

GTA701

AC-DC Power Supply

(Document Rev A01 5/25/17)

Single Phase 47- 440Hz 95/250Vac Input 4 Output, 325W Max Total

Market: Military, Industrial

Application: Electronic Equipment Rack

Features

- 95/250Vac input.
- Designed to meet portions of MIL-Std-704F*
- 4 Output, 325W.
- Designed to meet portions of Mil-Std-810F environmental specs.*
- Designed to meet portions of Mil-Std-461F EMI specifications.*

* Contact AEGIS Power Systems for specific details.

Table 1: Maximum Ratings

Parameter	Rating	Unit	Notes
Vin max range	95 to 250	Vac	
Temperature range	-40 to +85	°C	
Output power	325	W	
Input power	400	W	
+6Vdc output	150	W	
+3.6Vdc output	40	W	
+12Vdc output	120	W	
+12Vdc output	15	W	

Product Highlights

This chassis mounted filtered ac-dc power converter has Power Factor Correction. Factory configured outputs (+3.6Vdc, +6Vdc, +12Vdc, +12Vdc) with 325W 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:	3.48A @ 115VAC.
Input power:	400W@ 115VAC.
Power factor:	0.97 typical 360-440Hz.
Output power:	325W Max. All outputs combined.
Holdup time:	18 msec typical.
Output voltages:	See table 2 for details.
Efficiency:	83% typical @115VAC, 400Hz, 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:	11.85" x 5" x 1.5" see mech dwg.
Weight:	3.85 lbs. Typical.
Connector:	Molex Minifit Jr. 39-30-0040 (Input Power) Molex Minifit Jr. 39-30-0120 (Output Power) Molex Minifit Jr. 39-30-1140 (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

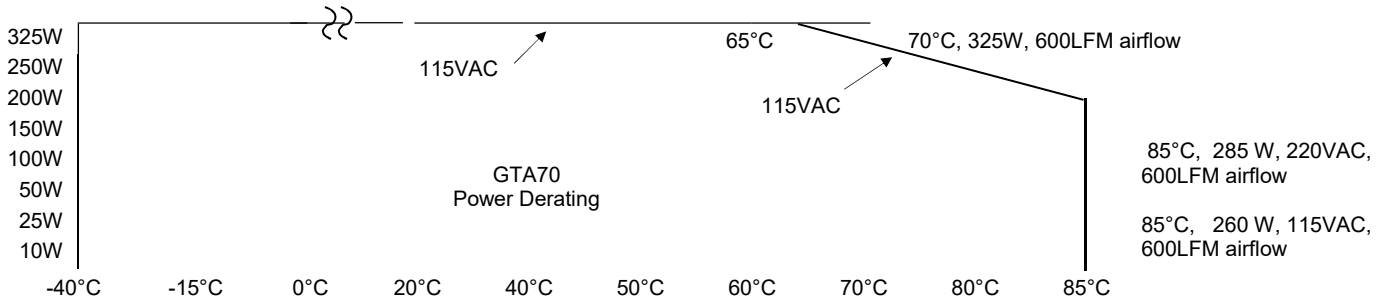
Table 2: Voltage Outputs

GTA701	V1	V2	V3	V4
Voltage	+3.6Vdc	+6Vdc	+12Vdc	+12Vdc
Current	11.11A	25A	10A	1.25A
Power	40W ¹	150W ¹	120W ¹	15W ¹
Ripple	150mVpk-pk ²	150mVpk-pk ²	150mVpk-pk ²	150mVpk-pk ²
Maximum total output power is 325W (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

Power Derating for Temperature and Input Voltage per below Graph



Forced Air Cooling 600LFM