

AGI1000

AC-DC Power Supply

(Document Rev A05, 09/01/2015)



**Single Phase 60Hz 230Vac Input
Factory Configured Single Output, 1000W Max Total**

Market: Mil-Cots, Industrial

Application: Electronic Equipment Power Supply

Features

- 230Vac input.
- Single 1000W Output, factory selectable for 5Vdc, 12Vdc, 15Vdc, 24Vdc, 28Vdc, 36Vdc, or 48Vdc.(1)
- Designed to meet portions of Mil-Std-810F environmental specs.*
- Designed to meet portions of Mil-Std-461F EMI specifications.*
- Internal forced fan cooled.

* Contact AEGIS Power Systems for specific details.

(1) Power supply can be configured for only one output as selected by customer.

Table 1: Maximum Ratings

Parameter	Rating	Unit	Notes
Vin max range	180 to 264	Vac	47-63 Hz
Temperature range	-40 to +85	°C	
Output power	1000/800	W	
Input power	1960/1470	W	
5Vdc output	800	W	(1)
12Vdc output	1000	W	(1)
15Vdc output	1000	W	(1)
24Vdc output	1000	W	(1)
28Vdc output	1000	W	(1)
36Vdc output	1000	W	(1)
48Vdc output	1000	W	(1)

Product Highlights

The AGI1000 ac-dc power supply is a chassis mounted power supply having forced air cooling from internally mounted fans. The 60Hz AC input is internally filtered and has an output selection from six possible factory configured outputs (12Vdc, 15Vdc, 24Vdc, 28Vdc, 36Vdc, or +48Vdc) at 1000W. Other custom output voltages are available. This COTS solution works well for Industrial and Military applications and is designed to meet portions of MIL-STD-810F vibration and shock, and MIL-STD-461F 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 power supply application and what portions of a particular industrial or military standard can be offered for that power supply.

SPECIFICATIONS

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


Input voltage:	Single Phase 180Vac - 264Vac, 47Hz - 63Hz.
Input current:	7A @ 230Vac / 13A @ 115Vac.
Input power:	1960W @ 230Vac / 1830W @115Vac
Output power:	1000W Maximum.
Holdup time:	10ms Minimum.
Output voltages:	See table 2 for details.
Efficiency:	86-88% Typical.
Output ripple:	See table 2 for details.
Current Limit:	Short circuit protected with automatic recovery.
Start up time:	500 ms Maximum.
Voltage set point:	± 2.5%.
Line regulation:	± 2.5%.
Load regulation:	± 2.5%.
Temperature regulation:	± 0.02% / °C.
Temperature:	-40°C to +85°C Operating. -55°C to +125°C Non-Operating.
Cooling:	Internal fans provide forced fan cooling. (Turn off at about 0.0°C.)
Package:	Chassis mounted enclosed metal case.
Dimensions:	2.79" H x 4.93" W x 12.90" L (see mechanical drawing).
Weight:	6 lbs. Typical.
Connector:	Vac Input Connector: TEC 15CUS1 (IEC 320-C14). Vdc Output Connections: 1/4-20 Stud. Monitor/Control Connector; Molex 03-06-1091 (see Table 3).
Vibration:	Designed to meet MIL-STD-810F, Method 514.5, Procedure I.
Shock:	Designed to meet MIL-STD-810F, Method 516.5, Procedure I.
Humidity:	0 – 95% non-condensing.
EMI:	Designed to meet MIL-STD-461F (CE101, CE102, and CS101).
Power Factor:	.58 @ 230Vac .62 @ 115Vac


Specifications subject to change without notice.


Table 2: Voltage Outputs

Part Number	Vdc out	Watts out	Amps Out	Ripple (20MHz BW)
AGI1000-001	5	800	160	100mVpk-pk
AGI1000-002	12	1000	83.3	280mVpk-pk
AGI1000-003	15	1000	66.7	250mVpk-pk
AGI1000-004	24	1000	41.6	125mVpk-pk
AGI1000-005	28	1000	35.7	100mVpk-pk
AGI1000-006	36	1000	27.7	100mVpk-pk
AGI1000-007	48	1000	20.8	100mVpk-pk

Table 3: Connector Pin Out Assignments

Input: TEC 15CUS1 (IEC 320-C14)		
Top Left	Neutral	
Top Right	Line	
Bottom Center	Safety Ground	

Output: (1/4-20 Stud)		
POS	Positive	
NEG	Negative	

Monitor/Control: (Molex 03-06-1091) *			
Pin	Signal	Description	
1	-S	Negative Sense	
2	+S	Positive Sense	
3	N/A	Not Used	
4	+En	Positive Enable	
5	-En	Negative Enable	
6	+CS	Negative Current Share	
7	-POK	Negative Power OK	
8	+POK	Positive Power OK	
9	+CS	Positive Current Share	

* Customer mate: Molex 03-06-2092P

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1

DWG. NO.

SH. REV.

