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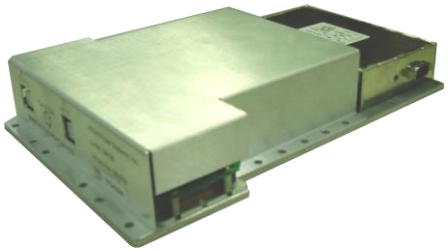
SS2703

AC-DC / DC-DC
Power Supply Unit

(Document Rev A01, 6/14/18)



Single Phase 115/220Vac Input
+25VDC-+28VDC Input

Single Output, 375W Max

Features

- 115/220Vac per MIL-STD-704E*
- 25-28VDC per MIL-STD-704E*
- MIL-STD-810F Environmental *****
- MIL-STD-461E EMI *****
- Conduction Cooled

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

Table 1: Maximum Ratings

Parameter	Rating	Unit	Notes
Vin max range	95 - 264	Vac	
Temperature	–40 to +71	°C	100% Load
Output Power	375	W	28Vdc Output
Input power	500	W	115Vac Input
Max +28Vdc power	375	W	13.4A

Product Highlights

This military COTS power supply solution is designed to meet applicable portions of: MIL-STD-704F, MIL-STD-810F vibration and shock requirements, and MIL-STD-461E EMI requirements. When compared to other power supplies using conventional technology, this conduction cooled ac-dc power supply converter provides users with higher efficiency, lower weight, and higher power.

Aegis Power Systems, Inc. specializes in the front end design, development, and manufacture of Rapid Response Custom Switching Power Supplies for COTS, defense, industrial, telecom, aircraft, shipboard, rack mount, and electric powered vehicle applications. Contact Aegis Power Systems, Inc. for details on Mil-Specs that this product is designed to meet.

SPECIFICATIONS

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

Input voltage:	95Vac - 265Vac, 47Hz - 440Hz. Transient 70Vac to 270Vac, 100mSec. Designed to meet MIL-STD-704F Normal and Abnormal Range.
Input line current:	16A @ +28VDC, 4.4A @ 115Vac, 2.3A @ 220Vac.
Input power:	446W @ +28VDC, 500W @ 115Vac, 500W @ 220Vac, Typical.
Power Factor:	0.99 Typical @ 47Hz - 63Hz.
Output power:	375W Max.
Holdup Time:	50mSec Typical.
Output voltages:	See table 2.
Output ripple:	See table 2.
Current Limit:	Short circuit protected with automatic recovery.
Efficiency:	84% +28VDC, 75%/115VAC, 75%/220VAC, Typical at full load.
Start up time:	500 mSec. Max.
Voltage set point:	±2.5%.
Line regulation:	± 2.5%.
Load regulation:	± 2.5%.
Temperature regulation:	± 0.01% / °C.
Temperature rating:	–40°C to +71°C Operating baseplate temperature max.
Cooling:	Conduction through baseplate attached to customer cold plate.
Package:	Enclosed with baseplate
Dimensions:	(see mechanical drawing on last page).
Weight:	5.8 lbs. Typical.
Connector:	See Mechanical Drawing
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-461E (CE102 and CS101).

Specifications subject to change without notice.

Table 2: Voltage Outputs

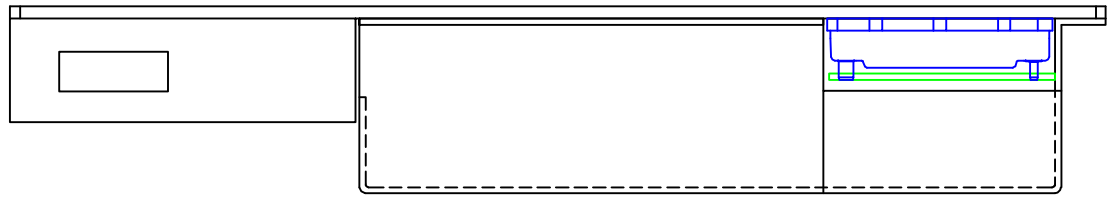
Part Number	Vdc out	Watts out	Amps out	Ripple (20MHz BW)
SS2703	+28V	375W	13.4A	280mVp-p

