FEATURES

- Meets ATX12V Standard
- Intel’s Haswell Compatible
- BF Rated Outputs
- 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
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 ......... +3.3V/+5V/+12V; Latch off
Short-Circuit Protection ....... +3.3V/+5V/+12V/-12V; Latch off
Over-Temperature Protection .. Latch off
Temperature Coefficient ....... ±0.04%/°C max.

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
Cooling Fan ....................... Ball-bearing type with noise killer;
thermally controlled
Operating Altitude .......... 5,000 meters max.
Withstand Voltage ............. 4,000 VAC, input-output (2 MOPP)
.................................. 1,500 VAC, input-ground (1 MOPP)
.................................. 1,500 VAC, output-ground
MTBF .............................. 260K 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 diffl., ±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>21A</td>
<td>±5%</td>
<td>50mV</td>
</tr>
<tr>
<td>+5V</td>
<td>0.1A</td>
<td>18A</td>
<td>±5%</td>
<td>50mV</td>
</tr>
<tr>
<td>+12V1</td>
<td>0.05A</td>
<td>18A</td>
<td>±5%</td>
<td>120mV</td>
</tr>
<tr>
<td>+12V2</td>
<td>0.1A</td>
<td>18A</td>
<td>±5%</td>
<td>120mV</td>
</tr>
<tr>
<td>-5V</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 400W maximum.
* The total output power for +3.3V & +5V is 120W maximum.
* The total output current for +12V1 and +12V2 is 29A maximum.
TMPC-400H

“Haswell Ready” Medical Grade 400W ATX Power Supply

MECHANICAL SPECIFICATIONS

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

Note: Custom output cable set available.