

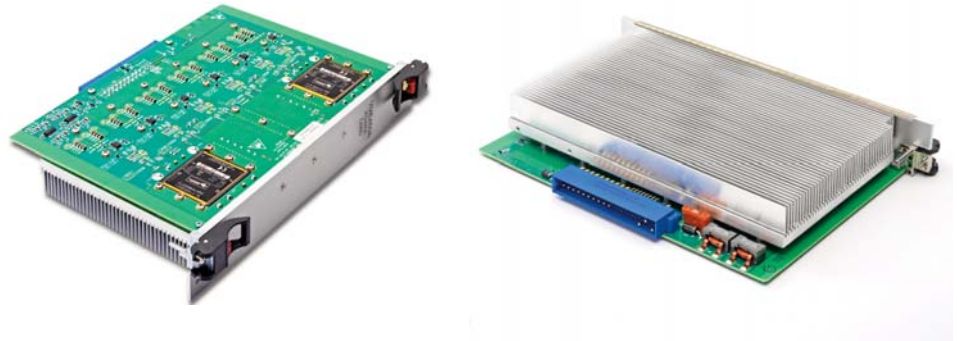
# Data Sheet

## VME450GA-01

### 28 Vdc VME Power Supply 4 Outputs, 550 W

#### Features

- 28 Vdc per MIL-STD-704A/F and MIL-STD-1275D
- 4 Output voltages, 550 W
- MIL-STD-810F environment
- MIL-STD-461E EMI
- Utilizes Vicor's cutting edge V•I Chips for industry leading power density
- Dual slot VME power supply



#### Product Highlights

The dual-slot VME450GA power supply — filtered 28 Vdc, four output (3.3, 5, ±12 V), 550 W — is a military COTS solution that is compliant to the vibration requirements of MIL-STD-810F and EMI per MIL-STD-461E. When compared to VME power supplies using conventional technology, the dual-slot VME450GA provides users with higher efficiency (85%), lower weight (4.4 pounds), and higher power (up to 550 W). Built with Vicor V•I Chips, it uses two M-FIAM modules, six PRMs and six VTMs.

Aegis Power Systems, a subsidiary of the Vicor Corporation, specializes in the design, development, and manufacture of rapid response custom switching power supplies and power systems for the defense industry.

#### Maximum Ratings

Parameter	Rating	Unit	Notes
Vin max range	18 to 36	Vdc	
Temperature	-40 to +85	°C	Use output derating Fig. 1
Combined output power	550	W	
Input power	650	W	@ 550 Wout
Max +5 V power	224	W	
Max +3.3 V power	224	W	
Max +12 V power	100	W	
Max -12 V power	100	W	

