



## 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

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## **CompactPCI**<sup>®</sup> Series

## **350 Watt Power Supplies**

(PICMG<sup>®</sup> 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



CE





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## **TECHNICAL SPECIFICATIONS**

DC 36 DC 20FusingIntern AC-10 24V DAC Power Factor0.99 linInrush CurrentTherm 15 Apk 15 ApkAC Transient ProtectionMOV.VAC EMI FilteringMeetsEfficiencyTypica 65% aRedundant/Hot SwapFull pcOUTPUTVoltage/Current (V/A)AC Model: PCI354-1022T24VDC Model: DPCI304-1022TLine/ Load RegulationAt the <±1%	-72V (48V nom.), 16 -28V (24V nom.), 20 al line fuse provide 0.0A, 250VAC; 48V I C - 25.0A, 125VDC ne PFC typical at A nistor soft start (~2! < @ AC 115V; 30Apk < @ DC 24V or 48V	0.0A Max ed, non-user serviceable DC- 20.0A, 125VDC C 115V, full load 5°C cold start)				
AC- 10 24V D AC Power Factor 0.99 lii Inrush Current Therm 15Apk 15Apk AC Transient Protection MOV.V AC EMI Filtering Meets Efficiency Typica 65% a Redundant/Hot Swap Full po OUTPUT Voltage/Current (V/A) AC Model: PCI354-1022 48VDC Model: DPCI304-1022	0.0A, 250VAC; 48V E C - 25.0A, 125VDC ne PFC typical at A nistor soft start (~2 c @ AC 115V; 30Apl c @ DC 24V or 48V	DC- 20.0A, 125VDC C 115V, full load 5°C cold start)				
Inrush CurrentTherm 15Apk 15ApkAC Transient ProtectionMOV.VAC EMI FilteringMeetsEfficiencyTypica 65% aRedundant/Hot SwapFull pcOUTPUTVoltage/Current (V/A)AC Model: PCI354-1022T24VDC Model: DPCI304-1022TLine/ Load RegulationAt the <±1%	nistor soft start (~2) ( @ AC 115V; 30Apk ( @ DC 24V or 48V	5°C cold start)		Internal line fuse provided, non-user serviceable AC- 10.0A, 250VAC; 48V DC- 20.0A, 125VDC 24V DC - 25.0A, 125VDC		
15Apk      AC Transient Protection      MOV.V      AC EMI Filtering      Efficiency      Typica      65% a      Redundant/Hot Swap      Full pc      OUTPUT      Voltage/Current (V/A)      AC Model: PCI354-1022      48VDC Model: DPCI304-1022      24VDC Model: DPCI304-1022      Line/ Load Regulation	@ AC 115V; 30Apk @ DC 24V or 48V	-				
AC EMI Filtering    Meets      Efficiency    Typica      65% a    Redundant/Hot Swap      Redundant/Hot Swap    Full pc      OUTPUT    Voltage/Current (V/A)      AC Model: PCI354-1022    48VDC Model: DPCI354-1022      24VDC Model: DPCI304-1022    T      Line/ Load Regulation    At the <±1%	Withstands differer	Thermistor soft start (~25°C cold start) 15Apk @ AC 115V; 30Apk @ AC 230V 15Apk @ DC 24V or 48V				
Efficiency    Typica      65% a    Redundant/Hot Swap    Full pc      OUTPUT    Voltage/Current (V/A)    AC Model: PCI354-1022      48VDC Model: DPCI354-1022    T      24VDC Model: DPCI304-1022    T      Line/ Load Regulation    At the			transients as specified by IE	EE C62.41 3KV		
65% a      Redundant/Hot Swap      Full pc      OUTPUT      Voltage/Current (V/A)      AC Model: PCI354-1022      48VDC Model: DPCI354-1022      24VDC Model: DPCI304-1022      Line/ Load Regulation      At the       <±1%	IFCC Level A, and I	EN 55022 Level A				
