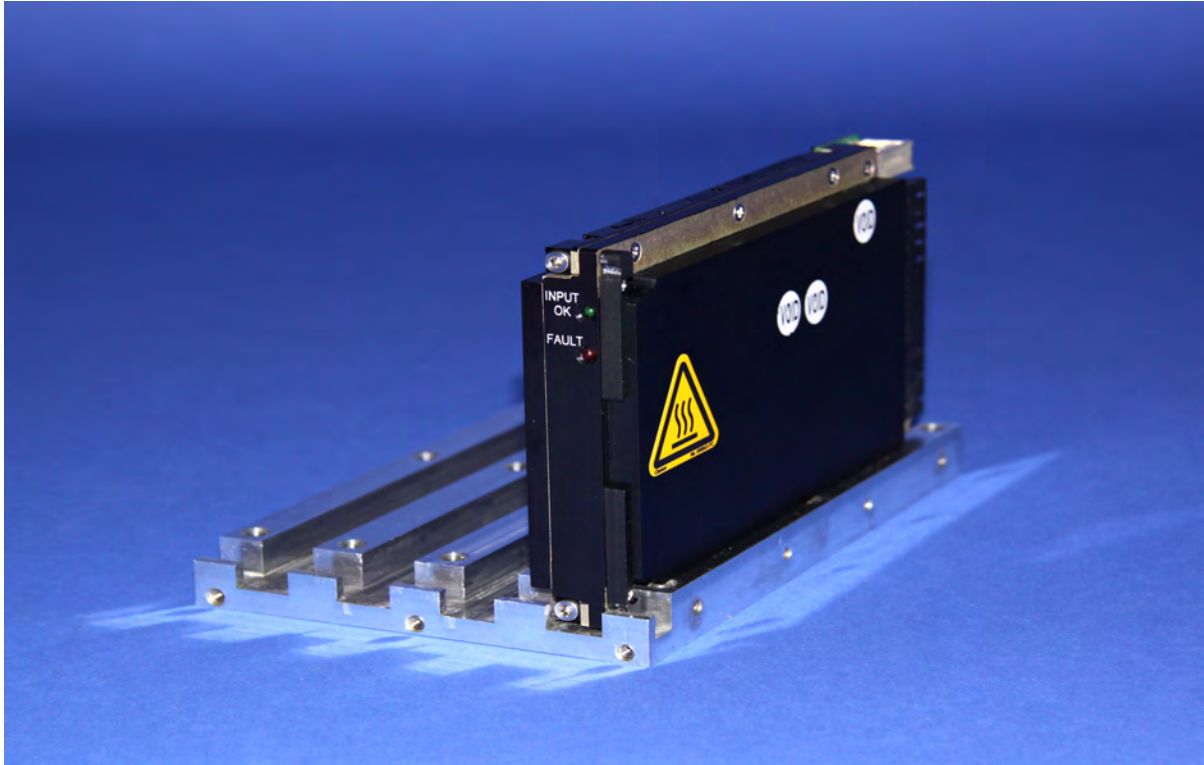


# VPX-700S-P-50V

700 Watts

Conduction Cooled

OpenVPX VITA 62 Compliant

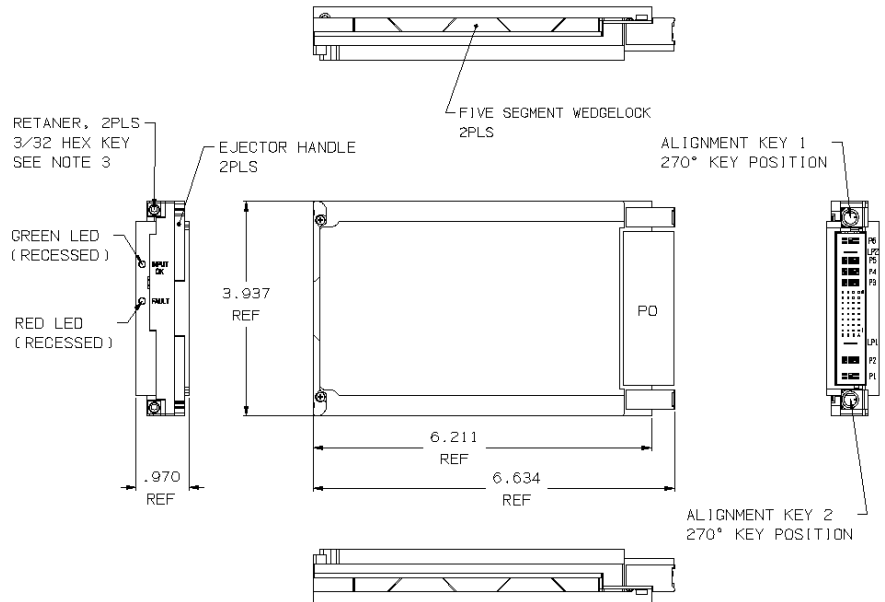


## KEY FEATURES:

- 700 Watts in a 3U x 5 HP (1") x 160mm Modular Design
- Wide Range AC Input with Active Power Factor Correction (>0.99)
- Input Current THD not Exceeding 4%
- Meets MIL-STD-1399, Section 300A (Type 1) for the Voltage Range Specified
- Meets MIL-STD-704 A with External Capacitance
- VITA 62 Outputs; +50V/14A, Aux\_+3.3V/2A
- N+1 Redundant with Internal Oring FET's
- VITA 62 Card Guide Style Conduction Cooled
- 1 Inch Pitch Form Factor with Wedge Lock Retainers
- Side Covers Support Two-Level Military Maintenance Requirements
- Ruggedized Mechanical Design
- One Year Warranty
- Greater than 150,000 Hrs MTBF
- Proudly Made in U.S.A.

