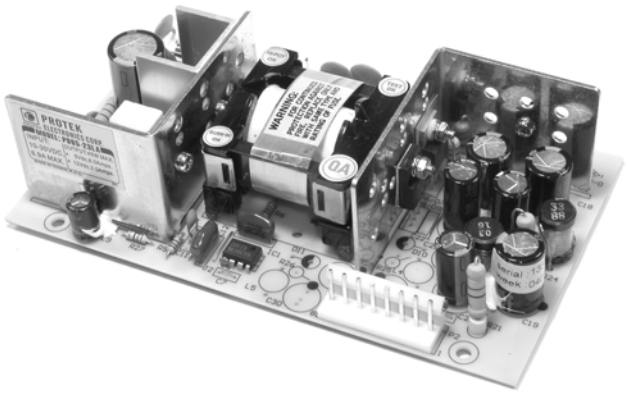
50-65 WATT DC TO DC CONVERTERS

PD65 SERIES

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

ENVIRONMENTAL SPECIFICATIONS

Operating temperature： 0℃ to +70℃
Storage temperature： -40℃ to +85℃
Relative humidity： 5% to 95% non-condensing
Derating： Derate from 100% at +50℃ linearly to 50% at +70℃

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 ±0.04% /℃ 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

GENERAL SPECIFICATIONS

Switching frequency： 32KHz ±5KHz

Efficiency： 70% minimum at full load

Line regulation： ±0.5% maximum at full load

Withstand voltage： 1000VDC from input to output

MTBF： 400,000 hours minimum at full load at 25℃ ambient, calculated per MIL-HDBK-217F

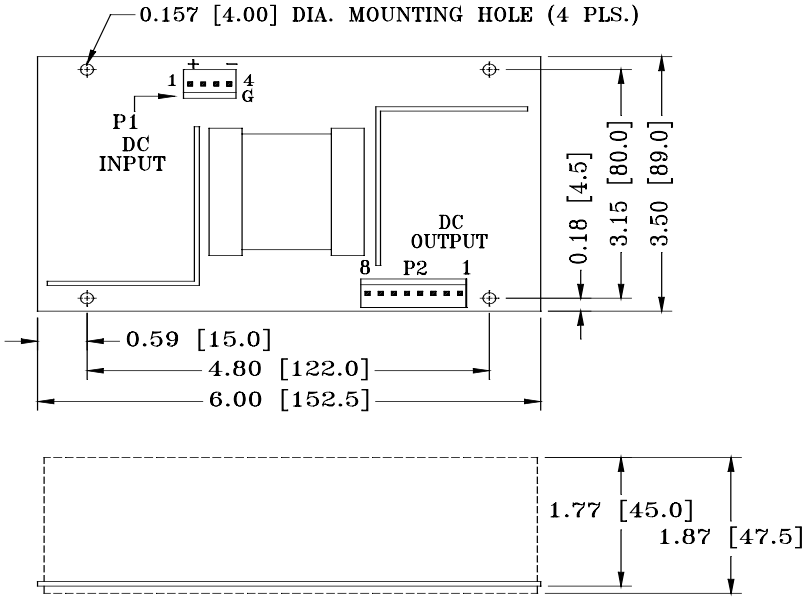
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OUTPUT VOLTAGE/CURRENT RATING CHART

(1)(2) Model	Output #1 Vnom.	Imin.	Imax.	Tol.	Output #2 Vnom.	Imin.	Imax.	Tol.	Output #3 Vnom.	Imin.	Imax.	Tol.	Output #4 Vnom.	Imin.	Imax.	Tol.	Maximum Output Power(3)
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:
1. Dimensions shown in inch [mm]
2. Tolerance 0.02 [0.5] maximum
3. Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3081 and Molex 2878 series crimp terminal.
5. Weight: 380 grams (PCB format)
6. See the mechanical details of L-bracket and enclosed formats in page 7-2.

PIN CHART

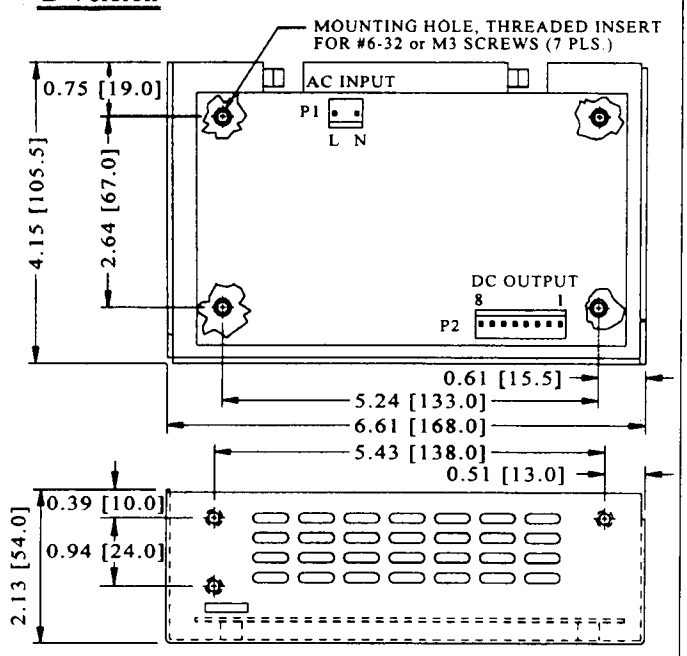
PIN / MODEL	1	2	3	4	5	6	7	8
PD65-10 PD65-12 PD65-13 PD65-14	OUTPUT #1	OUTPUT #1	OUTPUT #1	OUTPUT #1	RETURN	RETURN	RETURN	RETURN
PD65-23 PD65-24 PD65-25	OUTPUT #1	OUTPUT #1	COMMON RETURN	COMMON RETURN	OUTPUT #2	OUTPUT #2	N.C.	N.C.
PD65-30 PD65-31 PD65-32 PD65-33 PD65-39	OUTPUT #1	OUTPUT #1	COMMON RETURN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

