

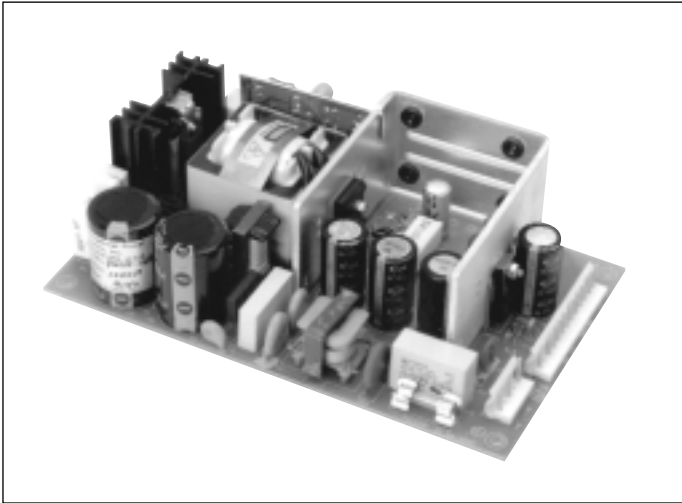
DC/DC Converters

XPiQ inc.

Intelligent Design Quality Product



110 Watts
PD110 Series



Low Cost

100% Burn-In

Small Size, Light Weight

Three Wide Input Ranges

Overvoltage Protection

Overcurrent Protection

Specification

All specifications typical at nominal line, full load and 25°C

Input

- | | |
|---------------|--------------------------------------|
| Input Voltage | • 10 to 20 VDC
(PD110 "L" series) |
| | • 18 to 36 VDC
(PD110 "M" series) |
| | • 36 to 72 VDC
(PD110 "H" series) |
| Input Current | • 15A (rms) for 12 VDC |
| | • 9.4A (rms) for 24 VDC |
| | • 4.7A (rms) for 48 VDC |

Output

- | | |
|-----------------------------|---|
| Output Voltage/
Current | • See rating chart |
| Ripple | • 1% peak to peak maximum |
| Overvoltage
Protection | • Provided on output #1 only,
set at 112-132% of its nominal
output voltage |
| Overcurrent
Protection: | • All outputs protected in short
circuit conditions |
| Temperature
Coefficient: | • All outputs $\pm 0.04\%/^{\circ}\text{C}$ maximum |

General

- | | |
|-------------------|---------------------------------|
| Efficiency | • 60% minimum |
| Hold-up time | • 10 msec |
| Line Regulation | • $\pm 0.5\%$ max. |
| Isolation Voltage | • 1000 VDC from input to output |

Environmental

- | | |
|--------------------------|--|
| Operating
Temperature | • 0°C to $+70^{\circ}\text{C}^*$ |
| Storage
Temperature | • -40°C to $+85^{\circ}\text{C}$ |
| MTBF | • 100,000 hours |
| Weight | • 670 g without cover |

* Derate linearly from 100% load at 50°C to 50% load at 70°C



OUTPUT VOLTAGE & CURRENT RATINGS																	PD110
Model	Output #1				Output #2				Output #3				Output #4				Maximum Output Power
	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.	
PD110-10	5 V	0.0 A	22.0 A	3%													110 W
PD110-12	12 V	0.0 A	9.0 A	2%													110 W
PD110-13	15 V	0.0 A	7.5 A	2%													110 W
PD110-14	24 V	0.0 A	4.5 A	2%													110 W
PD110-16	30 V	0.0 A	3.6 A	2%													110 W
PD110-23	+5 V	0.8 A	10.0 A	3%	+12 V	5 A	9.0 A	3%									110 W
PD110-31	+5 V	0.8 A	10.0 A	3%	+12 V	5 A	9.0 A	3%	-12 V	0 A	1 A	4%					110 W
PD110-32	+5 V	0.8 A	10.0 A	3%	+15 V	4 A	7.5 A	3%	-15 V	0 A	1 A	4%					110 W
PD110-40	+5 V	0.8 A	10.0 A	3%	+12 V	5 A	9.0 A	3%	-12 V	0 A	1 A	4%	-5 V	0 A	1 A	4%	110 W
PD110-41	+5 V	0.8 A	10.0 A	3%	+15 V	4 A	7.5 A	3%	-15 V	0 A	1 A	4%	+24 V	0 A	1 A	4%	110 W
PD110-42	+5 V	0.8 A	10.0 A	3%	+12 V	5 A	9.0 A	3%	-12 V	0 A	1 A	4%	+12 V	0 A	1 A	4%	110 W
PD110-45-1	+5 V	0.8 A	10.0 A	3%	+12 V	5 A	9.0 A	3%	-12 V	0 A	1 A	4%	+24 V	0 A	3 A	8%	110 W
PD110-45-2	+5 V	0.8 A	10.0 A	3%	+24 V	3 A	5.0 A	5%	-12 V	0 A	1 A	4%	+12 V	0 A	1 A	4%	110 W
PD110-46	+5 V	0.8 A	10.0 A	3%	+15 V	4 A	7.5 A	3%	-15 V	0 A	1 A	4%	-5 V	0 A	1 A	4%	110 W

Notes

1. Peak output current with 10% maximum duty cycle for less than 60 seconds.
2. PD110 "M" & "H" series is suitable for 110 watts maximum at 20 CFM forced air cooling or 80 watts maximum at convection cooling.
3. PD110 "L" series is suitable for 90 watts maximum at 20 CFM forced air cooling or 70 watts maximum at convection cooling.
4. Suffix codes for mechanical format and input range are as follows: PD110-XYZ: "XX" is the model code from the above table. "Y" is the input range.
(L=10-20VDC, M=18-36VDC, H=36-72VDC); "Z" is the mechanical format (A=open PCB, C=enclosed) EX: PD110-31MC, 18-36VDC input, enclosed form.

Pin Chart

Model	1, 2, 3	4, 5	6, 7	8, 9	10	11	12	13
PD110-10, PD110-12 PD110-13, PD110-14 PD110-16	OUTPUT #1	RETURN	RETURN	OUTPUT #1	N.C.	N.C.	KEY	N.C.
PD110-23	OUTPUT #1	COMMON RETURN	COMMON RETURN	OUTPUT #2	N.C.	N.C.	KEY	N.C.
PD110-31, PD110-32	OUTPUT #1	COMMON RETURN	COMMON RETURN	OUTPUT #2	N.C.	OUTPUT #3	KEY	N.C.
PD110-40, PD110-41 PD110-42, PD110-45-1 PD110-45-2, PD110-46	OUTPUT #1	COMMON RETURN	COMMON RETURN	OUTPUT #2	N.C.	OUTPUT #3	KEY	OUTPUT #4

Mechanical Details