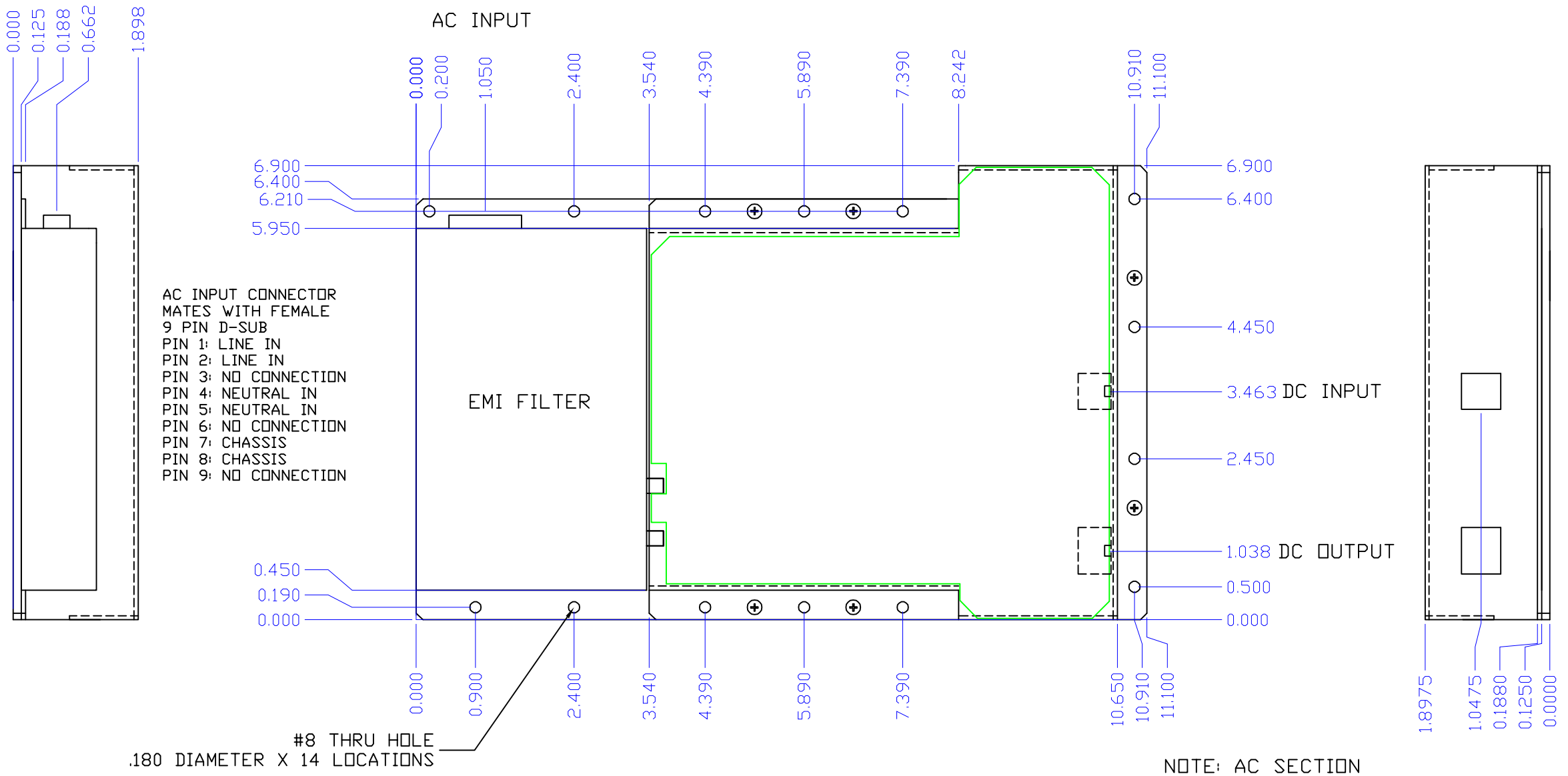
DWG NO.	SH	REV

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A01	INITIAL RELEASE	03-02-07	MVS
	A04	LAYOUT UPDATE	03-27-07	MRA
	A05	ADD 4-40 HOLE IN SIDE	04-03-07	MRA

