

45W Triple Output Switching Power Supply

PT45 series



- Universal AC input
- Low leakage current $\leq 0.75\text{mA}$
- Protections: Short circuit / Overload / Over voltage
- Fixed switching frequency at 65KHz
- Cooling by free air convection



Model Number	Output Volts	Output Amps	Ripple & Noise	Line Reg	Load Reg	Volt Tolerance	Min Load
TRIPLE OUTPUT							
PT-45A	5 Volts(DC)	3.0 Amps	50mVpk-pk	$\pm 1.0\%$	$\pm 3.0\%$	$\pm 4.0\%$	0.4~5Amps
	12 Volts(DC)	2.0 Amps	120mVpk-pk	$\pm 2.0\%$	$\pm 4.0\%$	$\pm 7.0\%$	0.2~2.5Amps
	-5 Volts(DC)	0.3 Amps	50mVpk-pk	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 5.0\%$	0~0.5Amps
PT-45B	5 Volts(DC)	3.0 Amps	50mVpk-pk	$\pm 1.0\%$	$\pm 3.0\%$	$\pm 4.0\%$	0.4~5Amps
	12 Volts(DC)	2.0 Amps	120mVpk-pk	$\pm 2.0\%$	$\pm 4.0\%$	$\pm 7.0\%$	0.2~2.5Amps
	-12 Volts(DC)	0.3 Amps	100mVpk-pk	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 5.0\%$	0~0.5Amps
PT-45C	5 Volts(DC)	3.0 Amps	50mVpk-pk	$\pm 1.0\%$	$\pm 3.0\%$	$\pm 4.0\%$	0.4~5Amps
	15 Volts(DC)	1.6 Amps	120mVpk-pk	$\pm 2.0\%$	$\pm 4.0\%$	$\pm 7.0\%$	0.2~2.3Amps
	-15 Volts(DC)	0.3 Amps	100mVpk-pk	$\pm 1.0\%$	$\pm 1.0\%$	$\pm 5.0\%$	0~0.5Amps

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INPUT SPECIFICATIONS

Input Voltage Range	90-264VAC / 127-370 Volts(DC)
Frequency Range	47-440 Hz
Inrush Current, typ: (cold start)	15 Amps @ 115VAC Input 30 Amps @ 230VAC
Input Current	1.0 Amps max @ 115VAC 0.7 Amps max @ 230VAC
Leakage current	< 0.75mA

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation	See Selection Chart
Load Regulation	See Selection Chart
Voltage Tolerance (Note 2)	See Selection Chart
Ripple/Noise (Note 1)	See Selection Chart
Hold Up Time @ FL	60mS
Setup, Rise Time @ FL	800mS, 20mS
Over Voltage Protection	5Volts(DC) only: 5.75~6.75Volts(DC) Hiccup mode, auto recover
Over Current Protection	53~75W rated output power Hiccup mode, auto recover
DC Voltage Adjust	5Volts(DC): 4.75~5.5Volts(DC)

GENERAL SPECIFICATIONS

Safety	UL60950-1 TUV EN60950-1 Approved
Insulation Resistance	≥ 100MΩ / 500Volts(DC)
EMI	Compliance to EN55022 (CISPR22) Class B
Harmonic Current	Compliance to EN61000-3-2,-3
Efficiency	75%
Isolation	3000VAC Input - Output 1500VAC Input - Ground 500VAC Output - Ground 1min
EMS	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024 light industry level, criteria A

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-10°C to +60°C (See Derate Curve)
Storage Temperature	-20°C to +85°C, 10~95% RH
Relative Humidity	20 to +90% RH non cond
Temperature Coefficient	±0.04% / °C (0-50°C) on +5Volts output
MTBF	288.1KHrs min, MIL-HDBK-217F (25°C)
Vibration	10~500Hz, 2G10min./1cycle, period for 60min. each along X, Y, Z axes

PHYSICAL SPECIFICATIONS

Size	
Millimeters	127 x 76 x 28
Inches	5" x 2.99" x 1.10"
Weight	7.41 oz (210g)

NOTE

1. Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47 uf parallel capacitor.
2. Tolerance: includes set up tolerance, line regulation and load regulation.
3. Mounting holes M1 and M2 should be grounded for EMI purposes.

