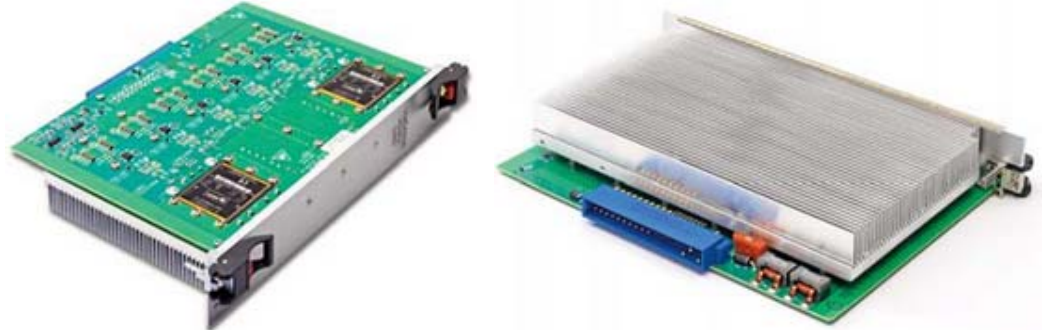


## Aegis Power Solution

### VME400A-01

**VME  
Power Converter**

(Rev A02, 06/08/10)



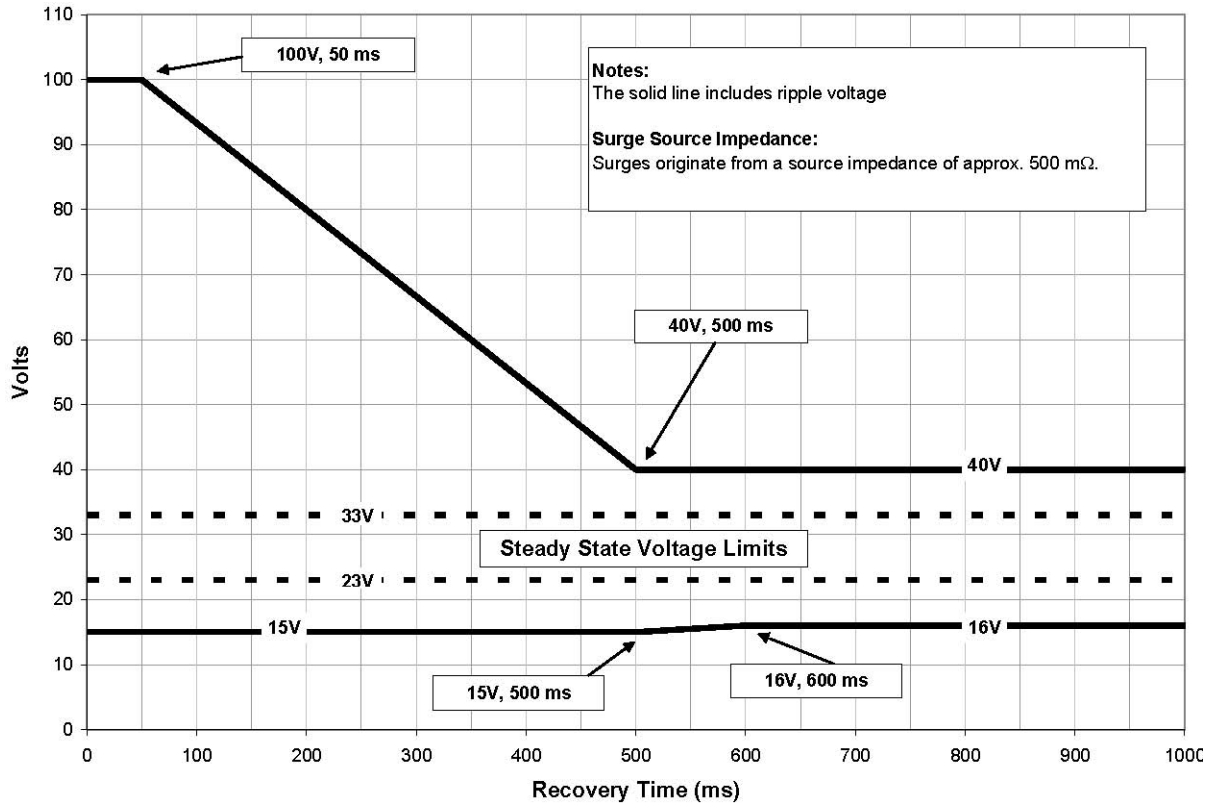
**28VDCin, 4 DC Output, 400W VME Power Card**