OUTPUT      Voltage/Current (V/A)      AC Model: PCI354-1022      48VDC Model: DPCI354-1022      24VDC Model: DPCI304-1022      Line/ Load Regulation      At the	Typical, full load: 60% at AC 115V 65% at DC 48V; 60% at DC 24V					
Voltage/Current (V/A)      Image: Current (V/A)        AC Model: PCI354-1022      Image: Current (V/A)        48VDC Model: DPCI354-1022      Image: Current (V/A)        24VDC Model: DPCI304-1022      Image: Current (V/A)        Line/ Load Regulation      At the current (V/A)	ower N+1 redunda	nt, hot swap capable				
AC Model: PCI354-1022 48VDC Model: DPCI354-1022 24VDC Model: DPCI304-1022 Line/ Load Regulation At the <±1%						
48VDC Model: DPCI354-1022        24VDC Model: DPCI304-1022        Line/ Load Regulation        At the         <±1%	V1	V2	V3	V4		
24VDC Model: DPCI304-1022      Line/ Load Regulation      At the       <±1%	5.0/40	3.3/40	+12/9	-12/1		
24VDC Model: DPCI304-1022        Line/ Load Regulation      At the         <±1%	5.0/40	3.3/40	+12/9	-12/1		
Line/Load Regulation At the <±1%	Total loading on all outputs not to exceed 350W					
Line/ Load RegulationAt the <±1%	5.0/30	3.3/30	+12/5	-12/1		
<±1%	Fotal loading on all	outputs not to exceed 30	WOW			
Minimum Loading None	At the Sense Point, Over Full Input Range 0 – 100% Output Loading $<\pm1\%$ for V1, V2, V3, sense leads connected. $<\pm5\%$ for V4					
	None required for single unit applications. 10% loading required in N+1, N2 configurations					
Stability Output	Output drift <±0.2% after 20 minute warm-up					
Temperature Coefficient<±0.02	<±0.02%/ºC, 0º - 50ºC, after 20 minute warm-up					
	Less than 3% deviation with a 25% load change at 1A/µsec. Output returns to within 1% in less than 300µsec					
	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/V1, V2Parallel N+1 Operation	V1, V2, V3 Outputs. Single wire connection for $\pm 10\%$ current sharing between any number of units					
	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					
AC Hold-Up Time Output	Outputs remain in regulation >15msec minimum following loss of AC power at low line, full load					
Over Current/ Short Circuit Protection Const	ant current limit or	all outputs. Automatic re	ecovery when overload is re	emoved		
	Non-crowbar type. Any output that exceeds $25\% \pm 10\%$ of nominal Vout will cause all outputs to latch off. Remote inhibit, enable or power input recycle required to reset.					
Over Temperature Protection Intern	Internal temperature sensing. Causes all outputs to shut down. Automatic recovery					
Under Voltage Warning Any or	utput dropping be	low 10% of nominal trigg	ers the power fail warning	signal		
	Outputs latch-off if remote sense connections are installed in reverse. Remote inhibit, enable or power input recycle required to reset					
Over/ Under Shoot None						

