

**Electrical
Specification for:**

CPCI-3U-AC-250W

250W AC Input 3U Compact PCI Power Supply

Dual Output "Long"

**Telkoor Part
Number:**

900-3022-0000

CUSTOMER:	SIZE	CAGE CODE	S5417	DWG. NO.	3022-DOC1-10	REV	A
	SCALE		RELEASE DATE	13/03/08	SHEET	1	OF 7

REVISION HISTORY					
Rev Level	Rev Date	Change Made	Reason for Change	Effective	Approved By
A	13/3/2008	Specification Release		13/3/2008	S. Sadot

Approvals		
	Name	Date
Written by:	S. Sadot	13/3/2008
Engineering:	M.Heller	13/3/2008
Sales & Marketing:	B. Steinfeld	13/3/2008
Management:	Y. Ben Ami	13/3/2008

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Input:

Input Voltage: 90 - 254Vac, auto range, single phase
 Frequency: 47-63Hz
 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, 6.3A 250Vac quick acting
 Brown – Out: 75 to 300Vac for 50Msec

Output Voltages & Currents:

Output	Output Voltage	Adjustment Range	Output Current	Min Load
V1	+5V	4.8 - 5.2	50A	0A
V2	+12V	0	3A	0A

Note: 1) Maximum output power at any combination within this table is 250W

Output Power: 250W with 250LFM forced air cooling
 Line Regulation: ±0.5%
 Load Regulation:
 V1 ±1%
 V2 ±4%
 Ripple & Noise 20 MHz bandwidth measured across 1uF ceramic and 120uF electrolytic.
 Capacitor in paralleled
 V1 100Mv p-p
 V2 120mV p-p

 Overload & Short Circuit Protection Fully protected against output overload and short circuit. Automatic recovery upon removal of overload condition
 V1 150% max
 V2 150% max
 Initial Set Point Tolerance: ±1%
 Overshoot & Undershoot: 0% at turn ON
 Turn On Delay: 1 sec. Maximum.
 Rise Time 40mSec from 10% to 90% of its final value.
 Over-voltage Protection: 110 to 130% with latched shut down (V1, V2, V3)
 Temperature Protection: System shutdown due to excessive internal temperature, automatic reset
 Hold Up Time 16mSec at full load and 220VAC input

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Monitoring Command & Control

Remote Sense	Available on V1 & V2. Maximum voltage compensation for cable losses 200mV
Inhibit (INH#)	N/A
Enable (EN#)	Contact closure to external ground to start unit. On shortest pin (last make, first break)
Power Fail (FAL#)	TTL compatible signal, open collector active low signal. Indicates one or more outputs below 90% of specified rate.
Current Share	Accuracy of current share $\pm 10\%$ between units with up to 6 parallel units. Single wire current share on V1 & V2 for 50% to 100% load.
Hot Swap	Internal O-ring Diode
Over Temperature Warning (DEG#)	Open collector active low 10°C before power supply shut down.
I2C - Option	I ² C Passive data: s/n, model no., revision, and/or user defined data

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: -10°C to +55°C full load with 250LFM 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 20GPK max.
Vibration	Random vibration, 10Hz to 500Hz, 3 axis 1.9GRMS max.
Altitude	Operation 6K ft Non operation 40K ft.
MTBF	300,000 hours per Bellcore standard B332 Gb 30°C

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Safety Regulatory & EMC Specifications:

Fully compliance to PICMG 2.11 CompactPCI Specification	
Safety Agency Compliance	UL 60950, EN-60950, 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
Power frequency magnetic field	EN61000-4-8 3A/m

Dielectric Withstand

Input to Case:	1500VAC.
Input to Output:	3000VAC
Output to Case:	50VDC.

Mechanical Dimensions

Size	5.07"H X 1.60"W X 9"D 128.7mm x 40.6mm x 228.8mm)
Weight	800 gr.