# VPX-700S-P-50V

PO - INPUT/OUTPUT CONNECTOR TE CONNECTIVITY P/N 6450849-7				
PIN NO.	SIGNAL	PIN NO.	SIGNAL	
P1	ACN	A6	N/C	
P2	ACL	B6	N/C	
LP1	CHASSIS GND	C6	N/C	
A1	GA2*	D6	SYSRESET*	
B1	N/C	A7	N/C	
C1	N/C	B7	N/C	
D1	N/C	C7	N/C	
A2	VBAT	D7	SIGNAL_RTN	
B2	FAIL*	A8	+50V SENSE	
C2	INHIBIT*	B8	N/C	
D2	ENABLE*	C8	N/C	
A3	N/C	D8	+50V SENSE RTN	
B3	N/C	P3	N/C	
C3	NED	P4	+50V RTN	
D3	NED_RETURN	P5	+50V RTN	
A4	3.3V_AUX	2A	LP2	+50V/14A
B4	3.3V_AUX		P6	+50V/14A
C4	3.3V_AUX			
D4	3.3V_AUX			
A5	GA0*			
B5	GA1*			
C5	SCLK			
D5	SDA			



<b>Nominal Input Voltage Frequency</b>	115/230 Vac, 7/4A max. 47-63 Hz, 400Hz.
<b>Operational Input Voltage Range</b>	100-264 Vac, 700W output, derate to 600W at 90 Vac. Power factor is 0.99 typical at full load. Meets EN 61000-3-2.
<b>Input Current THD</b>	<4% at full load.
<b>Inrush Current</b>	Less than 4 msec. 40 amperes @ 115 Vac
<b>Brownout Protection:</b>	Holds Regulation to 85 Vac.
<b>Fusing</b>	16 Ampere, 250 Vac, Internal ceramic body fuse.
<b>Hold up time</b>	20msec minimum after loss of AC input at 500W load.
<b>Efficiency</b>	89-92%
<b>Turn on time</b>	1 sec max. from power up.
<b>Line and Load Regulation</b>	±2% over AC input range and 0 to 100% load change.
<b>Minimum Load</b>	No minimum load required.
<b>Ripple &amp; Noise</b>	Through 20MHz 0.5% max. or 50mv whichever is greater for both outputs, peak to peak, with coaxial probe and 0.1uF/10uF capacitors at the connector.
<b>Transient Response</b>	Output maximum excursion of ± 5% for 25% load step. Recovery less than 500 µsec.
<b>Overshoot</b>	Less than 5% at turn-on.
<b>Output Isolation</b>	Isolated from chassis ground, 100Vdc.
<b>Input/Output Isolation</b>	1500Vdc from input to both chassis/outputs.
<b>Reverse Voltage</b>	Protected against reverse voltage to supply current rating.
<b>Overvoltage Protection</b>	Shutdown at 130% of nominal Vout. Recycle input power to reset.
<b>Overtemperature Protection</b>	Unit shuts down if overheated. Recycle input.
<b>Leakage Current</b>	1.5mA max at 240Vac.
<b>Current Limiting</b>	All outputs protected with current limit. Automatic recovery when overload or short is removed.

<b>Paralleling</b>	Two or more supplies can be operated in parallel and will share load current within ±10% of each other.
<b>Redundant</b>	Full power N+1 redundant with integral Oring FET's.
<b>Remote Sense</b>	Compensates for up to 0.5V total distribution voltage drop on the +50V output.
<b>Enable*</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>INHIBIT*</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>SYSRESET*</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>FAIL*</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>NED</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>VBAT</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>Geographical Addressing</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>Protocol (I²C)</b>	VITA 62 compliant. Reference SPI's VPX Signal data sheet for more details.
<b>Indicators</b>	Green LED indicating Input OK, Red LED indicating a power supply fault.
<b>Cooling</b>	Conduction cooled via wedge lock retainers.
<b>Operating Temperature</b>	-40°C to 71°C (at wedge lock edge) 700W. Up to 85°C at 650W.
<b>Stability</b>	All outputs 0.1% for 8 hrs. after 30 minute warm-up.
<b>Humidity</b>	Up to 95% non-condensing.
<b>Storage Temperature</b>	-55°C to 105°C.
<b>Connectors</b>	VITA 62 compliant
<b>Size</b>	3U x 5HP (1") x 160mm <b>Weight:</b> 1.75 lbs.
<b>EMC</b>	Designed to meet Mil-Std-461F with SPI's external filter, Top Assembly 26380, or equivalent.
<b>Common Options</b>	Conformal coating with Paylene & special output configurations. Consult factory for more details on a tailored solution which meets your requirements.