



50-65 WATT DC TO DC CONVERTERS

DESCRIPTION

The PD65 series of DC/DC converters provide 50 to 65 watts of continuous output power. Available in three standard input range of 10-30 VDC, 20-60 VDC and 30-90 VDC, they are ideal for a variety of applications including telecoms, process control, portable equipment and vehicle mounted instrumentation. All units are available in compact "open PCB" or "enclosed" mechanical formats.

FEATURES

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

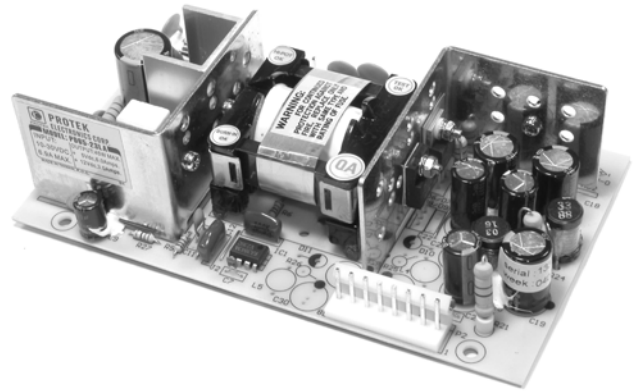
INPUT SPECIFICATIONS

Input voltage :	10 to 30 VDC (PD65 "L" series) 20 to 60 VDC (PD65 "M" series) 30 to 90 VDC (PD65 "H" series)
Input current :	4.1A (rms) for 24 VDC 2.1A (rms) for 48 VDC 1.5A (rms) for 72 VDC

OUTPUT SPECIFICATIONS

Output voltage/current :	See rating chart
Total output power :	65 watts maximum
Ripple and noise :	1% peak to peak max.
Overvoltage protection :	set at 112 - 132% of its nominal output voltage
Overcurrent protection :	All outputs protected to short circuit conditions
Temperature coefficient :	All outputs $\pm 0.04\%$ / $^{\circ}\text{C}$ maximum
Transient response :	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500us after a 25% step load change

PD65 SERIES



ENVIRONMENTAL SPECIFICATIONS

Operating temperature :	0 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$
Storage temperature :	-40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
Relative humidity :	5% to 95% non-condensing
Derating :	Derate from 100% at +50 $^{\circ}\text{C}$ linearly to 50% at +70 $^{\circ}\text{C}$

GENERAL SPECIFICATIONS

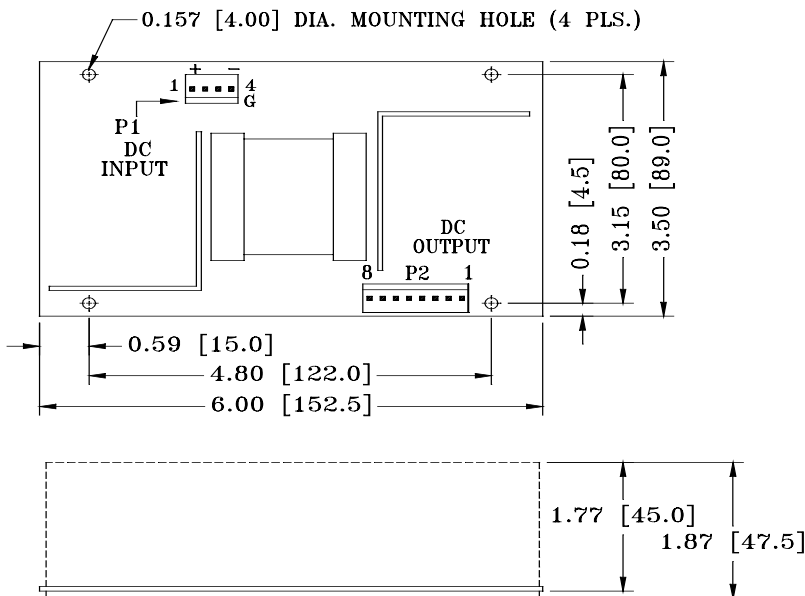
Switching frequency :	32KHz $\pm 5\text{KHz}$
Efficiency :	70% minimum at full load
Line regulation :	$\pm 0.5\%$ maximum at full load
Withstand voltage :	1000VDC from input to output
MTBF :	400,000 hours minimum at full load at 25 $^{\circ}\text{C}$ ambient, calculated per MIL-HDBK-217F

