

# VPX-1000S-3P-G-50V

1000 Watts

Conduction Cooled

OpenVPX VITA 62 Compliant



## KEY FEATURES:

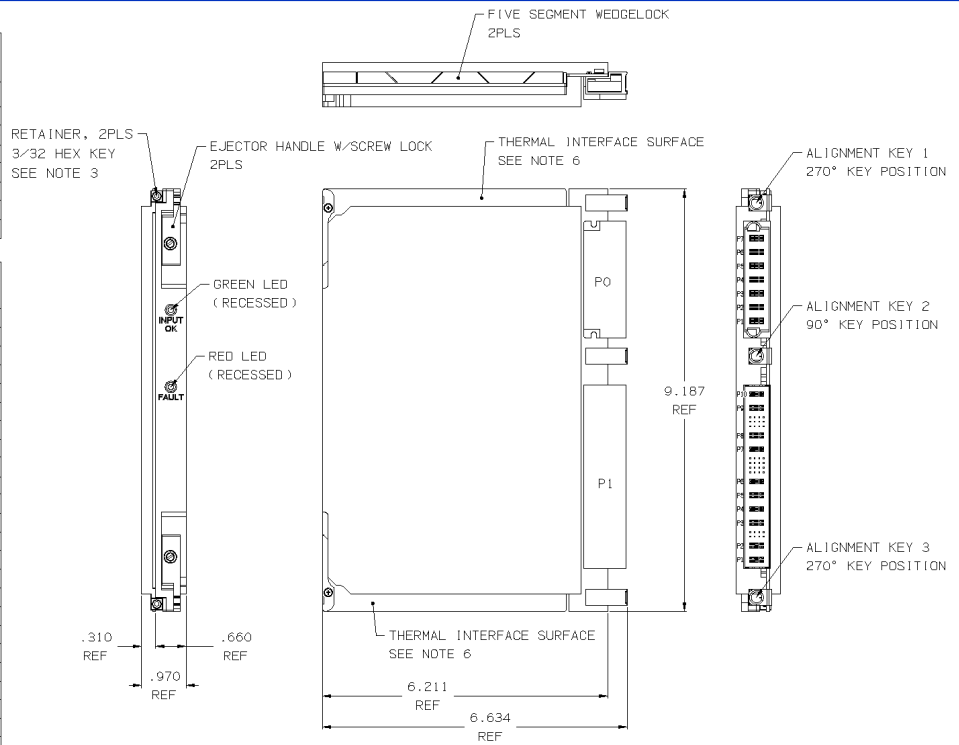
- 1000 Watts in a 6U x 5 HP (1") x 160mm Modular Design
- 3-Phase 115/200Vac 60Hz Input with Active Power Factor Correction (>0.98)
- Input Current THD not Exceeding 4%
- Meets MIL-STD-1399, Section 300A (Type 1) Grounded for the Voltage Range Specified
- VITA 62 Outputs; +50V/20A, Aux\_ +3.3V/2A
- Custom 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
- Specifically Designed for Submarine and Shipboard Applications in Compliance to MIL-STD-1399, MIL-STD-461F and MIL-STD-810G
- Ruggedized Mechanical Design
- One Year Warranty
- Greater than 150,000 Hrs MTBF



# VPX-1000S-3P-G-50V

P0 - AC/DC INPUT CONNECTOR TE CONNECTIVITY P/N 6450843-6	
PIN NO.	SIGNAL
P7	ØA
P6	ØB
P5	ØC
P4	NEUTRAL
P3	N/C
P2	N/C
P1	CHASSIS GND

P1 - DC OUTPUT CONNECTOR TE CONNECTIVITY P/N 6450849-6			
PIN NO.	SIGNAL	PIN NO.	SIGNAL
P10	+50V/20A	D5	SDA
P9	+50V/20A	A4	GA3*
A9	+50V SENSE	B4	GA2*
B9	+50V SENSE	C4	GA1*
C9	N/C	D4	GA0*
D9	N/C	A3	N/C
A8	+50V SENSE RTN	B3	N/C
B8	+50V SENSE RTN	C3	NED
C8	N/C	D3	NED RTN
D8	N/C	P6	N/C
A7	N/C	P5	N/C
B7	N/C	P4	N/C
C7	N/C	P3	N/C
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	N/C	B1	N/C
D6	SYSRESET*	C1	N/C
A5	GAP*	D1	N/C
B5	GA4*	P2	+3.3V AUX/2A
C5	SCLK	P1	POWER RTN



<b>Nominal Input Voltage</b>	115/200 Vac 3-Phase, 3.3A nominal.
<b>Frequency</b>	60Hz per MIL-STD-1399 Grounded.
<b>Operational Input Voltage Range</b>	+20%, -15% and transients ±25%. Input Power Factor exceeding 0.98 at full load.
<b>Input Load Balance</b>	Current loading for any phase does not exceed the average of the currents in all 3 phases by more than 5%.
<b>Inrush Current</b>	Less than 4 msec. 40 amperes @ 200 Vac.
<b>Fusing</b>	(3 X 6.3 Ampere)/250 Vac, Very fast acting. Internal ceramic body fuses.
<b>Hold up time</b>	20msec minimum after loss of AC Input at full load
<b>Efficiency</b>	90% 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 less than .5% pk-pk.
<b>Transient Response</b>	Output maximum excursion of ± 5% for 25% load step. Recovery less than 500 psec.
<b>Overshoot</b>	No turn-on or turn-off overshoot.
<b>Output Isolation</b>	Isolated from chassis ground, 100Vdc.
<b>Input/Output Isolation</b>	2200 Vdc from input to both chassis/outputs. SELV construction.
<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>	2mA max at 200Vac.
<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/Diodes.
<b>Remote Sense</b>	Compensates for up to 0.5V total distribution voltage drop on the +28V 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 (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>	-20°C to 71°C (at wedge lock edge) 1000W
<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>	-40°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 25940, 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.