\*Specifications subject to change without notice.





Remote Enable      Enabled by closed circuit or TL logic 0.        Disabled by open circuit or TL logic 1.      Disabled by open circuit or TL logic 1.        Disabled by open circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by closed circuit or TL logic 1.      Disabled by closed circuit or TL logic 1.        Disabled by close circuit or Close clo	SIGNALS, INDICATORS AND C	ONTROLS		
Disabled by closed circuit or TTL logit 0        Power Fail Warning      Loss of Input AC Causes a TTL compatible signal tags low values prior to any output disping triggered in both AC and DC input models by an under voltage condition on any output indicates an input and/ or output power fault        LED Indicator      Single bic loof or LED. Green Indicates input power fould outputs within regulation. OFF or RED indicates input power fault        MECHANICAL      Mechanical Outline Drawings are available. Contact the factory and request copies by specifying input voltage and connector type        Weight      Approx: 2.38 kg / 4.8 lbs        Retaining Latches      Supplied with Type V Nittal #366.030 upper and #3666.902 lower latches. or Type VII Telecom Rittal #366.134 upper and #3666.135 lower latches. Models may be ordered without latches. Refer to Option Codes to specify        VO Connector Offset      47 pin models supplied with the I/O connector at 7.40 (291) offset (PICMG std) only. 38 pin models supplied with the uncertor at 15.27 (261) or optional 7.40 (291) offset        Guide Ralls      47 pin models supplied with guide rails at 6.61 (260) offset for use with Rittal #366.4669 CPCI standard guides. 38 pin models available to both 6.61 (260) offset        Front Panel Overlay      Supplied with Lexan overlay and JE Logo. May be deleted, or supplied with customer specified logo or other information. Contact factory        Collegation      Part of Option Codes to specify orneday        OPERATING ENVIRONMENT      OPerating Tony andritor register to option codes to specify orenay <td>Remote Enable</td> <td colspan="2"></td>	Remote Enable			
out of regulation. At AC turn-on, signal stays low until all outputs are in regulation. PF signal alab triggered in both AC and DC input models by an under voltage condition on any output        LED Indicator      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        Weight      Approx. 238 kg / 48 lbs        Retaining Latches      Supplied with Type N Hittal #368.093 upper and #3686.902 lower latches, or Type VII Telecom Ritral #366.135 lower latches. Models may be ordered without latches. Refer to Option Codes to specify connector at 7.40 [291] offset (PICMG std) only. 38 pin models supplied with the I/O connector at 7.40 [291] offset (PICMG std) only. 38 pin models supplied with build rails at 6.61 [260] offset for use with Rittal #3687.832 (or requivalent) F9U guides. 407 Lindo) optional guide rail offset available for use with Rittal #3687.832 (or requivalent) F9U guides. 38 pin models available in both 6.61 [260] and 407 Lindo) offset swith 7.40 [291] //O connector offset. 407 Lindo) only with Laxan overlay and JE Logo. May be deteed, or supplied with customer specified logo or other information. Contact factory DeferATING ENVIRONMENT        Operating Temperature      0° - 50°C ambient at full load, with specified forward airflow. 20 cm minimum for 38-pin configuration, 20 cm minimum for 38-pin configurati	Remote Inhibit			
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      Weight    Approx: 2.38 kg / 4.8 lbs      Retaining Latches    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      I/O Connector Offset    47 pin models supplied with the Connector at 15.27 L601] or optional 7.40 (291) offset      Guide Rails    47 pin models supplied with the connector at 15.27 L601 or optional 7.40 (291) offset      Guide Rails    47 pin models supplied with guide rails at 6.61 [260] offset for use with Rittal #3684.669 CPCI standard guides. 38 pin models available in both 6.61 [260] and 4.07 [1.60] offsets with 7.40 [291] I/O connector offset, 4.07 [1.60] only with 15.27 [261] offset      Front Panel Overlay    Supplied with Lexan overlay and JE Logo. May be deleted, or supplied with customer specified logo or other information. Contact factory      POPERATING ENVIRONMENT    Derect forward airflow required to achieve full rated power and specified MTBE. A Chaput: 90 cfm minimum for 47-pin configuration, 120 cfm minimum for 43-pin configuration, 120 cfm state 90 cfm minimum for 43-pin configuration, 120 cfm state 90 cfm minimum for 47-pin configuration, 120 cfm state 90 cfm minimum for 43-pin con	Power Fail Warning	out of regulation. At AC turn-on, signal stays low until all outputs are in regulation. PF signal also		
