

# 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<sub>p-p</sub>**
- ◆ **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

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

### ELECTRICAL OUTPUT

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

### MECHANICAL

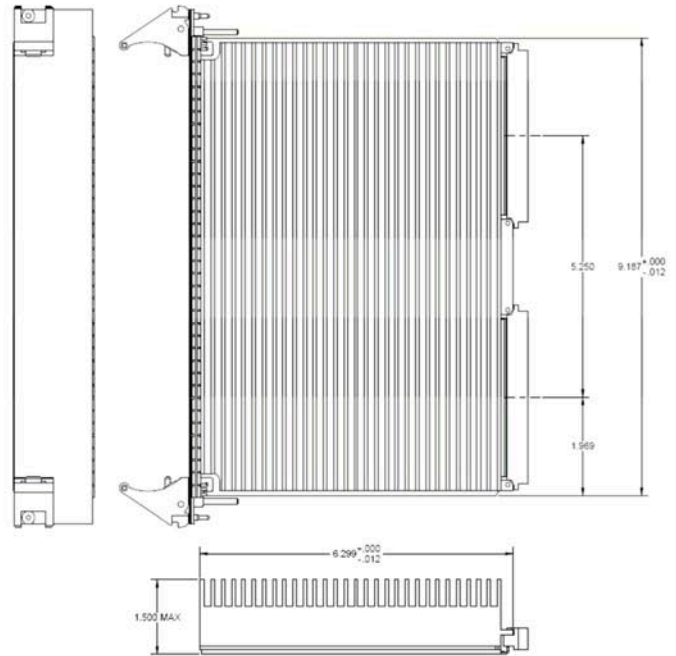
	Conduction	Convection
<b>Dimensions</b>	6.184 x 9.182 x .70 inches	6.184 x 9.182 x 1.50 inches
<b>Weight</b>	<3.2 lbs.	<4.0 lbs.
<b>Physical Format</b>	6U x 160mm IEEE Std 1101.2-1998	
<b>Output Connectors</b>	ERNI DIN 41612	

### ENVIRONMENTAL

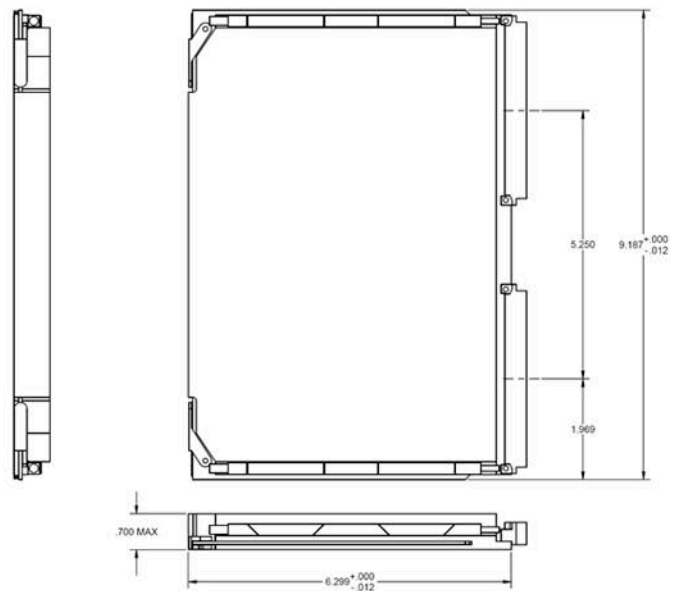
	Conduction	Convection
<b>Operating Temperature</b>	-55°C to +85° Card Edge Guide	-55°C to +65°C @ 300 LFM Air Flow
<b>Cooling</b>	Card Edge Guide	Cooling Fins
<b>Storage Temperature</b>	-55°C to +125°C	
<b>Altitude</b>	Up to 70,000 feet	
<b>Humidity</b>	MIL-STD-810F, Meth 507.4, 5 cycles/48 hrs	
<b>Vibration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