

**JASPER  
ELECTRONICS**



## FEATURES

- Inputs: >.99 Power Factor Corrected AC 90-264V, or DC 36-72V or DC 20-28V
- Hot Swap, N+1 Redundant with Internal OR-ing Diodes
- Single Wire Current Sharing
- Available with PICMG Standard 47 Pin and Optional 38 Pin I/O Connector Configurations
- Custom Configurations To Meet User Requirements
- Complies With All Requirements Of PICMG Power Interface Specifications
- cUL, TUV and CE Marked



## CONTACT

1580 No. Kellogg Dr.  
Anaheim, California, 92807

(714) 917-0749

[www.jasperelectronics.com](http://www.jasperelectronics.com)  
[sales@jasperelectronics.com](mailto:sales@jasperelectronics.com)

# CompactPCI® Series

## 350 Watt Power Supplies

(PICMG® COMPLIANT)



**COMPACTPCI® SERIES FRONT VIEW**

## GENERAL OVERVIEW

Jasper's Compact PCI Power Supplies comply with the industry standard PICMG requirements and are available in AC or DC input, from 175W to 500W DC output.

### FEATURES ON SELECT MODELS INCLUDE:

- AC/DC: 90-264VAC Input – 175, 200, 250, 300, 350, & 500 Watt Models – 3U & 6U x 8HP
- DC/DC: 18-72VDC Input – 175, 200, 250, 300, 350, & 500 Watt Models – 3U & 6U x 8HP
- PICMG 2.11 Compliant
- Active PFC
- UL/CSA, NEMKO/TUV & CE Certified
- RoHS Compliant
- Current Sharing on 3.3, 5 & +12V Rails
- Hot Swap & ORing Diodes N+1 Operation
- Standard 47 Pin Output Connector with 38 & 32 Pin Options (Some Models)
- Models can be ruggedized against high shock, vibration, and humidity to meet MIL-STD-810 requirements
- Customizing To Meet Your System Requirements Is Our Specialty



ISO9001:2015

02127-001 N\_Rev A\_January-13-2023

## TECHNICAL SPECIFICATIONS

INPUT				
<b>Voltage/ Current</b>	AC 90-264V, 47-63Hz, 7.0A max, 1 Phase, or DC 36-72V (48V nom.), 16.0A Max DC 20-28V (24V nom.), 20.0A Max			
<b>Fusing</b>	Internal line fuse provided, non-user serviceable AC- 10.0A, 250VAC; 48V DC- 20.0A, 125VDC 24V DC - 25.0A, 125VDC			
<b>AC Power Factor</b>	0.99 line PFC typical at AC 115V, full load			
<b>Inrush Current</b>	Thermistor soft start (~25°C cold start) 15Apk @ AC 115V; 30Apk @ AC 230V 15Apk @ DC 24V or 48V			
<b>AC Transient Protection</b>	MOV. Withstands differential and common mode transients as specified by IEEE C62.41 3KV			
<b>AC EMI Filtering</b>	Meets IFCC Level A, and EN 55022 Level A			
<b>Efficiency</b>	Typical, full load: 60% at AC 115V 65% at DC 48V; 60% at DC 24V			
<b>Redundant/Hot Swap</b>	Full power N+1 redundant, hot swap capable			
OUTPUT				
<b>Voltage/Current (V/A)</b>	<b>V1</b>	<b>V2</b>	<b>V3</b>	<b>V4</b>
<b>AC Model: PCI354-1022</b>	5.0/40	3.3/40	+12/9	-12/1
<b>48VDC Model: DPCI354-1022</b>	5.0/40	3.3/40	+12/9	-12/1
Total loading on all outputs not to exceed 350W				
<b>24VDC Model: DPCI304-1022</b>	5.0/30	3.3/30	+12/5	-12/1
Total loading on all outputs not to exceed 300W				
<b>Line/ Load Regulation</b>	At the Sense Point, Over Full Input Range 0 – 100% Output Loading <±1% for V1, V2, V3, sense leads connected. <±5% for V4			
<b>Minimum Loading</b>	None required for single unit applications. 10% loading required in N+1, N2 configurations			
<b>Stability</b>	Output drift <±0.2% after 20 minute warm-up			
<b>Temperature Coefficient</b>	<±0.02%/°C, 0° - 50°C, after 20 minute warm-up			
<b>Dynamic Response</b>	Less than 3% deviation with a 25% load change at 1A/μsec. Output returns to within 1% in less than 300μsec			
<b>Ripple and Noise (PARD)</b>	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			
<b>Current Sharing/ Parallel N+1 Operation</b>	V1, V2, V3 Outputs. Single wire connection for ±10% current sharing between any number of units			
<b>Remote Sense</b>	V1, V2, V3 outputs compensate for up to 0.25V total line drop in the load cables. Outputs are internally sensed if leads are opened			
<b>AC Hold-Up Time</b>	Outputs remain in regulation >15msec minimum following loss of AC power at low line, full load			
<b>Over Current/ Short Circuit Protection</b>	Constant current limit on all outputs. Automatic recovery when overload is removed			
<b>Over Voltage Protection</b>	Non-crowbar type. Any output that exceeds 25% ±10% of nominal Vout will cause all outputs to latch off. Remote inhibit, enable or power input recycle required to reset.			
<b>Over Temperature Protection</b>	Internal temperature sensing. Causes all outputs to shut down. Automatic recovery			
<b>Under Voltage Warning</b>	Any output dropping below 10% of nominal triggers the power fail warning signal			
<b>Reverse Sense Protection</b>	Outputs latch-off if remote sense connections are installed in reverse. Remote inhibit, enable or power input recycle required to reset			
<b>Over/ Under Shoot</b>	None at turn-on or turn-off			