OUTPUT VOLTAGE/CURRENT RATING CHART

(1)(2) Model	Output #1				Output #2				Output #3				Output #4				Maximum Output Power(3)
	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	
PD65-10	5V	0A	10A	1%		(N/A)				(N/A)				(N/A)			50W
PD65-12	12V	0A	5.5A	1%		(N/A)				(N/A)				(N/A)			65W
PD65-13	15V	0A	4.5A	1%		(N/A)				(N/A)				(N/A)			65W
PD65-14	24V	0A	3.0A	1%		(N/A)				(N/A)				(N/A)			65W
PD65-23	+5V	1A	6.0A	3%	+12V	0.5A	3A	5%		(N/A)				(N/A)			65W
PD65-24	+5V	1A	6.0A	3%	+15V	0.4A	3A	5%		(N/A)				(N/A)			65W
PD65-25	+5V	1A	6.0A	3%	+24V	0.3A	2A	5%		(N/A)				(N/A)			65W
PD65-30	+5V	1A	6.0A	3%	+12V	0.5A	3A	5%	-5V	0.1A	0.5A	10%		(N/A)			65W
PD65-31	+5V	1A	6.0A	3%	+12V	0.5A	3A	5%	-12V	0.1A	0.5A	10%		(N/A)			65W
PD65-32	+5V	1A	6.0A	3%	+15V	0.4A	3A	5%	-15V	0.1A	0.5A	10%		(N/A)			65W
PD65-33	+5V	1A	6.0A	3%	+15V	0.4A	3A	5%	-12V	0.1A	0.5A	10%		(N/A)			65W
PD65-39	+5V	1A	6.0A	3%	+24V	0.3A	2A	5%	-12V	0.1A	0.5A	10%		(N/A)			65W
PD65-40	+5V	1A	6.0A	3%	+12V	0.5A	3A	5%	-12V	0.1A	0.5A	10%	-5V	0.1A	0.5A	10%	65W

- Notes: (1) All multi-output units may be operated at no-load without damage. At no-load, output tolerance increases to 10%
 (2) Suffix codes for mechanical format and input range are as follows. PD65-XXYZ; "XX" is the model code from the above table, "Y" is the input range (L=10-30 VDC, M=20-60 VDC, H=30-90 VDC) and "Z" is the mechanical format (A=open PCB, B=L-bracket, C=enclosed), e.g. PD65-31 MC (20-60 VDC input range, enclosed).
 (3) The models for 10-30 VDC input range are suitable only for 70% of the above stated maximum output power.

MECHANICAL SPECIFICATIONS



NOTES:

- Dimensions shown in inch [mm]
- Tolerance 0.02 [0.5] maximum
- Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
- Output connector mates with Molex housing 09-50-3081 and Molex 2878 series crimp terminal.
- Weight: 380 grams (PCB format)
- See the mechanical details of L-bracket and enclosed formats in page 7-2.