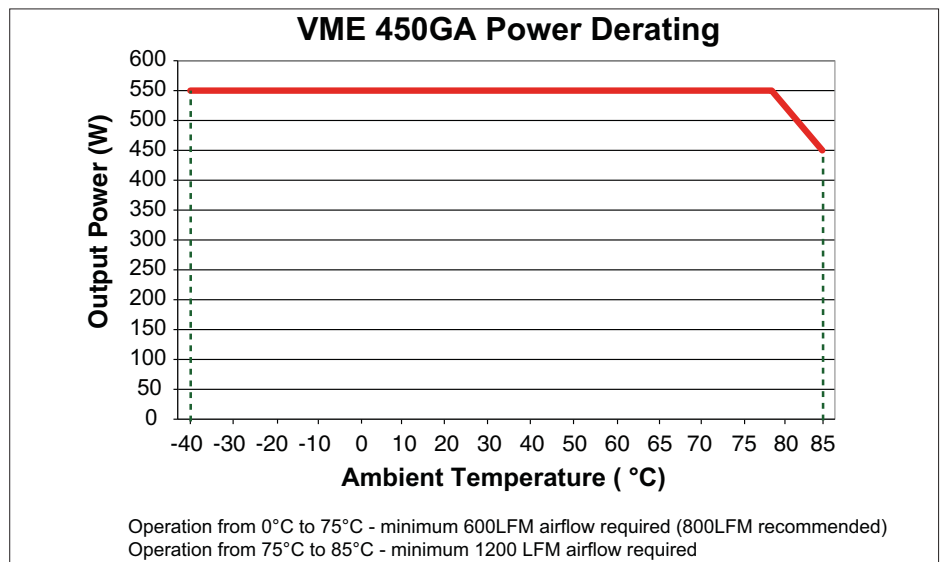


Fig. 1

## SPECIFICATIONS

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

### ■ SPECIFICATIONS

Parameters	Notes
DC input voltage	Meets MIL-STD-704A/F and MIL-STD-1275D, continuous operation normal range 22 Vdc to 33 Vdc, 28 Vdc nominal 100 Vdc 50 msec transient
DC input line current	24.1 A max. @ 22 Vdc; 18.7 A typical @ 28 Vdc input (450 Wout) 29.4 A max. @ 22 Vdc; 22.9 A typical @ 28 Vdc input (550 Wout)
Input power	529 W max @ 450 Wout, 650 W max @ 550 Wout
Output power	450 to 550 W max. all outputs combined (see Fig. 1)
Output voltages	See table 1
Efficiency	85% min., 86% typical
Start up time	500 ms. max.
Voltage set point, Line, Load regulation	+/- 2% Vout nominal (for any combination)
Temperature regulation	+/- 0.01% / °C
Output ripple	50 mV pk-pk Max. (20 MHz BW) all except; +/-12 Vdc 100 mV pk-pk Max. (20 MHz BW)
Current Limit	Short circuit protected, automatic recovery
Temperature	-40°C to +75°C Operating ambient 550 W (See Fig.1) -40°C to +85°C Operating ambient 450 W (See Fig.1) -55°C to +100°C Non-operating
Size /Weight	6U x 8hp x 160 mm (see mech drawing) / 4.4 lb. typical
Connector	1ea Positronics PCIH47M400A1 or equivalent (see drawing for pin assignments)
Vibration	MIL-STD-810F, Method 514.5, Procedure I
Shock	MIL-STD-810F, Method 516.5, Procedure I
Humidity	0 – 95% non-condensing
EMI	MIL-STD-461E, CE102, CS101

■ TABLE 1

VME450GA-xx	V1	V2	V3	V4
01	+5 Vdc 40 A 200 W	+3.3 Vdc 55 A 182 W	+12 Vdc 7.1 A 85 W	-12 Vdc 7.1 A 85 W

Output voltage variants are possible—contact your Vicor Sales Representative for details.

