VECTOR
ELECTRONICS & TECHNOLOGY, INC.
11115 Vanowen Street, North Hollywood, CA 91605 Ph.: 818-985-8208 FAX: 818-985-7708

VECTOR PART NUMBER 92100142

CompactPCI®

500 Watt – 6U 8HP

Power Supplies

(PICMG® COMPLIANT*)

Features:

- ✓ **Standard PCI Output Voltages: 5.0V, 3.3V, ±12.0V.**
- ✓ **Hot Swap, N+1 Redundant with Internal OR-ing MOSFETs.**
- ✓ **Input: >.99 Power Factor Corrected AC 90-264V, or DC 36-72V.**
- ✓ **Current Sharing on 5.0V, 3.3V and +12.0V Outputs.**
- ✓ **Standard 47 Pin Connector Configuration.**
- ✓ **Custom Configurations To Meet User Specified Requirements.**
- ✓ **Excellent Performance, Competitively Priced.**
- ✓ **2 Year Warranty.**
- ✓ **Complies With All Requirements Of PICMG Power Interface Specifications.**
- ✓ **Fully Compliant with the EU RoHS Directive.**
- ✓ **cCSAus, CE Marked.**

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GENERAL PRODUCT SPECIFICATIONS:

-INPUT-

Voltage/Current ..... **AC** 90-264V, 7.0A max, 47-63Hz, 1 Phase

Fusing ..... Internal line fuse provided, non-user serviceable.

AC Power Factor ..... Meets Harmonic Correction per IEC 1000-3-2. 0.99 line PFC typical at AC 115V, full load.

Efficiency..... **AC** 77-80% typical at 115V, full load.

Inrush Current ..... Soft start, ~25ºC cold start current: **AC** 30.6A (rms) @ 230V

Input Voltage Protection (UVP/OVP) .... Auto DC output shutdown when input rises or falls below safe operating limits. Automatic recovery when input returns to within normal operating range. **AC**: UVP ≈ 80V.

-OUTPUTS-

Voltage/Current (V/A) V1 V2 V3 V4
AC: **92100142** 5.0/50, 3.3/30, +12/10(15pk), –12/3.0(5pk).
Total continuous loading on all outputs not to exceed 500W.
Peak loading <60sec., with a duty cycle <10%.

Line Regulation ..... At the sense point over full input range, ±0.10% typical, sense leads connected.

Load Regulation ..... **AC**: typical, V1, V2 ±0.5%; V3 ±1.0%; V4 ±3.0%.

Minimum Loading ..... None required for single unit applications. 3.0A minimum required on V1 for parallel operations.

Stability ..... Output drift <±0.2% after 20 minute warm-up.

Temp. Coefficient ..... 0º - 50ºC, after 20 minute warm-up. **AC**: <±0.04%/ºC; **DC**: <±0.02%/ºC.

Dynamic Response ..... **AC**: Peak transient less than 250mV, recovers to within 1% in less than 0.5msec with a 50% load change.

Remote Sense..... Stanard on V1, V2, V3 outputs.

Ripple and Noise (PARD)..... For all outputs, 50mV max or 1% peak-to-peak nominal, which ever is greater, DC to 20MHz bandwidth with a coaxial probe and 0.1µF/22µF capacitors at the output terminals.

Current Sharing/ Parallel N+1 Operation ... V1, V2, V3 outputs. Single wire connection for ±10% current sharing between any number of units.

Redundant/Hot Swap ..... Full power N+1 redundant, hot swap capable.

Over/Under Shoot ..... None at turn-on or turn-off.

Hold-Up Time (AC)..... Outputs remain in regulation following loss of AC power 22.4msec min @ 115V, 34msec min @ 230V, full load.

Over Temperature Protection..... Internal temperature sensing. Causes all outputs to shut down. Automatic recovery.

Over Current/Short Circuit Protection ..... Current limit on all outputs, 120-130% max load typical. Recycle input power required to recover.

Over Voltage Protection ..... Non-crowbar type. Any output that exceeds 25% ±10% of nominal Vout will cause all outputs to latch off. Remote inhibit, enable or input recycle required to reset.

-SIGNALS, INDICATORS and CONTROLS-

Remote Enable..... Enabled by closed circuit or TTL logic 0. Disabled by open circuit or TTL logic 1.

Remote Inhibit ..... Enabled by open circuit or TTL logic 1. Disabled by closed circuit or TTL logic 0.

Power Fail Warning ..... Loss of input AC causes a TTL compatible signal to go low >4msec prior to V1 or V2 output dropping out of regulation. At AC turn-on, signal stays low until outputs are in regulation. PF signal also triggered in both AC and DC input models by any output under dropping below 10% of nominal.

