

Power Solutions for Today's Military

Power Systems from **COTS+** Building Blocks

VME28M

High Performance
Military Power Supply

- ◆ **Input 28VDC**
MIL-STD-704A-F normal,
abnormal, emergency
& transient conditions.
MIL-STD-1275A-B compliant.
- ◆ **4 outputs up to 200W**
- ◆ **Output ripple <50mV_{p-p}**
- ◆ **6U VME IEEE Std 1101.2-1998
& VME64 (ANSI/VITA 1-1994)**
Turn-On Sequencing
ACFAIL, SYSRESET, SYSFAIL.
4mSec Hold-up.
- ◆ **MIL-STD-461 C-E compliant**
CE01/03 CS01/02
CE102 CS101/114/115/116
RE102 RS103
- ◆ **Rugged – MIL-810/901**
Vibration, Shock, Humidity
- ◆ **Protection**
Over-current, voltage and temp.
- ◆ **Operating Temperatures**
Single-Slot Conduction Models:
-55°C to +85°C
Double-Slot Convection Models:
-55°C to +65°C
- ◆ **Consult Rantec for
Custom Configurations**



The VME28M high performance, multiple-output military power supply addresses the needs of today's military IEEE Std. 1101.2-1998 and VME64 compliant, plug-in applications. Both the conduction and convection power supplies are proven COTS products for the most demanding military airborne, shipboard and avionics system applications. Operating from MIL-STD-704A-F / MIL-STD-1275A-B 28VDC input power, these units provide 4 outputs, generate up to 200 watts, comply with MIL-STD-461C-E EMI requirements, and are designed to NAVSO P-3641 derating guidelines. Features include independently regulated, isolated outputs, ACFAIL, SYSRESET, SYSFAIL, remote on/off, remote sense, and under-voltage lockout.

The System Designer's Choice

**Rantec Power Team Engineers
Offer Technical Assistance to:**
Evaluate Power System Requirements
Develop Power System Architecture
Reduce Time to Market



Rantec Power Systems Inc.

VME28M

High Performance Military Power Supply

ELECTRICAL INPUT

Voltage / Frequency		28 VDC
Voltage Range		16-36 VDC Steady State
Transients	High	100V for 50mS per MIL-STD-1275A-B
	Low	15V for 500mS per MIL-STD-1275A-B
Efficiency		70% minimum
Loss of Input		Auto recovery after input returns

ELECTRICAL OUTPUT

Output	3.3V @ 20A
	5.0V @ 20A
	±12V@ 1.5A each
Turn-on Time	<100mSec
Regulation Line / Load	±1%
Temperature Coefficient	.02%/°C maximum
Noise / Ripple	<50mV _{p-p} , all outputs, 20MHz bandwidth
Overvoltage Protection	125% nominal
Current Limiting	125% nominal
Turn-on Sequencing	Power Failure and System Restart Timing per VME64 / ANSI/VITA 1-1994
Hold-up	4mS per VME64
EMI	MIL-STD-461C-E; CE01/03, CS01/02, CE102, CS101/114/115/116, RE102; RS103
Isolation	Input-Case 10M Ω @ 100 VDC Input-Output 10M Ω @ 100 VDC Output-Case 10M Ω @ 100 VDC

MECHANICAL

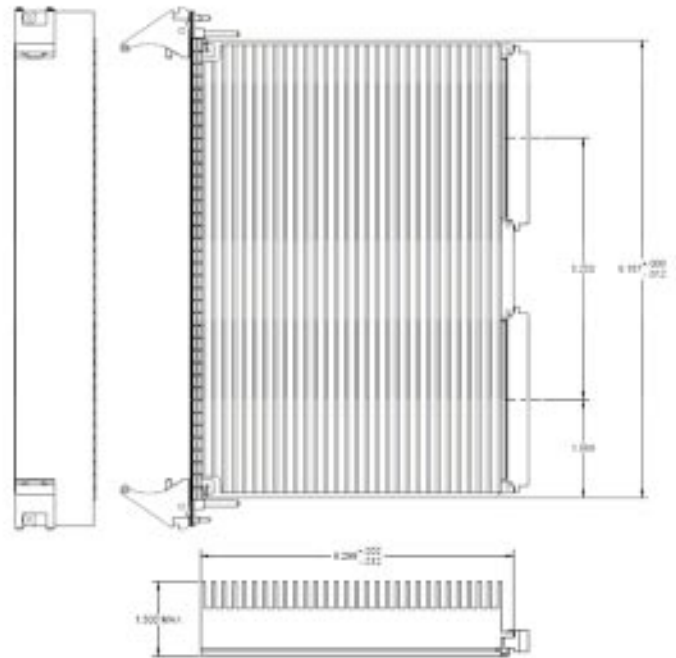
	Conduction	Convection
Dimensions	6.184 x 9.182 x .70 inches	6.184 x 9.182 x 1.50 inches
Weight	<3.2 lbs.	<4.0 lbs.
Physical Format	6U x 160mm IEEE Std 1101.2-1998	
Output Connectors	ERNI DIN 41612	

ENVIRONMENTAL

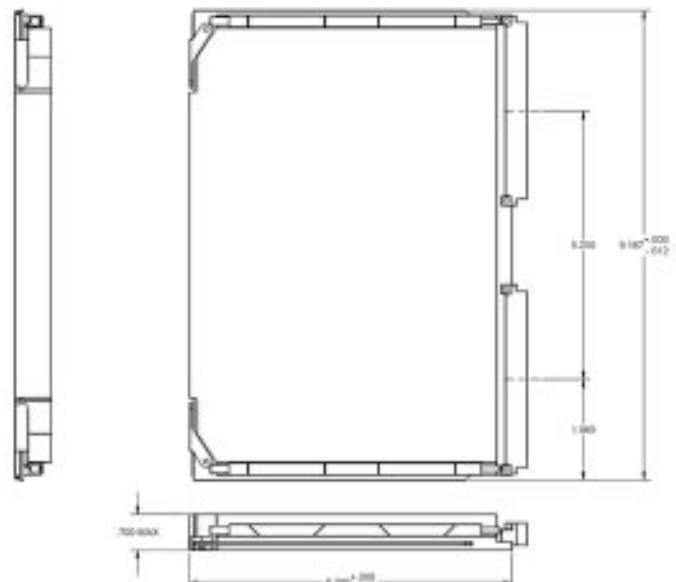
	Conduction	Convection
Operating Temperature	-55°C to +85° Card Edge Guide	-55°C to +65°C @ 300 LFM Air Flow
Cooling	Card Edge Guide	Cooling Fins
Storage Temperature	-55°C to +125°C	
Altitude	Up to 70,000 feet	
Humidity	MIL-STD-810F, Meth 507.4, 5 cycles/48 hrs	
Vibration	MIL-STD-810F, Meth 514.5, Proc. 1, Cat. 12 modified: acceleration PSD .01G2/Hz from 20 to 2000 Hz.	
Shock	MIL-S-901C, Grade A, Type A, Class 1 high impact	
MTBF (@ 55°C per MIL-HDBK-217)	66,500 Hrs NS 35,400 Hrs AUC 41,800 Hrs GM	

For more information, request Specification Control Drawings from your Rantec Sales Rep.

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CONVECTION COOLED MODEL



CONDUCTION COOLED MODEL

OUTLINE & MOUNTING

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