

CPCI-3U-R Ruggedize Series

200 – 300 Watt Compact PCI Power Supply

Product Description

The **Digital Power CPCI-3U-R Series** power supplies offer industry-leading performance for the Military, Commercial, Telecom and Industries markets, with a full range of AC Input, 24VDC and 48VDC nominal input products. The entire range of products are compliant to the PICMG 2.11 power interface specification and provide from 200-300 Watts of output power. Key features include:

Key Features

- 200–300 watts
- 3U Form Factor
- Ruggedized construction
- Universal AC input with PFC
- 24 VDC and 48 VDC input models available
- Active load current share (+5 V and 3.3 V output)
- ORing diodes/FETs for N+1 parallel operation
- RoHS compliant
- PICMG 2.11 compliant
- International regulatory approvals



INPUT

• Input - AC Models	90–264 VAC, 47–63 Hz (will operate up to 440 Hz)
- Power Factor	>0.90/0.95 typical @ 110/220 VAC (full load)
- Hold-Up Time	14 ms minimum (full load)
- Inrush Current	<50 A @ 230 VAC
• Input - 48VDC Input Models	36–72 VDC Input range
• Input - 24VDC Input Models	18–36 VDC Input range

OUTPUT

• Line Regulation	±0.5% for minimum to maximum voltage input
• Transient Response	50% load peak transient < 5% and recovers to 1% ≤ 0.5 mSec.
• Over-Voltage Protection	110–130% of V1/V2/V3 (latched shutdown)
• Overload Protection	Fully protected against output overload & short circuit V1 and V2:
• Load Regulation	±1% maximum V3 and V4: ±5% maximum
• Min Load Requirement	None
• RiseTime	40 mSec maximum
• Turn-On Delay	2 seconds maximum
• Initial setting Accuracy	±1%
• Ripple/Noise (20MHz BW)	V1: 60 mV p-p V2: 90 mV p-p V3 & V4: 120 mV p-p

ENVIRONMENTAL

• Operating Temperature	–40°C to 70°C (–40°F to 158°F) De-rating linearly above 50°C by 2.5% per °C
• Storage Temperature	–40°C to 85°C (–40°F to 185°F)
• Cooling	40 CFM forced-air cooling
• Humidity	5 - 95% RH non-condensing
• Shock & Vibration	Peak acceleration 20 GPK; Random vibration 10 Hz - 500 Hz, 3 axis 2 GRMS Max.
• MTBF	>400,000 hours per Belcore 332 issue 6
• Conformal Coating	In Accordance to IPC-CC-830 for PCB only

STATUS AND CONTROL

• Remote Inhibit	Active Low: 5V≤1V; 3.3V≤1V; +12V≤3.5V; -12V≤2V
• DC Fail	Open collector Active Low
• Over Temperature Warning	Open collector Active Low
• Remote Sense	Compensates for < 500 mV drop
• Current Share	Single wire (V1 and V2)
• Front Panel Green LED	Outputs OK
• Front Panel Red LED	Fault condition

ELECTROMAGNETIC COMPATIBILITY

• Electrostatic Discharge	EN61000-4-2, ±KV contact / ±8KV air discharge
• Radiated Susceptibility	EN61000-4-3, 26–1000 MHz, 10V/m, 80% AM
• EFT/Bursts	EN61000-4-4, ±2 KV
• Surges	EN61000-4-5, ±2 KV line-earth, ±1KV line-line
• Conducted Immunity	EN61000-4-6, 0.15–800 MHz, 10 V, 80% AM
• Voltage Dips	EN61000-4-11, 30% dip for 10 ms, 60% Dip for 100 ms
• Voltage Interruptions	EN61000-4-11, 95% reduction, 5 seconds
• Fluctuations & Flicker	EN61000-3-3

SAFETY AND EMISSIONS

• Safety Approvals	UL/cUL 60950-1, IEC/EN 60950-1 (2nd Edition; am-1: 2009)
• Emissions	EN 55022 Level-B (with the use of an external line filter)

