

# AC/DC Rectifier/Front End

## 500 Watts CDP500 Series

**XPiQ inc.**

Intelligent Design Quality Product



1U Horizontal or 2U High Vertical Chassis

Measures only 10.2" x 3.4" x 1.65"

Universal Input with Active PFC

Optional 1U High 19" Rack for  
Hotswap/Redundant Operation

International Safety Approvals & CE Mark

## Specification

### Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Power Factor	• 0.95 A minimum
Harmonic Current	• Meets EN61000-3-2
Inrush Current	• Limited to 20 A peak
Input Protection	• Internal 10 A fuse
Input Current	• 4.9 A at 120 VAC 2.8 A at 208 VAC

### Output

Output Voltage	• -54 VDC
Output Power	• 500 Watts
Output Voltage Adj.	• -40 to -59 VDC programmable
Minimum Load	• 0 minimum load for all outputs
Line Regulation	• $\pm 0.1\%$ maximum
Load Regulation	• $\pm 0.5\%$ maximum
Ripple & Noise	• 300 mV pk-pk maximum
Transient Response	• 3% max deviation, 500 $\mu$ s recovery time for a 25% load change
Temperature Coefficient	• 0.02%/°C
Hold Up Time	• >20ms minimum
Remote Sense	• Up to 0.25 V compensation
Overvoltage Protection	• -59.5 to -60.0 VDC recycle input to reset
Overcurrent Protection	• 120% with auto recovery
Overtemperature Protection	• Logic high signal for overtemp conditions
Current Sharing	• Single wire with $\pm 10\%$ accuracy
Remote ON/OFF	• Standard

### General

Efficiency	• 87% typical at full load & 230 VAC
MTBF	• 200,000 demonstrated
Isolation Voltage	• 3000 VAC Input to Output 1500 VAC Input to Ground 500 VAC Output to Ground
Signals	• PSU enable, AC fail, DC OK, global inhibit, overtemp & output current readout
LED Indicators	• DC Good
Size	• 10.2" x 3.4" x 1.65"
Weight	• 2.9 lbs (1.3 kgs.)

### Environmental

Operating Temperature	• -20 °C to +70 °C, derate linearly from 100% at +55 °C to 50% at +70 °C
Cooling	• Internal ball bearing fans with front to back airflow
Humidity	• 30-95% RH, non-condensing
Storage Temperature	• -40 °C to +85 °C
Shock & Vibration	• IEC68-2-27, 2-64 & Mil-STD-810E, 20G, Telecordia GR-63-CORE, GR-487-CORE
Altitude	• Operation to 7,382 feet (2250m)

### EMC & Safety

Safety Approvals	• UL1950, CSA C22.2 No 950, EN60950 CE Mark LVD
EMI/EMC	• EN61000-3-2, -3, EN55022 and FCC 20780 part 15J Class B conducted
Immunity and Surge	• Meets EN61000-4-2, -3, -4, -5, -6, -11

\* Preliminary datasheet - see website for current specs

## OUTPUT VOLTAGE & CURRENT RATINGS

**CDP500**

Maximum Power	Output Voltage	Output Current	Trim Range	Model Number
500 W	-54 VDC	9.3 Amps	-40 VDC to -59 VDC	CDP500PS48

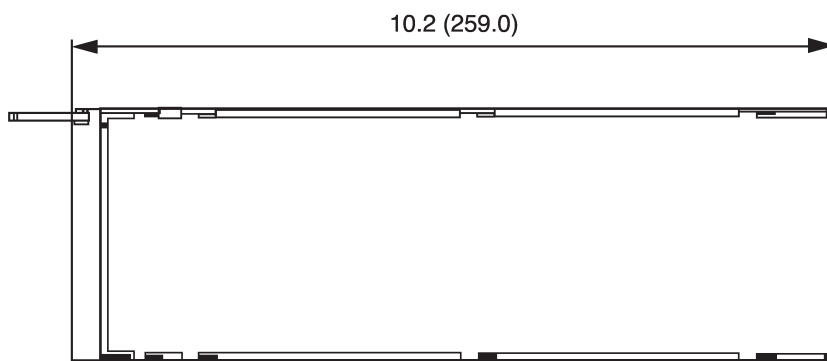
### Notes

Output power is constant between -42V and -59 VDC, 500 watts typical.

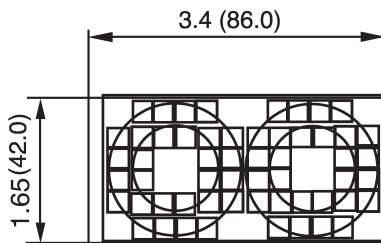
## Mechanical Details



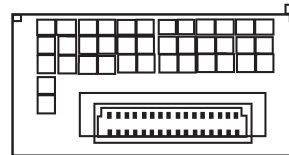
Side View



Top View

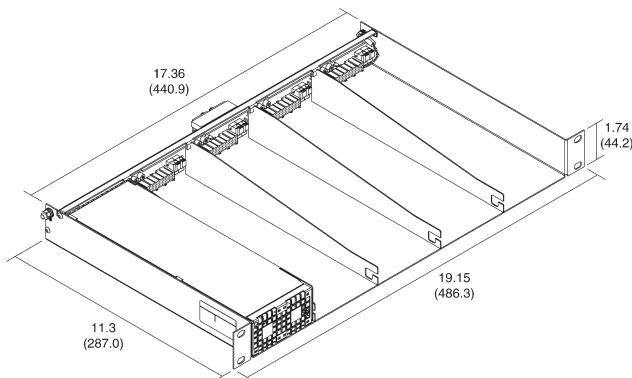


Front View



Back View

Optional Rack for 5 modules



Detailed specification including pin assignments, control & supervisory signals & optional racks will be available Q3 2003. See XPiQ website for additional info.

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