

GTA701

Overview

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

Market(s)

Military, Aircraft, Industrial

Typical Application(s)

Electronic Equipment Rack



Product Highlights

This chassis mounted AC-DC power converter offers 0.97 Power Factor Correction and included EMI filtering. The unit provides four factory configured outputs, each isolated from chassis and ground. The unit provides 325W combined output power and utilizes customer supplied forced air cooling across the attached heatsink. This COTS solution works well for military, aircraft, and other rugged applications, and is designed to meet applicable portions of MIL-STD-704F input, MIL-STD-810F vibration and shock, and MIL-STD-461E EMI requirements.

Features

- 95/250Vac input
- Multiple isolated outputs
- MIL-STD-704F*
- 4 Output, 325W
- MIL-STD-810F environmental *
- MIL-STD-461F EMI *

* Designed to meet applicable portions of this standard. Contact Aegis Power Systems, Inc. for specific details.

Table 1: Maximum Continuous Operating 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	

About Us

Aegis Power Systems, Inc. specializes in the design, development, and manufacture of AC-DC and DC-DC power supplies for high-performance, rugged, critical, and specialty applications. Markets served include defense, industrial, communications, aircraft, shipboard, rack mount, embedded computing, and electric vehicle applications.

[Contact us](#) to find out if this item can be configured or redesigned to meet your specific technology need.

SPECIFICATIONS

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

Parameter	Notes
Input Voltage	Normal 95VAC to 250VAC, 47Hz to 440Hz (Optimized for 400Hz) Transient 70VAC to 270VAC, 100ms MIL-STD-704F Normal and abnormal range
Input Current	3.48A @ 115VAC.
Input Power	400W@ 115VAC.
Power factor	0.97 typical 360-440Hz.
Total Output Power	325W Max. All outputs combined.
Holdup time	18ms 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/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	3.5 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 516.5, Procedure 1
Humidity	0 – 95% non-condensing.
EMI	MIL-STD-461F, CE102, CS101

Specifications subject to change without notice.

Table 2: Voltage Output (Nominal)

	V1	V2	V3	V4
Voltage	+3.6Vdc	+6Vdc	+12Vdc	+12Vdc
Current	11.11A	25A	10A	1.25A
Power	40W*	150W*	120W*	15W*
Ripple	150mVpk-pk**	150mVpk-pk**	150mVpk-pk**	150mVpk-pk**

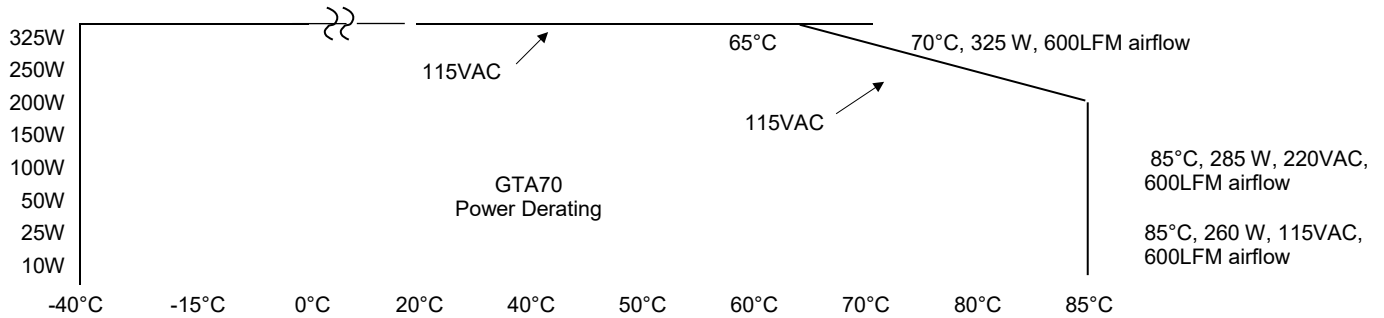
Maximum total output power is 325W (all DC outputs combined).

* Isolated from input and chassis.

