45W Single Output Switching Power Supply

PS-45 series

■ Features :

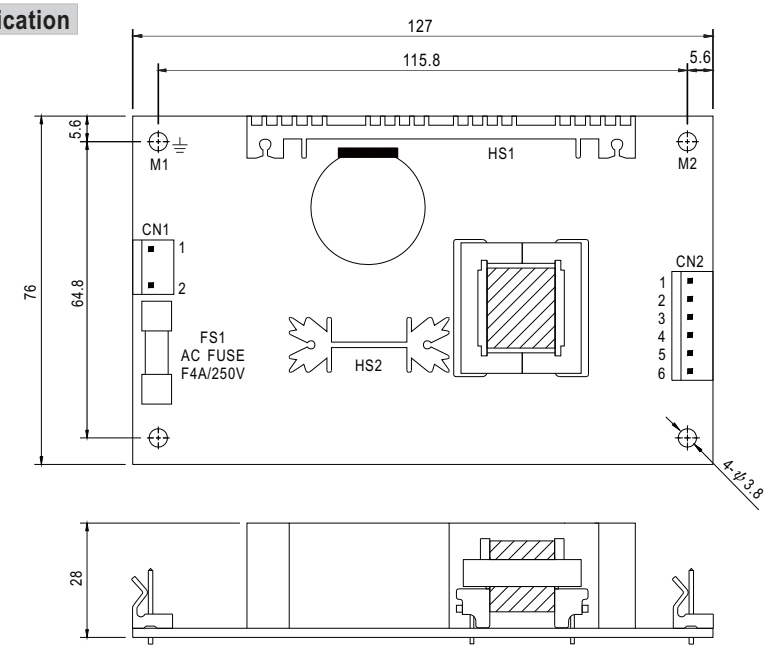
- Universal AC input/Full range
- Low leakage current<0.75mA
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 65KHz
- 2 years warranty

SPECIFICATION

MODEL		PS-45-3.3	PS-45-5	PS-45-7.5	PS-45-12	PS-45-13.5	PS-45-15	PS-45-24	PS-45-27	PS-45-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V
	RATED CURRENT	8A	8A	5.4A	3.7A	3.3A	3A	1.9A	1.7A	1A
	CURRENT RANGE	0 ~ 10.7A	0 ~ 10.5A	0 ~ 7A	0 ~ 4.4A	0 ~ 3.9A	0 ~ 3.5A	0 ~ 2.2A	0 ~ 1.95A	0 ~ 1.1A
	RATED POWER	26.4W	40W	40.5W	44.4W	44.55W	45W	45.6W	45.9W	48W
	OUTPUT POWER (max.)	Rated output power for convection; 52W (+3.3V : 35W) with 18 CFM min.								
	RIPPLE & NOISE (max.) Note.2	80mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p
	VOLTAGE ADJ. RANGE	3.14 ~ 3.63V	4.75 ~ 5.5V	7.13 ~ 8.25V	11.4 ~ 13.2V	12.8 ~ 14.85V	14.25 ~ 16.5V	22.8 ~ 26.4V	25.65 ~ 29.7V	45.6 ~ 52.8V
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LOAD REGULATION	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	SETUP, RISE TIME	800ms, 30ms at full load								
	HOLD UP TIME (Typ.)	60ms at full load								
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~370VDC								
	FREQUENCY RANGE	47 ~ 440Hz								
	EFFICIENCY(Typ.)	69%	74%	75%	76%	77%	77%	78%	78%	78%
	AC CURRENT (Typ.)	0.8A/115VAC 0.56A/230VAC								
	INRUSH CURRENT (Typ.)	COLD START 15A/115VAC 30A/230VAC								
	LEAKAGE CURRENT	<0.75mA / 240VAC								
PROTECTION	OVERLOAD	53 ~ 75W(3.3V : 36 ~ 55W) rated output power								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed.								
	OVER VOLTAGE	3.8 ~ 4.46V	5.75 ~ 6.75V	8.63 ~ 10.1V	13.8 ~ 16.2V	15.5 ~ 18.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	31 ~ 36.45V	55.2 ~ 64.8V
		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	±0.05%/℃ (0 ~ 50℃)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved								
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH								
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3								
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A								
OTHERS	MTBF	300.7K hrs min. MIL-HDBK-217F (25℃)								
	DIMENSION	127*76*28mm (L*W*H)								
	PACKING	0.19Kg; 72pcs/15.6Kg/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. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. 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.									

■ 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

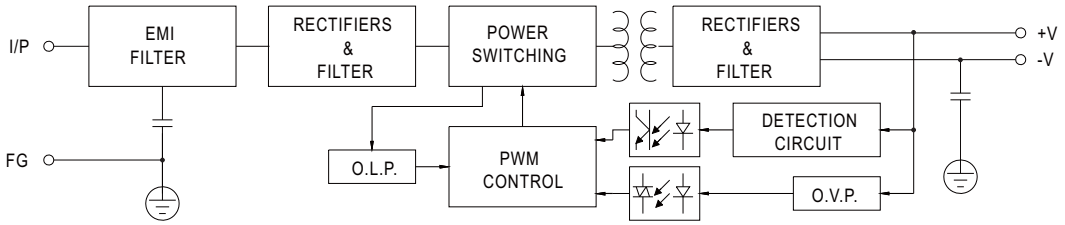
Pin No.	Assignment	Mating Housing	Terminal
1,2,3	+V	Molex 5195 or equivalent	Molex 5194 or equivalent
4,5,6	-V		

⏚ : Grounding Required

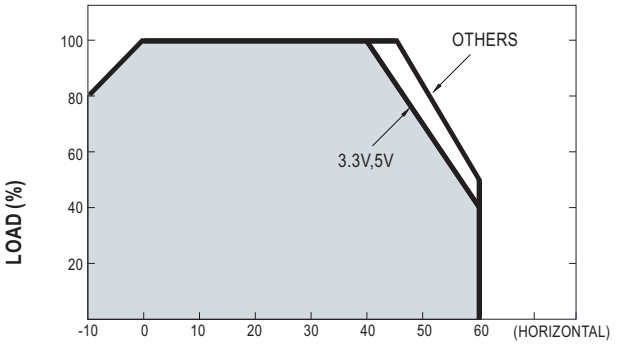
⚠ 1.HS1,HS2 cannot be shorted
2.M1 is safety ground

■ Block Diagram

fosc : 65KHz

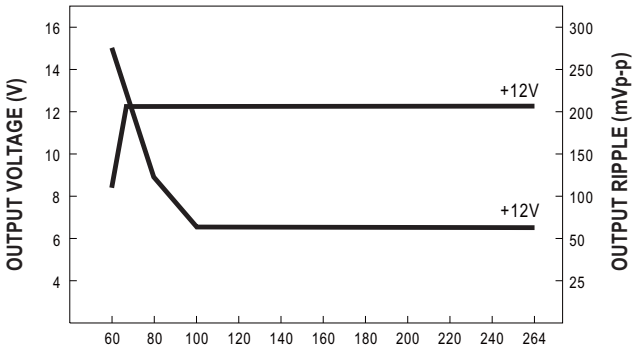


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics (12V)



INPUT VOLTAGE (V) 60Hz