LED Indicator..... Dual LEDs. Green indicates input power ON and outputs within regulation. Off or Amber indicates input and/or output power fault.

Switch, On/Off (Optional)..... Integral with lower latch. Outputs are disabled with open (unlocked) latch.

-OPERATING ENVIRONMENT-

Operating Temperature .. **AC** -30º to +50ºC ambient; **DC** 0º to +50ºC at full load, with specified airflow. Derates linearly to 50% at +70ºC.

Cooling ..... A minimum of 800 lfm direct forward airflow required to achieve full rated power and specified MTBF. Consult factory for derating guidelines with reduced or reversed airflow.

Relative Humidity..... Up to 90% RH, non-condensing.

Operational Vibration ..... 2.0G peak, 5 – 500Hz along three orthogonal axis.

Storage Temperature..... -40º to 85ºC.

Altitude ..... Operating to 10,000 ft; Storage to 30,000 ft.

MTBF ..... Designed for 150,000 hrs at 25ºC.

-MECHANICAL-

Outline..... 6U x 8HP x 233mm Eurocard. Complies with all current PICMG® CompactPCI specifications.

Power Density ..... 5.0 Watts/Cubic Inch.

Retaining Latches..... Supplied with dual Rittal #3686.135 Type VII (Telecom) latches. Other manufacturers and types available. Consult factory.

Guide Rails..... Supplied with .260[6.61] offset guide rails for use with Rittal 3687.832 (or equivalent) PSU guides.

Front Panel Overlay..... Supplied with Lexan overlay and JE Logo. May be deleted, or supplied with customer specified logo or other information. Consult factory.

Weight..... Approx: 4.8 lbs / 2.38 kg.

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-SAFETY, REGULATORY and EMC-

Designed to comply with the relevant industry standards of the authorities having jurisdiction.

AC: Recognized to U.S. and Canadian Bi-National Standard UL 60950-1, 1st. Ed., 2007, and CSA C22.2 No. 60950-1-03, 2007 (cCSAus Mark). CE Marked.

EMI Filtering ..... Meets FCC Class A, and CISPR EN 55022 Level A, radiated and conducted.

Transient Protection ..... MOV. Withstands transients/bursts as specified by EN 61000-4-4 Level 3.

Touch Current ..... Typical 0.7mA @ 50/60Hz, 230V AC per UL 60950 test procedures (Sec. 5.0).

Dielectric Withstand..... Meets IEC60950 regulations.

Routine Factory Tests .... **AC**: 2121V DC; **DC**: 1500V DC di-electric strength (hi-pot) input-to-chassis and input-to-outputs; MegOhm to 500V output-to-chassis.

-LIMITED WARRANTY POLICY-

All Vector Electronics standard model power supplies and products are guaranteed to be free of defects in workmanship and materials for a minimum of two (2) years from the date of original shipment, when operated within specification. This warranty applies only to defects that result in a failure to comply or perform to published specifications. Non-standard (custom) power supplies and products may be warranted on an individual basis. The unused portion of this warranty is fully transferable with the original equipment in which the power supply is installed.

-INTERCONNECT-

Input/Output Connector.. 47 circuit sequential contact, hot pluggable type. 2 AC input, 1 PE contact rated 40.0A. 20 DC output power contacts rated 28.0A each, 24 signal contacts rated 3.0A each. Ratings continuous, all contacts under load. UL94V-0 glass filled thermoplastic material, secured to the main circuit board assembly in the rear of the unit. Positronic Ind. P/N PCIH47M400A1 Mates with PI P/N PCIH47F300A1.

Note: ..... Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence.

-I/O CONNECTOR FUNCTIONS-

PIN#	SEQ(1)	FUNCTION	
01-04	2	+5.0V	V1 Output.
05-12	2	GND	V1+V2 Return.
13-18	2	+3.3V	V2 Output.
19	2	GND	V3 Return.
20	2	+12.0V	V3 Output.
21	2	-12.0V	V4 Output.
22,23	2	N/C	No Connection (Reserved).
24	2	GND	V4 Return.
25,26	2	N/C	No Connection (Reserved).
27	**3**	R/EN	Remote Enable. Close circuit to GND.
28	2	N/C	No Connection (Reserved).
29	2	V1-ADJ	V1 Remote Voltage Adjust.
30	2	+S1	+5.0V (V1) Remote Sense.
31	2	N/C	No Connection (Reserved).
32	2	V2-ADJ	V2 Remote Voltage Adjust.
33	2	+S2	+3.3V (V2) Remote Sense.
34	2	S-RTN	Sense Return for V1, V2, V3.
35	**3**	ISHR-1	+5.0V (V1) Current Share.
36	2	+S3	+12.0V (V3) Remote Sense.
37	2	N/C	No Connection (Reserved).
38	2	DEG	Thermal Degrade Signal.
39	2	R/INH	Remote Inhibit. Close circuit to GND.
40	2	N/C	No Connection (Reserved).
41	**3**	ISHR-2	+3.3V (V2) Current Share.
42	2	PF	Power Fail Signal.
43	2	N/C	No Connection (Reserved).
44	**3**	ISHR-3	+12.0V (V3) Current Share.
45	**1**	PE	Protective Earth (chassis) Ground.
46	2	Input Pwr	**AC**: Neutral (N/ACC) Input Power; **DC**: +Vin.
47	2	Input Pwr	**AC**: Line (L/AC) Input Power; **DC**: -Vin.

