured for monitoring voltages and currents on power supply outputs V1 - V4
- Monitors the state of the thermal sensor
- Output inhibit control can be overwritten by IPMI commands
- Self Test with LED indicator (can be read and overwritten by IPMI) commands)
- . 6 programmable thresholds on each analog sensor
- Each threshold on each sensor can be enabled to generate event messages if that threshold is crossed
- Thermal sensor can be enabled to generate event messages
- Responds to all mandatory IPMI commands and numerous optional commands as indicated in the functional specification
- Firmware can be upgraded via the IPMB bus
- Includes Device SDR's (Sensor Data Records) These specify the type of sensor for each input (voltage, current, temperature, etc.) as well as the conversion formulas from raw ADC data to voltages, currents, etc.
- Includes FRU type information such as Model Number, serial number and firmware creation date

MECHANICAL			
Shock: MIL-STD-810d, Method 516.3, Procedure 1.			
Vibration: MIL-STD-810d, Method 514.3, Procedure 1.			
Dimensions: 6U x 4HP x 160mm (see Mechanical above)			
EMC & SAFETY			
EMI: NEBS Compliant, ETSI Compliant			
Safety Agency Ratings			
Input Voltage: 48 VDC			
Input Current: 15A			
Input Power: 620W			
Agency Approvals			
UL1950/CSA950, EN60950, CE Mark.			
(Low Voltage Directive)			

- (1) Pin numbers correspond to the female backplane connector.
- (2) L = Long Length Pin (First Make, Last Break); M = Medium Length Pins; S = Short Length Pins (Last Make, First Break)

SAFETY AGENCY RATINGS				
Input Voltage 36-72Vdc				
Input Current	25-12.5Adc			
Input Power	620W			

muRata Ps Murata Power Solutions

Murata Power Solutions, Inc.

11 Cabot Boulevard, Mansfield, MA 02048-1151 U.S.A. Tel: (508) 339-3000 (800) 233-2765 Fax: (508) 339-6356

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05/14/08

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