Mechanical Outline Drawings are available. Contact the factory and request copies by specifying input voltage and connector type        Weight      Approx: 2.38 kg/ 4.8 lbs        Retaining Latches      Supplied with Type IV Rittal #3686.903 upper and #3686.902 lower latches, or Type VII Telecom Rittal #3686.134 upper and #3686.133 lower latches. Models may be ordered without latches. Refer to Option Codes to select        I/O Connector Offset      47 pin models supplied with the 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 (or equivalent) PSU guides.        Guide Rails      47 pin models supplied with the Connector at 0.527 [601] or optional 7.40 [291] V/O connector offset, 4.07 [.160] optional guide rail offset available for use with Rittal #3687.832 (or equivalent) PSU guides.        A optin Codes to specify connector offset      90 in models supplied with 15.27 [.601] offset        Front Panel Overlay      Supplied with Lexan overlay and JE Logo. May be deleted, or supplied with customer specified logo or other information. Contact factory        PEFRATING ENVIRONMENT      0 = - 50°C ambient at full load, with specified forward airflow        Operating Temperature      0 = - 50°C ambient at full load, with specified forward airflow        Operating Temperature      0 - 50°C ambient at full load, with specified forward airflow        Operating Temperature      0 - 50°C ambient at full load, with specified forward airflow reguines to affore to 1500 reguines        Op	LED Indicator			
Weight      Approx: 2.38 kg / 4.8 lbs        Retaining Latches      Supplied with Type IV Rittal #3666.903 upper and #3666.902 lower latches, or Type VII Telecom Rittal #366.134 upper and #3666.135 lower latches. Models may be ordered without latches. Refer to Option Codes to select        I/O Connector Offset      47 pin models supplied with the I/O connector at 7.40 [291] offset (PICMG std) only. 38 pin models supplied with the uncent at 1.52 / [601] or optional 7.40 [291] offset        Guide Rails      47 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. 38 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        Front Panel Overlay      Supplied with twas noverlay and JE (260) And 4.07 [.160] offset swith 7.40 [.291] I/O connector offset, 4.07 [.160] only with 15.27 [.601] offset        Prent Panel Overlay      Supplied with twas noverlay and JE (260). And yab deleted, or supplied with customer specified logo or other information. Contact factory        Refer to Option Codes to specify guide rail offset      Supplied mitinum for 47-pin configuration. DC (part: 90 cfm minimum for 38-pin configuration. DC Input: 90 cfm noils on the 78-pin configuration. DC Input: 90 cfm noils and for 38-pin configurations <tr< td=""><td>MECHANICAL</td><td></td></tr<>	MECHANICAL			
Retaining Latches      Supplied with Type IV Rittal #3686.03 upper and #3686.092 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        I/O Connector Offset      47 pin models supplied with the I/O connector at 7.40.[291] offset (RICMG std) only. 38 pin models supplied with the Connector at 7.40.[291] offset (RICMG std) only. 38 pin models supplied with guide rails at 6.61 [.260] offset for use with Rittal #3687.832 (or equivalent) PSU guides. 407 [.160] optional guide rail offset available for use with Rittal #3687.832 (or equivalent) PSU guides. 407 [.160] optional guide rail offset available for use with Rittal #3684.669 CPCI standard guides. 38 pin models available in both 6.61 [.260] and 4.07 [.160] offsets with 7.40 [.291] I/O connector offset, 4.07 [.160] optional guide rail offset available for use with Rittal #3687.832 (or equivalent) with 15.27 [.601] offset        Front Panel Overlay      Supplied with Lexan overlay and JE Logo. May be deleted, or supplied with customer specified logo or other information. Contact factory        PERATING ENVIRONMENT      OP= 50°C ambient at full load, with specified forward airflow        Operating Temperature      0° - 50°C ambient at full load, with specified forward airflow        Cooling      Direct forward airflow required to achieve full rated power and specified MTBF. A C Input: 90 cfm minimum for 38-pin configuration. 120 cfm minimum for 38-pin configuration. DC Input: 90 cfm minimum for all configuration. 120 cfm minimum for all configuration.        Storage Temperature      -40° to 85°C        Altitude      Operating to 10,000 ft; St	Mechanical Outline Drawings	are available. Contact the factory and request copies by specifying input voltage and connector type		