** 20MHz Bandwidth Limited.

Figure 1: Power Derating for Temperature and Input Voltage

Power Derating for Temperature and Input Voltage per below Graph



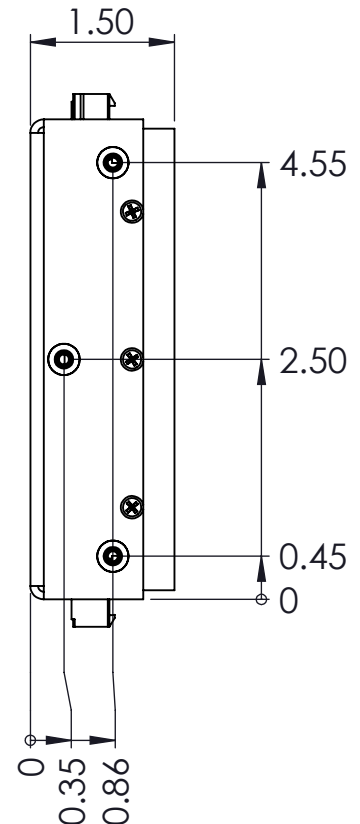
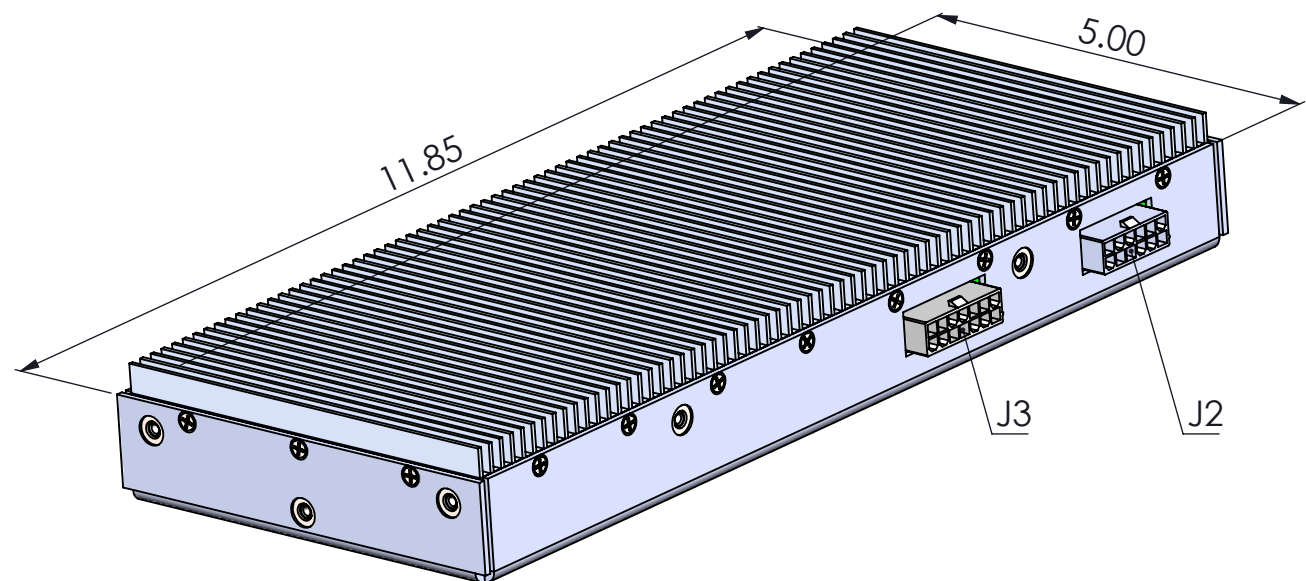
Forced Air Cooling 600LFM

DWG NO.		SH	REV	REVISIONS	
ZONE	REV			DATE	APPROVED
	A01	INITIAL RELEASE		6/29/20	TBL
	B02	UNIT RELEASE		5/18/21	TBL

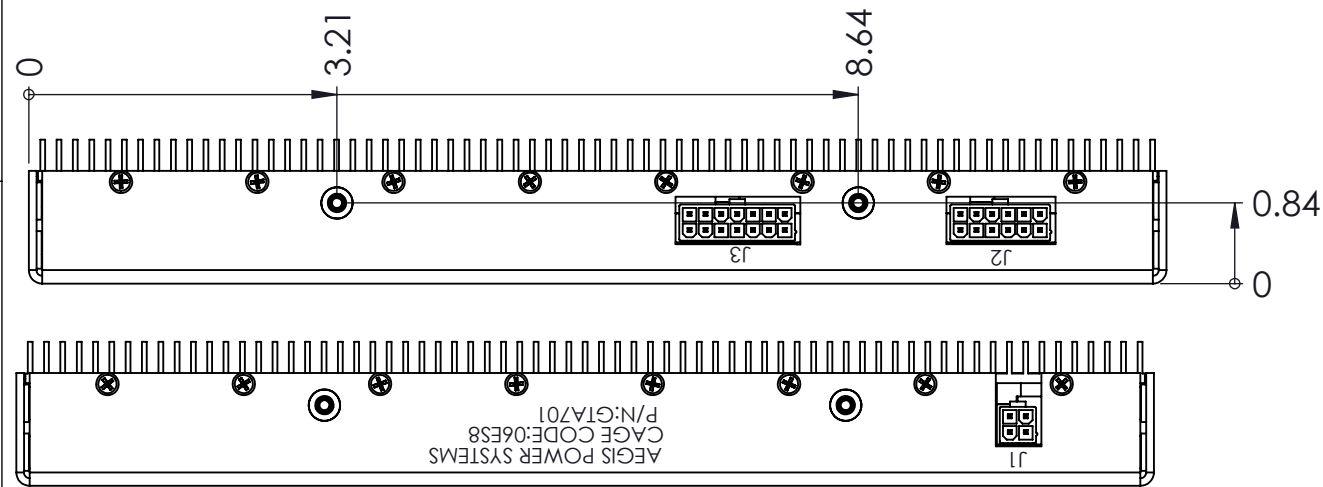
NOTES: UNLESS OTHERWISE SPECIFIED
 1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.

CAD MAINTAIN CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

CONNECTOR	P/N:
J1	39-30-0040
J2	39-30-0120
J3	39-30-1140



SPECIAL NOTES:
 TOTAL OF 10X 6-32 PEMS
 P/N:LAC-632-2
 MAX SCREW LENGTH .25"
 3X EACH SHORT SIDE
 2X EACH LONG SIDE



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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 FRACTIONAL ± N/A
 DEGREES: ± .5
 TWO PLACE DECIMAL ± .02
 THREE PLACE DECIMAL ± .005

APPROVALS	NAME	DATE
DRAWN	TL	5/18/21
CHECKED	MVM	5/18/21
ENG APPR.	TL	5/18/21
MFG APPR.	RP	5/18/21
Q.A.	MH	5/18/21

AEGIS POWER SYSTEMS
MURPHY, NORTH CAROLINA

TITLE:
GTA701
 AEGIS P/N:GTA701

MATERIAL
 FINISH
 DO NOT SCALE DRAWING

COMMENTS:
 GENERATED:BY SOLIDWORKS

SIZE	FSCM NO.	DWG. NO.	REV
B	06ES8	GTA701	B02

SCALE: 1:2
 SHEET 1 OF 1