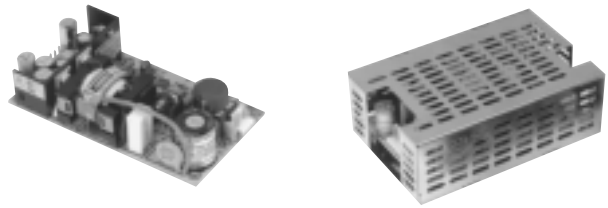


## International Power Sources, Inc.

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## DC/DC Converters



### PD40 Series: 40 Watt Wide Input Range

### FEATURES

- Three wide input voltage ranges:  
10-30 VDC; 20-60 VDC; 30-90 VDC
- Low Cost
- Small size, light weight
- 100% burn-in
- Overvoltage protection
- Overcurrent protection

### DESCRIPTION

The PD40 Series of DC/DC converters provides up to 40 watts of continuous output power. Available in three standard input ranges of 10-30 VDC, 20-60 VDC and 30-90 VDC, they are ideal for a variety of applications in telecommunications, process control, portable equipment and vehicle mounted instrumentation. All units are available in compact "open frame" or "enclosed" mechanical formats.

### OUTPUT VOLTAGE/CURRENT RATINGS CHART

Model	Output #1				Output #2				Output #3				Maximum Output Power <sup>2</sup>
	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.	
PD40-10	5V	0.0A	8A	1%									40W
PD40-12	12V	0.0A	3.5A	1%									40W
PD40-13	15V	0.0A	3.0A	1%									40W
PD40-14	24V	0.0A	2.0A	1%									40W
PD40-25	+5V	0.5A	3.0A	3%	+24V	0.1A	1.0A	5%					40W
PD40-30	+5V	0.5A	3.0A	3%	+12V	0.2A	2.0A	5%	-5V	0A	0.8A	5%	40W
PD40-31	+5V	0.5A	3.0A	3%	+12V	0.2A	2.0A	5%	-12V	0A	0.8A	5%	40W
PD40-32	+5V	0.5A	3.0A	3%	+15V	0.2A	2.0A	5%	-15V	0A	0.8A	5%	40W

- NOTE:**
- 1) All multi-output units may be operated at no load without damage. At no load, output tolerance increases to 10%.
  - 2) Maximum output power for 10-30 VDC input range is 70% of that shown above.
  - 3) Suffix codes for mechanical format and input range as follows:  
 Input voltage range    L: 10-30 VDC<sup>2</sup>                  Mechanical format:    A: PCB only  
                                     M: 20-60 VDC    C: Enclosed  
                                     H: 30-90 VDC

Example: PD40-31MC (20-60 VDC input range/Enclosed).

## ELECTRICAL SPECIFICATIONS

### GENERAL SPECIFICATIONS

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

Efficiency ..... .65% minimum  
 Hold-up time ..... .10 msec  
 Line regulation ..... ±0.5% maximum  
 Isolation voltage ..... .1000 VDC from input  
 ..... .to output  
 Operating temperature ..... .0 to 70°C\*  
 Storage temperature ..... -40 to 85°C  
 MTBF ..... .100,000 hours  
 Weight ..... .300 grams - PCB  
 ..... .500 grams - enclosed

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

### INPUT SPECIFICATIONS

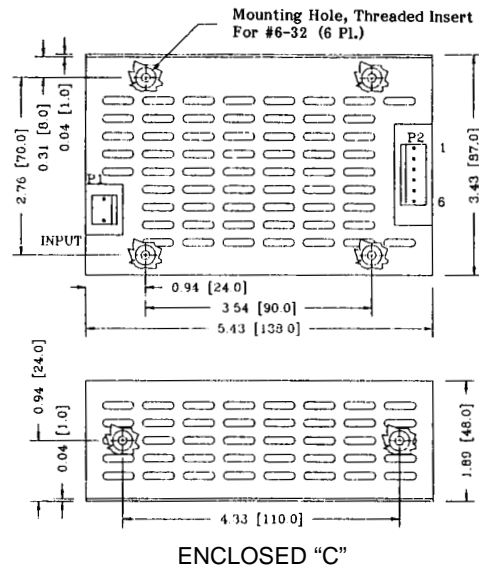
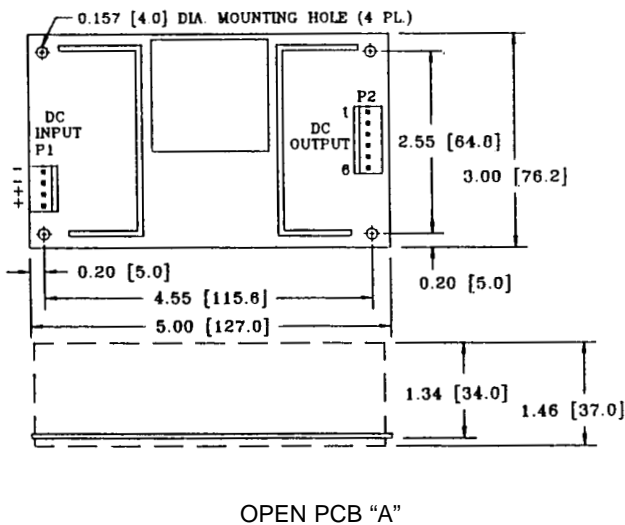
Input Voltage ..... .10 to 30 VDC (PD40 "L" series)  
 ..... .20 to 60 VDC (PD40 "M" series)  
 ..... .30 to 90 VDC (PD40 "H" series)  
 Input currents ..... .2.5A (rms) for 24 VDC  
 ..... .1.3A (rms) for 48 VDC  
 ..... .0.84A (rms) for 72 VDC

### OUTPUT SPECIFICATIONS

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 ±0.04%/°C maximum  
 Specifications subject to change.

## MECHANICAL SPECIFICATIONS

Dimensions shown in inches (mm)/Tolerance ± 0.02 (0.5) maximum  
 Input connector mates with Molex housing 09-50-3041 and Molex 2878 series crimp terminal  
 Output connector mates with Molex housing 09-50-3061 and Molex 2878 series crimp terminal



## PIN CHART

MODEL	PIN	1	2	3	4	5	6
PD40-10 PD40-13	PD40-12 PD40-14	OUTPUT #1	OUTPUT #1	OUTPUT #1	RETURN	RETURN	RETURN
PD40-25		OUTPUT #2	OUTPUT #1	OUTPUT #1	COMMON RETURN	COMMON RETURN	N.C.
PD40-30 PD40-32	PD40-31	OUTPUT #2	OUTPUT #1	OUTPUT #1	COMMON RETURN	COMMON RETURN	OUTPUT #3