

CompactPCI® SYSTEM POWER SUPPLIES

CPCI SERIES 200 Watts, Ac Input with PFC

DPCI SERIES 200 Watts, 48 Vdc Input

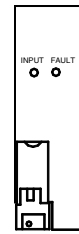


EXECUTIVE MEMBER



FEATURES:

- 200 W in 3U x 8HP,
- Fully compliant with PICMG CompactPCI® specifications
- Current sharing and internal OR-ing diodes for N+1 redundancy
- High current 5 V and 3.3 V outputs
- CompactPCI® package requires only 15 cfm of external cooling air
- Universal ac input versions with power factor correction
- 48 Vdc input versions



3U x 8 HP

The CPCI series (ac input) and DPCI series (dc input) are highly reliable power supplies for CompactPCI systems, which are increasingly used in communications, industrial, military/aerospace, and other applications. These power supplies offer high power density in plug-in modules that meet the requirements of the PICMG® power interface specification for CompactPCI systems.

These units may be used as a single power supply for a CompactPCI system, or multiple units may be used in parallel for higher power capability as needed. In addition, all units include current sharing, internal OR-ing diodes, and a hot plug input/output connector to offer full hot swap capability and N+1 redundancy. Also, compatible ac and dc input units offer standardization on a single power supply series for a system mechanical configuration.

AC INPUT

| Model | Power | Connector | Output 1 | Output 2 | Output 3 | Output 4 | Min. Load on V1* | Max. Output From V1 & V2 |
|----------------|-------|-----------|--------------|--------------|--------------|---------------|------------------|--------------------------|
| CPCI-204-1203 | 200 W | 47 Pin | 5.0 V @ 25 A | 3.3V @ 30 A | 12 V @ 5.5 A | -12 V @ 0.5 A | 3.0 A | 35 A |
| CPCI-204-1203M | 200 W | DIN "M" | 5.0 V @ 25 A | 3.3 V @ 25 A | 12 V @ 5.5 A | -12 V @ 0.5 A | 3.0 A | 35 A |

CPCI SERIES SPECIFICATIONS

AC INPUT: 90-264 Vac continuous range, 47 to 63 Hz.

POWER FACTOR: 0.99 typical at full load. Meets EN61000-3-2.

INRUSH:

CPCI : Cold start ac current is less than 27 A at 115 Vac, and 50 A at 230 Vac. Limited by thermistor.

BROWNOUT PROTECTION: Holds regulation to 85 Vac (30 seconds maximum)

HOLDUP TIME: 10 ms minimum after removal of power at full load.

EFFICIENCY: 70% typical.

EMI: CONDUCTED RFI

Meets FCC Part 15, Subpart J, class A; EN55022 class A; CISPR 22 class A.

FAIL# SIGNAL: TTL compatible signal. Signal goes low under the following conditions:

Outputs #1 or #2 fail; an overcurrent condition on outputs #1, #2, or #3; an overtemperature shutdown; an overvoltage shutdown; or an ac input failure (5 ms warning before outputs shutdown).

48 VDC INPUT

| Model | Power | Connector | Output 1 | Output 2 | Output 3 | Output 4 | Min. Load on V1* | Max. Output From V1 & V2 |
|----------------|-------|-----------|------------|--------------|--------------|---------------|------------------|--------------------------|
| DPCI-204-1203 | 200 W | 47 Pin | 5 V @ 25 A | 3.3 V @ 30 A | 12 V @ 5.5 A | -12 V @ 0.5 A | 3.0 A | 35 A |
| DPCI-204-1203M | 200 W | DIN "M" | 5 V @ 25 A | 3.3 V @ 25 A | 12 V @ 5.5 A | -12 V @ 0.5 A | 3.0 A | 35 A |

DPCI SERIES SPECIFICATIONS

DC INPUT: 36-72 Vdc

EFFICIENCY: 75% typical

FAIL# SIGNAL: TTL compatible signal. Signal goes low under the following conditions: Any of 4 outputs fail; an overtemperature shutdown; or an overvoltage shutdown.

* Note: For full output current capability on V2, V3, V4.



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CompactPCI® SYSTEM POWER SUPPLIES

GENERAL SPECIFICATIONS

OUTPUT

LINE & LOAD REGULATION:

± 2% over input range and min to 100% load change.

RIPPLE & NOISE

1% p-p or 50 mV, whichever is greater.

Measured at mating connector with 20 µF

REMOTE SENSE

Open sense lead protection

TEMPERATURE COEFFICIENT

(Outputs #1 and 2): 0.03% per degree centigrade

STABILITY

0.1% over 8 hours after 30 minutes warm-up.

TRANSIENT RESPONSE

(Outputs #1 and 2): Output voltage returns to within 1% in less than 1 ms for a 50% load change. Peak transient does not exceed 5%.

OVERVOLTAGE PROTECTION

(Outputs #1 and #2): Protects load against power supply induced overvoltage. Trip-point is factory set so that output voltage cannot exceed 136% of nominal. Input power must be recycled to reset.