PIN CHART

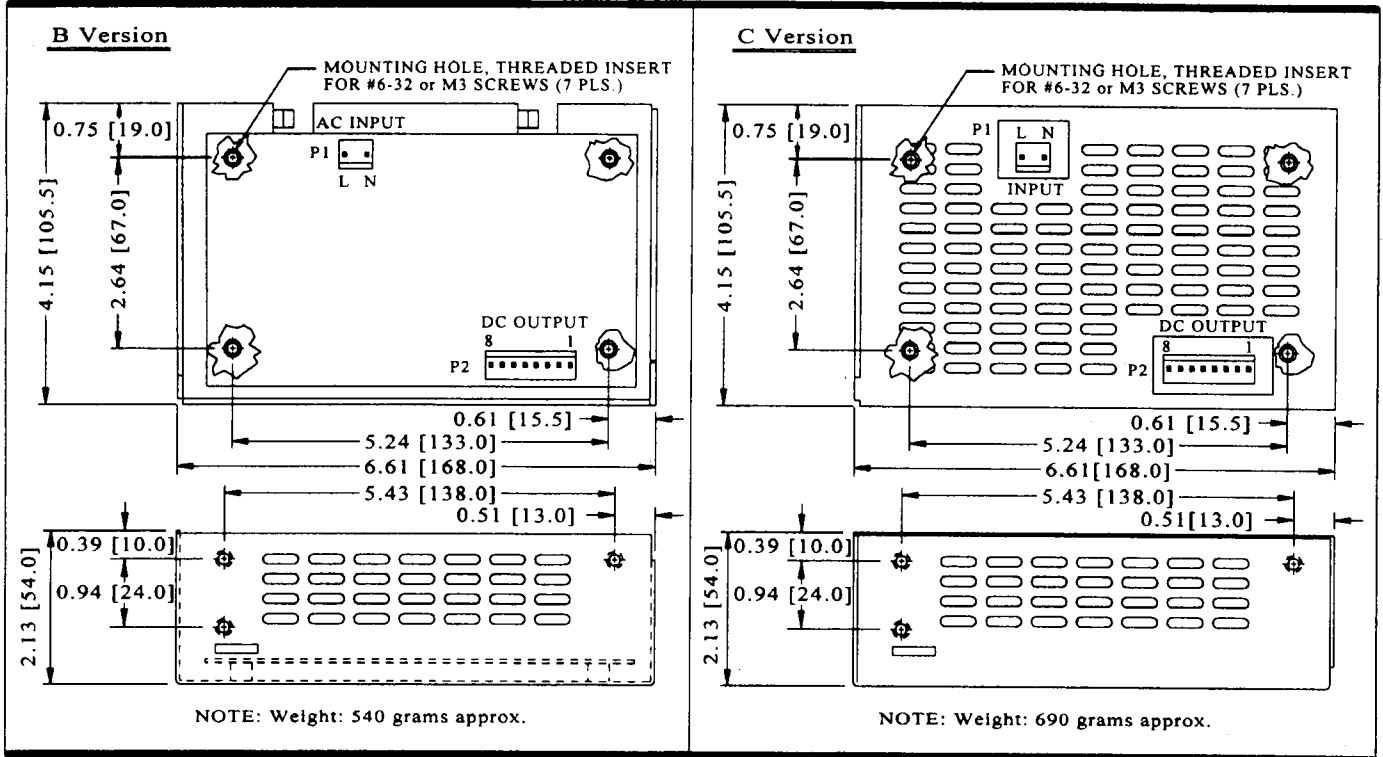
PIN MODEL	1	2	3	4	5	6	7	8
	PD65-10 PD65-12 PD65-13 PD65-14	OUTPUT #1	OUTPUT #1	OUTPUT #1	OUTPUT #1	RETURN	RETURN	RETURN
PD65-23 PD65-24 PD65-25	OUTPUT #1	OUTPUT #1	COMMON RETURN	COMMON RETURN	OUTPUT #2	OUTPUT #2	N.C.	N.C.
PD65-30 PD65-31 PD65-32 PD65-33 PD65-39	OUTPUT #1	OUTPUT #1	COMMON RETURN	COMMON RETURN	OUTPUT #2	OUTPUT #2	OUTPUT #3	N.C.
PD65-40	OUTPUT #1	OUTPUT #1	COMMON RETURN	COMMON RETURN	OUTPUT #2	OUTPUT #2	OUTPUT #3	OUTPUT #4

L-Bracket and Enclosed Formats of PU65, PU110, PM65, PM110, PD65 and PD110 series

Unit: inch [mm]

Tolerance: 0.02 [0.5]

SERIES: PU65/PM65/PD65



SERIES: PU110/PM110/PD110