# SPECIFICATIONS

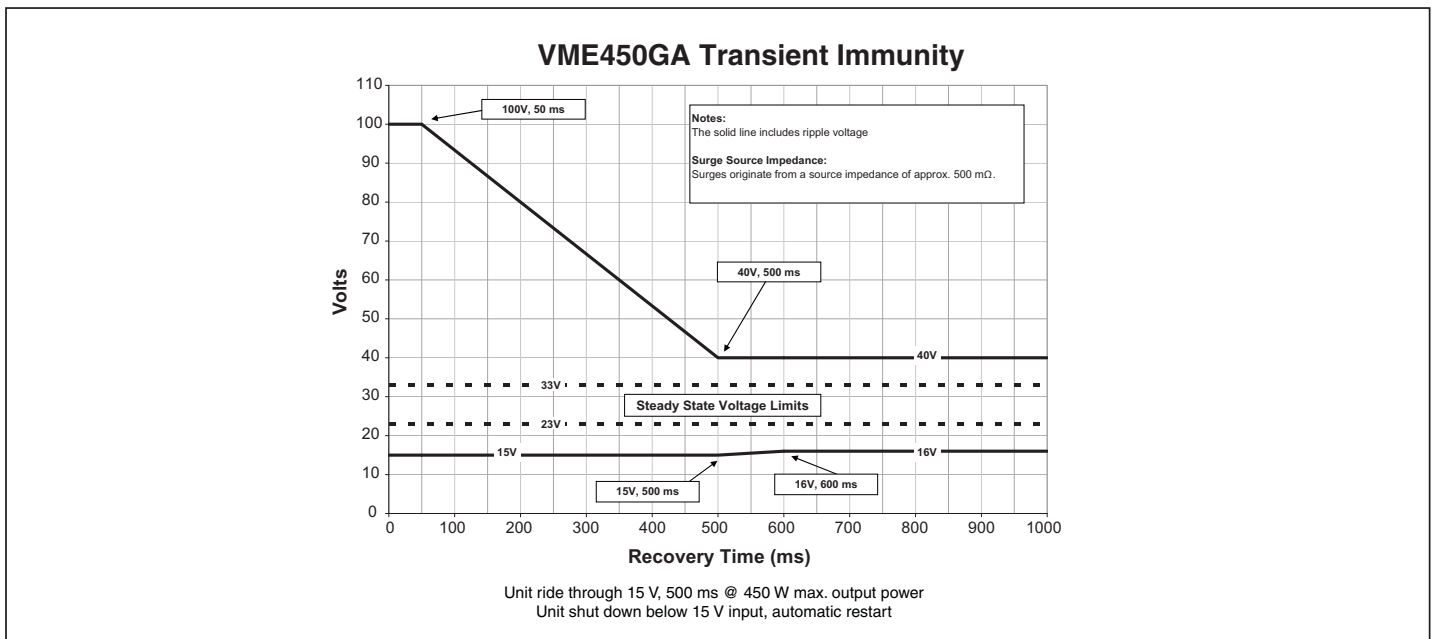


Fig.2 — VME 450GA Transient Immunity MIL-STD-1275D

## MECHANICAL DRAWING

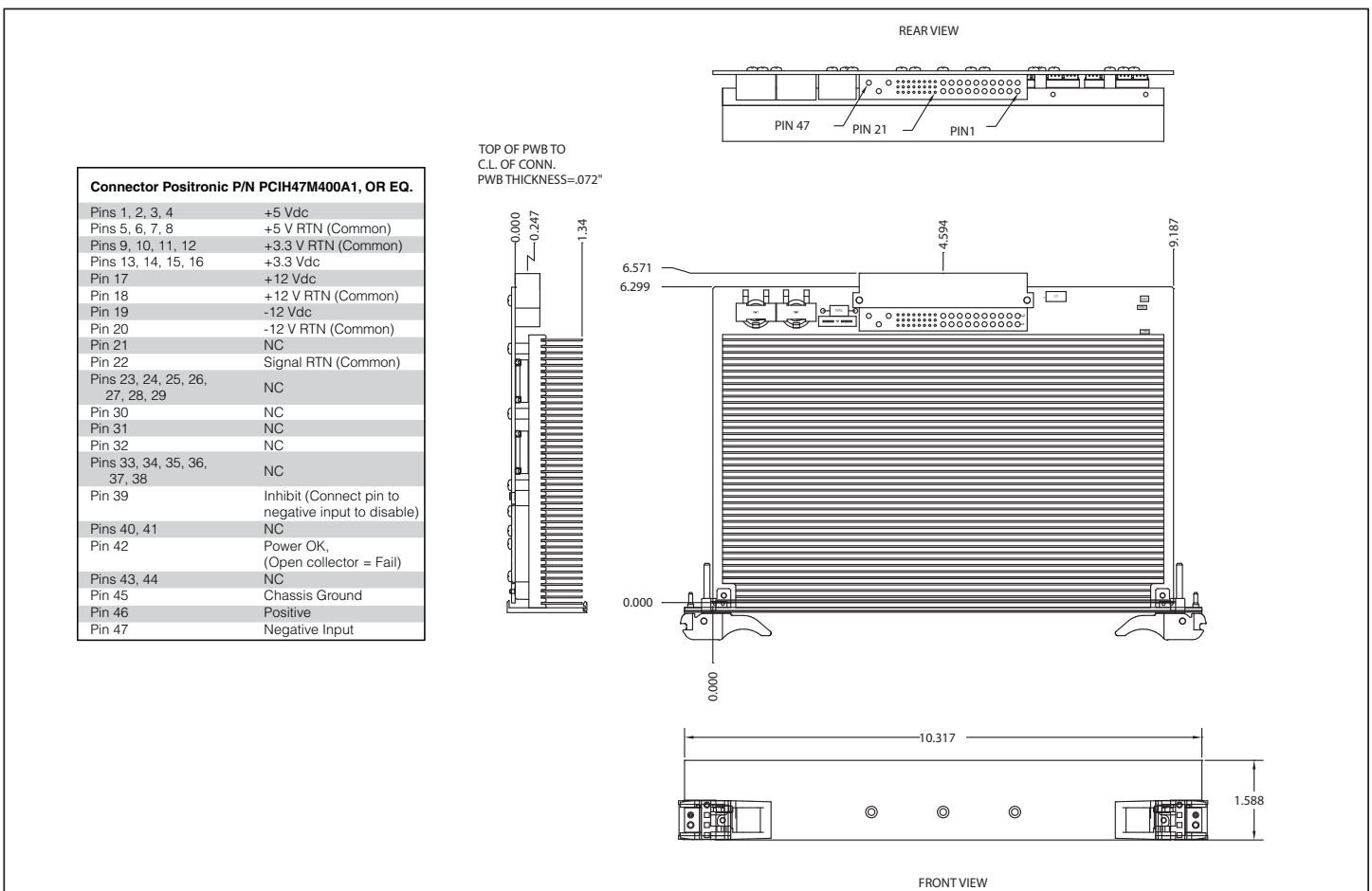


Table 2

## Warranty

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### **Aegis Power Systems, Inc.**

P.O. Box 429, 805 Greenlawn road  
Murphy, NC 28906-0429

#### **email**

sales@aegispower.com

### **Vicor Corporation**

25 Frontage Road  
Andover, MA 01810

#### **email**

Customer Service: custserv@vicorpower.com

Technical Support: apps@vicorpower.com

