

**Electrical  
Specification for:**

**CPCI - 6U - DC - 600W**

**Telkoor Part  
Number:**

**900-6113-0000**

CUSTOMER:	SIZE	CAGE CODE	S5417	DWG. NO.	6113-DOC1-10	REV	A4
	SCALE		RELEASE DATE	13/12/08	SHEET	1	OF 7

REVISION HISTORY					
Rev Level	Rev Date	Change Made	Reason for Change	Effective	Approved By
A	13/12/08	Specification Release		13/12/08	S. Sadot
A1	13/02/09	Change the output current as Follow: +3.3V/70A, +12V/4A	Customer Request	Next production	S. Sadot
A2	12/04/09	Change +12V to 7A and -12V to 1.5A	Customer Request	Next Production	S.Sadot
A3	08/07/09	Change overload to 105-130%	Spec update	Immediately	S.Sadot
A4	19/08/09	Change Input Voltage range to 40-72Vdc (ECO 6113-004)	Customer Request	Immediately	S.Sadot

Approvals		
	Name	Date
Written by:	S. Sadot	13/12/08
Engineering:	S. Sadot	13/12/08
Sales & Marketing:	B. Steinfeld	13/12/08
Management:	M. Heller	13/12/08

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	SCALE		RELEASE DATE	13/12/08	SHEET	2	OF 7

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**Input:**

Input Voltage: 40-72Vdc  
 Inrush Current: 20A max. @ 48Vdc  
 Efficiency: Full rated load 81% @ 48Vdc  
 Input Protection: Non-User Serviceable Fuse

**Output Voltages & Currents:**

Output	Output Voltage	Adjustment Range	Output Current	Min Load
V1	+5V	4.8 ± 5.4	70A	0
V2	+3.3V	3.1 ± 3.5	70A	0
V3	+12V	0	7A	0
V4	-12V	0	1.5A	0

Note: 1) Maximum output power at any combination within this table is 600W  
 2) Maximum output power on V1+V3 not exceed 386W

Output Power: 600W with 300LFM forced air cooling  
 Line Regulation: ±0.5%  
 Load Regulation:  
     V1, V2: ±1%  
     V3: ±5%  
     V4: ±5% With minimum of 1A 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: Fully protected against output overload and short circuit  
     V1 & V2: 105 to 130% max, with latched shut down within 100mSec ± 50mSec  
     V3 & V4: 200% max. Automatic recovery upon removal of overload condition  
 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

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	SCALE		RELEASE DATE	13/12/08	SHEET	3	OF 7

**Monitoring Command & Control**

Remote Sense	Available on V1 & V2. Total voltage compensation for cable losses with respect to the main output 400mV
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 shut down.
I <sup>2</sup> C	I <sup>2</sup> C Passive data: s/n, model no., revision, and/or user defined data

**Operation Status Indicators**

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

**Environmental Specification:**

Operating Temperature:	Operation: -5°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 1GPK max.
Vibration:	Random vibration, 10Hz to 500Hz, 3 axis 1.9GRMS max.
Altitude	Operation 6K feet Non operation 40K feet.
MTBF	300,000 hours per Bellcore standard B332 Gb 30°C

CUSTOMER:	SIZE	CAGE CODE	S5417	DWG. NO.	6113-DOC1-10	REV	A4
	SCALE		RELEASE DATE	13/12/08	SHEET	4	OF 7

**Safety Regulatory & EMC Specifications:**

Fully compliance to PICMG 2.11 CompactPCI Specification

Safety Agency Compliance	UL 60950, EN-60950, CE - MARK
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:	1500VDC.
Input to Output:	1500VDC
Output to Case:	100VDC.

**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.
RoHS	In full compliance with the RoHS directive # 2002/69/EC

**INPUT CONNECTOR CVILUX D-SUBMINIATURE- C3W3P0000100000**  
**PIN ASSIGMENT**

Pin #	Pin type	Signal name	Description
A1	16 # Black	-Vin	-48VDC
A2		Not Connected	Not Connected
A3	16 # Red	Return	Common

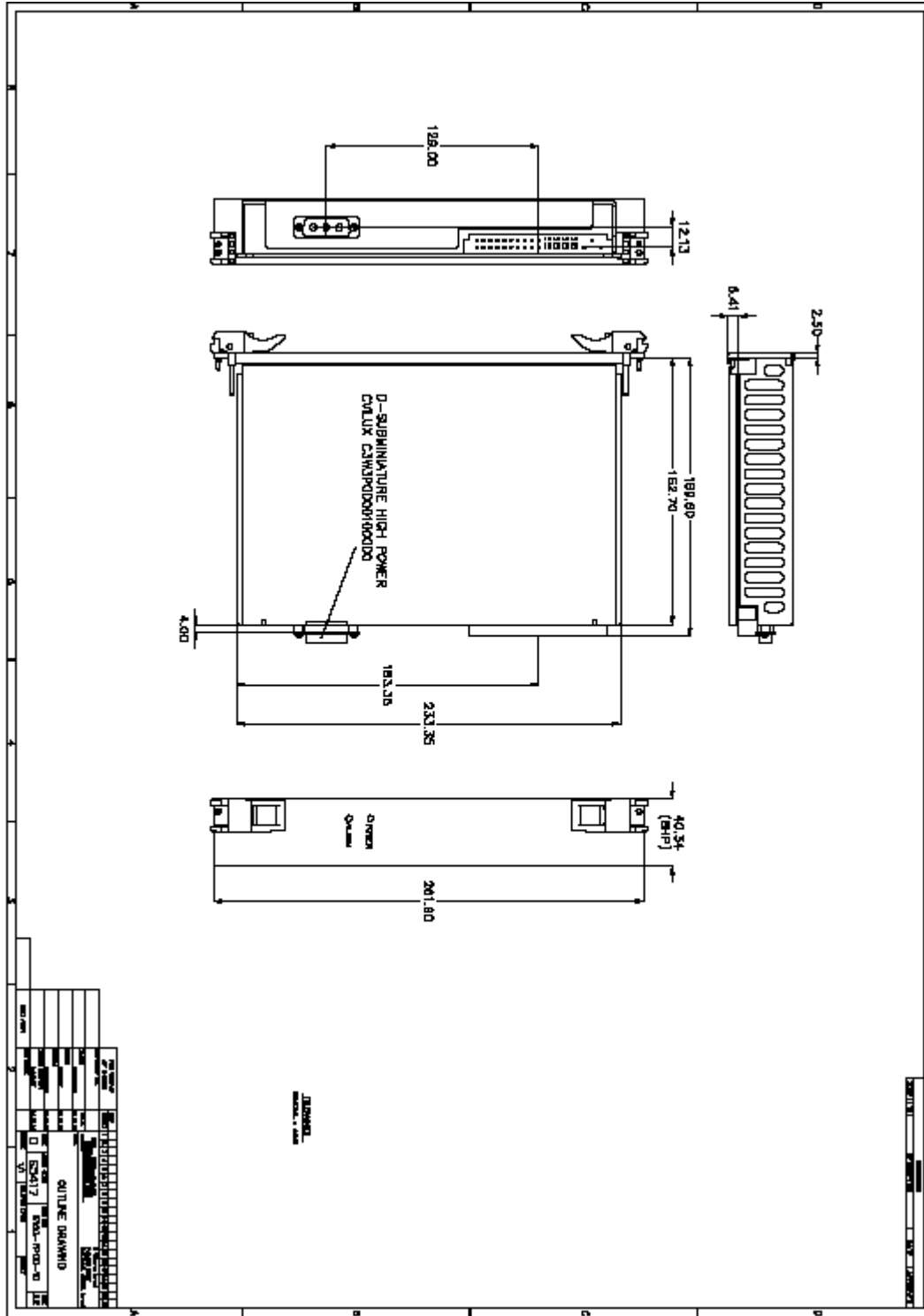
CUSTOMER:	SIZE	CAGE CODE	S5417	DWG. NO.	6113-DOC1-10	REV	A4
	SCALE		RELEASE DATE	13/12/08	SHEET	5	OF 7

**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	NC	Not Connected
47	Long	NC	Not Connected

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	SCALE		RELEASE DATE	13/12/08	SHEET	6	OF 7

**Outline Drawing:**



CUSTOMER:	SIZE	CAGE CODE	S5417	DWG. NO.	6113-DOC1-10	REV	A4
	SCALE		RELEASE DATE	13/12/08	SHEET	7	OF 7