\*Specifications subject to change without notice.

SIGNALS, INDICATORS AND CONTROLS	
<b>Remote Enable</b>	Enabled by closed circuit or TTL logic 0. Disabled by open circuit or TTL logic 1
<b>Remote Inhibit</b>	Enabled by open circuit or TTL logic 1. Disabled by closed circuit or TTL logic 0
<b>Power Fail Warning</b>	Loss of input AC causes a TTL compatible signal to go low >4msec prior to any output dropping out of regulation. At AC turn-on, signal stays low until all outputs are in regulation. PF signal also triggered in both AC and DC input models by an under voltage condition on any output
<b>LED Indicator</b>	Single bi-color LED. Green indicates input power ON and outputs within regulation. OFF or RED indicates an input and/ or output power fault
MECHANICAL	
Mechanical Outline Drawings are available. Contact the factory and request copies by specifying input voltage and connector type	
<b>Weight</b>	Approx: 2.38 kg / 4.8 lbs
<b>Retaining Latches</b>	Supplied with Type IV Rittal #3686.903 upper and #3686.902 lower latches, or Type VII Telecom Rittal #3686.134 upper and #3686.135 lower latches. Models may be ordered without latches. Refer to Option Codes to select
<b>I/O Connector Offset</b>	47 pin models supplied with the I/O connector at 7.40 [.291] offset (PICMG std) only. 38 pin models supplied with the connector at 15.27 [.601] or optional 7.40 [.291] offset  Refer to Option Codes to specify connector offset
<b>Guide Rails</b>	<b>47</b> pin models supplied with guide rails at 6.61 [.260] offset for use with Rittal #3687.832 (or equivalent) PSU guides. 4.07 [.160] optional guide rail offset available for use with Rittal #3684.669 CPCI standard guides. <b>38</b> pin models available in both 6.61 [.260] and 4.07 [.160] offsets with 7.40 [.291] I/O connector offset, 4.07 [.160] only with 15.27 [.601] offset  Refer to Option Codes to specify guide rail offset
<b>Front Panel Overlay</b>	Supplied with Lexan overlay and JE Logo. May be deleted, or supplied with customer specified logo or other information. Contact factory  Refer to Option Codes to specify overlay
OPERATING ENVIRONMENT	
<b>Operating Temperature</b>	0° – 50°C ambient at full load, with specified forward airflow
<b>Cooling</b>	Direct forward airflow required to achieve full rated power and specified MTBF. <b>AC Input:</b> 90 cfm minimum for 47-pin configuration, 120 cfm minimum for 38-pin configuration. <b>DC Input:</b> 90 cfm minimum for all configurations
<b>Relative Humidity</b>	Up to 90% RH, non-condensing
<b>Operational Vibration</b>	0.75G peak, 5 – 500Hz along three orthogonal axis
<b>Storage Temperature</b>	-40° to 85°C
<b>Altitude</b>	Operating to 10,000 ft; Storage to 50,000 ft.
<b>MTBF</b>	Designed for 150,000 hrs at 25°C
INTERCONNECT	
<b>Input/ Output Connectors</b>	Use of the specified mating connector is required to insure proper “make/break” sequential contact sequence
<b>PICMG Std 47 Pin</b>	Positronic Ind. P/N PCIH47M400A1. Mates with PI P/N PCIH47F300A1
<b>Optional 38 Pin</b>	Positronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1
SAFETY	
<b>48VDC and All AC Input Models</b>	Recognized to UL 1950, Third (3 <sup>rd</sup> ) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked
<b>24VDC Input Models</b>	Pending
Some user specified (custom) configurations may not be eligible to bear some or all of the agency approval marks noted above. Contact factory for information on non-standard models	

