

# GTA401C With Connector Reinforcement

Product Revision Rev C01

## Overview

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

## Market(s)

Military, Industrial

## Typical Application(s)

Electronic Equipment Rack



## Product Highlights

This chassis mounted filtered AC-DC power converter has Power Factor Correction, 18ms holdup, and wide input voltage range. The two factory configured outputs (+3.8Vdc, +5.6Vdc) provide 200W max total combined output. This COTS solution is designed for rugged applications and is designed to meet portions of Mil-Std-704F input, MIL-STD-810F vibration and shock, and MIL-STD-461E EMI requirements.

## Features

- 95/250Vac input.
- MIL-Std-704F\*
- Dual Output, 200W.
- Mil-Std-810F environmental specs. \*
- Mil-Std-461F EMI specifications. \*

\* 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	200	W	
Input power	240	W	
+3.8Vdc output	100	W	
+5.6Vdc output	100	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	2.1A @ 115Vac.
Input Power	243W@ 115Vac.
Power factor	0.97 typical 360-440Hz.
Total Output Power	200W Max. All outputs combined.
Holdup time	18ms typical.
Output Voltages	See table 2 for details. (Output returns are tied to Chassis GND)
Efficiency	(76% Min. @115VAC, 400Hz, full load.) (76% Min. @ 115VAC, 60Hz, 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. -40°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	2.45 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 516.5, Procedure 1
Humidity	0 – 95% non-condensing.
EMI	MIL-STD-461F, CE102, CS101

*Specifications subject to change without notice.*

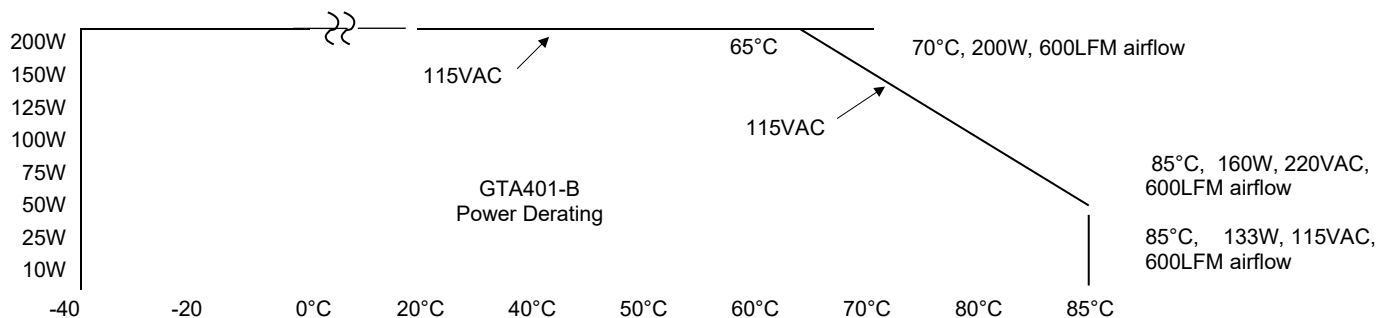
**Table 2: Voltage Output (Nominal)**

	V1	V2		
<b>Voltage</b>	+3.8Vdc	+5.6Vdc		
<b>Current</b>	26.8A	17.3A		
<b>Power</b>	100W**	100W**		
<b>Ripple</b>	20mVpk-pk*	25mVpk-pk*		
Maximum total output power is 200W (all DC outputs combined). (Output returns are tied to Chassis GND)				

\* 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	1	
REVISIONS						
ZONE	REV	DESCRIPTION			DATE	APPROVED
	A01	XXX			XXX	XXX

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

NOTES: UNLESS OTHERWISE SPECIFIED

1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
2. MATERIAL: AAVID THERMALLOY P/N: 73265 (6063-T5 ALUMINUM EXTRUSION ALLOY)
3. FINISH: CHEMICAL FILM PER MIL-DTL-5541F, CLASS 3, TYPE II, COLOR CLEAR

GTA401-C Rev C01 with connector reinforcement and ripple voltage improvements.  
Product Start date 3/31/22  
Product sales order 9209 through 9211, SN:22010160 and following, shall have connector reinforcement Per GTA401-C, and ripple voltage improvements per Rev C01.  
All sales orders after 3/31/22 shall have connector reinforcement Per GTA401-C and ripple voltage improvements per Rev C01.



Image shown for representation only. Exact dimensions should be obtained from the product data sheet.

**TG-AH486-35-10-7.0-0**

Digi-Key Part Number: 1165-TG-AH486-35-10-7.0-0-ND

Manufacturer: i-Global Technology

Manufacturer Product Number: TG-AH486-35-10-7.0-0

Description: THERM PAD 35MMX10MM GRAY

Manufacturer Standard Lead Time: 8 Weeks

Detailed Description: Thermal Pad Gray 35.00mm x 10.00mm Rectangular

Customer Reference:

Datasheet: [Datasheet](#)

Product Attributes		
TYPE	DESCRIPTION	SELECT
Category	Pass, Thermal Management Thermal - Pads, Sheets	<input checked="" type="checkbox"/>
Mfr	i-Global Technology	<input type="checkbox"/>
Series	HA8-6	<input type="checkbox"/>
Package	Box	<input type="checkbox"/>
Part Status	Active	<input type="checkbox"/>
Usage	-	<input type="checkbox"/>
Type	Conductive Pad, Sheet	<input type="checkbox"/>
Shape	Rectangular	<input type="checkbox"/>
Outline	35.00mm x 10.00mm	<input type="checkbox"/>
Thickness	0.276" (7.00mm)	<input type="checkbox"/>
Material	Silicone Elastomer	<input type="checkbox"/>
Adhesive	-	<input type="checkbox"/>
Backing, Carrier	-	<input type="checkbox"/>
Color	Gray	<input type="checkbox"/>
Thermal Resistivity	-	<input type="checkbox"/>
Thermal Conductivity	3.20W/m-K	<input type="checkbox"/>
Shelf Life	24 Months	<input type="checkbox"/>
Shelf Life Start	Date of Purchase	<input type="checkbox"/>
Storage/Refrigeration Temperature	-	<input type="checkbox"/>
Base Product Number	TG-AH486	<input type="checkbox"/>

