

Aegis Power Solution

DC270

**VME
Power Converter**

(Rev A03, 06/08/10)



270VDC input 500W Output with 1 to 4 Outputs

Specifications: (25°C, nominal line, 100% load unless otherwise specified).

<u>DC Input Voltage:</u>	Mil-Std-704F Normal, abnormal, and transient range Normal 250VDC to 280VDC Transient 200 VDC to 330VDC per Fig. 16 Abnormal Overvoltage 350VDC per Fig. 17 Abnormal Undervoltage Shutdown and Restart
<u>DC Input Current:</u>	2.5A @ 500W output and 250VDC input
<u>Input Power:</u>	605W maximum with 500W output
<u>Input Surge Current:</u>	Less than 5X nominal input current
<u>Safety:</u>	During an Input open circuit, input voltage decays to less than or equal to 30VDC within 1 second
<u>Output Power:</u>	500W Maximum all outputs combined
<u>Number of outputs:</u>	1 to 4
<u>Output Voltages:</u>	See Table 1
<u>Efficiency:</u>	83% typical
<u>Startup Time:</u>	500 millisecond Maximum
<u>Voltage Setpoint, Line/Load Regulation:</u>	+/- 2.5% (any combination)
<u>Current Limit:</u>	Outputs are Short Circuit protected, automatic recovery
<u>Temperature Regulation:</u>	+/-0.01% per°C



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Output Voltage Ripple: 1% Vout, except 3.3Vout is 1.52% (pk-pk 20 MHz BW limit)

Baseplate Cooling temperature at Wedgelocks

-40⁰ C to 75⁰ C Operating 500W

-40⁰ C to 85⁰ C Operating 450W

-50⁰ C to 100⁰ C Non Operating

Size: 6U x 160mm x 5hp(1”) see mechanical drawing

Weight: 3.25 lb. typical

Connector: Positronic, PCIM30W15M400A1

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-461E, CE102, CS101

ESD: Tested per IEC61000-4-2

Monitor: Power OK, Vin OK, OverTemp, Overload

Control: Power Out Reset

Table 1

Part Order Number	# Out	Output V1	Output V2	Output V3	Output V4	Max Power
DC270-001	1	28VDC 500W				500W 75°C
DC270-002	1	48VDC 500W				500W 75°C
DC270-003	1	12VDC 500W				500W 75°C
DC270-004	4	+5VDC 200W	+3.3VDC 150W	+12VDC 75W	-12VDC 75W	500W 75°C
DC270-005	4	+5VDC 200W	+12VDC 150W	+3.3VDC 75W	-12VDC 75W	500W 75°C