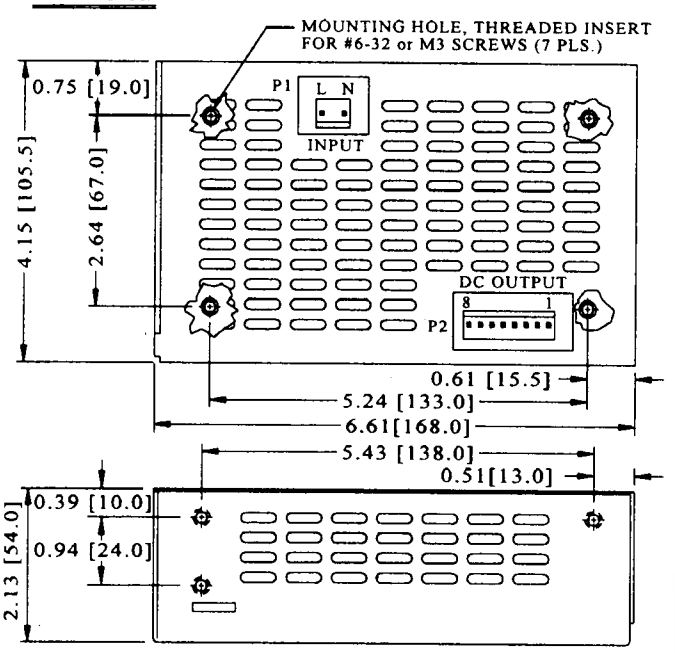
SERIES: PU65/PM65/PD65

B Version



NOTE: Weight: 540 grams approx.

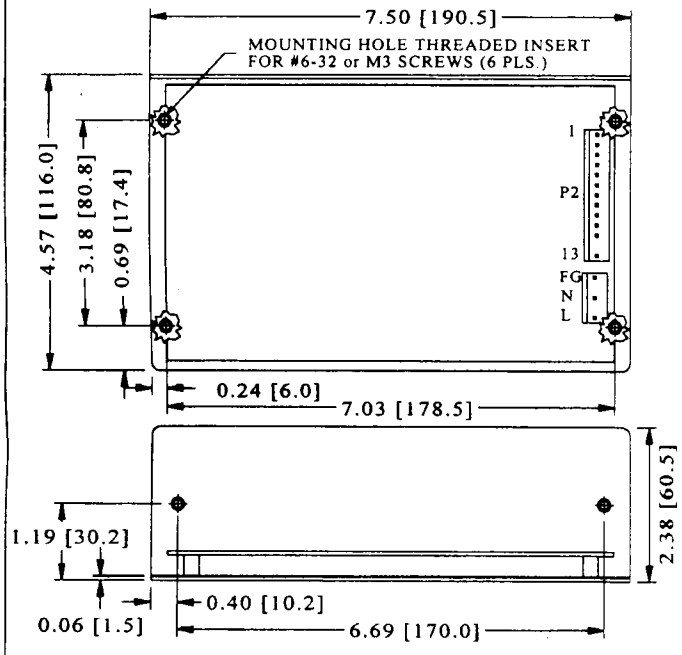
C Version



NOTE: Weight: 690 grams approx.

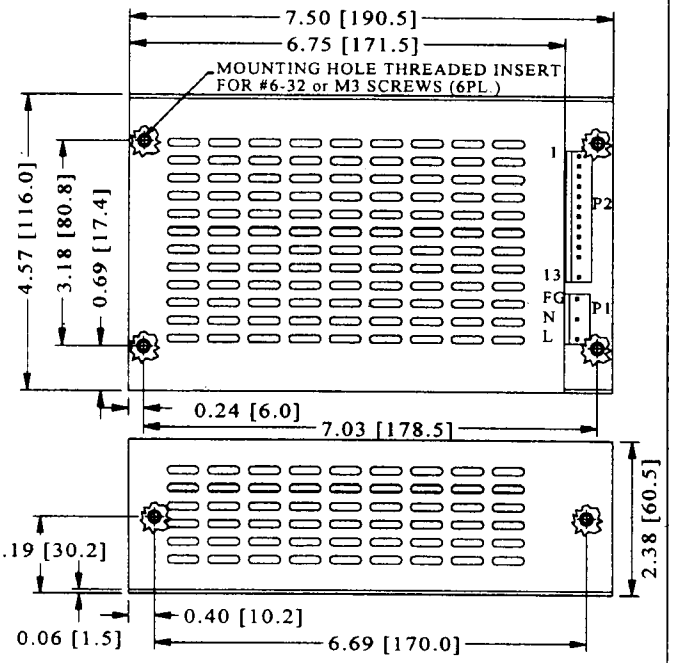
SERIES: PU110/PM110/PD110

B Version



NOTE: Weight: 760 grams approx.

C Version



NOTE: Weight: 1050 grams approx.