Electrical Specification for:

CPCI AC 6U 400W - R

Rugged Compact PCI 6U 8HP 400 Watt AC Power Supply

Telkoor Part Number: 900-6602-0000
### REVISION HISTORY

<table>
<thead>
<tr>
<th>Rev Level</th>
<th>ECO</th>
<th>Change Made</th>
<th>Reason for Change</th>
<th>Effective</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Preliminary product release</td>
<td>5V Ripple to 100mV p-p</td>
<td>Reflect actual unit performance</td>
<td>19/6/06</td>
</tr>
<tr>
<td>A1</td>
<td>5V Ripple to 50mV p-p</td>
<td>Customer requirement</td>
<td>17/7/06</td>
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<tr>
<td>B</td>
<td>6602-002</td>
<td>Vibration level revised to 4 Grms</td>
<td>Customer requirement</td>
<td>3/8/06</td>
</tr>
<tr>
<td>C</td>
<td>Lower Operation Temp -40 °C</td>
<td>Customer requirement</td>
<td>30/7/12</td>
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<tr>
<td>C1</td>
<td></td>
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### Approvals

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
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<tbody>
<tr>
<td>Written by:</td>
<td></td>
</tr>
<tr>
<td>S. Sadot</td>
<td>31/10/05</td>
</tr>
<tr>
<td>Engineering:</td>
<td></td>
</tr>
<tr>
<td>M. Heller</td>
<td>19/6/06</td>
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<tr>
<td>Sales &amp; Marketing:</td>
<td></td>
</tr>
<tr>
<td>M. Allon</td>
<td>19/6/06</td>
</tr>
<tr>
<td>Management:</td>
<td></td>
</tr>
<tr>
<td>Y. Ben-Ami</td>
<td>19/6/06</td>
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</tbody>
</table>
**Input:**
Input Voltage: 85-264VAC
Input Frequency: 56.7 – 63.3 Hz
Inrush Current: 60A Max. @230V
Efficiency 81% @ 230VAC full load
Power Factor: > 0.95
Input Protection: Non-User Serviceable Fuse
Hold up Time 16mSec @ full load

**Output Voltages & Currents:**

<table>
<thead>
<tr>
<th>Output</th>
<th>Output Voltage</th>
<th>Adjustment Range</th>
<th>Output Current</th>
<th>Min Load</th>
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<tbody>
<tr>
<td>V1</td>
<td>+5</td>
<td>4.8 ÷ 5.4</td>
<td>50A</td>
<td>0</td>
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<tr>
<td>V2</td>
<td>+3.3</td>
<td>3.1 ÷ 3.5</td>
<td>80A</td>
<td>0</td>
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<tr>
<td>V3</td>
<td>+12</td>
<td>N/A</td>
<td>7.5A</td>
<td>0</td>
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<tr>
<td>V4</td>
<td>-12</td>
<td>N/A</td>
<td>1.5A</td>
<td>0</td>
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</table>

Output Power: 400W with 250LFM forced air cooling
Line Regulation: ±0.5%
Load Regulation:
- V1 & V2: ±1%
- V3 & V4: ±5%
Ripple & Noise with 20 MHz bandwidth measured cross 10uF load capacitor paralleled
- V1: 50mV p-p
- V2: 50mV p-p
- V3 & V4: 120mV p-p
Over current Protection
- V1 & V2: 125% max
- V3: 200% max
- V4: 250% max
Initial Set Point Tolerance: +/- 0.4% for V1 & V2, +/- 2% for V3 & V4
Overshoot & Undershoot: Less than 5% at turn ON-OFF
Transient Load Response: For a step load of 50% max load peak transient < 5% and output recovers to 1% in less than 0.5mSec
Turn On Delay: 2 sec. Maximum.
Over-voltage Protection: 110 to 150% of V1, V2 & V3 with latched shut down
Temperature Protection: Excess temp will shut down the unit – with auto recovery
Current Share: Yes
Hot Swap: Yes
Remote Sense: On +5VDC & 3.3VDC
**Monitoring Command & Control**

Remote: N/A
Inhibit: Open collector inhibited with GND
Power O.K: N/A
Power Fail (flt#): Open collector high signal indicates output in range, low signal indicates DC Fail
DEG #: Open collector activated low before thermal shut-down
I/O Connector: Standard PICMG 47 pin Positronics
Remote Sense: On V1 & V2 cable loss correction of up to 300mV
Aux. Output: N/A
12C Data Bus: Optional – static and dynamics parameters
Front Panel Green Led: Outputs O.K
Front Panel Red Led: Outputs Failure

**Environmental Specifications:**

Temperature: Operation: -40 °C to +70 °C with 40 CFM Forced-Air Cooling. De-rated linearly above +55 °C by 2.5 % per °C
Storage: -40 to +80 °C
Cooling: 40 CFM forced Air Cooling
Humidity: Up to 95% RH non-condensing.
Vibration: See Figure 1 below - Vibration Graph
Shock: 20g ±3g 20mSec (17-23mSec) half sine duration of shock pulse
Surge: EN61000-4
MTBF: >40,000 hours per Bellcore standard B332 Gb 50C
Conformal coating: In accordance to IPC-CC-830 for PCB only

**Safety Regulatory & EMC Specifications:**

MEETS FCC CLASS B, EN55022 CLASS B – With an external line filter

Safety Agency Compliance
UL 60950
EN-60950
CE - MARK

EN61000-4-2 4Kv contact 8Kv air ESD susceptibility
EN61000-4-3 10V/m Radiated susceptibility
EN61000-4-4 1Kv EFT/Burst
EN61000-4-6 3Vrms Conducted disturbance
EN61000-4-8 1A/m Power frequency magnetic field

**Dielectric Withstand:**

Input to Case: 2200VDC.
Input to Output: 2200VAC
Output to Case: 100VDC.
Leakage current: 1.0mA max. @115VAC
**Mechanical Dimensions**

Size  
6U High 8HP WIDE 169.6mm Deep

Weight  
1.88Kg 3.2lbs. Max.

**Outline Drawing**

**Figure 1 – Vibration Graph**

Total Grms = 4.0

PSD  
(g^2/Hz)

W_0 = 0.037

+3dB/oct  -3dB/oct

20  80  350  500  f (Hz)