

AC/DC Front End/Rectifier

1500 Watts CDP1K5 Series

XPiQ inc.

Intelligent Design Quality Product



- 1.6 U High Chassis (2.74")
- Optional 19" Rack allows up to 3 Modules
- Universal AC Input with Active PFC
- World Wide Safety Approvals & CE Mark
- Internal Or-ing Diodes for Hot Swap/Redundancy
- 1000 W Low Line/1500 W High Line Operation

Specification input

- Input Voltage** • 90-264 VAC
- Input Frequency** • 47-63 Hz
- Power Factor** • 0.95 minimum
- Harmonic Current** • Meets EN6100-3-2
- Inrush Current** • 35 A max per module (ETSI 300 132 compliant)
- Input Protection** • Two 15 A fuse per module
- Input Current** • 13.5 A rms at 90 VAC
10.5 A rms at 180 VAC

Output

- Output Voltage** • -54 VDC
- Output Power** • 1000 W <180 VAC input
1500 W >180 VAC input
- Minimum Load** • 0 minimum load for all outputs
- Line/Load Regulation** • $\pm 5\%$
- Ripple & Noise** • $\pm 1\%$ pk-pk maximum (ETSI 300 132 compliant)
- Transient Response** • 1V max deviation, 4ms recovery time for a 50% load change
- Overvoltage Protection** • -59 VDC (± 1 VDC) recycle input to reset
- Overcurrent Protection** • Current limited to 36 A

Status/Signals

- Voltage Control** • -40 to -59 VDC with digital interface
- Remote on/off** • Turn on with 10kohm resistor on ON/OFF pin
- Current Monitor** • Analog signal 1V per 10A
- AC OK** • Active High = Good
- DC OK** • Active High = Good
- Missing Module** • Active High = Good

- Load Share** • Single Wire Connection $\pm 10\%$ accuracy
- LED Indicators** • 4 LED's for AC Good, DC Good, Over-Temp & OVP

General

- Efficiency** • 91% typical at full load
- MTBF (supply)** • 200k hrs demonstrated at 50 °C full load
- Size** • 12.70" x 5.00" x 2.74"
- Weight** • 7.0 lbs (3.2 kg)

Environmental

- Operating Temperature** • -40 °C to 55 °C, Full power to 55 °C derate from 55 °C to 70 °C at 2.5%/°C
- Cooling** • Horizontal, front to back with internal fans
- Humidity** • <95% RH, non-condensing
- Storage Temperature** • -40 °C to +85 °C
- Altitude** • 7,382 feet (2,250 meters)
- Shock** • IEC68-2-27, Mil-STD-810E, 20G
- Vibration** • IEC68-2-64, 20-200HZ, 30min, 6G rms
- Telecordia** • GR-63-CORE, GR-487-CORE (NEBS Shock & Vibration, Seismic Zone 4)

EMC & Safety

- Safety Approvals** • UL1950, TUV EN60950 / IEC 950 CSA 22.2-950 CE Mark LVD
- EMI/EMC** • EN55022 Class B, FCC 20780 Part 15, Subpart J Class B
- Immunity and Surge** • EN61000-4-2 Criteria B compliant
EN61000-4-3 Criteria A compliant
EN61000-4-4 Criteria B compliant
EN61000-4-5 Criteria A compliant
EN61000-4-6 Criteria A compliant
EN61000-4-11 Criteria B & C compliant

