

## SS8095

### AC-DC Power Supply

(Document Rev AA02 11/03/2015)



**Single Phase 60Hz 115Vac Input  
Quad Output, 431W Max Total**

**Market: Military (Mil-Cots)**

**Application: Shipboard Electronic Equipment Rack**

#### Features

- 115/220Vac: MIL-STD-1399\*
- Quad Output, 431W
- 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	431	W	
Input power	577	W	
+5Vdc output	255	W	
-5.2Vdc output	104	W	
+12Vdc output	36	W	
-12Vdc output	36	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 431W 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 SS8095 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, telecom, 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.)**

<b>Input voltage:</b>	105Vac to 125Vac, 57Hz to 63Hz. Designed to meet MIL-STD-1399 Section 300A/B Type I 60Hz.
<b>Input current:</b>	5.5A Max.
<b>Input power:</b>	625W @ 115Vac typical.
<b>Power factor:</b>	0.99 Minimum
<b>Output power:</b>	431W Max. See Table 2.
<b>Holdup time:</b>	Contact Aegis.
<b>Output voltages:</b>	See table 2 for details.
<b>Efficiency:</b>	69% minimum.
<b>Output ripple:</b>	See table 2.
<b>Current Limit:</b>	Short circuit protected with automatic recovery.
<b>Start up time:</b>	Contact Aegis.
<b>Voltage set point:</b>	Contact Aegis.
<b>Line/Load regulation:</b>	± 2.0% for 5Vdc and 5.2Vdc, ± 1.0% for +12Vdc and -12Vdc.
<b>Temperature regulation:</b>	± 2.0% for 5Vdc and 5.2Vdc, ± 1.0% for +12Vdc and -12Vdc.
<b>Temperature:</b>	+0°C to +80°C Operating baseplate temperature max. -55°C to +85°C Non-Operational.
<b>Cooling:</b>	Conduction through base plate.
<b>Package:</b>	Enclosed ruggedized case.
<b>Dimensions:</b>	6.8" W x 2.5" H x 10.8" L (see mechanical drawing).
<b>Weight:</b>	<9.5 lbs.
<b>Connector:</b>	J1 Cannon DBMM9W4P; J2 Cannon DDMM24W7S; E1 & E2 10-32 Stud.
<b>Vibration:</b>	Designed to meet portions of Mil-Std-167.
<b>Shock:</b>	Designed to meet portions of Mil-S-901.
<b>Humidity:</b>	0 – 95% non-condensing.
<b>EMI:</b>	Designed to meet portions of MIL-STD-461E (CE101, CE102, RE101, & RE102).

Specifications subject to change without notice.

**Table 2: Voltage Outputs**

<b>SS8095</b>	<b>V1</b>	<b>V2</b>	<b>V3</b>	<b>V4</b>
Voltage	+5Vdc	-5.2Vdc	+12Vdc	-12Vdc
Current	51A	20A	3A	3A
Power	255W	104W	36W	36W
Ripple	150Vpk-pk	150Vpk-pk	150Vpk-pk	150Vpk-pk

**Connector Pin Assignments**

**J1 Input Connector**

ITT Cannon DBMM9W4P

<b>Pins</b>	<b>Description</b>
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