\*Specifications subject to change without notice.

## PICMG STANDARD 47 PIN CONNECTOR

PIN#	SEQ <sup>(1)</sup>	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	2	RTN	Signal Return
23	2	N/C	No Connection (Reserved)
24	2	GND	V4 Return
25,26	2	N/C	No Connection (Reserved)
27	<b>3</b>	R/EN	Remote Enable. Close circuit to GND
28	2	N/C	No Connection (Reserved)
29	2	V1-ADJ	+5.0V Remote Voltage Adjust.
30	2	+S1	+5.0V (V1) Remote Sense
31	2	N/C	No Connection (Reserved)
32	2	V2-ADJ	+3.3V (V2) Remote Voltage Adjust
33	2	+S2	+3.3V (V2) Remote Sense
34	2	S-RTN	Sense Return for V1, V2, V3
35	<b>3</b>	ISHR-1	+5.0V (V1) Current Share
36	2	+S3	+12.0V (V3) Remote Sense
37,38	2	N/C	No Connection (Reserved)
39	2	R/INH	Remote Inhibit. Close circuit to GND
40	2	N/C	No Connection (Reserved)
41	<b>3</b>	ISHR-2	+3.3V (V2) Current Share
42	2	PF	Power Fail Signal
43	2	N/C	No Connection (Reserved)
44	<b>3</b>	ISHR-3	+12.0V (V3) Current Share
45	<b>1</b>	PE	Primary Earth (chassis) Safety Ground
46	2	ACC	Neutral AC Power Input
	2	+DC	+DC Input Power
47	2	AC	Line AC Power Input
	2	-DC	-DC Input Power