Alternative:  
TG-AH486-35-10-7.0-0Silicon Elastomer  
Pad

Blue Goo between PWB and Cover

Blue Goo between PWB and Heatsink  
Alternative: TG-AH486-25-25-9.0-0  
Silicon Elastomer Pad

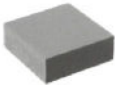


Image shown for representation only. Exact dimensions should be obtained from the product data sheet.

**TG-AH486-25-25-9.0-0**

Digi-Key Part Number: 1165-TG-AH486-25-25-9.0-0-ND

Manufacturer: i-Global Technology

Manufacturer Product Number: TG-AH486-25-25-9.0-0

Description: THERM PAD 25MMX25MM GRAY

Manufacturer Standard Lead Time: 8 Weeks

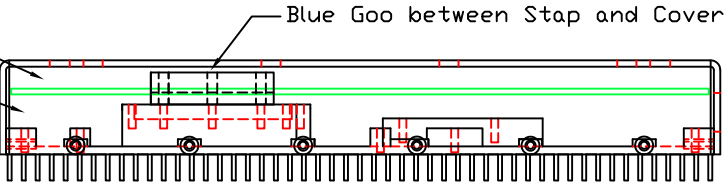
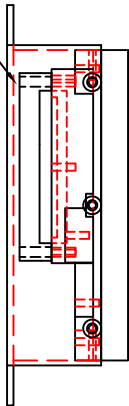
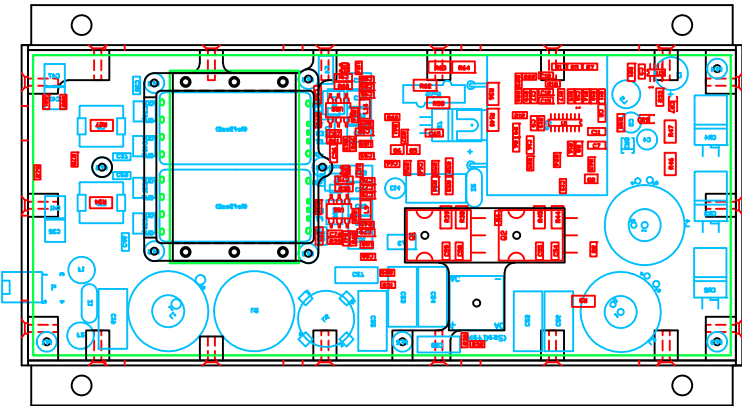
Detailed Description: Thermal Pad Gray 25.00mm x 25.00mm Square

Customer Reference:

Datasheet: [Datasheet](#)

Product Attributes		
TYPE	DESCRIPTION	SELECT
Category	Pass, Thermal Management Thermal - Pads, Sheets	<input checked="" type="checkbox"/>
Mfr	i-Global Technology	<input type="checkbox"/>
Series	HA8-6	<input type="checkbox"/>
Package	Box	<input type="checkbox"/>
Part Status	Active	<input type="checkbox"/>
Usage	-	<input type="checkbox"/>
Type	Conductive Pad, Sheet	<input type="checkbox"/>
Shape	Square	<input type="checkbox"/>
Outline	25.00mm x 25.00mm	<input type="checkbox"/>
Thickness	0.334" (8.00mm)	<input type="checkbox"/>
Material	Silicone Elastomer	<input type="checkbox"/>
Adhesive	-	<input type="checkbox"/>
Backing, Carrier	-	<input type="checkbox"/>
Color	Gray	<input type="checkbox"/>
Thermal Resistivity	-	<input type="checkbox"/>
Thermal Conductivity	3.20W/m-K	<input type="checkbox"/>
Shelf Life	24 Months	<input type="checkbox"/>
Shelf Life Start	Date of Purchase	<input type="checkbox"/>
Storage/Refrigeration Temperature	-	<input type="checkbox"/>
Base Product Number	TG-AH486	<input type="checkbox"/>

Blue Goo or PK605DM-160-KIT  
between Strap and Bottom Cover



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		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.		AEGIS POWER SYSTEMS MURPHY, NORTH CAROLINA							
		FRACTIONS DECIMALS DEGREES ± N/A .XX ± .02 ± .5 .XXX ± .005		APPROVALS		DATE		TITLE GTA401-C Blue Goo Assembly					
		MATERIAL		DRAWN		MVM				2/23/22			
		SEE NOTE 2		CHECKED									
		FINISH		PROJ. ENG.									
		SEE NOTE 3		MFG.						AEGIS P/N: GTA401-C			
NEXT ASSY		USED ON				SIZE		FSCM NO.		DWG NO.		REV	
						D		06ES8		GTA401-C-M04		A01	
APPLICATION		DO NOT SCALE DRAWING		QUALITY		SCALE		1/1				SHEET 1 OF 1	

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES TOLERANCES ARE:		
FRACTIONS	DECIMALS	DEGREES
± N/A	.XX ± .02	± .5
	.XXX ± .005	
MATERIAL		
SEE NOTE 2		
FINISH		
SEE NOTE 3		
DO NOT SCALE DRAWING		

APPLICATION	
NEXT ASSY	USED ON