<b>Stud</b>	<b>Description</b>
<b>E1</b>	<b>+5Vdc</b>
<b>E2</b>	<b>+5Vdc RTN</b>

**J2 Output Connector**

ITT Cannon DDMM24W7S

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

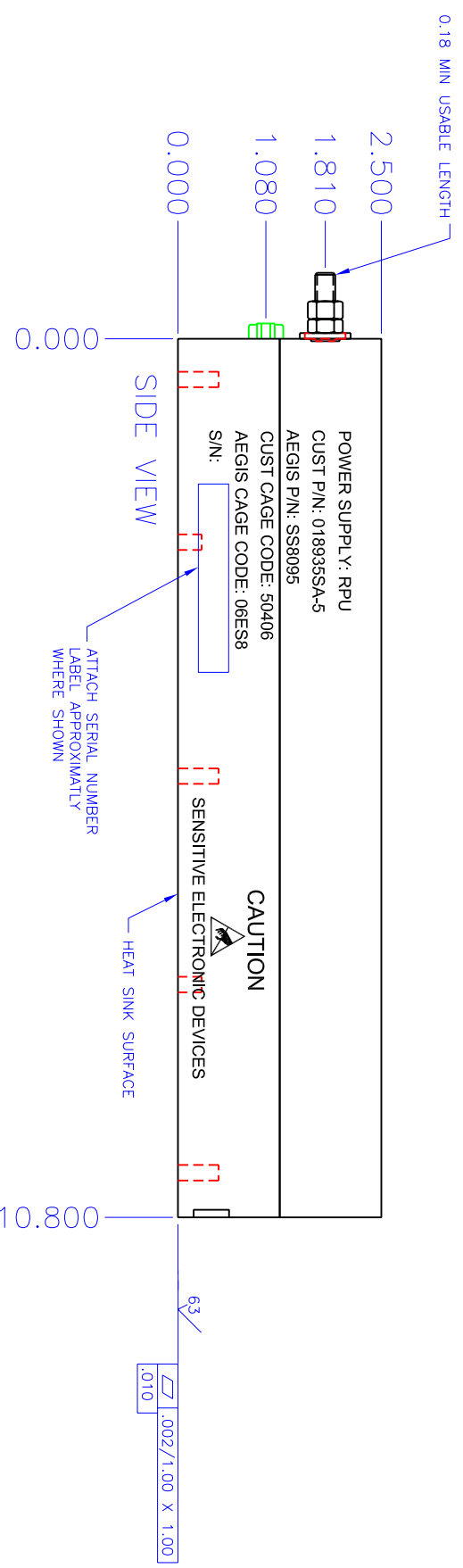
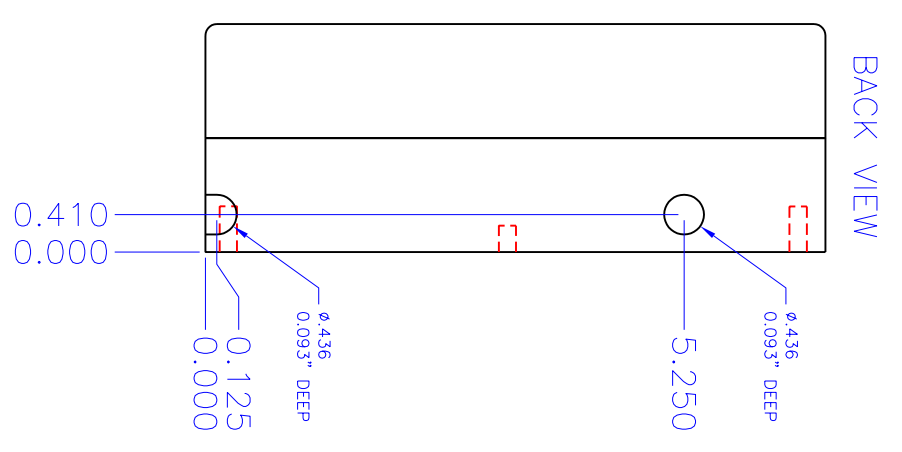
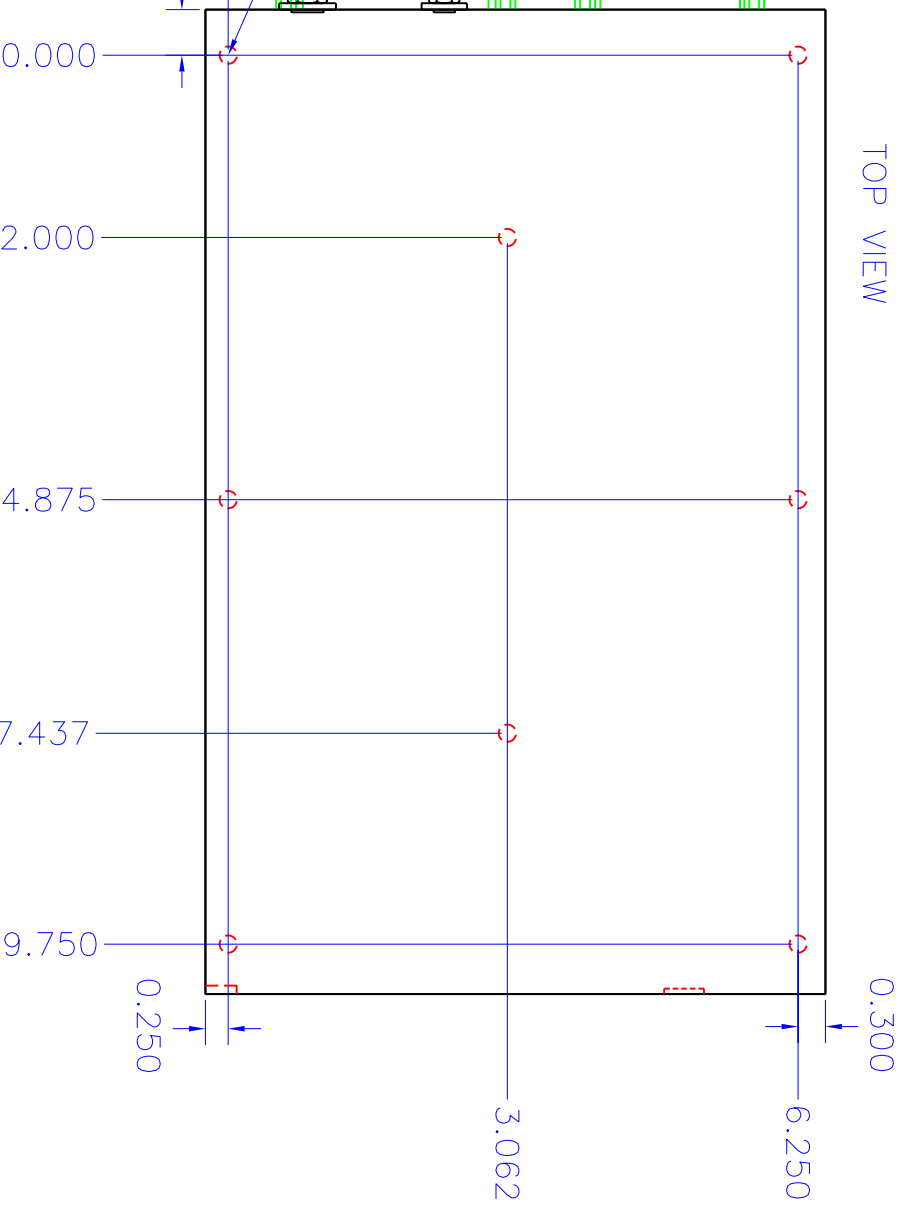
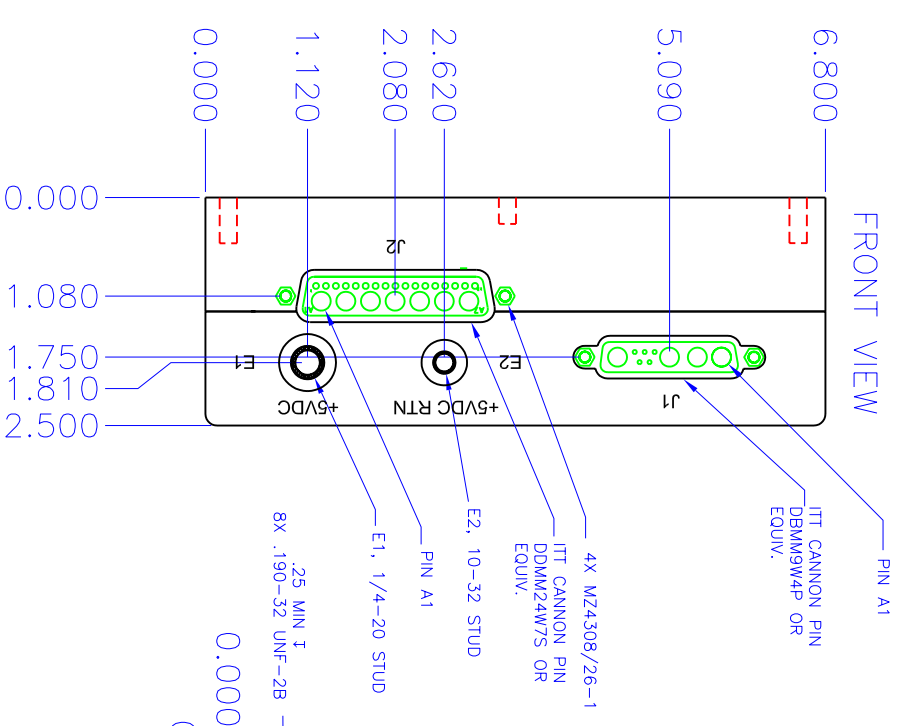
**Notes:**

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

REVISIONS		DATE	APPROVED
ZONE	REV	DESCRIPTION	
A01	INITIAL	RELEASE	JFS
		04/23/08	

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 SENSE (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 ± N/A, .XX ± .02, .XXX ± .005		CONTRACT NO.		TITLE	
REACTIONS	DECIMALS	DECIMALS	DECIMALS	DATE	DESCRIPTION
± N/A	.XX ± .02	.XXX ± .005	± .5	04/23/08	SS8095 MOUNTING INFO
MATERIAL	FINISH	DRAWN	CHECKED	DATE	APPROVED
		J. SCHREIBER		04/23/08	
PREP. ENG.	WFG.				
HEAT ASST	USED ON				
APPLICATION	DO NOT SCALE DRAWING				
AEGIS POWER SYSTEMS MURPHY, NORTH CAROLINA		DWG NO.		REV	
SS8095 MOUNTING INFO		SS8095-M01		A01	
SCALE 1/1		SHEET 1 OF 1			