* Preliminary datasheet - see website for current specs

OUTPUT VOLTAGE & CURRENT RATINGS

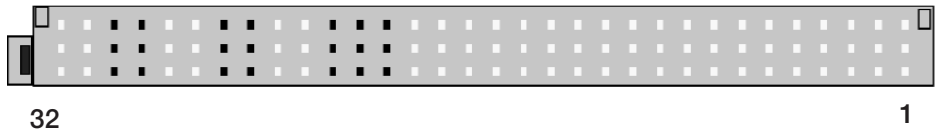
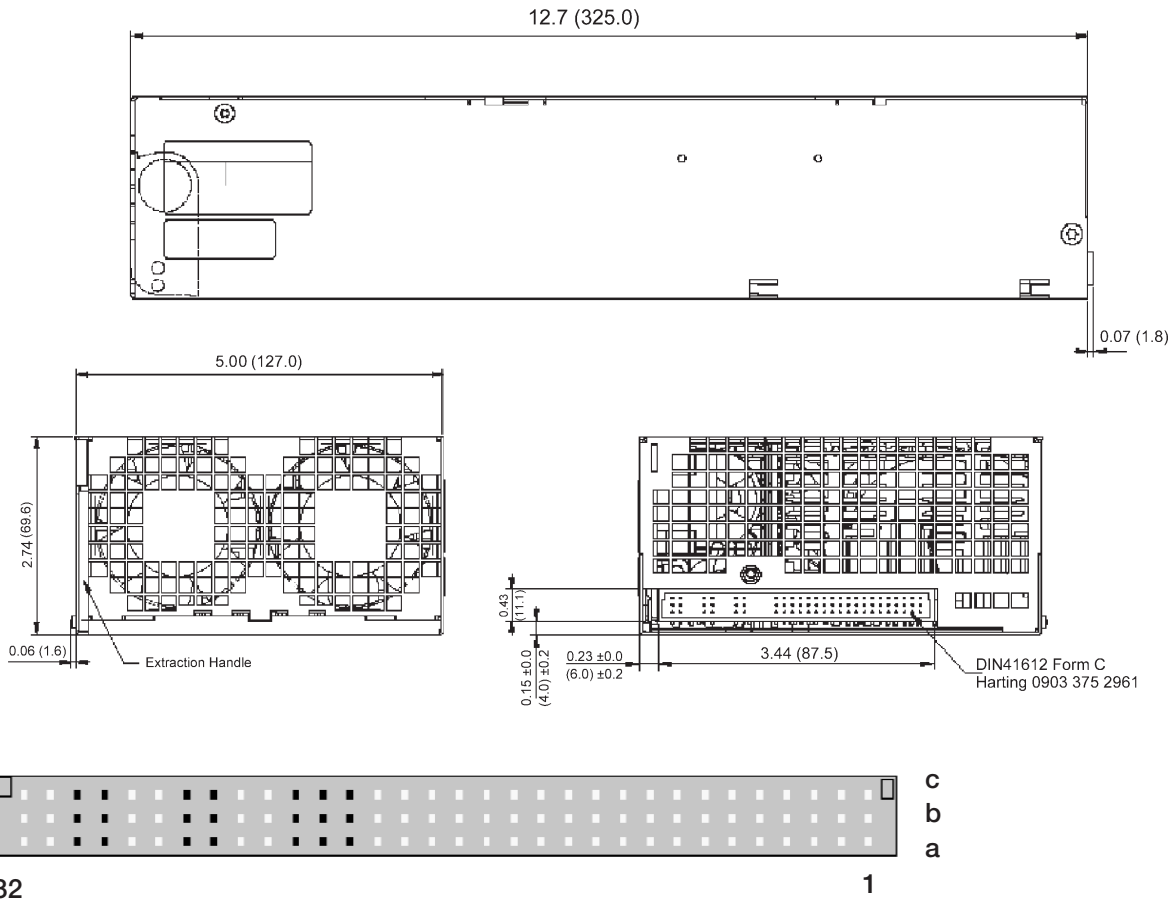
CDP1K5

Maximum Power	Output Voltage	Adjustment Range	Model Number
1000 Watts <180 VAC Input 1500 Watts >180 VAC Input	-54 VDC	-40 to -59 VDC	CDP1K5PS48

Notes

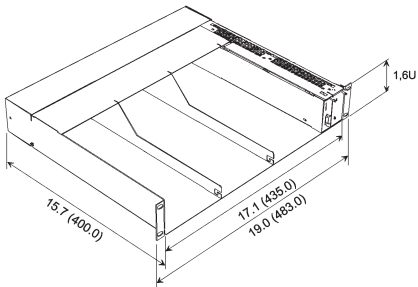
1. All Models offer front to rear air-flow.
2. Class I Protective ground must be connected to protective conductor.
3. Either the "+" or the "-" power terminal may be grounded.
4. Supply is off unless a 10kohm pull-up resistor is present between the on/off pin (b19) and the 0V signal (c19).

Mechanical Details - Module



Pin	Description	Pin	Description	Pin	Description
a1-a7	Out- (-48V)	b1-b7	Out- (-48V)	c1-c7	Out- (-48V)
a8	Do not connect	b8	Do not connect	c8	Do no connect
a9-a15	Out+ (+0V)	b9-b15	Out+ (+0V)	c9-c15	Out+ (+0V)
a16	DC OK	b16	Programming	c16	Current Monitoring
a17	Do not connect	b17	AC OK	c17	Sharing
a18	Do not connect	b18	Temperature OK	c18	AC High
a19	Missing module	b19	Remote ON/OFF	c19	OV signal
a20	Removed	b20	Removed	c20-c22	Removed
a22		b22			
a23	Line	b23	Line	c23-c24	Line
a24		b24			
a25	Removed	b25	Removed	c25-c26	Removed

Optional 3 bay 19" Rack & Battery Controller



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