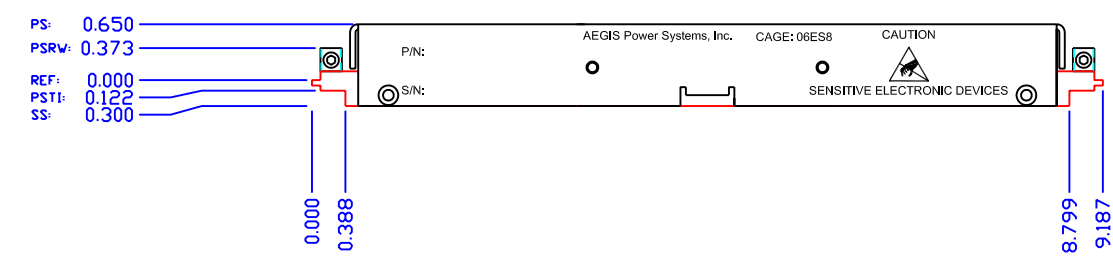
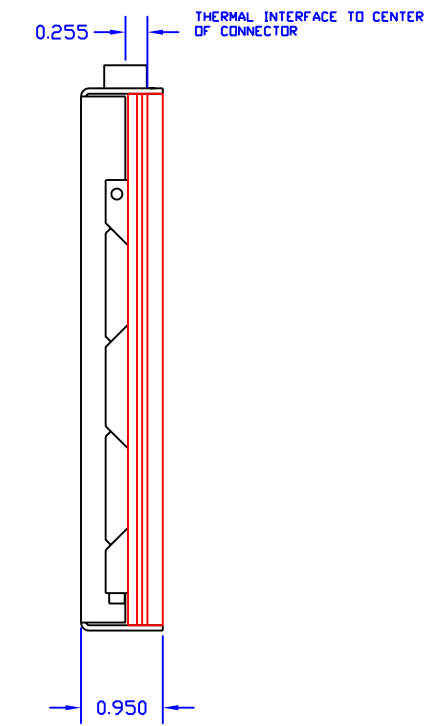
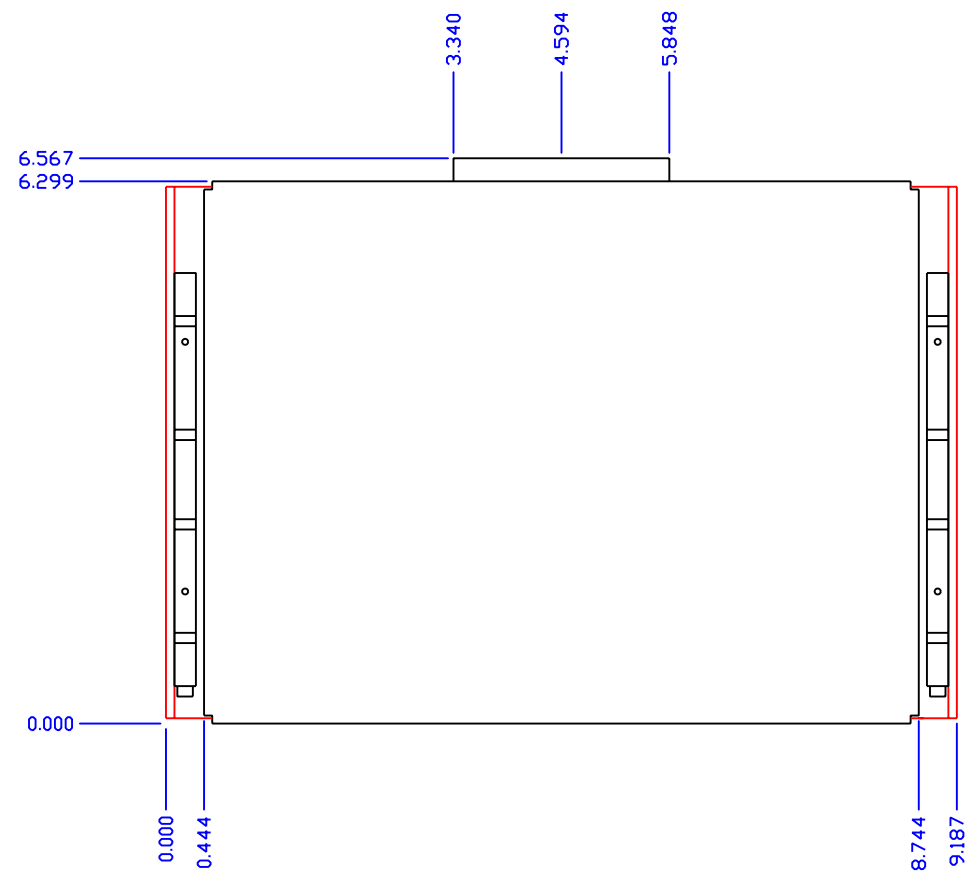
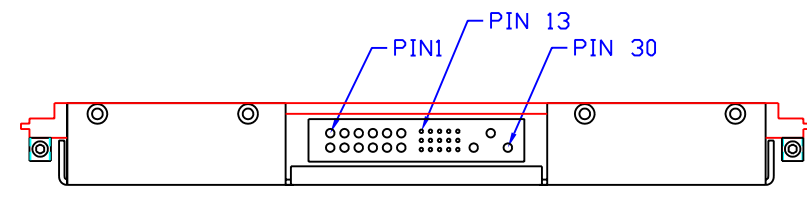
DVG NO.		SH	REV	1	
REVISIONS					
ZONE	REV	DESCRIPTION		DATE	APPROVED
	A01	INITIAL RELEASE		11/04/09	MVM

NOTES: UNLESS OTHERWISE SPECIFIED

- TYPE 1, 6U PLUG-IN UNIT - PRIMARY SIDE RETAINER. 1.00 INCH PITCH. (FIGURE 10 OF VITA 48.2, 12/26/07)
- CONNECTOR POSITRONIC PCIM30W15M400A1
- PIN1-12 = 28AMP RATING, PIN13-27 = 3AMP RATING, PIN28,29 AND 30 = 40AMP RATING

- J1-1 - V1 RETURN
- J1-2 - V2 RETURN
- J1-3 - V1 RETURN
- J1-4 - V2 RETURN
- J1-5 - V1 RETURN
- J1-6 - V3 RETURN
- J1-7 - V1 +OUT
- J1-8 - V2 +OUT
- J1-9 - V1 +OUT
- J1-10 - V2 +OUT
- J1-11 - V1 +OUT
- J1-12 - V3 +OUT
- J1-13 - V4 RETURN
- J1-14 - V4 +OUT
- J1-15 - V1 +SENSE
- J1-16 - V1 SHARE+
- J1-17 - V1 SHARE-
- J1-18 - V1 -SENSE
- J1-19 - PDK (POWER DK)
- J1-20 - VDK (VIN DK)
- J1-21 - DT (OVERTEMP)
- J1-22 - DL (OVERLOAD)
- J1-23 - PDR (POWER OUT RESET)
- J1-24 - V2 SHARE+
- J1-25 - V2 SHARE-
- J1-26 - V2 -SENSE
- J1-27 - V2 +SENSE
- J1-28 - CHASSIS
- J1-29 - NEUTRAL
- J1-30 - LINE

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



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

APPLICATION	NEXT ASSY	USED ON

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CONTRACT NO.		AEGIS POWER SYSTEMS MURPHY, NORTH CAROLINA	
APPROVALS	DATE	TITLE	
DRAWN MVM	11/04/09	VME 270VDC 375W MECHANICAL LAYOUT	
CHECKED		AEGIS P/N: DC270	
PROJ. ENG.		SIZE	FSCM NO.
MFG		D	06ES8
QUALITY		DWG NO.	DC270-M00
		SCALE	1/1
		REV	A01
		SHEET 1 OF 1	