

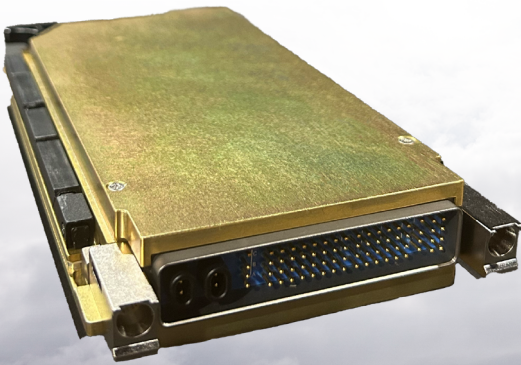
3U Power Supply for Defense Applications

270V 3U 750W Defense Power Supply

Consult Rantec for your specific configuration requirements

Rantec's 270V 3U 750W high performance dual output defense power supply is developed in alignment with the SOSA™ Technical Standard and addresses the needs of today's military for VPX plug-in applications. With a standard 270VDC input, this power supply delivers dual outputs of up to 786W across the full temperature range, while promoting SWaP-C2 through its high power density in a compact 3U package—reducing cost per watt. Enhanced efficiency ensures optimal thermal performance even at elevated temperatures. The power supply complies with normal and abnormal transients per MIL-STD-704, and conforms with MIL-STD-810 environments per VITA 47.3 ECC4SL2 and is designed using NAVSO P-3641A derating guidelines. The 270V 3U 750W features include independently regulated outputs, input to output isolation, VPX Signals, IPMI Communication, and Input under/over/reverse voltage protection, output over-voltage, and output overload protection.

- Input: 270VDC per MIL-STD-704F
- Dual Outputs: 12V and 3.3V AUX
- Output Ripple & Noise per VITA 62.0
- VITA 86.0 3U, 1" pitch
- Weight: <1.5 lbs
- Operating Temperature: -40°C to +85°C
- Non-operating temp: -54°C to +105°C
- Efficiency: up to 90%
- MTBF: >60,000 hrs @ 85°C AUF
- EMI per MIL-STD-461G: CE102, CS101, CS114, CS115, CS116, RE102, RS103
- Compliant to VITA 47.3 ECC4SL2
- Signals: Geographical Addressing, System Management, SYSRESET*, FAIL*, ENABLE*, INHIBIT*
- IPMI Communication Bus per VITA 46.11
- BIT (start-up and continuous)
- Protection: Input Reverse Polarity, Output Over-voltage, Output Over-current, Over-temperature, Short Circuit



RANTEC
EXCELLENCE BY DESIGN

3U Power Supply for Defense Applications

ELECTRICAL INPUT

Nominal Voltage	270 VDC
Steady State Voltage Range	250 VDC - 280 VDC
Input Transients	Up to 350V per MIL-STD-704F
Efficiency	90% at full load

ELECTRICAL OUTPUT

Output	3.3V AUX	20A
	12 VDC	60A
	Max steady-state output power: 786W	
Turn-on Time	<500 ms	
Regulation (incl. ripple)	+/-5% line/load	
Noise and Ripple	Per VITA 62.0	
EMI	MIL-STD-461G: CE102, CS101, CS114, CS115, CS116, RE102, RS103	
Input to Output/Chassis	> 1MΩ / 500 VDC	

MECHANICAL

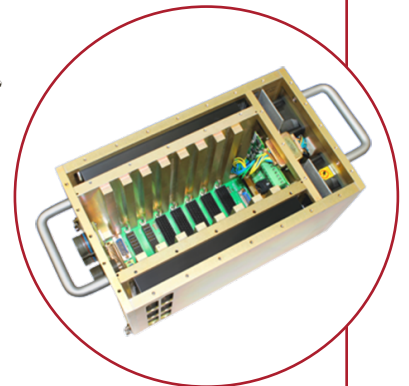
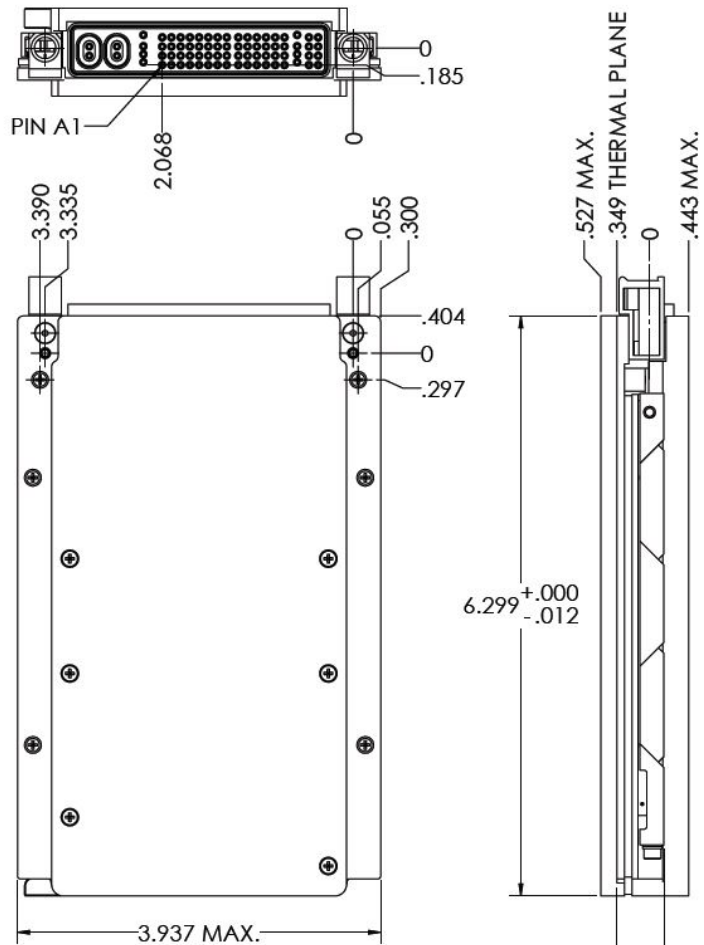
Weight	1.5 lbs max
Format	VITA 86.0, 3U, 1" Pitch
Connectors	Rantec 37174 & mates with Rantec 37133

ENVIRONMENTAL

Requirements	per VITA 47.3 ECC4SL2
Operating Temperature	-40°C to +85°C
Cooling	Conduction Cooled
Altitude	60,000 ft
Humidity	MIL-STD-810H, Method 507.6, Proc II, 100% condensing
Vibration	MIL-STD-810H, Method 514.8, Proc I, 12.8 grms, 5-2000Hz
Shock	MIL-STD-810H, Method 516.8, Proc I, 40G, 11ms half sine pulse
Sand and Dust	MIL-STD-810H, Method 510.7, Procedure I and II
Salt Fog	MIL-STD-810H, Method 509.7, 500 hours
MTBF	60,000 hrs 85°C Airborne Uninhabited Fighter

For more information, contact your Rantec sales representative.

OUTLINE & MOUNTING



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