

Electrical Specification for:	CPCI – 6U – AC – 500W
ADVICE Part Number:	900-7002-01

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Input:

Input Voltage: 85 - 264Vac, auto range, single phase
 Frequency: 47-435Hz
 Inrush Current: 50 A maximum at 230Vac
 Power Factor: 0.98 typical at 230Vac, full load
 0.99 typical at 115Vac, full load
 Efficiency >80% at 230Vac, full load rated power
 >76% at 120Vac, full load rated power
 Input Protection: Internal Line Fuse: IEC type, 10A 250Vac slow blow.
 Brown – Out: 75 to 300Vac for 50Msec

Output Voltages & Currents:

<i>Output</i>	<i>Output Voltage</i>	<i>Adjustment Range</i>	<i>Output Current</i>	<i>Min Load</i>
V1	+5V	4.8 ± 5.4	65A	0
V2	+3.3V	3.1 ± 3.5	80A	0
V3	+12V	0	12A	0.1
V4	-12V	0	1.5A	0

Note: Maximum output power at any combination within this table is 500W

Output Power: 500W with 300LFM forced air cooling
 Line Regulation: ±1%
 Load Regulation:
 V1,V2 ±1%
 V3 12V±0.6
 V4 -12V±0.6 With minimum load of 10A on the 3.3V output
 Ripple & Noise 20 MHz bandwidth measured across 1uF ceramic and 120uF electrolytic. Capacitor paralleled
 V1 100mV p-p
 V2 60mV p-p
 V3 & V4 120mV p-p
 Overload & Short Circuit Protection Auto Recovery
 V1 & V2 130% max
 V3 & V4 200% max
 Initial Set Point Tolerance: ±1%
 Overshoot & Undershoot: 0% at turn ON
 Turn On Delay: 1 sec. Maximum.
 Over-voltage Protection: 110 to 130% with latched shut down
 Temperature Protection: System shutdown due to excessive internal temperature, automatic reset



Monitoring Command & Control

Remote Sense	Available on V1 & V2. Total voltage compensation for cable losses with respect to the main output 300mV
Inhibit (INH#)	Inhibited with GND or TTL "0" – Pulled up to internal +12V Aux supply
Enable (EN#)	Contact closure to external ground to start unit. On shortest pin (last make, first break)
Power Fail (FAL#)	Open collector - Active low signal .Indicates one or more outputs below 90% of specified rate.
Current Share	Accuracy of shared current $\pm 10\%$ with up to 6 parallel units. Single wire current share on V1 & V2 for 50% to 100% load
Hot Swap	Internal O-ring Diode FET's
Over Temperature Warning (DEG#)	Open collector active low about 10°C before power supply shutdown.
I2C	Option

Operation Status Indicators

Input Voltage OK	Green LED - Indicates when mains input voltage is present.
Output Failure	Red LED - Indicates one or more outputs below 90% of specified rate.

Environmental Specification:

Operating Temperature:	Operation: -20°C to +55°C full load with 300LFM Forced Air Cooling and de-rating linearly above 55°C by 2.5% per °C
Storage Temperature	-40°C to +85°C
Humidity:	Up to 95% RH non-condensing.
Shock:	Peak acceleration 10GPK max.
Vibration:	Random vibration, 10Hz to 500Hz, 3 axis 1.9GRMS max.
Altitude	Operation 10K ft Non operation 40K ft.
MTBF	400,000 hours per Bellcore standard B332 Gb 30°C



Safety Regulatory & EMC Specifications:

Fully compliance to PICMG 2.11 CompactPCI Specification

Safety Agency Compliance	UL 62368 , EN-62368, CE - MARK
Harmonics	EN61000-3-2
Voltage Fluctuation	EN61000-4-3
ESD susceptibility	EN61000-4-2 level 4 8KV air
Conducted & radiated emission	EN55022/CISPR22 Class B with an external TBD line filter
Surge	EN6100 -4-5 level 3 line-to-line 1KV line to chassis 2KV
Radiated susceptibility	EN61000-4-3 level 3 10V/m
EFT/Burst	EN61000-4-4 level 3 ±2KV
Conducted disturbance	EN61000-4-6 level 2 3Vrms
RoHS	In full compliance with the RoHS directive # 2002/69/EC

Dielectric Withstand:

Input to Case:	2200VDC.
Input to Output:	4200VDC
Output to Case:	50VDC.

Mechanical Dimensions

Size	10.14"H X 1.60"W X 6.40"D (261.9mm x 40.34mm x 169.4mm)
Weight	1500 gr.

OUTPUT CONNECTOR - Positronic-PCIH47M400A1/AA
PIN ASSIGNMENT

Pin	Pin Type	Signal Name.	Description
1-4	Normal	V1	V1 Output
5-12	Normal	RTN	V1 and V2 Return
13-18	Normal	V2	V2 Output
19	Normal	RTN	V3 Return
20	Normal	V3	V3 Output
21	Normal	V4	V4 Output
22	Normal	RTN	Signal Return
23	Normal	RTN	Signal Return
24	Normal	RTN	V4 Return
25	Normal	GA-0	Geographic ADD-0 (option)
26	Normal	Reverse	Reverse
27	Short	EN#	Enable
28	Normal	GA-1	Geographic ADD-1 (option)
29	Normal	NC	Not Connected
30	Normal	V1 Sense	V1 Remote Sense
31	Normal	GA-2	Geographic ADD-2 (option)
32	Normal	NC	Not Connected
33	Normal	V2 Sense	V2 Remote Sense
34	Normal	S RTN	Sense Return
35	Normal	V1 Share	V1 Current Share
36	Normal	NC	Not Connected
37	Normal	IPMB_SCL	System Manager Bus (option)
38	Normal	DEG#	Degrade Signal
39	Normal	INH#	Open – ON Low - OFF
40	Normal	IPMB_SDA	System Manager Bus (option)
41	Normal	V2 Share	V2 Current Share
42	Normal	FAL#	Fail Signal
43	Normal	IPMB_PWR	Power–System Manager (option)
44	Normal	NC	Not Connected
45	Long	Chassis GND	Chassis GND
46	Long	AC Neutral	AC input Neutral
47	Long	AC Line	AC Input Line

Outline Drawing:

