



**Electrical
Specification for:**

CPCI-3U-AC-200W

200W AC Input 3U CompactPCI Power Supply

**Telkooor Part
Number:**

900-3002-0000

| | | | | | | | |
|-----------------|-------|-----------|--------------|----------|--------------|-----|------|
| CUSTOMER: ARRIS | SIZE | CAGE CODE | S5417 | DWG. NO. | 3002-DOC1-10 | REV | C |
| | 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 | 13/03/2008 | Specification Release | | 13/03/2008 | S. Sadot |
| B | 13/05/2008 | Update | Update Efficiency, Ripple, O.L.P, Hold- Up | 13/05/2008 | Y. Raichman |
| C | 09/08/2012 | V3 +12V output current was 5A. Should be 3A. | Typing Error | 09/08/2012 | G. Sela |

| Approvals | | |
|-------------------------------|-------------------|----------------|
| | Name | Date |
| Written by: | S. Sadot | 13/3/08 |
| Engineering: | M.Heller | 13/3/08 |
| Sales & Marketing: | Y. Ben Ami | 13/3/08 |
| Management: | Y. Ben Ami | 13/3/08 |

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Input:

Input Voltage: 90 - 264Vac, auto range, single phase
 Frequency: 47-63Hz
 Inrush Current: 50 A maximum at 230Vac
 Power Factor: 0.98 typical at 230Vac, full load
 0.98 typical at 115Vac, full load
 Efficiency >80% typical at 230Vac, full load rated power
 >76% typical 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:

| <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 | 25A | 0 |
| V2 | +3.3V | 3.1 ÷ 3.5 | 36A | 0 |
| V3 | +12V | 0 | 3A | 0 |
| V4 | -12V | 0 | 0.5 | 0 |

Note: 1) Maximum output power at any combination within this table is 200W

Output Power: 200W with 250LFM forced air cooling
 Line Regulation: ±0.5%
 Load Regulation:
 V1,V2 ±1%
 V3,V4 ±4%
 Ripple & Noise 20 MHz bandwidth measured across 1uF ceramic and 120uF electrolytic.
 Capacitor in paralleled
 V1,V2 75mV p-p
 V3 & V4 120mV p-p
 Overload & Short Circuit Protection Fully protected against output overload and short circuit. Automatic recovery
 upon removal of overload condition
 V1 & V2 150% max
 V3 & V4 150% max
 Initial Set Point Tolerance: ±1%
 Overshoot & Undershoot: 0% at turn ON
 Hold Up Time 14mSec typical at full load and 220VAC input
 Turn On Delay: 2 sec. Maximum.
 Rise Time 30mSec 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

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Monitoring Command & Control

| | |
|---------------------------------|---|
| Remote Sense | Available on V1 & V2. Maximum voltage compensation for cable losses 200mV |
| Inhibit (INH#) | TTL –compatible signal inhibited with GND or TTL “0” |
| 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 ±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

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|----------------------------------|--|
| Front Panel LED Status Indicator | A single bi-color LED Green LED - indicates output in range. Red LED - Indicates one or more outputs below 10% of specified rate. |
|----------------------------------|--|

Environmental Specification:

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|-----------------------|--|
| Operating Temperature | Operation: -5°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

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|--------------------------------|--|
| 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

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|------------------|----------|
| Input to Case: | 1500VAC. |
| Input to Output: | 3000VAC |
| Output to Case: | 100VDC. |

Mechanical Dimensions

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| Size | 5.07"H X 1.60"W X 6.40"D (128.7mm x 40.6mm x 162.5mm) |
| Weight | 800 gr. |

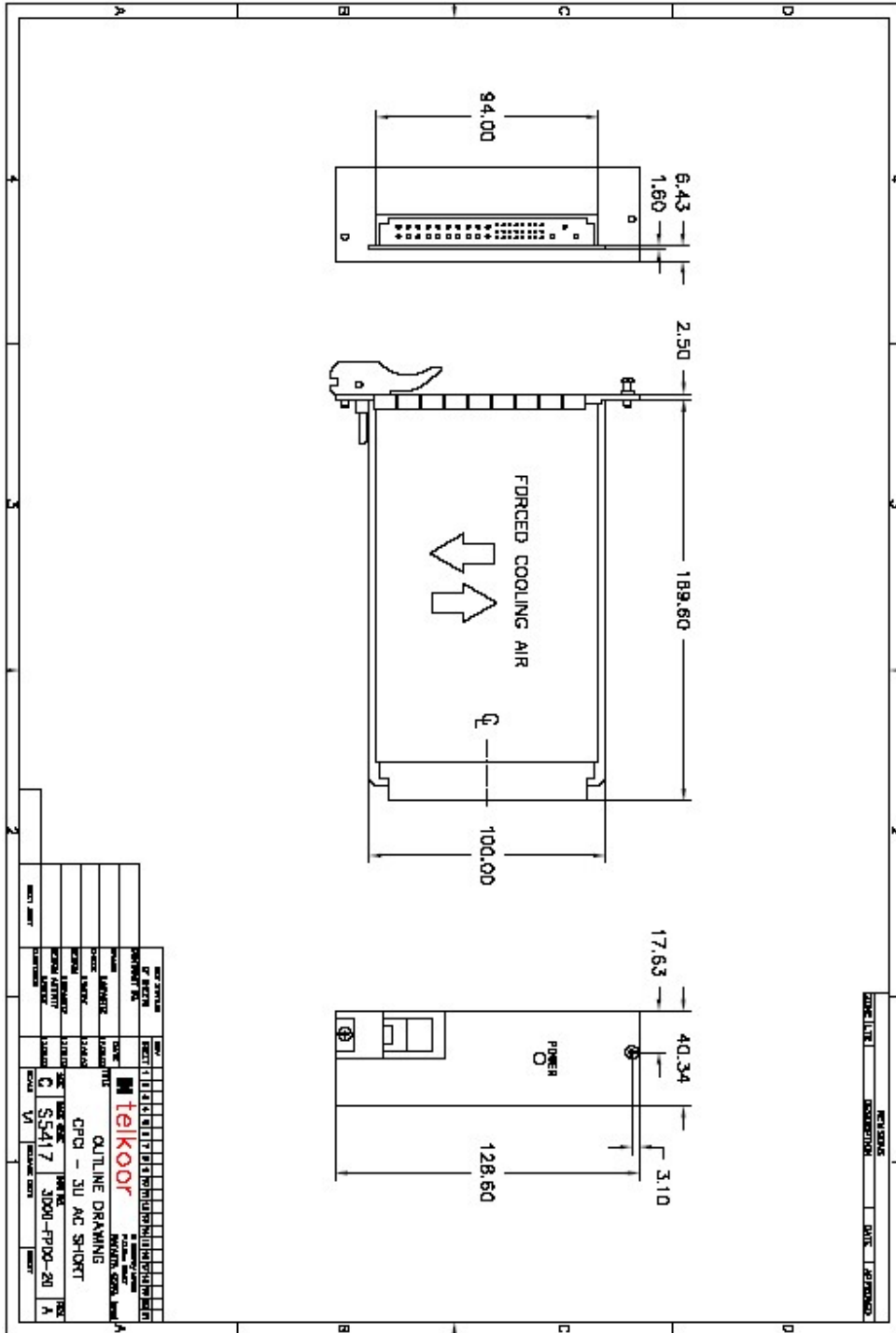
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INPUT/OUTPUT CONNECTOR - Positronic-PCIH47M400A1/AA
PIN ASSIGNMENT

| Pin | Pin Type | Signal Name. | Description |
|-------|----------|--------------|-------------------------------|
| 1-4 | Normal | V1 | V1 Output |
| 5-12 | Normal | RTN | V1 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 |

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Outline Drawing:



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