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

<b><u>DC Input Voltage:</u></b>	18VDC to 36VDC Operating Range. Meets Mil-Std-704E/F and MIL-STD-1275D continuous operation. 22VDC to 33VDC, 28VDC nominal. 100VDC 50msec transient.
<b><u>DC Input Line Current:</u></b>	21.41A Max @ 22VDC, 16.82A Typ @ 28VDC (400 Wout.)
<b><u>Input Power:</u></b>	471W maximum @ 400 Wout.
<b><u>Output Power:</u></b>	<b>400W Max, all outputs combined.</b>
<b><u>Output Voltages:</u></b>	+5VDC 22.4A, 112W. +3.3VDC 33.9A, 112W. +12VDC 9.3A, 112W. -12VDC 9.3A, 112W.
<b><u>Efficiency:</u></b>	85% Min. 87% Typical.
<b><u>Startup Time:</u></b>	500 millisecond Maximum.
<b><u>Voltage Setpoint, Line/Load Regulation:</u></b>	+/- 2% Vout nominal (for any combination).
<b><u>Output Ripple:</u></b>	50mV pk-pk Max. (20MHz BW) all except +/-12VDC 100mV pk-pk Max. (20MHz BW).
<b><u>Current Limit:</u></b>	Short Circuit protected, automatic recovery.
<b><u>Temperature:</u></b>	-40°C to +85°C Operating baseplate wedgelocks 400 Wout. With minimum 600LFM (800LFM recommend) Air Flow. -55°C to +100°C Non-operating.
<b><u>Size:</u></b>	6U x 160mm x 8hp (1.6").
<b><u>Weight:</u></b>	4.2lb. nominal.
<b><u>Connector:</u></b>	1ea Positronics PCIH47M400A1 or equivalent.
<b><u>Shock:</u></b>	Mil-Std-810F, Method 514.5, Procedure I.
<b><u>Vib:</u></b>	Mil-Std-810F, Method 516.5, Procedure I, Category 20.
<b><u>Humidity:</u></b>	0-95% non-condensing.
<b><u>EMI:</u></b>	Mil-Std-461E CE102, CS101.
<b><u>Options</u></b>	(add dash # to p/n above, example: VME400-xxx-103). -103 Conformal Coat, per IPC-CCC-830B, Type SR.

**Ordering Information: AEGIS P/N VME400A-01**

# Transient Immunity



Unit ride through 15V, 500ms @ 450W max. output power  
Unit shut down below 15V input, automatic restart

## VME400A-01 Backplane Connector Pin-out

<b>Pin</b>	<b>Description</b>
1	+5V Out
2	+5V Out
3	+5V Out
4	+5V Out
5	RTN
6	RTN
7	RTN
8	RTN
9	RTN
10	RTN
11	RTN
12	RTN
13	+3.3V Out
14	+3.3V Out
15	+3.3V Out
16	+3.3V Out
17	+12V Out
18	RTN
19	-12V Out
20	RTN
21	(AEGIS reserved – no connection on backplane)
22	POWER OK RTN
23	(AEGIS reserved – no connection on backplane)
24	(AEGIS reserved – no connection on backplane)
25	(AEGIS reserved – no connection on backplane)
26	(AEGIS reserved – no connection on backplane)
27	(AEGIS reserved – no connection on backplane)
28	(AEGIS reserved – no connection on backplane)
29	(AEGIS reserved – no connection on backplane)
30	(AEGIS reserved – no connection on backplane)
31	(AEGIS reserved – no connection on backplane)
32	(AEGIS reserved – no connection on backplane)
33	(AEGIS reserved – no connection on backplane)
34	(AEGIS reserved – no connection on backplane)
35	(AEGIS reserved – no connection on backplane)
36	(AEGIS reserved – no connection on backplane)
37	(AEGIS reserved – no connection on backplane)
38	(AEGIS reserved – no connection on backplane)
39	INHIBIT
40	(AEGIS reserved – no connection on backplane)
41	(AEGIS reserved – no connection on backplane)
42	POWER OK
43	(AEGIS reserved – no connection on backplane)
44	(AEGIS reserved – no connection on backplane)
45	CHASSIS GROUND
46	POSITIVE INPUT
47	NEGATIVE INPUT