Rittal #3686.134 upper and #3686.135 lower latches. Models may be ordered without latches. Refer to Option Codes to select      I/O Connector Offset    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      Guide Rails    47 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 order available in both 6.61 [.260] and 4.07 [.160] offset stwith 7.40 [.291] I/O connector offset. 4.07 [.160] only with 15.27 [.601] offset      Front Panel Overlay    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 orerlay      OPERATING ENVIRONMENT      OPERATING ENVIRONMENT      OPErating Temperature      OPERATING ENVIRONMENT      Operating Temperature      OPERATING ENVIRONMENT      OPERATING ENVIRONMENT      Operating Temperature      OPERATING ENVIRONMENT      Operating Temperature      OPERATING ENVIRONMENT      Operating Temperature      OPERATING ENVIRONMENT      Operating Temperature      OPERATING ENVIR	Weight	Approx: 2.38 kg / 4.8 lbs		
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      Guide Rails    47 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. 38 pin models available in both 6.61 [260] and 4.07 [160] offsets with 7.40 [291] //O connector offset. 4.07 [160] only with 15.27 [601] offset      Fort Panel Overlay      Supplied with Levan overlay and JE Logo. May be deleted, or supplied with customer specified logo or other information. Contact factory      OPERATING ENVIRONMENT      Operating Temperature      O <sup>0</sup> – 50°C ambient at full load, with specified forward airflow      Cooling      OPERATING ENVIRONMENT      Operating Temperature      O <sup>0</sup> – 50°C ambient at full load, with specified forward airflow      Cooling      OPERATING ENVIRONMENT      Colspan="2">OPERATING ENVIRONMENT      Operating Temperature      OPEC forward airflow required to achieve full rated power and specified MTBF. A C Input: 90 cfm minimum for 47-pin configuration, 120 cfm minimum for 38-pin configuration, 120 cfm minimum for 38-pin configurations      Refer to Option Sole past specified f	Retaining Latches	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. Refe		
Guide Rails    47 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.      38 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      Front Panel Overlay      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 guide rail offset      OPERATING ENVIRONMENT      Operating Temperature    0° – 50°C ambient at full load, with specified forward airflow      Operating Temperature      0° – 50°C ambient at full load, with specified forward airflow      Coling      Direct forward airflow required to achieve full rated power and specified MTBF.      AC Input: 90 cfm minimum for 47-pin configuration.      120 cfm minimum for 38-pin configuration.      DC Input: 90 cfm minimum for 38-pin configuration. </td <td>I/O Connector Offset</td> <td></td>	I/O Connector Offset			
Ior equivalent) PSU guides.      407 [.160] optional guide rail offset available for use with Rittal #3684.669 CPCI standard guides.      38 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      Front Panel Overlay      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 guide rail offset      OPERATING ENVIRONMENT      Operating Temperature      0° - 50°C ambient at full load, with specified forward airflow      Cooling      Direct forward airflow required to achieve full rated power and specified MTBF.      AC Input: 90 cfm minimum for 47-pin configuration.      DC Input: 90 cfm minimum for 47-pin configuration.      DC Input: 90 cfm minimum for 47-pin configuration.      DC Input: 90 cfm minimum for 47-pin configuration.      DE Continue: 50 cfm minimum for 47-pin configuration.      DE Context: 50 cfm minimum for 47-pin configuration.      DE Context: 50 cfm minimum for 47-pin configuration.      DE Conput: 50 cfm minimum for 47-pin configuration.		Refer to Option Codes to specify connector offset		
Refer to Option Codes to specify guide rail offset        Front Panel Overlay      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        Operating Temperature      0° – 50°C ambient at full load, with specified forward airflow        Cooling      Direct forward airflow required to achieve full rated power and specified MTBF. AC Input: 90 cfm minimum for 47-pin configuration, 120 cfm minimum for 38-pin configuration.        DC Input: 90 cfm minimum for 47-pin configuration.      DC Input: 90 cfm minimum for 38-pin configuration.        DC Input: 90 cfm minimum for 38-pin configuration.      DC Input: 90 cfm minimum for 38-pin configuration.        Storage Temperature      -40° to 85°C        Altitude      Operating to 10,000 ft; Storage to 50,000 ft.        MTBF      Designed for 150,000 hrs at 25°C        INTERCONNECT      Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence        PICMG Std 47 Pin      Positronic Ind. P/N PCIH47F300A1        Optional 38 Pin      Positronic Ind. P/N PCIH38F300A1        SAFETY      Mates with PI P/N PCIH38F300A1        SAFETY      Recognized to UL 1950, Third (3''') Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked<	Guide Rails	(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		