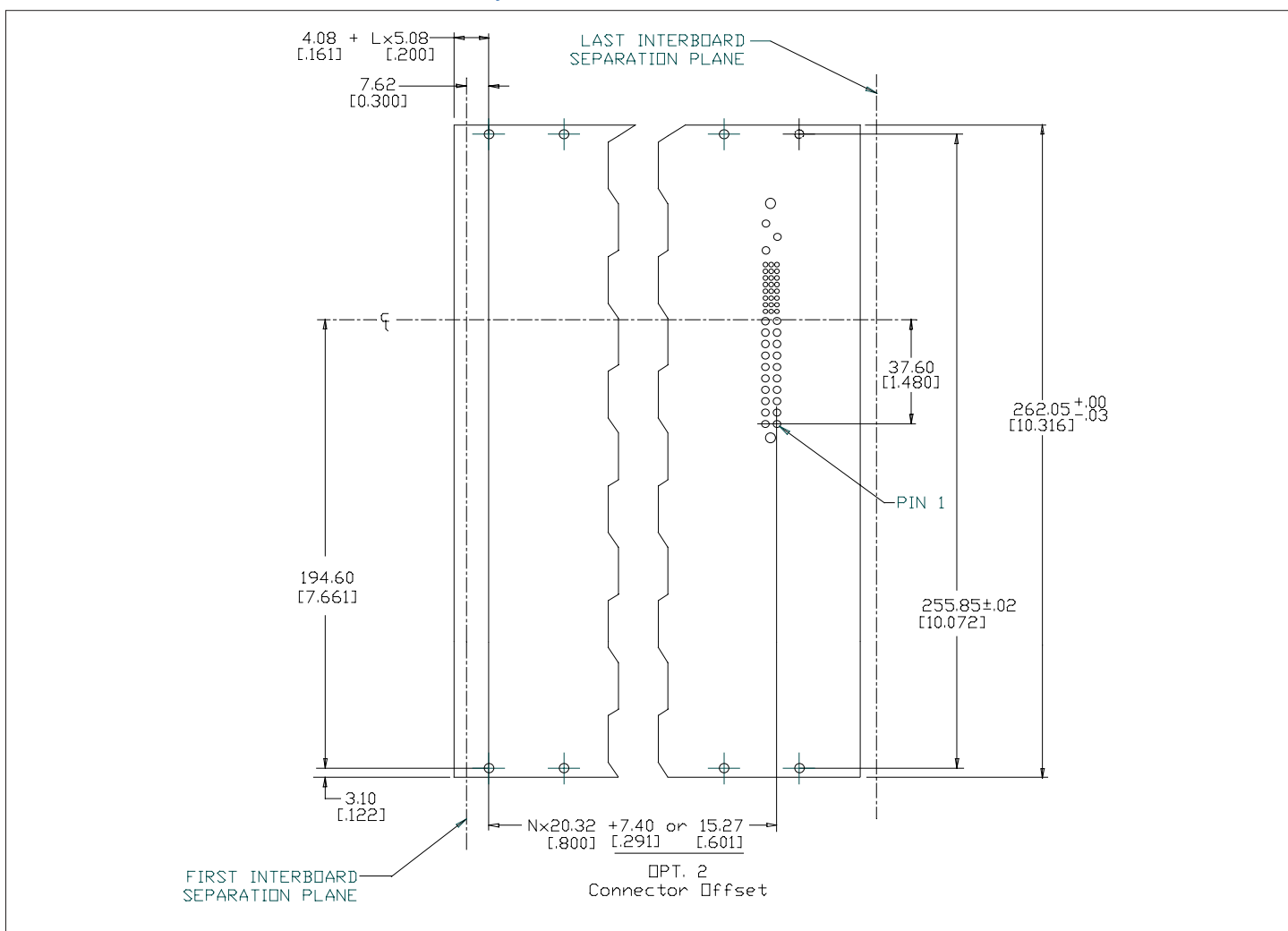
## OPTIONAL 38 PIN CONNECTOR

PIN#	SEQ <sup>(2)</sup>	FUNCTION	
01-04	2	+5.0V	V1 Output
05-12	2	GND	V1+V2 Return
13-16	2	+3.3V	V2 Output
17	2	GND	V3 Return
18	2	+12.0V	V3 Output
19,20	2	N/C	No Connection (Reserved)
21	2	-12.0V	V4 Output
22,23	2	GND	V4 Return
24	2	+S1	+5.0V (V1) Remote Sense
25	<b>3</b>	R/EN	Remote Enable. Close circuit to GND

