

SS8092

AC-DC Power Supply

(Document Rev A02 11/02/2015)



**Single Phase 60Hz 115Vac Input
Quad Output, 366W Max Total**

Market: Military (Mil-Cots)

Application: Shipboard Electronic Equipment Rack

Features

- 115/220Vac: MIL-STD-1399*
- Quad Output, 366W
- Vibration: Mil-Std-167 *
- Shock: Mil-S-901 *
- EMI: Mil-Std-461E*

* Designed to meet portions of this particular standard. Contact AEGIS Power Systems for specific details.

Table 1: Maximum Ratings

Parameter	Rating	Unit	Notes
Vin max range	115Vac	Vac	±10%
Base-plate Temperature	+0 to +80	°C	Operating
Output power	366	W	
Input power	563	W	
+5Vdc output	237	W	
-5.2Vdc output	105	W	
+12Vdc output	15	W	
-12Vdc output	9	W	

Product Highlights

This ruggedized metal encased filtered ac-dc power supply converts the single phase 60Hz AC power into four outputs (+5Vdc, -5.2Vdc, +12Vdc, and -12Vdc) with 366W of available output power. This COTS solution works well for military power supply applications designed to meet portions of Mil-Std-1399 input specifications and designed to meet portions of MIL-STD-461E EMI requirements. The SS8092 provides a high output in a small package with baseplate conduction for cooling.

AEGIS Power Systems, Inc. specializes in the front end design, development, and manufacture of Rapid Response Custom Switching Power Supplies for Mil-COTS, defense, industrial, telecomm, aircraft, shipboard, rack mount, and electric powered vehicle applications. Contact Aegis for specific details on what portions of a particular military standard is offered for this military power supply.

SPECIFICATIONS

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

Input voltage:	105Vac to 125Vac, 57Hz to 63Hz. Designed to meet MIL-STD-1399 Section 300A/B Type I 60Hz.
Input current:	5.7A Max.
Input power:	530W @ 115Vac typical.
Power factor:	0.99 Minimum
Output power:	366W Max. See Table 2.
Holdup time:	Contact Aegis.
Output voltages:	See table 2 for details.
Efficiency:	69% minimum.
Output ripple:	See table 2.
Current Limit:	Short circuit protected with automatic recovery.
Start up time:	Contact Aegis.
Voltage set point:	Contact Aegis.
Line/Load regulation:	± 2.0% for 5Vdc and 5.2Vdc, ± 1.0% for +12Vdc and -12Vdc.
Temperature regulation:	± 2.0% for 5Vdc and 5.2Vdc, ± 1.0% for +12Vdc and -12Vdc.
Temperature:	+0°C to +80°C Operating baseplate temperature max. -55°C to +85°C Non-Operational.
Cooling:	Conduction through base plate.
Package:	Enclosed ruggedized case.
Dimensions:	6.8" W x 2.5" H x 10.8" L (see mechanical drawing).
Weight:	<9.5 lbs.
Connector:	J1 Cannon DBMM9W4P; J2 Cannon DDMM24W7S; E1 & E2 10-32 Stud.
Vibration:	Designed to meet portions of Mil-Std-167.
Shock:	Designed to meet portions of Mil-S-901.
Humidity:	0 – 95% non-condensing.
EMI:	Designed to meet portions of MIL-STD-461E (CE101, CE102, RE101, & RE102).

Specifications subject to change without notice.

Table 2: Voltage Outputs

SS8092	V1	V2	V3	V4
Voltage	+5Vdc	-5.2Vdc	+12Vdc	-12Vdc
Current	47.4A	20.2A	1.25A	0.75A
Power	237W	105W	15W	9W
Ripple	150Vpk-pk	150Vpk-pk	150Vpk-pk	150Vpk-pk

Connector Pin Assignments

J1 Input Connector

ITT Cannon DBMM9W4P

Pins	Description
A1	Line
A2	Neutral
A3	No Connection
A4	Chassis
1	No Connection
2	No Connection
3	No Connection
4	No Connection
5	No Connection