or other information. Contact factory        Refer to Option Codes to specify overlay        OPERATING ENVIRONMENT        Operating Temperature      0° – 50°C ambient at full load, with specified forward airflow        Cooling      Direct forward airflow required to achieve full rated power and specified MTBF. AC Input: 90 cfm minimum for 38-pin configuration. DC Input: 90 cfm minimum for 38-pin configuration. DC Input: 90 cfm minimum for all configurations        Relative Humidity      Up to 90% RH, non-condensing        Operational Vibration      0.75G peak, 5 – 500Hz along three orthogonal axis        Storage Temperature      -40° to 85°C        Altitude      Operating to 10,000 ft; Storage to 50,000 ft.        MTBF      Designed for 150,000 hrs at 25°C        INTERCONNECT      Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence        PICMG Std 47 Pin      Positronic Ind. P/N PCIH477H300A1. Mates with PI P/N PCIH47F300A1        Optional 38 Pin      Positronic Ind. P/N PCIH38H400A1-241.1. Mates with PI P/N PCIH38F300A1        SAFETY      48VDC and All AC Input Models      Recognized to UL 1950, Third (3°) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked		Refer to Option Codes to specify guide rail offset		
OPERATING ENVIRONMENT        Operating Temperature      0° - 50°C ambient at full load, with specified forward airflow        Cooling      Direct forward airflow required to achieve full rated power and specified MTBF. AC Input: 90 cfm minimum for 47-pin configuration, 120 cfm minimum for 38-pin configuration. DC Input: 90 cfm minimum for all configurations        Relative Humidity      Up to 90% RH, non-condensing        Operational Vibration      0.75G peak, 5 - 500Hz along three orthogonal axis        Storage Temperature      -40° to 85°C        Altitude      Operating to 10,000 ft; Storage to 50,000 ft.        MTBF      Designed for 150,000 hrs at 25°C        INTERCONNECT      Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence        PICMG Std 47 Pin      Positronic Ind. P/N PCIH47M400A1. Mates with PI P/N PCIH47500A1        Optional 38 Pin      Positronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1        SAFETY      48VDC and All AC Input Models      Recognized to UL 1950, Third (3 <sup>en</sup> ) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TU V EN60950/A11:1997. CE Marked	Front Panel Overlay			
Operating Temperature      0° – 50°C ambient at full load, with specified forward airflow        Cooling      Direct forward airflow required to achieve full rated power and specified MTBF. AC Input: 90 cfm minimum for 47-pin configuration, 120 cfm minimum for 38-pin configuration. DC Input: 90 cfm minimum for all configurations        Relative Humidity      Up to 90% RH, non-condensing        Operational Vibration      0.75G peak, 5 – 500Hz along three orthogonal axis        Storage Temperature      -40° to 85°C        Altitude      Operating to 10,000 ft; Storage to 50,000 ft.        MTBF      Designed for 150,000 hrs at 25°C        INTERCONNECT      Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence        PICMG Std 47 Pin      Positronic Ind. P/N PCIH47/M400A1. Mates with PI P/N PCIH47F300A1        Optional 38 Pin      Positronic Ind. P/N PCIH438F300A1        SAFETY      Recognized to UL 1950, Third (3°) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked        24VDC Input Models      Pending		Refer to Option Codes to specify overlay		
Cooling    Direct forward airflow required to achieve full rated power and specified MTBF.      AC Input: 90 cfm minimum for 38-pin configuration, 120 cfm minimum for 38-pin configuration.    DC Input: 90 cfm minimum for all configuration.      DC Input: 90 cfm minimum for all configuration.    DC Input: 90 cfm minimum for all configurations      Relative Humidity    Up to 90% RH, non-condensing      Operational Vibration    0.75G peak, 5 – 500Hz along three orthogonal axis      Storage Temperature    -40° to 85°C      Altitude    Operating to 10,000 ft; Storage to 50,000 ft.      MTBF    Designed for 150,000 hrs at 25°C      INTERCONNECT    Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence      PICMG Std 47 Pin    Positronic Ind. P/N PCIH47F300A1      Optional 38 Pin    Positronic Ind. P/N PCIH38F300A1      SAFETY    Recognized to UL 1950, Third (3°) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked      24VDC Input Models    Pending	OPERATING ENVIRONMENT			
AC Input: 90 cfm minimum for 47-pin configuration, 120 cfm minimum for 38-pin configuration. DC Input: 90 cfm minimum for all configurationsRelative HumidityUp to 90% RH, non-condensingOperational Vibration0.75G peak, 5 – 500Hz along three orthogonal axisStorage Temperature-40° to 85°CAltitudeOperating to 10,000 ft; Storage to 50,000 ft.MTBFDesigned for 150,000 hrs at 25°CINTERCONNECTUse of the specified mating connector is required to insure proper "make/break" sequential contact sequencePICMG Std 47 PinPositronic Ind. P/N PCIH47M400A1. Mates with PI P/N PCIH47F300A1Optional 38 PinPositronic Ind. P/N PCIH38F400A1-241.1. Mates with PI P/N PCIH38F300A1SAFETY48VDC and All AC Input Models24VDC Input ModelsPending	Operating Temperature	0° – 50°C ambient at full load, with specified forward airflow		