ZONE	REV	DESCRIPTION	DATE	APPROVED
A01	INITIAL RELEASE	XX/XX/XX	JFS	
XXX	XXXX	XX/XX/XX	XXX	

REVISED

DWG NO

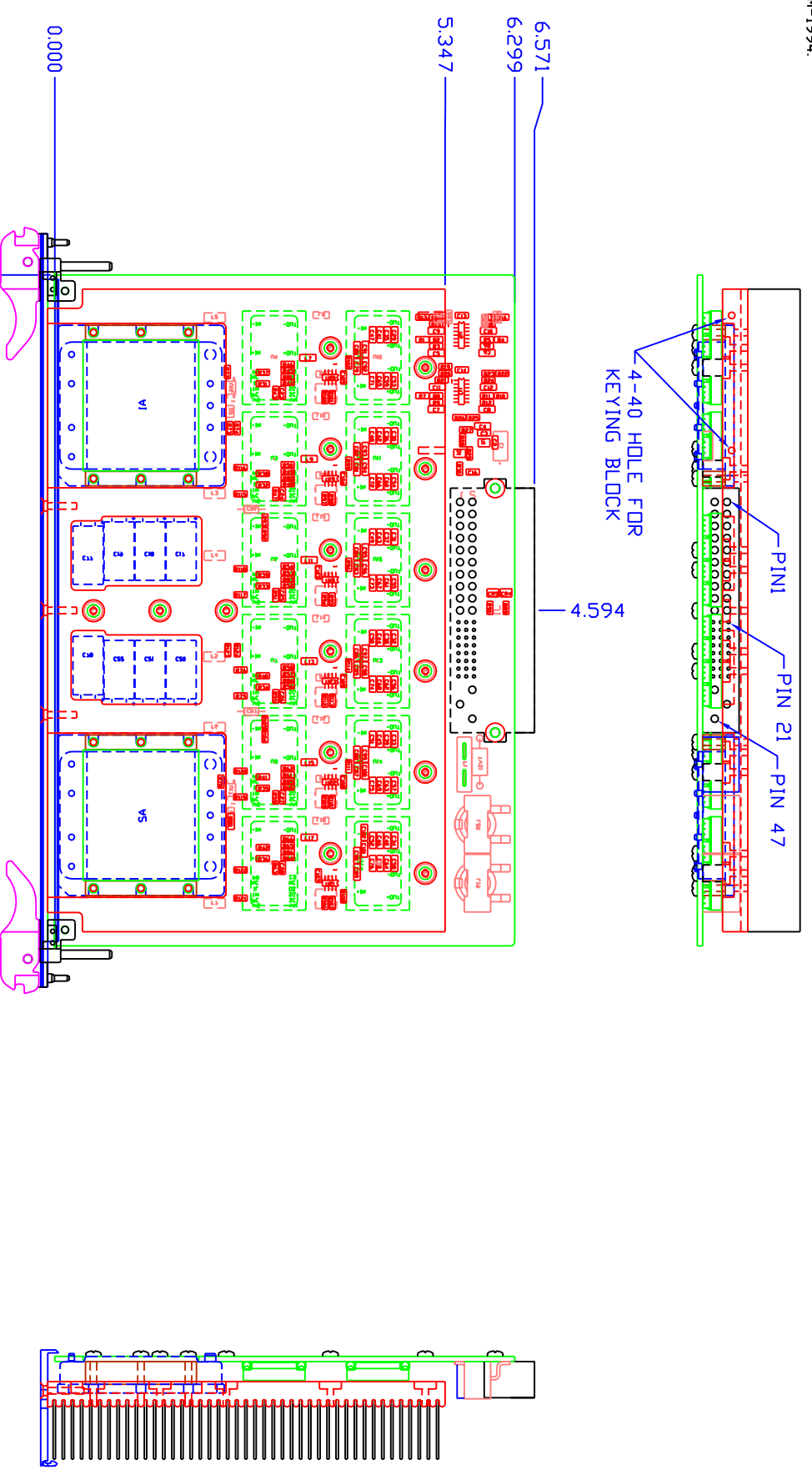
SH

REV

1

- NOTES: UNLESS OTHERWISE SPECIFIED
1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
  2. MATERIAL:
  3. FINISH:

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY



- CONNECTOR POSITIONIC P/N PCIH47M400A1, DR EQ.
- PINS 1, 2, 3, 4 - +5VDC
  - PINS 5, 6, 7, 8 - +5V RTN (COMMON)
  - PINS 9, 10, 11, 12 - +3.3V RTN (COMMON)
  - PINS 13, 14, 15, 16 - +3.3 VDC
  - PIN 17 - +12VDC
  - PIN 18 - +12V RTN (COMMON)
  - PIN 19 - -12VDC
  - PIN 20 - -12V RTN (COMMON)
  - PIN 21 - NC
  - PIN 22 - SIGNAL RTN (COMMON)
  - PINS 23, 24, 25, 26, 27, 28, 29 - NC
  - PIN 30 - NC
  - PIN 31 - NC
  - PIN 32 - NC
  - PIN 33, 34, 35, 36, 37, 38 - NC
  - PIN 39 - INHIBIT (CONNECTED TO NEG INPUT = DISABLED)
  - PINS 40, 41 - NC
  - PIN 42 - POWER OK, (OPEN COLLECTOR = FAIL)
  - PINS 43, 44 - NC
  - PIN 45 - CHASSIS GND
  - PIN 46 - POSITIVE INPUT
  - PIN 47 - NEGATIVE INPUT

<p>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. FRACTIONS DECIMALS DECIMALS</p> <p>* N/A    xx * 02    * 5</p> <p>MATERIAL    xxx * 005</p>		<p>CONTRACT NO</p> <p>APPROVALS</p> <p>DATE</p>		<p>TITLE</p> <p>AEGIS POWER SYSTEMS MURPHY, NORTI CAROLINA</p>	
<p>SEE NOTE 2</p>		<p>BROWN</p> <p>JFS 08/20/07</p>		<p>AEGIS P/N: VME450A</p>	
<p>SEE NOTE 3</p>		<p>FINISH</p> <p>PROJ ENG</p> <p>WFG</p>		<p>DWG NO</p> <p>VME450A-M00</p>	
<p>DO NOT SCALE DRAWING</p>		<p>QUALITY</p>		<p>SCALE 1/1</p> <p>SHEET 1 OF 1</p>	
<p>APPLICATION</p>		<p>USED ON</p>		<p>REV</p> <p>A01</p>	

8 7 6 5 4 3 2 1