+5Vdc Output

10-32 Threaded Studs

Stud	Description
E1	+5Vdc
E2	+5Vdc RTN

J2 Output Connector

ITT Cannon DDMM24W7S

Pins	Description
A1	-5.2Vdc
A2	-5.2Vdc RTN
A3	-5.2Vdc
A4	-5.2Vdc RTN
A5	-5.2Vdc
A6	-5.2Vdc RTN
A7	No Connection
1	-5.2Vdc Sense + (1)
2	-5.2Vdc Sense - (2)
3	Status (3)
4	Status RTN (+5 RTN)
5	No Connection
6	No Connection
7	No Connection
8	+5Vdc Sense +
9	+5Vdc Sense -
10	No Connection
11	+12Vdc
12	+12Vdc RTN
13	No Connection
14	- 12Vdc
15	- 12Vdc RTN
16	No Connection
17	No Connection

Notes:

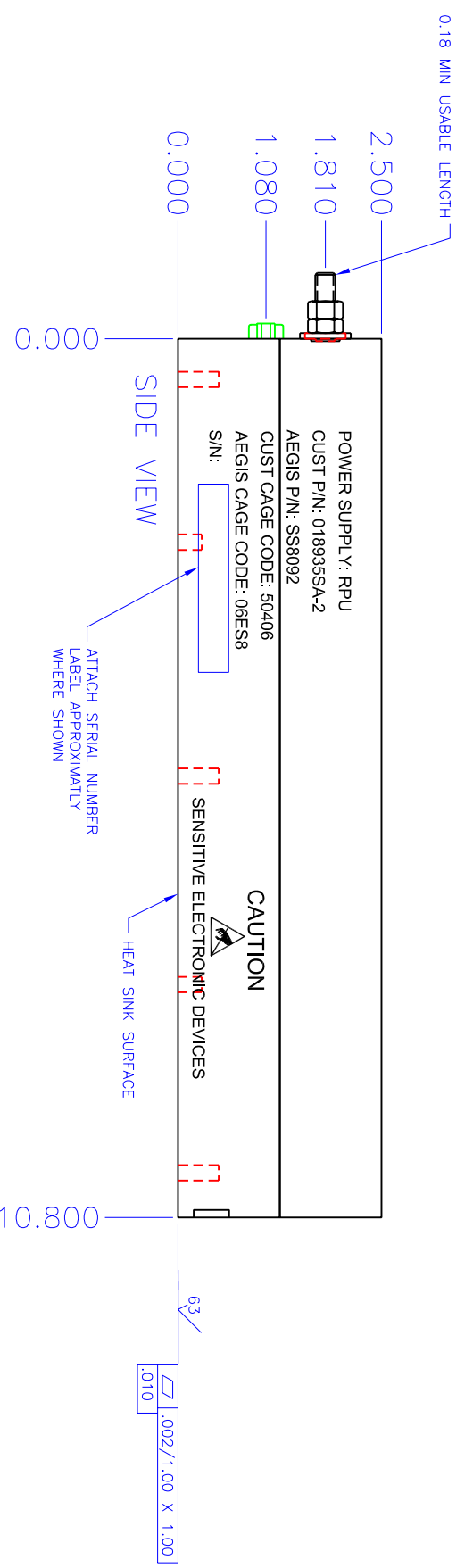
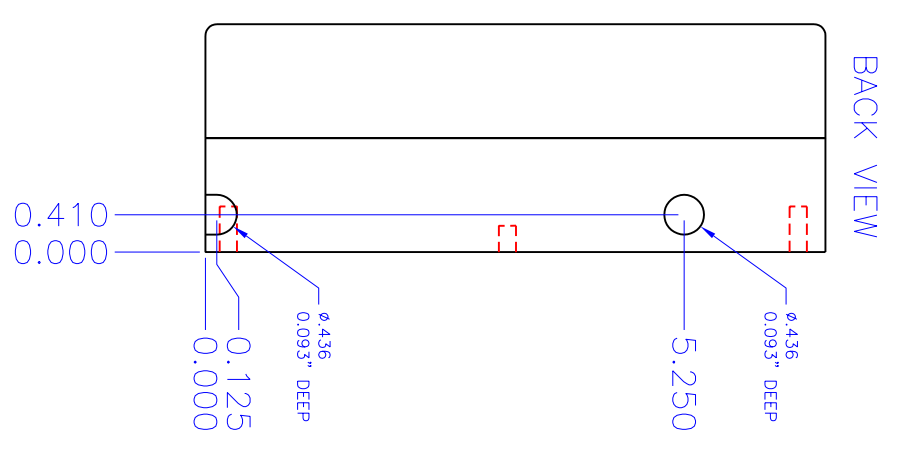
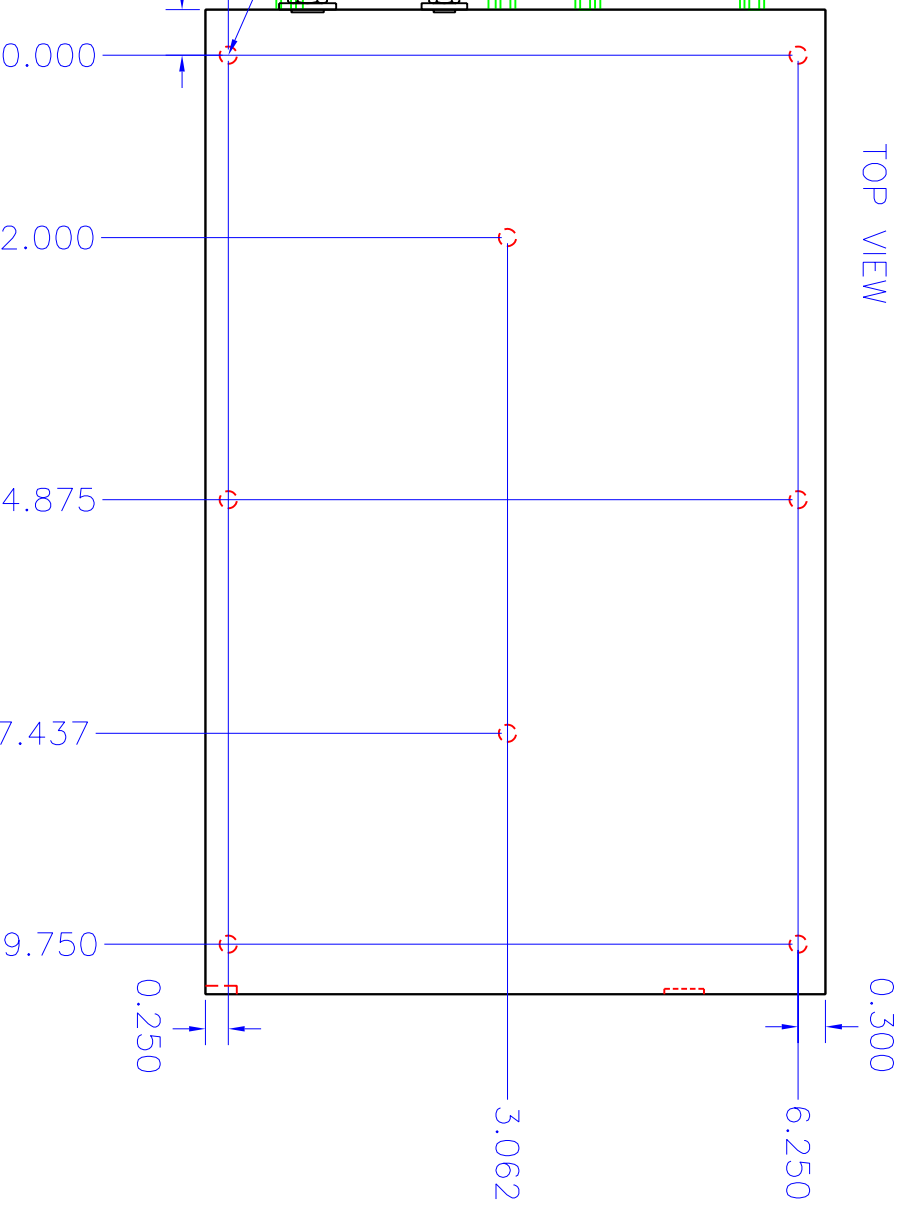
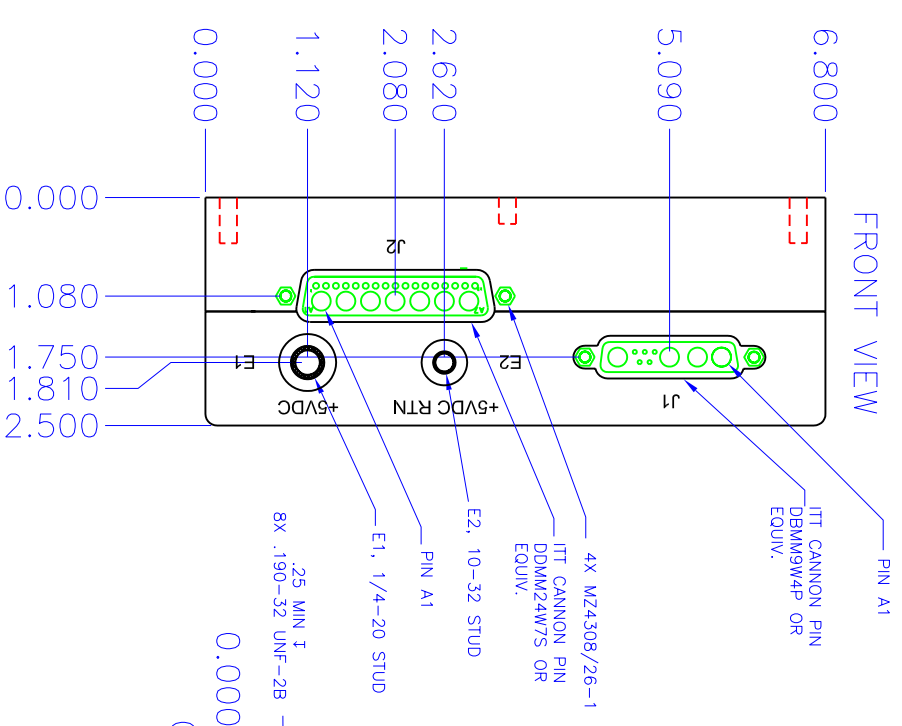
- (1) Connect to -5.2Vdc Output.
- (2) Connect to -5.2Vdc RTN.
- (3) High = Normal, Low = Abnormal.