Operational Vibration      0.75G peak, 5 – 500Hz along three orthogonal axis        Storage Temperature      -40° to 85°C        Altitude      Operating to 10,000 ft; Storage to 50,000 ft.        MTBF      Designed for 150,000 hrs at 25°C        INTERCONNECT      Input/ Output Connectors        Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence        PICMG Std 47 Pin      Positronic Ind. P/N PCIH47F300A1        Optional 38 Pin      Positronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1        SAFETY      48VDC and All AC Input Models        Part      Recognized to UL 1950, Third (3rd) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked        24VDC Input Models      Pending	Cooling	<b>AC Input:</b> 90 cfm minimum for 47-pin configuration, 120 cfm minimum for 38-pin configuration.		
Storage Temperature    -40° to 85°C      Altitude    Operating to 10,000 ft; Storage to 50,000 ft.      MTBF    Designed for 150,000 hrs at 25°C      INTERCONNECT    Input/ Output Connectors      Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence      PICMG Std 47 Pin    Positronic Ind. P/N PCIH47F300A1      Optional 38 Pin    Positronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1      SAFETY    48VDC and All AC Input Models      Pay Models    Pending	Relative Humidity	Up to 90% RH, non-condensing		
AltitudeOperating to 10,000 ft; Storage to 50,000 ft.MTBFDesigned for 150,000 hrs at 25°CINTERCONNECTUse of the specified mating connector is required to insure proper "make/break" sequential contact sequencePICMG Std 47 PinPositronic Ind. P/N PCIH47M400A1. Mates with PI P/N PCIH47F300A1Optional 38 PinPositronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1SAFETY48VDC and All AC Input ModelsRecognized to UL 1950, Third (3rd) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked24VDC Input ModelsPending	Operational Vibration	0.75G peak, 5 – 500Hz along three orthogonal axis		
MTBF    Designed for 150,000 hrs at 25°C      INTERCONNECT    Input/ Output Connectors      Input/ Output Connectors    Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence      PICMG Std 47 Pin    Positronic Ind. P/N PCIH47M400A1. Mates with PI P/N PCIH47F300A1      Optional 38 Pin    Positronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1      SAFETY    48VDC and All AC Input Models      Public Models    Recognized to UL 1950, Third (3rd) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked      24VDC Input Models    Pending	Storage Temperature	-40° to 85°C		
INTERCONNECT      Input/ Output Connectors    Use of the specified mating connector is required to insure proper "make/break" sequential contact sequence      PICMG Std 47 Pin    Positronic Ind. P/N PCIH47M400A1. Mates with PI P/N PCIH47F300A1      Optional 38 Pin    Positronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1      SAFETY    48VDC and All AC Input Models      Put Models    Recognized to UL 1950, Third (3rd) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked      24VDC Input Models    Pending	Altitude	Operating to 10,000 ft; Storage to 50,000 ft.		
Input/ Output ConnectorsUse of the specified mating connector is required to insure proper "make/break" sequential contact sequencePICMG Std 47 PinPositronic Ind. P/N PCIH47M400A1. Mates with PI P/N PCIH47F300A1Optional 38 PinPositronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1SAFETYRecognized to UL 1950, Third (3rd) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked24VDC Input ModelsPending	MTBF	Designed for 150,000 hrs at 25°C		
sequence    sequence      PICMG Std 47 Pin    Positronic Ind. P/N PCIH47M400A1. Mates with PI P/N PCIH47F300A1      Optional 38 Pin    Positronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1      SAFETY    Recognized to UL 1950, Third (3rd) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked      24VDC Input Models    Pending	INTERCONNECT			
Mates with PI P/N PCIH47F300A1      Optional 38 Pin    Positronic Ind. P/N PCIH38M400A1-241.1. Mates with PI P/N PCIH38F300A1      SAFETY    Recognized to UL 1950, Third (3rd) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked      24VDC Input Models    Pending	Input/ Output Connectors			
Mates with PI P/N PCIH38F300A1      SAFETY      48VDC and All AC    Recognized to UL 1950, Third (3rd) Edition; Certified to CSA 22.2 No.234/950 (cULus); Approved to TUV EN60950/A11:1997. CE Marked      24VDC Input Models    Pending	PICMG Std 47 Pin	Positronic Ind. P/N PCIH47M400A1.		
48VDC and All AC Input ModelsRecognized 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 Marked24VDC Input ModelsPending	Optional 38 Pin			
Input Models  TUV EN60950/A11:1997. CE Marked    24VDC Input Models  Pending	SAFETY			
24VDC Input Models Pending				
	•			

