

# VPX-700-P

700 Watts  
Conduction Cooled  
OpenVPX VITA 62 Compliant



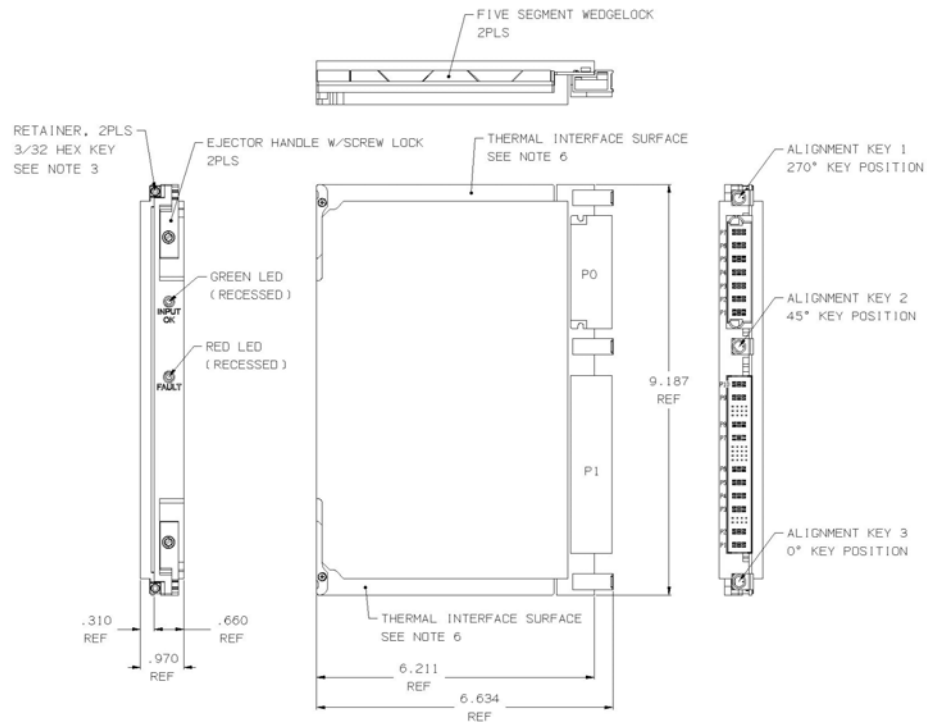
## KEY FEATURES:

- 700 Watts in a 6U x 5 HP (1") x 160mm Modular Design
- Wide Range AC Input with Active Power Factor Correction
- Meets MIL-STD-1399, Section 300A (Type 1) for the Voltage Range Specified
- VITA 62 Outputs; +12V/30A, +5V/40A, Aux\_ +3.3V/40A, Aux\_ +12V/1A, Aux\_ -12V/1A
- No Minimum Load Required
- Custom Input/Output Configurations Available
- N+1 Redundant with Internal Oring FET's/Diodes
- 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-700-P

P0 - AC/DC INPUT CONNECTOR TE CONNECTIVITY P/N 6450843-6	
PIN NO.	SIGNAL
P7	AC-L
P6	N/C
P5	N/C
P4	AC-N
P3	+360VDC OPTION
P2	-360VDC OPTION
P1	CHASSIS GND

P1 - DC OUTPUT CONNECTOR TE CONNECTIVITY P/N 6450849-6			
PIN NO.	SIGNAL	PIN NO.	SIGNAL
P10	+12V/30A	D5	SDA
P9	+12V/30A	A4	GA3*
A9	+12V_SENSE	B4	GA2*
B9	+12V_SENSE	C4	GA1*
C9	+5V_SENSE	D4	GA0*
D9	N/C	A3	N/C
A8	+12V_SENSE_RTN	B3	+12V_AUX/1A
B8	+12V_SENSE_RTN	C3	NED
C8	+5V_SENSE_RTN	D3	NED_RTN
D8	N/C	P6	+5V/40A
A7	N/C	P5	+5V/40A
B7	N/C	P4	POWER_RTN
C7	N/C	P3	POWER_RTN
D7	SIGNAL_RTN	A2	VBAT
P8	POWER_RTN	B2	FAIL*
P7	POWER_RTN	C2	INHIBIT*
A6	N/C	D2	ENABLE*
B6	N/C	A1	N/C
C6	-12V_AUX/1A	B1	N/C
D6	SYSRESET*	C1	N/C
A5	GAP*	D1	N/C
B5	GA4*	P2	+3.3V_AUX/40A
C5	SCLK	P1	POWER_RTN



<b>Nominal Input Voltage</b>	115/230 Vac, 7/4A max.
<b>Frequency</b>	47-63 Hz, 400Hz.
<b>Operational Input Voltage Range</b>	100-264 VAC, 700W output, derate to 600W at 90VAC. Power factor is 0.99 typical at full load. Meets EN 61000-3-2.
<b>Inrush Current</b>	Less than 4 msec. 40 amperes @ 115 Vac or 80 amperes @ 264 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 full load and any input
<b>Efficiency</b>	85% typical
<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 1% max. or 50mv whichever is greater for all 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%.
<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 +12V and +5V current to within ±10% of each other.
<b>Redundant</b>	Full power N+1 redundant with integral Oring FET's/Diodes.
<b>Remote Sense</b>	Compensates for up to 0.5V total distribution voltage drop on the +12V and +5V outputs.
<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 (I<sup>2</sup>C)</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 85°C (at wedge lock edge) 700W.
<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>	6U x 5HP (1") x 160mm <b>Weight:</b> 3.5 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.