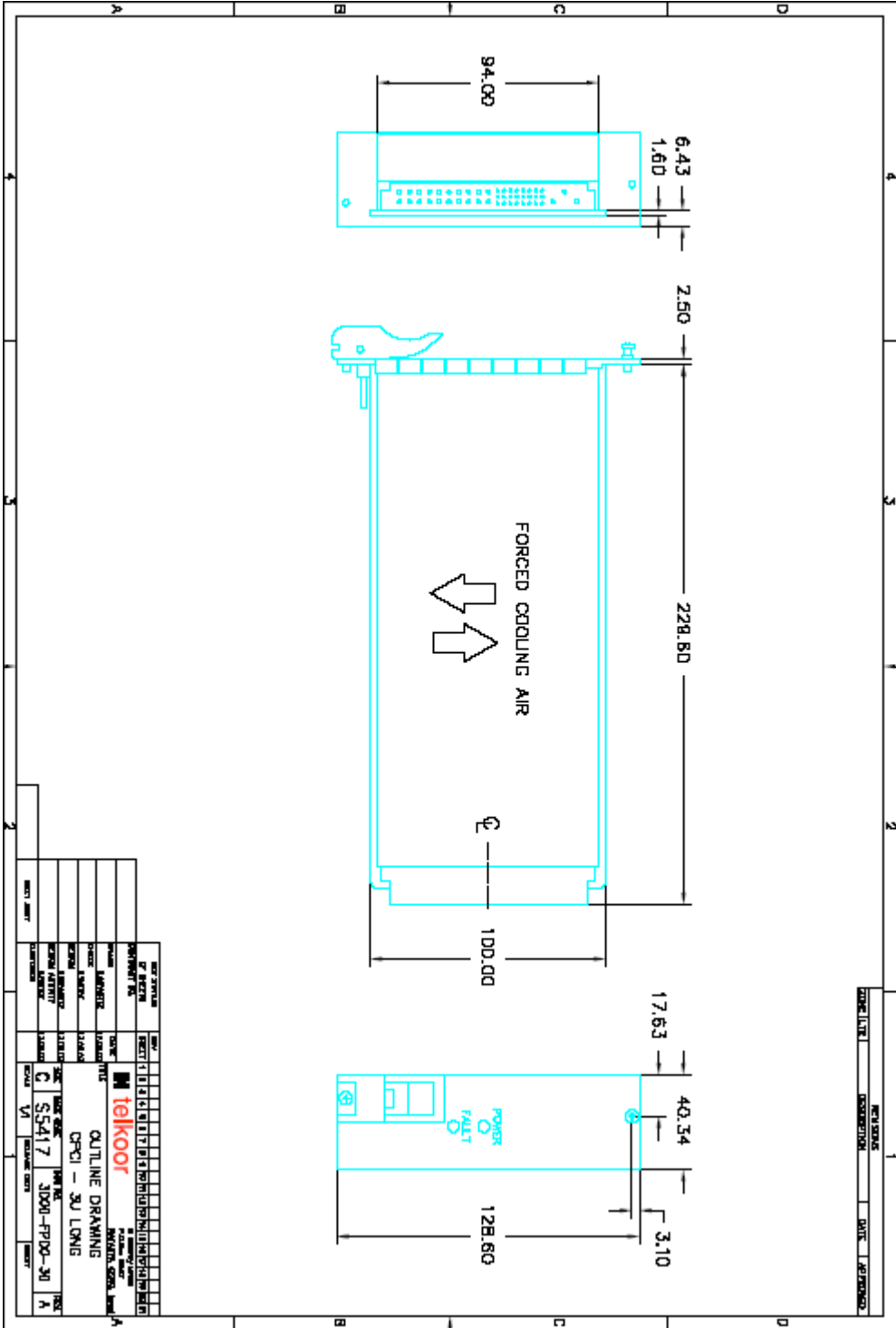
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**INPUT/OUTPUT CONNECTOR - Positronic-PCIH47M400A1/AA
PIN ASSIGNMENT**

Pin	Pin Type	Signal Name.	Description
1-4	Normal	V1	V1 Output
5-12	Normal	RTN	V1 Return
13-18	Normal	V1	V1 Output
19	Normal	RTN	Return
20	Normal	V2	V2 Output
21	Normal	N/A	N/A
22	Normal	RTN	Signal Return
23	Normal	RTN	Signal Return
24	Normal	N/A	N/A
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	N/A	N/A
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#	N/A
40	Normal	IPMB_SDA	System Manager Bus (option)
41	Normal	N/A	N/A
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

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Outline Drawing:



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