GTA401-B

AC-DC
Power Supply

(Document Rev A01 8/3/16)

Single Phase 47-440Hz 95/250Vac Input
Dual Output, 200W Max Total

Market: Military, Industrial

Application: Electronic Equipment Rack

Table 1: Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Rating</th>
<th>Unit</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vin max range</td>
<td>95 to 250</td>
<td>Vac</td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>–40 to +85</td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Output power</td>
<td>200</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>Input power</td>
<td>230</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>+3.8Vdc output</td>
<td>100</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>+5.6Vdc output</td>
<td>100</td>
<td>W</td>
<td></td>
</tr>
</tbody>
</table>

* Contact AEGIS Power Systems for specific details.

Product Highlights

This chassis mounted filtered ac-dc power converter has Power Factor Correction. Factory configured outputs (+3.8Vdc, +5.6Vdc) with 200W max total combined output. This COTS solution works well for Mil-cots and is designed to meet portions of Mil-Std-704F input, MIL-STD-810F vibration and shock, and MIL-STD-461E EMI requirements.

**AEGIS Power Systems, Inc.** specializes in the front end design, development, and manufacture of Rapid Response Custom Switching Power Supplies for defense, industry, telecomm, aircraft, shipboard, rack mount, electric powered vehicle, and Mil-Cots military power supply applications. Contact Aegis for specific details on what can be designed for your particular military power supply application and what portions of a particular military standard can be offered for that power supply.
**SPECIFICATIONS**

*(Typical at 25°C, nominal line and 100% load, unless otherwise specified.)*

**Input voltage:**
- Normal 95VAC to 250VAC, 47Hz to 440Hz (Optimized for 400Hz)
- Transient 70VAC to 270VAC, 100 msec
- Mil-Std-704F Normal and abnormal range

**Input current:**
2.1A @ 115VAC.

**Input power:**
234W@ 115VAC.

**Power factor:**
0.97 typical 360-440Hz.

**Output power:**
200W Max. All outputs combined.

**Holdup time:**
18 msec typical.

**Output voltages:**
See table 2 for details.

**Efficiency:**
83%/115VAC typical. full load.

**Output ripple:**
See table 2 for details.

**Current Limit:**
Short circuit protected with automatic recovery.

**Start up time:**
500 millisecond Max.

**Voltage set point:**
± 2%.

**Line regulation:**
± 2%.

**Load regulation:**
± 2%.

**Temperature regulation:**
± 0.02% / °C.

**Temperature:**
–40°C to +85°C Operating. -20°C to +120°C Non-Operating.

**Cooling:**
Customer provided forced fan cooling across attached Heatsink.

**Package:**
Chassis mounted enclosed metal case.

**Dimensions:**
9" x 5" x 1.5" see mech dwg.

**Weight:**
3.05 lbs. Typical.

**Connector:**
Molex Minifit Jr. 39-30-0040 (Input Power)
Molex Minifit Jr. 39-30-0120 (Output Power)

**Vibration:**
MIL-STD-810F, Method 514.5, Procedure 1

**Shock:**
MIL-STD-810F, Method 514.5, Procedure 1

**Humidity:**
0 – 95% non-condensing.

**EMI:**
Mil-Std-461F, CE102, CS101
Table 2: Voltage Outputs

<table>
<thead>
<tr>
<th>GTA401-B</th>
<th>V1</th>
<th>V2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>+3.8Vdc</td>
<td>+5.6Vdc</td>
</tr>
<tr>
<td>Current</td>
<td>26.8A</td>
<td>17.3A</td>
</tr>
<tr>
<td>Power</td>
<td>100W¹</td>
<td>100W¹</td>
</tr>
<tr>
<td>Ripple</td>
<td>150mVpk-pk²</td>
<td>150mVpk-pk²</td>
</tr>
</tbody>
</table>

Maximum total output power is 200W (all DC outputs combined).

1 Isolated from input and chassis.
2 pk-pk 20MHz BW limit.

Figure 1: Power Derating for Temperature and Input Voltage

Forced Air Cooling 600LFM
NOTICE: MN 600 LFM EXCEPTED AT

MAX LOAD

NOTICE: MN 600 LFM EXCEPTED AT