

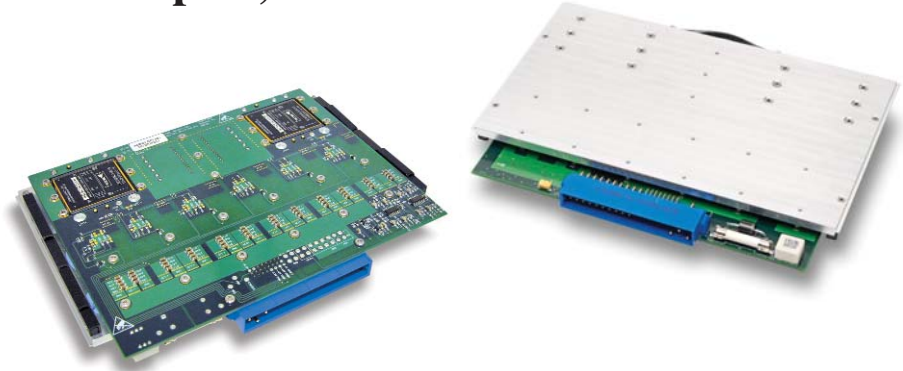
Data Sheet

VME450G-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
- Single slot VME power supply



Product Highlights

The single-slot VME450G 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 one-slot VME450G provides users with higher efficiency (85%), lower weight (2.4 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	

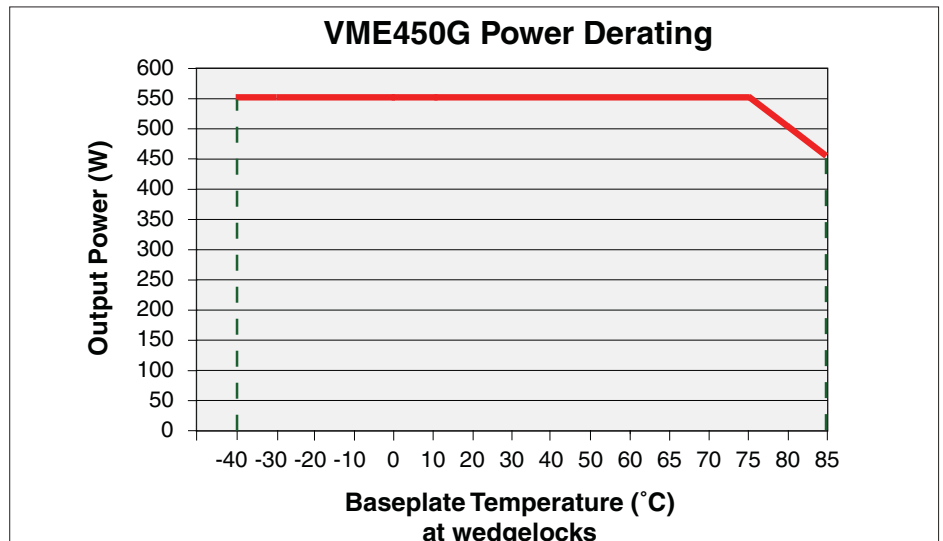


Fig. 1

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 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 baseplate wedgelocks 550 W -40°C to +85°C Operating baseplate wedgelocks 450 W -55°C to +100°C Non-operating
Size /Weight	6U x 4hp x 160 mm (see mech drawing) / 2.4 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