OVERLOAD PROTECTION

All outputs are protected against overload and short circuit, Automatic recovery upon removal of fault.

DEG# SIGNAL :

TTL compatible signal. Signal goes low 20°C before an overtemperature shutdown.

FAIL LED :

Amber LED illuminates upon a failure condition as per the CPCI and DPCI series specifications.

STATUS LED :

Green LED illuminates with no presence of any failure condition.

REMOTE ENABLE

Contact closure to common turns on dc outputs.
Recessed pin for "make last, break first" connection.

REMOTE INHIBIT

Contact closure to the negative sense line or a TTL level "0" turns off dc outputs.

REDUNDANCY

Built-in ORing diodes, slope program current sharing on all outputs, and self aligning connector provide hot swap and N+1 capabilities. Current sharing remains within 10% of the unit's full output rating while units are in thermal equilibrium.

REVERSE VOLTAGE

Protected against reverse voltage up to supply current rating.

ENVIRONMENTAL

COOLING

15 cfm, 225 lfm airflow required for cooling.

OUTPUT ISOLATION

Isolated from ground 50 Vdc (leakage current <20 µA)

THERMAL PROTECTION

Shuts down power supply if overheated.
Automatic recovery.

TEMPERATURE RANGE

0 to 40° centigrade at full ratings; derate 2.5% per degree centigrade from 40° to 70° centigrade.
Unit will start up at -20° centigrade.

MISCELLANEOUS

SAFETY AGENCY APPROVALS

Models are approved to UL1950; CSA 22.2 #950; IEC 950 and TUV EN60950, Class 1 SELV., CE 72/23/EEC/93/68EEC (low voltage directive).

GUARANTEED FOR 2 YEARS

Two year guarantee includes labor and parts.
Guarantee applies to operation at full published specifications at the end of 2 years.

OPTIONS

LOW LEAKAGE (CPCI Models only)

"L" option: Leakage current less than 0.5 mA per unit. Will require additional filtering for compliance to EMI specifications.



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CompactPCI® SYSTEM POWER SUPPLIES

POWER SUPPLY PIN ASSIGNMENTS

MECHANICAL DIMENSIONS

CPCI-204 & DPCI-204 Models:

3U x 8HP W, 160 mm board depth

Utilizes a 47 pin modular connector in accordance with PICMG® Power Interface Specification 2.11.

Model: CPCI-204-1203

Connector: Positronics PCI47M400A1

Mating Connector: PCIH47F300A1

| Pin No. | Designation | Pin No. | Designation |
|---------|-------------|---------|---------------|
| 1 | +5 V | 25 | Not Used |
| 2 | +5 V | 26 | Not Used |
| 3 | +5 V | 27* | Enable |
| 4 | +5 V | 28 | Not Used |
| 5 | GND | 29 | Not Used |
| 6 | GND | 30 | +5 V Sense |
| 7 | GND | 31 | Not Used |
| 8 | GND | 32 | Not Used |
| 9 | GND | 33 | +3.3 V Sense |
| 10 | GND | 34 | Sense Return |
| 11 | GND | 35 | Not Used |
| 12 | GND | 36 | +12 V Sense |
| 13 | +3.3 V | 37 | Not Used |
| 14 | +3.3 V | 38 | DEG# |
| 15 | +3.3 V | 39 | Inhibit |
| 16 | +3.3 V | 40 | Not Used |
| 17 | +3.3 V | 41 | Not Used |
| 18 | +3.3 V | 42 | Fail # |
| 19 | GND | 43 | Not Used |
| 20 | +12 V | 44 | Not Used |
| 21 | -12 V | 45** | Safety Ground |
| 22 | GND | 46 | Ac Neutral |
| 23 | Not Used | 47 | Ac Line |
| 24 | GND | | |

* Pin 27 is a last mate, first break pin.

** Pin 45 is a first mate, last break pin.

Model: DPCI-204-1203

Connector: Positronics PCI47M400A1

Mating Connector: PCIH47F300A1

| Pin No. | Designation | Pin No. | Designation |
|---------|--------------|---------|----------------------|
| 1 | +5 V | 25 | Not Used |
| 2 | +5 V | 26 | Not Used |
| 3 | +5 V | 27* | Enable |
| 4 | +5 V | 28 | Not Used |
| 5 | GND | 29 | Not Used |
| 6 | GND | 30 | +5 V Sense |
| 7 | GND | 31 | Not Used |
| 8 | GND | 32 | Not Used |
| 9 | GND | 33 | +3.3 V Sense |
| 10 | GND | 34 | Sense Return |
| 11 | GND | 35 | Not Used |
| 12 | GND | 36 | +12 V Sense |
| 13 | +3.3 V | 37 | Not Used |
| 14 | +3.3 V | 38 | DEG# |
| 15 | +3.3 V | 39 | Inhibit |
| 16 | +3.3 V | 40 | Not Used |
| 17 | +3.3 V | 41 | Not Used |
| 18 | +3.3 V | 42 | Fail # |
| 19 | GND | 43 | Not Used |
| 20 | +12 V Output | 44 | Not Used |
| 21 | -12 V Output | 45** | Safety Ground |
| 22 | GND | 46 | -48 Vdc Input Return |

* Pin 27 is a last mate, first break pin.