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



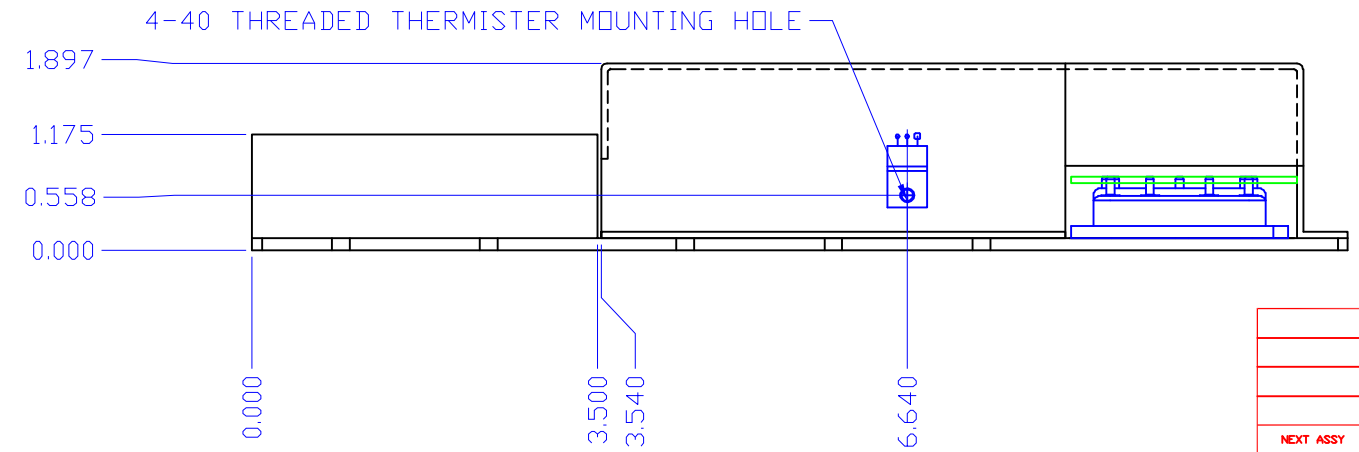


AC INPUT CONNECTOR
MATES WITH FEMALE
9 PIN D-SUB
PIN 1: LINE IN
PIN 2: LINE IN
PIN 3: NO CONNECTION
PIN 4: NEUTRAL IN
PIN 5: NEUTRAL IN
PIN 6: NO CONNECTION
PIN 7: CHASSIS
PIN 8: CHASSIS
PIN 9: NO CONNECTION

DC INPUT CONNECTOR
MATES WITH MOLEX 39-01-2065
PIN 1: +28VDC IN
PIN 2: +28VDC IN
PIN 3: +28VDC IN
PIN 4: +28VDC IN RTN
PIN 5: +28VDC IN RTN
PIN 6: +28VDC IN RTN

DC OUTPUT CONNECTOR
MATES WITH MOLEX 39-01-2085
PIN 1: +28VDC OUT
PIN 2: +28VDC OUT
PIN 3: +28VDC OUT
PIN 4: OUTPUT POWER OK
PIN 5: +28VDC OUT RTN
PIN 6: +28VDC OUT RTN
PIN 7: +28VDC OUT RTN
PIN 8: HAM AC POWER OK

USE MOLEX MINIFIT HCS CRIMP TERMINAL 44476-3112 (HIGH CURRENT SERIES)



NOTE: AC SECTION COMPLETELY COVERED - DC SECTION PARTIALLY COVERED

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

MATERIAL: SEE NOTE 2

FINISH: SEE NOTE 3

DO NOT SCALE DRAWING

NEXT ASSY | USED ON

APPLICATION

CONTRACT NO.

APPROVALS	DATE
DRAWN MVS	3/2/2007
CHECKED	
PROJ. ENG.	
MFG.	
QUALITY	

AEGIS POWER SYSTEMS
MURPHY, NORTH CAROLINA

TITLE: SS2703 MECHANICAL LAYOUT

AEGIS P/N: SS2703

SIZE	FSCM NO.	DWG NO.	REV
D	06ES8	SS2703-M00	A05

SCALE 1/1 SHEET 1 OF 1