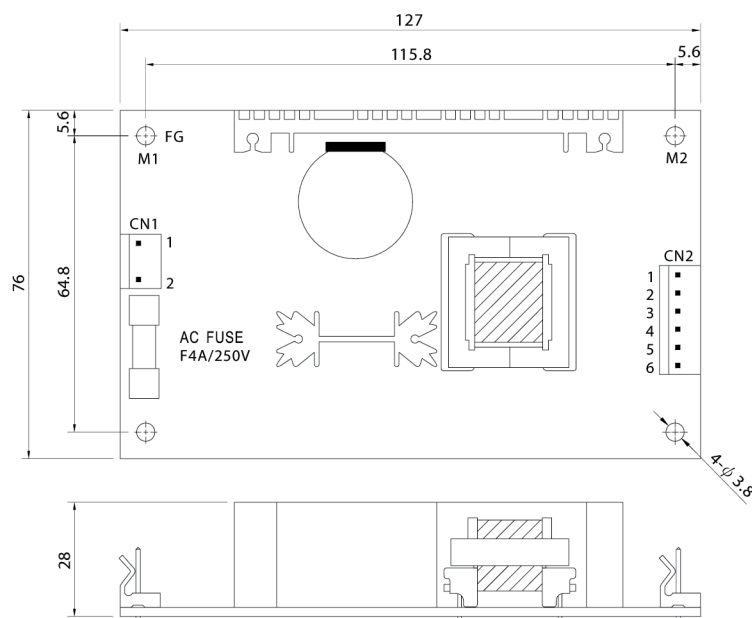
All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

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Mechanical Specification

Unit:mm



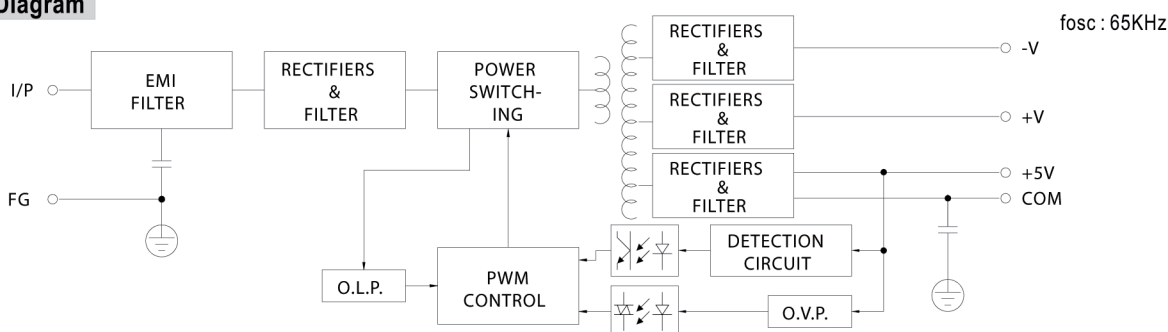
AC Input Connector (CN1) : Molex 5277-02 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	Molex 5195 or equivalent	Molex 5194 or equivalent
2	AC/L		

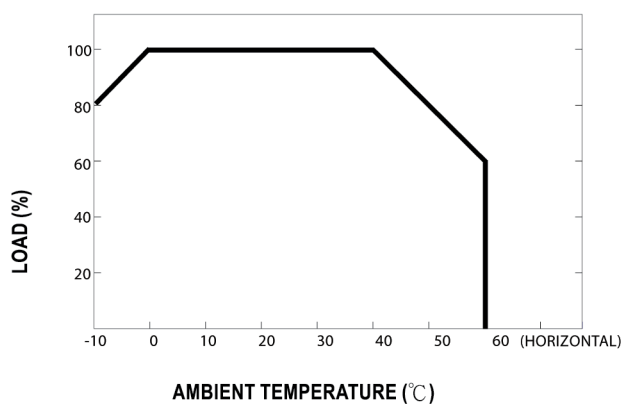
DC Output Connector (CN2) : Molex 5273-06 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	+V	Molex 5195 or equivalent	Molex 5194 or equivalent
2,3	+5V		
4,5	COM		
6	-V		

Block Diagram



■ Derating Curve



■ Static Characteristics (B)