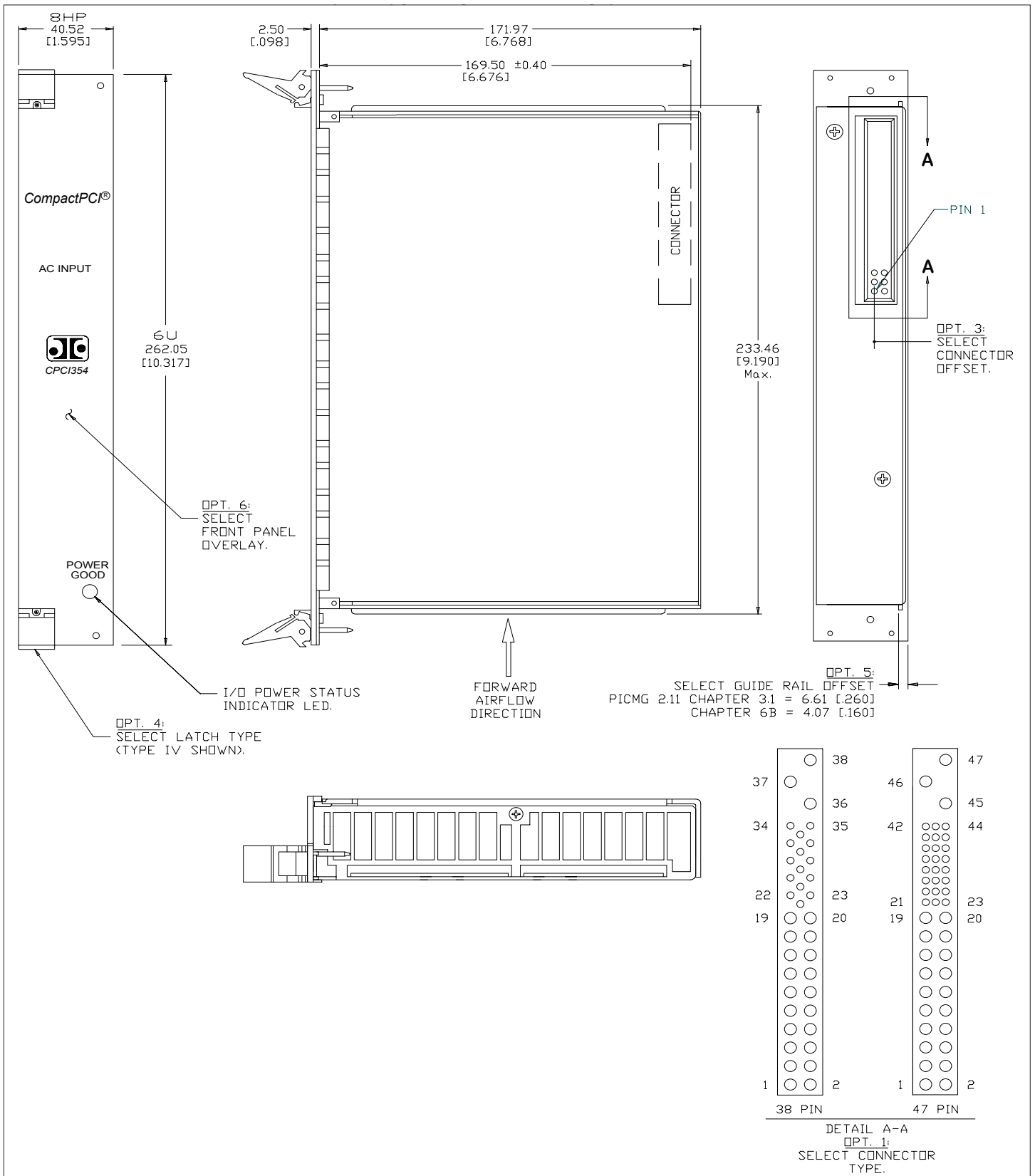
26	2	S-RTN	Sense Return for V1, V2, V3
27	2	+S2	+3.3V (V2) Remote Sense
28,29	2	N/C	No Connection (Reserved)
30	2	+S3	+12.0V (V3) Remote Sense
31	2	R/INH	Remote Inhibit. Close circuit to GND
32	3	ISHR-1	+5.0V (V1) Current Share
33	3	ISHR-2	+3.3V (V2) Current Share
34	3	ISHR-3	+12.0V (V3) Current Share
35	2	PF	Power Fail Signal
36	1	PE	Primary Earth (chassis) Safety Ground
37	2	ACC	Neutral AC Power Input
	2	+DC	+DC Input Power
38	2	AC	Line AC Power Input
	2	-DC	-DC Input Power