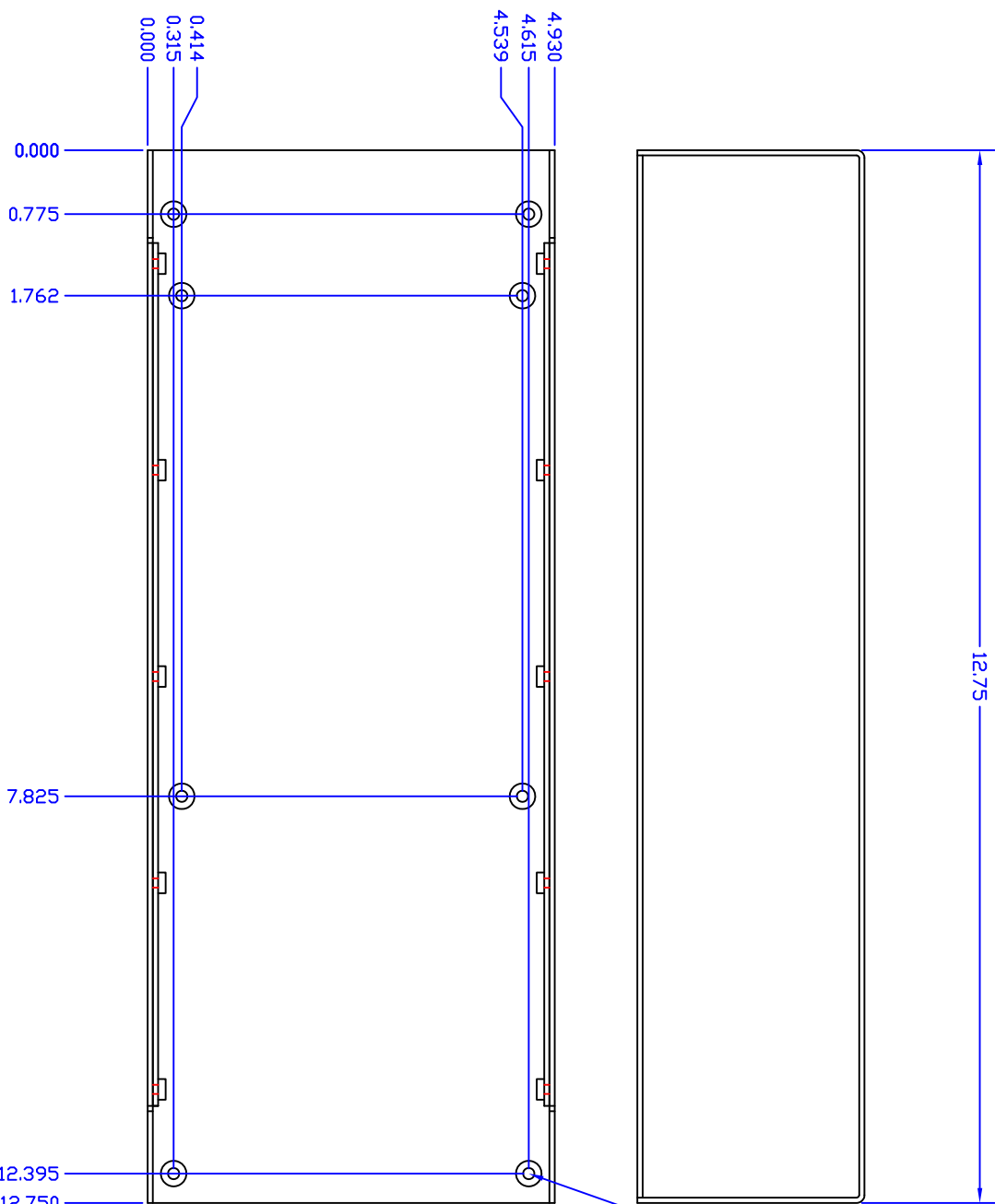
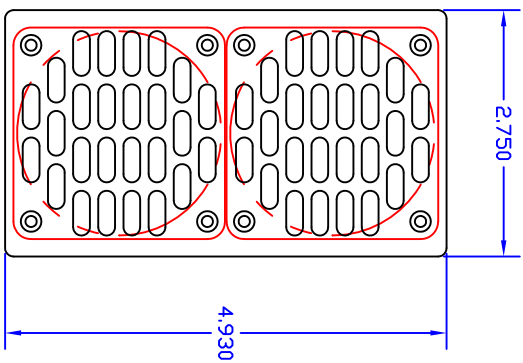
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

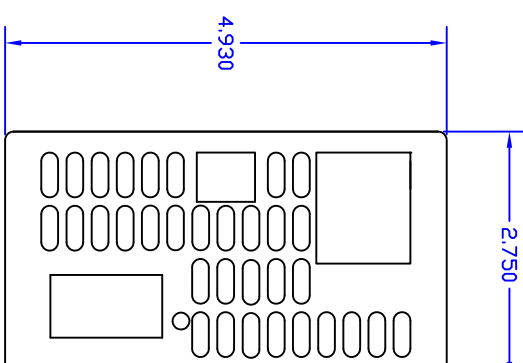
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

NOTES: UNLESS OTHERWISE SPECIFIED

- 1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
- 2. MATERIAL: TUCKER ENGINEERING 8413
- 3. FINISH:



INSTALL $\phi 0164-32$ SELF CLINCHING NUT, 8X, PEM P/N CLS-832-2 OR EQUIVALENT.



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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE TO BE GIVEN IN DECIMALS AND FRACTIONS DECIMALS AND INCHES

* N/A XXX ± .02 ± .5

MATERIAL SEE NOTE 2

FINISH SEE NOTE 3

DO NOT SCALE DRAWING

CONTRACT NO.	APPROVALS	DATE	TITLE
	TLD	4/25/13	AEGIS P/N: AG1500/AG11000 MECH CONCEPT

DESIGNER	CHECKED	DATE	SCALE
MURPHY, NORTH CAROLINA	TRBL ENG		1/1

SIZE	FSCM NO.	DWG. NO.	REV
D	06ES8	AG1500/AG11000-M00	A01

A

B

C

D

A

B

C

D

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