CPCI-3U-R Ruggedize Series

200 – 300 Watt Compact PCI Power Supply

Model Selection Guide

Model	Input	Output Power	V1 Output	V2 Output	V3 Output	V4 Output	Efficiency (Typical)
CPCI-AC-3U-200	90-264VAC	200W	+5V/20A	+3.3V/30A	+12V/3A	-12V/0.5A	79-81%
CPCI-AC-3U-300	90-264VAC	300W	+5V/30A	+3.3V/40A	+12V/5A	-12V/1A	79-81%
CPCI-DC-3U-200/24	24VDC (18-36)	200W	+5V/20A	+3.3V/30A	+12V/3A	-12V/0.5A	82%
CPCI-DC-3U-300/24	24VDC (18-36)	300W	+5V/30A	+3.3V/40A	+12V/5A	-12V/1A	82%
CPCI-DC-3U-200/48	48VDC (36-72)	200W	+5V/20A	+3.3V/30A	+12V/3A	-12V/0.5A	83%
CPCI-DC-3U-300/48	48VDC (36-72)	300W	+5V/30A	+3.3V/40A	+12V/5A	-12V/1A	83%

VDC-Out Adjustment Range:

V1 = 4.8V-5.4V; V2 = 3.1V-3.5V; V3 = 0V; V4 = 0V

CPCI-3U-200 Watt:

Note: Maximum output power at any combination within this table is 200W

CPCI-3U-300 Watt:

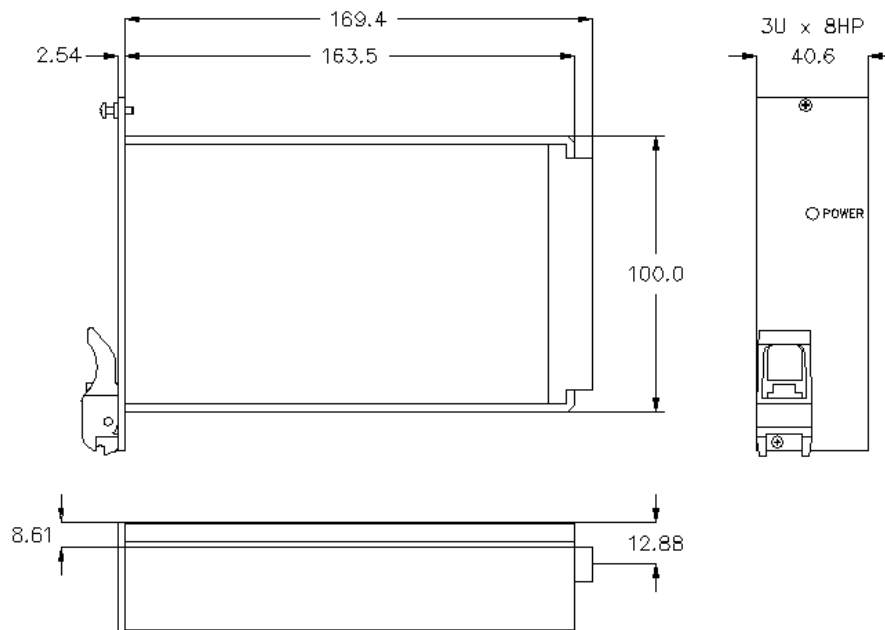
Notes: 1) Maximum output power at any combination within this table is 300W

2) Maximum output power on V1+V3 not

3) Maximum output power on V2+V4 not exceed 138W

Outline Drawing:

OVERALL SIZE: 5.07"H x 1.60"W x 6.40"D (128.7mm x 40.6mm x 162.5mm) WEIGHT: 800 gr.



TOLERANCES ± 0.3 UNLESS OTHERWISE INDICATED

NORTH AMERICA (HEADQUARTERS)
Digital Power Corporation
48430 Lakeview Blvd.
Fremont, CA 94538, USA

Toll Free: (866) 344-7697
Phone: (510) 657-2635
Fax: (510) 353-4023
sales@digipwr.com

EUROPE
Digital Power Limited
Salisbury, Wiltshire SP2 7PH, UK

Phone: +44 (0) 1722 413 060
Fax: +44 (0) 1722 413 034
sales@greshampower.com