\*(1) Contact mating sequence. 1= First to make/ last to break

### BACKPLANE CONNECTOR LOCATIONS, VIEWED FROM THE FRONT OF THE ENCLOSURE



# COMPACTPCI350® OUTLINE DRAWING



# INNOVATIVE SPECIALTY DC POWER SYSTEMS

*Standard and Custom Power Supplies from 5W to 10KW*

## TRAFFIC CONTROL POWER SUPPLIES



- 70-400+ Watts / 120 and 220 VAC Models Available
- CALTRANS TEES, NYSDOT, CDOT, GDOT Compliant for 332, 334, 336, 342, 344, and 346 Series cabinets
- RoHS and NEMA Compliant
- Custom labeling and barcoding available
- Ruggedization against shock / vibration / humidity available

## CUSTOM POWER DISTRIBUTION ASSEMBLIES (PDAs)



- Compliant with TEES 2020
- 1U smaller than the PDA2-LX and PDA3-LX
- User accessible slots as specified
- Custom labeling and barcoding available
- Ruggedization against shock / vibration / humidity available

## COMPACT PCI



- AC or DC input, 175W - 500W DC output, active PFC
- 3U x 8HP, 6U x 8HP sizes
- PICMG 2.11 compliant, UL/CSA, NEMKO/TUV/CE certified, ROHS compliant
- Ruggedization against shock/ vibration/ humidity optional

**Primary Applications: Industrial Computing, Military, Satellite Comm, Test, Transportation, Telecom, Aerospace**

## SPECIALTY HOT-SWAPPABLE POWER SUPPLIES



- 200-1500W, Universal Input, 5-54VDC Output
- Hot Swap. N+1, 90+% Efficiency
- 1U Form Factors
- 30+ Variations for Various Applications Including Nuclear
- Ruggedization against shock/ vibration/ humidity optional

**Primary Applications: Medical Equipment, Military, Test, Automotive, Computing, Audio, Sensitive Electronics**

## RACK POWER SYSTEMS



- 200W-1500W, 2-8 slots, single or mixed output voltages, up to 10KW total
- Single, dual, or individual unit AC or DC input
- Internally or externally redundant DC outputs
- Standard 19" and 23" size or user-specified configurations also available
- Ruggedization against shock/ vibration/ humidity optional

**Primary Applications: Medical Equipment, Military, Test, Automotive, Computing, Audio, Sensitive Electronics**

## CUSTOMS & MODIFIED STANDARDS



- 75W-2KW
- Single to 7 outputs
- Designed and built to custom or semi-custom specifications
- Ruggedization against shock/ vibration/ humidity optional
- Custom electrical specs, chassis, paint, labeling, connectors, interface all available

**Primary Applications: Medical Equipment, Military, Test, Automotive, Computing, Audio, Sensitive Electronics**

## LOW NOISE CONVECTION / CONDUCTION COOLED POWER SUPPLIES



- 200W-500W, 90—264VAC full range input with 12-54 VDC Output
- Wide operating temperature range / high efficiency
- Small form factors
- Ruggedization against shock/ vibration/ humidity optional

**Primary Applications: Medical Equipment, Military, IT, Sensitive Electronics**

## MEDICAL ADAPTERS



- 6W-250W, Efficiency levels V & VI
- Desktop, Wall-mount, and Interchangeable AC plug types
- Large selection of output connectors – additional cable lengths available
- UL60601 (medical) approved adapters available
- Ruggedization against shock/ vibration/ humidity optional