** Pin 45 is a first mate, last break pin.

MECHANICAL DIMENSIONS

CPCI-204M & DPCI-204M Models:

3U x 8HP W, 160 mm board depth

Utilizes a DIN "M" connector as referenced in the PICMG® Power Interface Specification 2.11.

Model: CPCI-204-1203M

Male Connector: DIN 41612 Type "M"

Mating Connector: ERNI #914374 or AMP#148370

| Pin No. | Designation | Pin No. | Designation |
|---------|----------------|---------|--------------|
| A13 | Not Used | B17 | +3.3 V |
| A14 | Inhibit | B18 | +3.3 V |
| A15 | Not Used | B19 | +12 V Output |
| A16 | Sense Return | B20 | -12 V Output |
| A17 | +5 V Sense | B22 | +5 V |
| A18 | +3.3 V Sense | B25 | GND |
| A19 | +12 V Output | B28 | Not Used |
| A20 | -12 V Output | B31 | Not Used |
| B2 | Ac Line | C13 | Enable |
| B5 | Ac Neutral | C14 | DEG# |
| B8 | Not Used | C15 | Fail # |
| B11 | Chassis Ground | C16 | +3.3 V |
| B13 | +3.3 V | C17 | +3.3 V |
| B14 | +3.3 V | C18 | +3.3 V |
| B15 | +3.3 V | C19 | +12 V Output |
| B16 | +3.3 V | C20 | -12 V Output |

Model: DPCI-204-1203M

Male Connector: DIN 41612 Type "M"

Mating Connector: ERNI #914374 or AMP#148370 Mating

Connector: ERNI #914374 or AMP#148370

| Pin No. | Designation | Pin No. | Designation |
|---------|----------------|---------|----------------------|
| A13 | Not Used | B17 | +3.3 V |
| A14 | Inhibit | B18 | +3.3 V |
| A15 | Not Used | B19 | +12 V Output |
| A16 | Sense Return | B20 | -12 V Output |
| A17 | +5 V Sense | B22 | +5 V |
| A18 | +3.3 V Sense | B25 | GND |
| A19 | +12 V Output | B28 | -48 Vdc Input Return |
| A20 | -12 V Output | B31 | -48 Vdc Input |
| B2 | Not Used | C13 | Enable |
| B5 | Not Used | C14 | DEG# |
| B8 | Not Used | C15 | Fail # |
| B11 | Chassis Ground | C16 | +3.3 V |
| B13 | +3.3 V | C17 | +3.3 V |
| B14 | +3.3 V | C18 | +3.3 V |
| B15 | +3.3 V | C19 | +12 V Output |
| B16 | +3.3 V | C20 | -12 V Output |

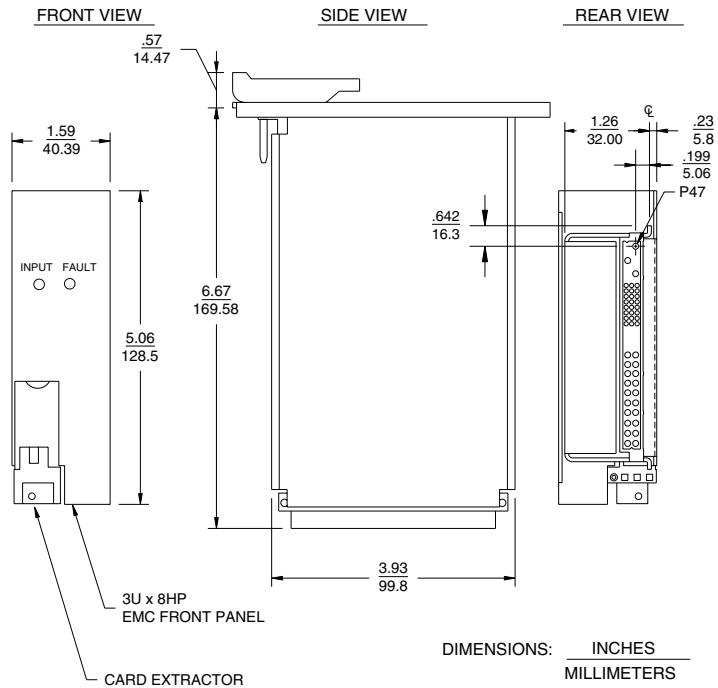


CompactPCI® SYSTEM POWER SUPPLIES

MECHANICAL SPECIFICATIONS:

CPCI-204, DPCI-204
WEIGHT
1.5 LBS - 0.68 KG

CPCI/DPCI 204



CPCI/DPCI 204M

CPCI-204M, DPCI-204M
WEIGHT
1.58 LBS .72 KG