VME450G-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

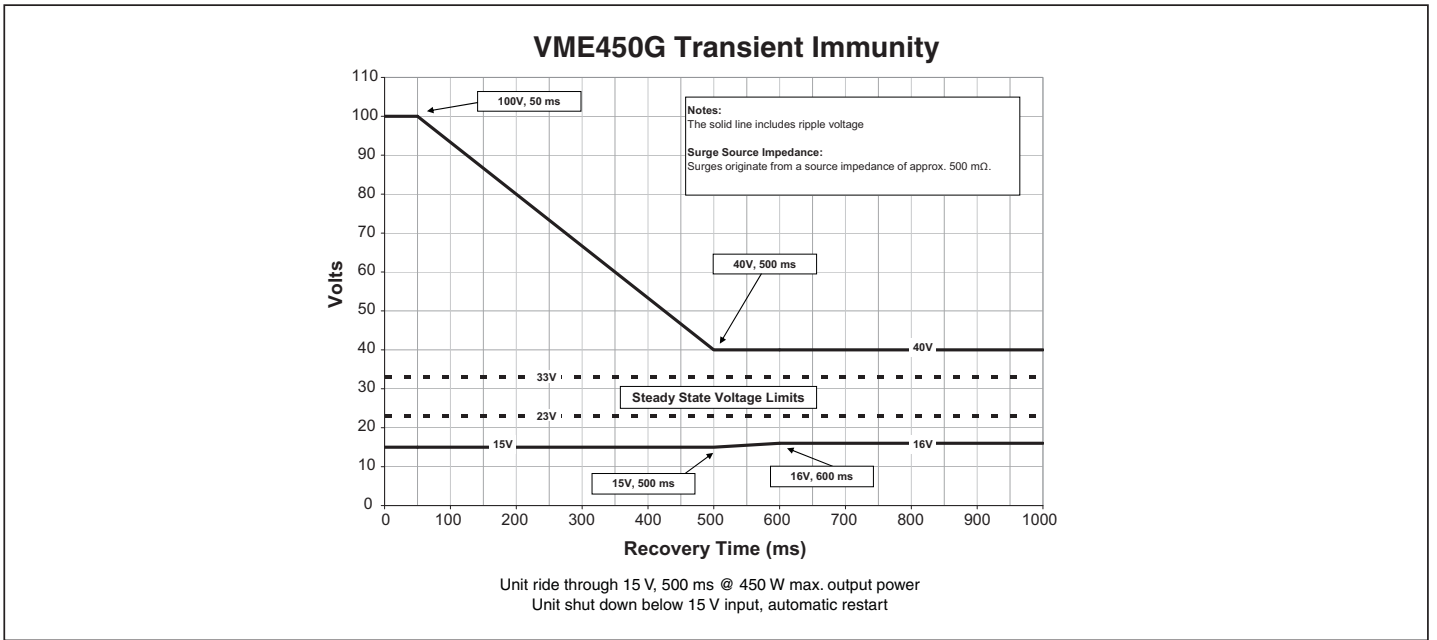


Fig.2 — VME 450G Transient Immunity MIL-STD-1275D

MECHANICAL DRAWING

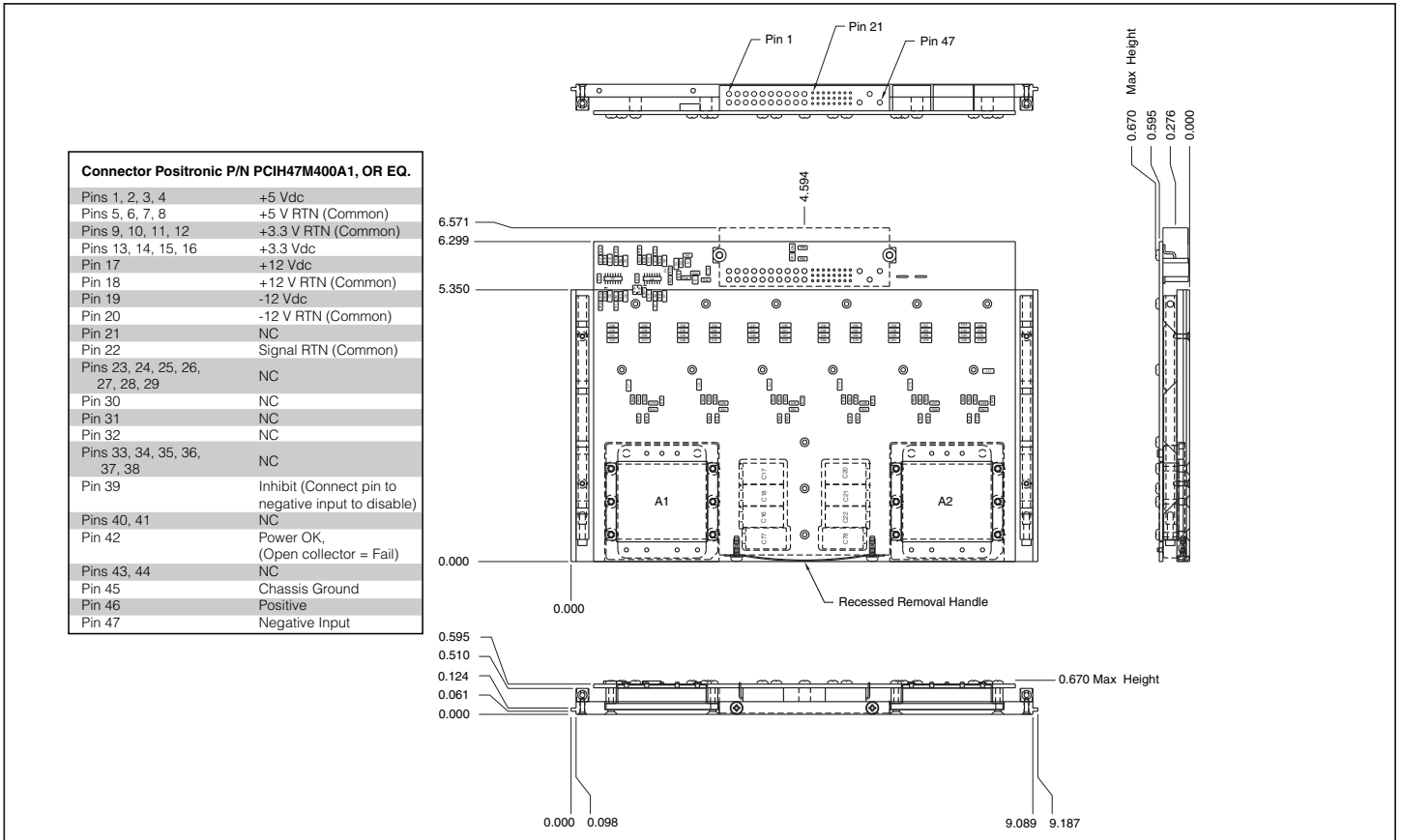


Table 2

Warranty

Aegis products are guaranteed for two years from date of shipment against defects in material or workmanship when in normal use and service. This warranty does not extend to products subjected to misuse, accident, or improper application or maintenance. Aegis shall not be liable for collateral or consequential damage. This warranty is extended to the original purchaser only.

EXCEPT FOR THE FOREGOING EXPRESS WARRANTY, AEGIS MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Aegis will repair or replace defective products in accordance with its own best judgement. For service under this warranty, the buyer must contact Aegis to obtain a Return Material Authorization (RMA) number and shipping instructions. Products returned without prior authorization will be returned to the buyer. The buyer will pay all charges incurred in returning the product to the factory. Aegis will pay all reshipment charges if the product was defective within the terms of this warranty.

Information published by Aegis has been carefully checked and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Aegis reserves the right to make changes to any products without further notice to improve reliability, function, or design. Aegis does not assume any liability arising out of the application or use of any product or circuit; neither does it convey any license under its patent rights nor the rights of others. Aegis general policy does not recommend the use of its components in life support applications wherein a failure or malfunction may directly threaten life or injury. Per Aegis Terms and Conditions of Sale, the user of Aegis components in life support applications assumes all risks of such use and indemnifies Aegis against all damages.

Information furnished by Aegis Power Systems is believed to be accurate and reliable. However, no responsibility is assumed by Aegis Power for its use. Aegis Power's power supplies are not designed to be used in applications, such as life support systems, wherein a failure or malfunction could result in injury or death. All sales are subject to Aegis Power's Terms and Conditions of Sale, which are available upon request.

Specifications are subject to change without notice.

Intellectual Property Notice

Aegis and its subsidiaries own Intellectual Property (including issued U.S. and Foreign Patents and pending patent applications) relating to the products described in this data sheet. Interested parties should contact Aegis's Intellectual Property Department.

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