\*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	3	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	3	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	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	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	3	R/EN	Remote Enable. Close circuit to GND

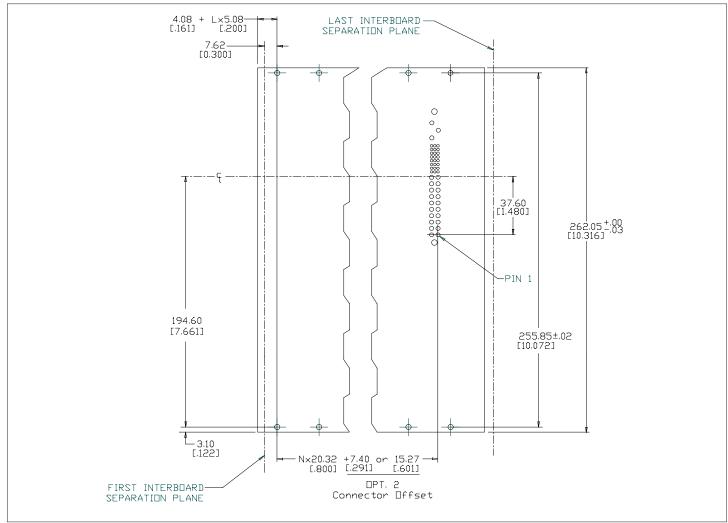


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26	2	S-RTN	Sense Return for V1, V2, V3
27	2	+S2	+3.3V (V2) Remote Sense
28,29	2	N/C	No Connection (Reserved)
30	2	+S3	+12.0V (V3) Remote Sense
31	2	R/INH	Remote Inhibit. Close circuit to GND
32	3	ISHR-1	+5.0V (V1) Current Share
33	3	ISHR-2	+3.3V (V2) 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) Cor	ntact mating sequence. 1= First to make/ last to break

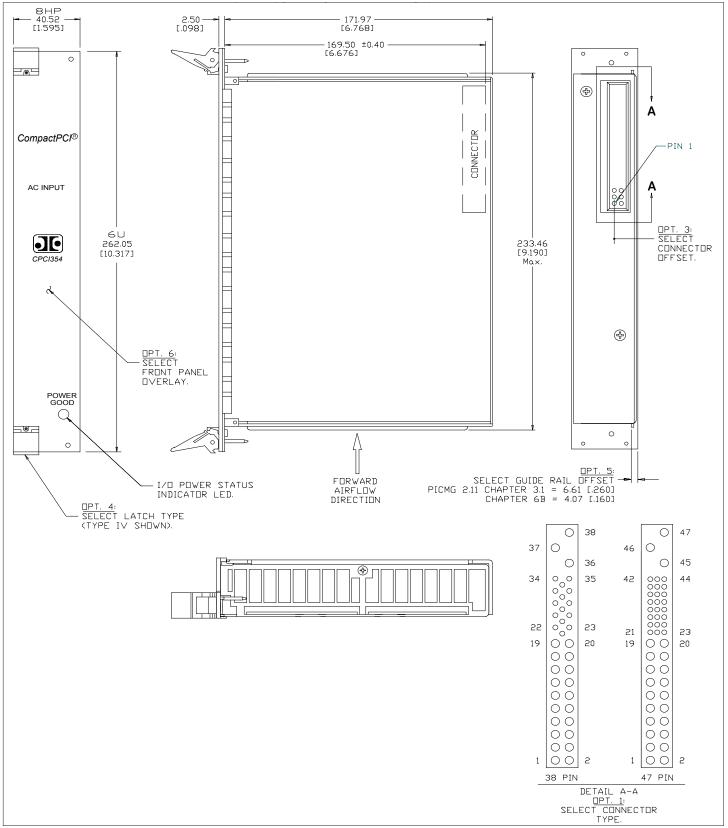
## **BACKPLANE CONNECTOR LOCATIONS, VIEWED FROM THE FRONT OF THE ENCLOSURE**







## **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

#### 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

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**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

#### **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



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