

3U Power Supply for Military Avionics and Vetronics

VPX270

Military Power Supply

Rantec's VPX270 high performance, multiple output 3U military power supply addresses the needs of today's military for VITA 48 / VITA 62 plug-in applications. It operates from nominal 270VDC input, including normal and abnormal transients per MIL-STD-704E. The VPX270 provides 6 outputs at up to 500W output power, complies with MIL-STD-461F and MIL-STD-810G environments, and is designed using NAVSO P-3641A derating guidelines. The VPX270 features include microprocessor control, independently regulated outputs, input to output isolation, VPX / IPMI signals, and under/over/reverse input voltage, output over-voltage, and overload protection. **A RPS Holdings Company**

- **Input:** 270VDC MIL-STD-704F
- **Outputs:** 6 outputs up to 500W
- **VITA 62.0 Signals:** Geographical Addressing, System Management, SYSRESET*, FAIL*, ENABLE*, INHIBIT*
- **IPMI Communication Bus** per VITA 46.11
- **Temperature Monitors**
- **BIT** (start-up and continuous)
- **VITA 62.0 3U, 1" pitch**
- **EMI per MIL-STD-461D:** CE102, CS101, CS114, CS115, CS116, RE102, RS103
- **Protection:** Reverse Polarity, Output Over-voltage, Output Over-current, Over Temperature
- **Output Ripple & Noise:**
+3.3V, +5V, +3.3VAUX: 50mVp-p not 50MVP-P MAX
+12V, +12VAUX, -12VAUX: 120mVp-p MAX
- **Efficiency:** >87% at Full Load
- **MTBF:** >140,000 hrs @ 60C GM.
- **Environments:** Temp: -40 to +85 C, MIL-STD-810G Humidity MIL-STD-810G Vibe and Shock
- **Weight:** <1.5 lbs.

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RANTEC

EXCELLENCE BY DESIGN

VPX270 Military Power Supply

ELECTRICAL INPUT

Voltage	270VDC
Voltage Range	250-280VDC
Transients	Up to 350V per MIL-STD-704F for consistency
Efficiency	Greater than 87% at Full Load

ELECTRICAL OUTPUT

Output	+3.3VDC	20A max
	+5 VDC	40A max
	+12VDC	40A max
	+3.3VAUX	6A max
	+/-12VAUX	1.5A max
	Max combined output power 500W	
Turn-on Time	<500ms	
Regulation Per VITA 62.0	+3.3V	±3%
	+5V	+5%/-2.5%
	+12V	±5%
	+3.3VAUX	±5%
	+12VAUX	±5%
	-12VAUX	±5%
Ripple Per VITA 62.0	+3.3V	50mVp-p
	+5V	50
	+12V	120
	+3.3VAUX	50
	+12VAUX	120
	-12VAUX	120
EMI	-54 to +85 MIL-STD-461D: CE102, CS101, CS114, CS115, CS116, RE102, RS103	
Isolation	Input to output	500V 1MΩ
	Input to case	500V 1MΩ
	Output to case	50V 1MΩ

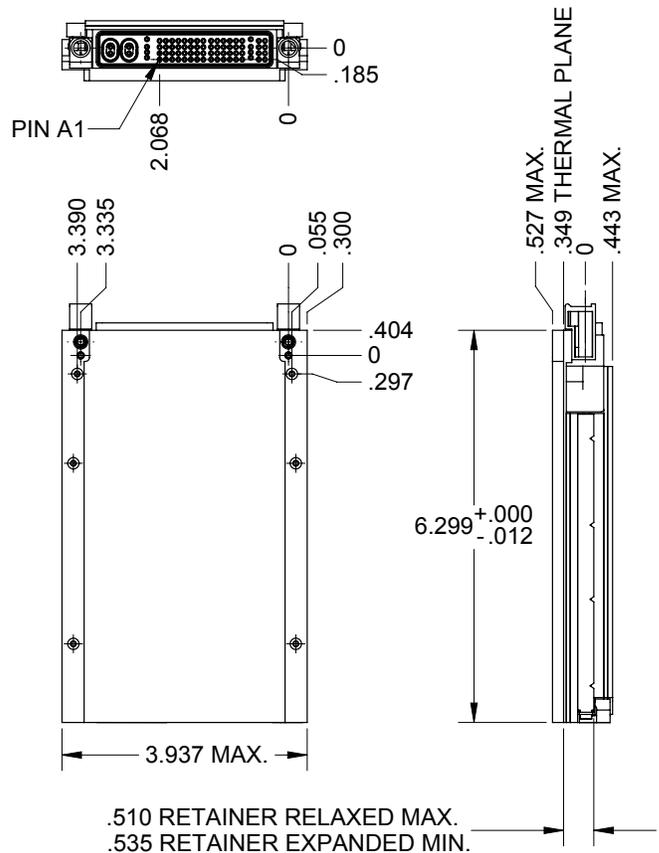
MECHANICAL

Weight	1.5lbs max
Format	VITA 62.0 3U, 1" Pitch
Connectors	Mates with W/37133

ENVIRONMENTAL

Operating Temperature	-54 to +85 C
Cooling	Conduction cooled
Storage Temperature	-55°C to +125°C
Altitude	Up to 70,000 feet
Humidity	MIL-STD-810G, Method 507.5, Proc II, 10 cycles
Vibration	MIL-STD-810G, Method 514.6, Proc I, 12 grms, 10-2000Hz
Shock	MIL-STD-810G, Method 519.6, Proc I, 40G, 11ms half sine pulse
MTBF	>140,000 hrs 60CUAF

OUTLINE & MOUNTING



For more information, contact your Rantec sales representative. Specifications subject to change without notice. © 2022 Rantec all rights reserved. REV. 3-22-18

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EXCELLENCE BY DESIGN

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