TMPC-500H

“Haswell Ready” Medical Grade 500W ATX Power Supply

FEATURES
- BF Rated Outputs
- Intel’s Haswell Compatible
- Meets ATX12V Standard
- 80PLUS Gold High Efficiency
- 5,000 Meters Operating Altitude
- IEC/EN 60601-1 3rd & ANSI/AAMI ES 60601-1 Approvals

INPUT SPECIFICATIONS
- Input Voltage Range ............ 90~264 VAC
- Input Frequency ................... 47~63 Hz
- Input Current ....................... 8A rms max. @ 100 VAC, 60 Hz
  4A rms max. @ 230 VAC, 50 Hz
- Inrush Current ..................... 50A @ 115 VAC, 100A @ 230 VAC,
  at 25°C cold start
- Earth Leakage Current ......... 150µA typical @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS
- Output Power Ratings ............. See rating chart
- Load Regulation .................... See rating chart
- Line Regulation ..................... ±1% max. @ full load
- Ripple & Noise* ..................... See rating chart
- Rise Time .......................... 20ms max. 10-90% of the rated
  output @ full load, 115/230V
- Hold-up Time ....................... 12ms @ 115 VAC, 60 Hz,
  17ms @ 230 VAC, 50 Hz
- Overvoltage Protection ........... +3.3V/+5V/+12V; Latch off
- Overcurrent Protection .......... 30-45A for +3.3V; 28-40A for
  +5V; 20-30A for each +12V rail
- Short-Circuit Protection ......... +3.3V/+5V/+12V/-12V; Latch off
- Over-Temperature Protection .. Latch off
- Temperature Coefficient .......... ±0.04%/°C max.
* Measured with 20MHz bandwidth at rated line voltage and output load ranges,
  with a 10µF electrolytic capacitor in parallel with a 0.1µF ceramic disk capacitor
  across the output connector.

GENERAL SPECIFICATIONS
- Efficiency ........................ 80PLUS Gold; 87%, 90%, 87%
- Power Factor ..................... 0.98 typical @ 264 VAC
- Switching Frequency .......... 65-75 KHz
- Operating Temperature .......... 0°C to +50°C
- Derating ............................ Derate from 100% at +50°C linearly
  to 50% at +70°C
- Storage Temperature .......... -20°C to +80°C
- Relative Humidity ............... 10% to 95% non-condensing
- Operating Altitude ............. 5,000 meters max.
- Cooling Fan ....................... Ball-bearing type with noise killer;
  thermally controlled
- Withstand Voltage ............... 4,000 VAC, input-output (2 MOPP)
  1,500 VAC, input-ground (1 MOPP)
  1,500 VAC, output-ground
- MTBF ............................... 103,265 hours at 230 VAC, full load
  and 25°C ambient, calculated per
  MIL-HDBK-217F

STANDARDS & COMPLIANCES
- EN/IEC 60601-1-2 ............... EMC & Immunity Performance
- EN 55022, FCC, CISPR 22 ....... Class B, conducted & radiated
- EN 61000-3-2 ...................... Harmonic distortion, Class B & D
- EN 61000-3-3 ...................... Line flicker
- EN 61000-4-2 ...................... ESD, ±8 KV air and ±6 KV contact
- EN 61000-4-3 ...................... Radiated immunity, 3V/m
- EN 61000-4-4 ...................... Fast transient/burst, ±2 KV
- EN 61000-4-5 ...................... Surge, ±1 KV diff., ±2 KV com.
- EN 61000-4-6 ...................... Conducted immunity, 3 Vrms
- EN 61000-4-8 ...................... Magnetic field immunity, 3A/m
- EN 61000-4-11 ..................... Voltage dips,
  30% reduction for 500ms,
  60% reduction for 100ms,
  >95% reduction for 10ms
- Safety Standards .............. IEC/EN 60601-1 3rd Edition,
  ANSI/AAMI ES 60601-1:2005,
  CSA C22.2 No. 60601-1:08
- Agency Approvals .............. UL, cUL, TUV, CB, CE
- Other Compliance .............. RoHS

OUTPUT VOLTAGE & CURRENT RATING CHART

<table>
<thead>
<tr>
<th>DC Output Voltage</th>
<th>Minimum Load</th>
<th>*Maximum Load</th>
<th>Load Regulation</th>
<th>Ripple &amp; Noise VP-P Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3.3V</td>
<td>0.1A</td>
<td>24A</td>
<td>±5%</td>
<td>50mV</td>
</tr>
<tr>
<td>+5V</td>
<td>0.1A</td>
<td>20A</td>
<td>±5%</td>
<td>50mV</td>
</tr>
<tr>
<td>+12V1</td>
<td>0.2A</td>
<td>16A</td>
<td>±5%</td>
<td>120mV</td>
</tr>
<tr>
<td>+12V2</td>
<td>0.05A</td>
<td>16A</td>
<td>±5%</td>
<td>120mV</td>
</tr>
<tr>
<td>+12V3</td>
<td>0.1A</td>
<td>16A</td>
<td>±5%</td>
<td>120mV</td>
</tr>
<tr>
<td>-6V</td>
<td>0A</td>
<td>0.2A</td>
<td>±5%</td>
<td>50mV</td>
</tr>
<tr>
<td>-12V</td>
<td>0A</td>
<td>0.5A</td>
<td>±5%</td>
<td>120mV</td>
</tr>
<tr>
<td>+5Vsb</td>
<td>0A</td>
<td>3A</td>
<td>±5%</td>
<td>50mV</td>
</tr>
</tbody>
</table>

* The overall output power is 500W maximum.
* The total output power for +3.3V & +6V is 130W maximum.
* The total output current for +12V1, +12V2, & +12V3 is 38A maximum.
MECHANICAL SPECIFICATIONS

Note: Custom output cable set available.

Unit: mm
Tolerance: 0.5mm max.
Weight: 1.8kg (3.97 lb) approx.