(1) Contact mating sequence. 1= First to make/Last to break.

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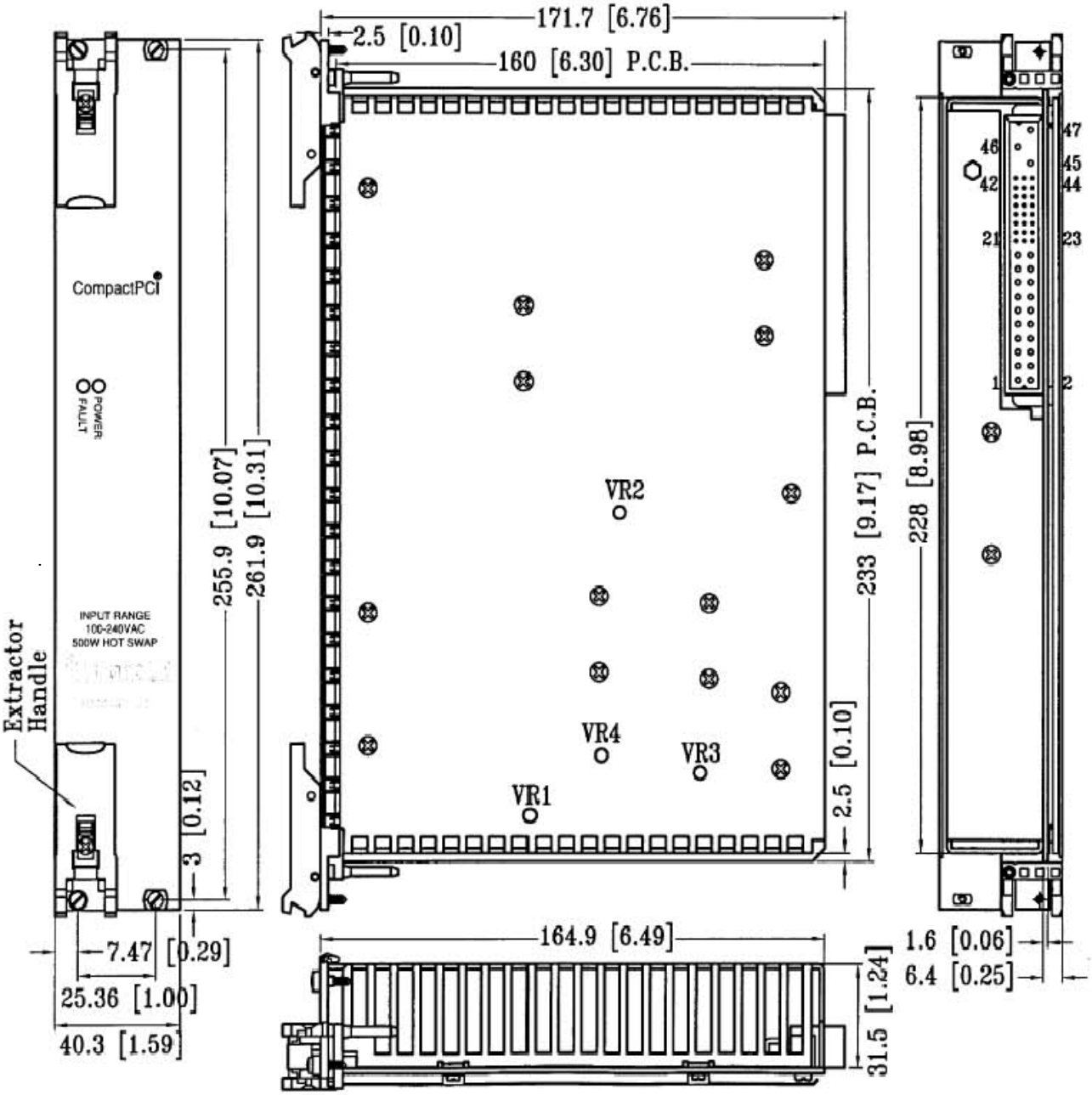
Mechanical Outline

(Dimensions in millimeters [inches])



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