45W Triple Output Medical Type

MPT-45 series



Features :

- Universal AC input / Full range
- Low leakage current <250μA
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 45KHz

SPECIFICATION

MODEL		MPT-45A			MPT-45B			MPT-45C		
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
	DC VOLTAGE	5V	12V	-5V	5V	12V	-12V	5V	15V	-15V
	RATED CURRENT	3A	2A	0.3A	3A	2A	0.3A	3A	1.6A	0.3A
	CURRENT RANGE	0.4 ~ 5A	0.2 ~ 2.5A	0 ~ 0.5A	0.4 ~ 5A	0.2 ~ 2.5A	0 ~ 0.5A	0.4 ~ 5A	0.2 ~ 2.3A	0 ~ 0.5A
	RATED POWER	40.5W			42.6W			43.5W		
	OUTPUT POWER (max.)	52W with 18CFM min. Forced air convection								
	RIPPLE & NOISE (max.) Note.2	60mVp-p	120mVp-p	60mVp-p	60mVp-p	120mVp-p	100mVp-p	60mVp-p	120mVp-p	100mVp-p
	VOLTAGE ADJ. RANGE	CH1:4.5 ~ 5.5V								
	VOLTAGE TOLERANCE Note.3	±4.0%	±7.0%	±5.0%	±4.0%	±7.0%	±5.0%	±4.0%	±7.0%	±5.0%
	LINE REGULATION	±1.0%	±2.0%	±1.0%	±1.0%	±2.0%	±1.0%	±1.0%	±2.0%	±1.0%
	LOAD REGULATION	±3.0%	±4.0%	±1.0%	±3.0%	±4.0%	±1.0%	±3.0%	±4.0%	±1.0%
	SETUP, RISE TIME	800ms, 20ms/230VAC 800ms, 20ms/115VAC at full load								
	HOLD UP TIME (Typ.)	80ms/230VAC 12ms/115VAC at full load								
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 440Hz								
	EFFICIENCY(Typ.)	73%			75%			75%		
	AC CURRENT (Typ.)	1.2A/115VAC 0.7A/230VAC								
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC								
	LEAKAGE CURRENT Note.7	Earth leakage current < 250μA/264VAC , Touch leakage current < 60μA/264VAC								
PROTECTION	OVERLOAD	53 ~ 75W rated output power								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	5.75 ~ 6.75VDC on CH1								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed								
ENVIRONMENT	WORKING TEMP.	-10 ~ +60℃ (Refer to "Derating Curve")								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.04%/℃ (0 ~ 50℃) on +5V output								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC (Note 4)	SAFETY STANDARDS	ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1 approved								
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC 1min.								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH								
	EMC EMISSION	Compliance to EN55011 (CISPR11) Class B, EN61000-3-2,-3								
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN60601-1-2, medical level, criteria A								
OTHERS	MTBF	271.5Khrs min. MIL-HDBK-217F (25℃)								
	DIMENSION	127*76*28mm (L*W*H)								
	PACKING	0.21Kg; 72pcs/18Kg/1.35CUFT								