REVISIONS		DATE	APPROVED
ZONE	REV	DESCRIPTION	
B01	INITIAL	RELEASE	JFS
		06/10/05	

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. CASE MATERIAL: 6061-T651 ALUMINUM ALLOY PER QQ-A-250/11.
3. CASE FINISH: TINTED CHEMICAL DILM PER MIL-C-5541, CLASS 3.



- CONNECTOR PINOUT:
- J1 (INPUT)
 - A1 - LINE
 - A2 - NEUTRAL
 - A3 - N.C.
 - A4 - CHASSIS GND
 - PINS 1-5 - N.C.
 - J2 (OUTPUT)
 - A1 - -5.2VDC RTN
 - A2 - -5.2VDC RTN
 - A3 - -5.2VDC RTN
 - A4 - -5.2VDC RTN
 - A5 - -5.2VDC RTN
 - A6 - -5.2VDC RTN
 - A7 - N.C.
 - 1 - -5.2V SENSE + (CONNECT TO -5.2VDC OUT)
 - 2 - -5.2V SENSE - (CONNECT TO -5.2VDC RTN)
 - 3 - STATUS (HIGH = NORMAL, LOW = ABNORMAL)
 - 4 - STATUS RTN (+5VDC RTN)
 - 5 - N.C.
 - 6 - N.C.
 - 7 - N.C.
 - 8 - +5VDC SENSE +
 - 9 - +5VDC SENSE -
 - 10 - N.C.
 - 11 - +12VDC RTN
 - 12 - +12VDC RTN
 - 13 - N.C.
 - 14 - -12VDC RTN
 - 15 - -12VDC RTN
 - 16 - N.C.
 - 17 - N.C.
- LUG (OUTPUT)
- E1 - +5VDC
 - E2 - +5VDC RTN

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES	TOLERANCES ARE:	DECIMALS	FRACTIONS
± N/A	± .02	± .5	± .005

CONTRACT NO.	DATE	TITLE
	06/10/05	SS8092 MOUNTING INFO

APPROVALS	DATE	APPROVED
DRAWN J. SCHREIBER	06/10/05	
CHECKED		
PROJ. ENG.		
WFG.		
QUALITY		

SIZE	FRSCH NO.	DWG NO.	REV
D	06ES8	SS8092-M01	B01

SCALE 1/1 SHEET 1 OF 1

AEGIS POWER SYSTEMS
MURPHY, NORTH CAROLINA