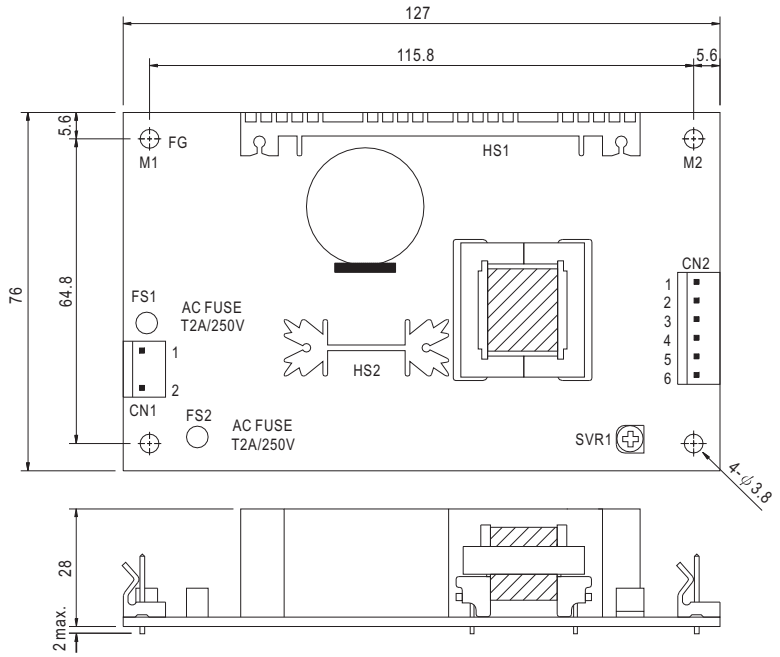
NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.” (as available on http://www.meanwell.com)
5. Mounting holes M1 and M2 should be grounded for EMI purposes.
6. Heat Sink HS1,HS2 can not be shorted.
7. Touch current was measured from primary input to DC output.

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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		

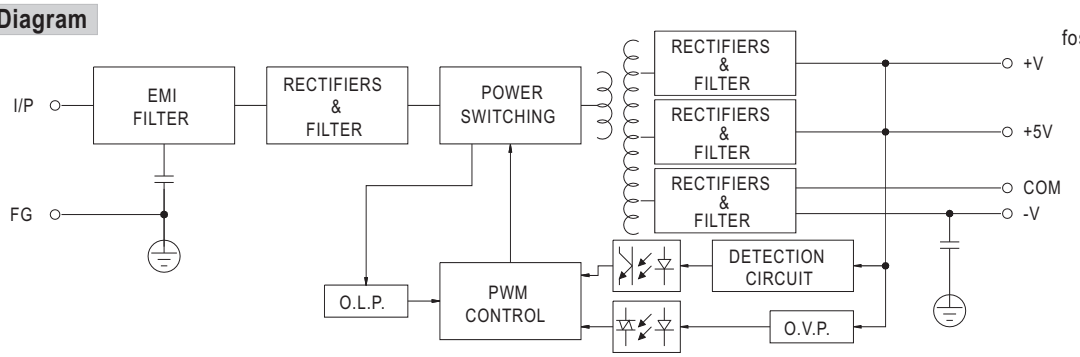
⚠ HS1,HS2 can not be shorted

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

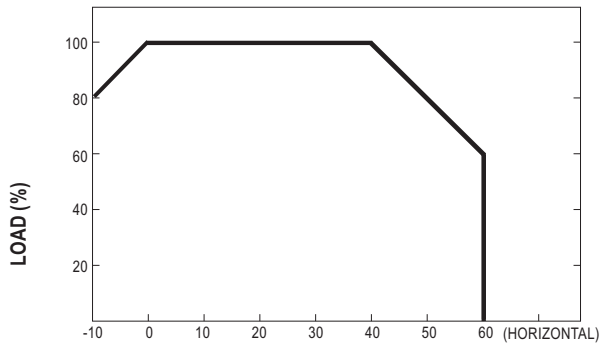
Pin No.	Assignment	Mating Housing	Terminal
1	+V	Molex 5195 or equivalent	Molex 5194 or equivalent
2,3	+5V		
4,5	COM		
6	-V		

■ Block Diagram

fosc : 45KHz

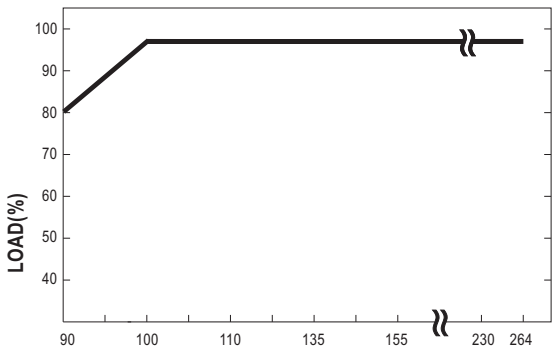


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics



INPUT VOLTAGE (V) 60Hz

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