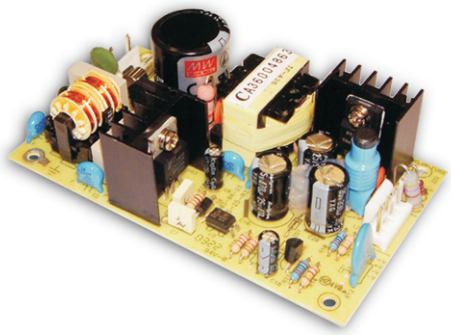
MEAN WELL DIRECT

25W Single Output Switching Power Supply PS-25 series



■ Features :

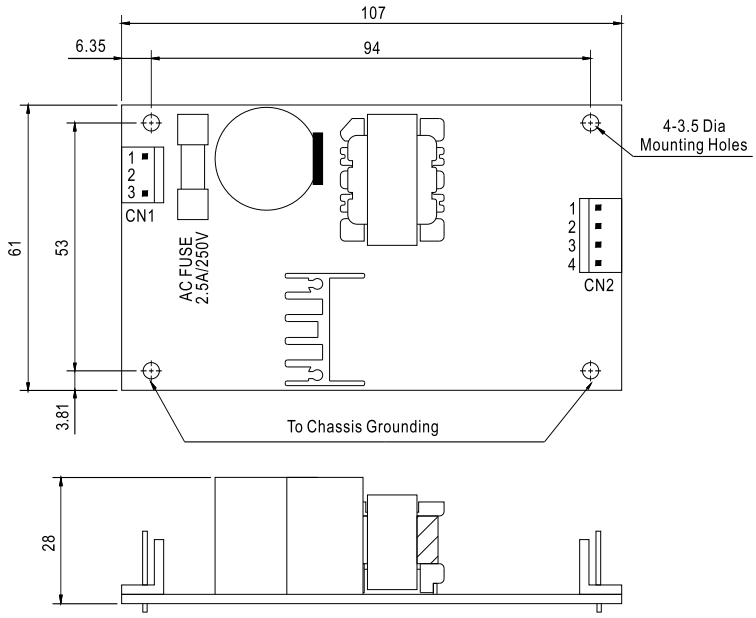
- Universal AC input / Full range
- Low leakage current <0.5mA
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 100KHz
- Low cost
- High reliability

SPECIFICATION

MODEL		PS-25-3.3	PS-25-5	PS-25-7.5	PS-25-12	PS-25-13.5	PS-25-15	PS-25-24	PS-25-27	PS-25-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V
	RATED CURRENT	5A	5A	3.3A	2.1A	1.9A	1.7A	1A	0.9A	0.5A
	CURRENT RANGE	0 ~ 5A	0 ~ 5A	0 ~ 3.3A	0 ~ 2.1A	0 ~ 1.9A	0 ~ 1.7A	0 ~ 1A	0 ~ 0.9A	0 ~ 0.5A
	RATED POWER	16.5W	25W	24.8W	25.2W	25.7W	25.5W	24W	24.3W	24W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	80mVp-p	100mVp-p	100mVp-p	100mVp-p	240mVp-p	240mVp-p	350mVp-p
	VOLTAGE TOLERANCE Note.3	±3.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.3%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%
	LOAD REGULATION	±2.5%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	200ms, 20ms/230VAC 200ms, 30ms/115VAC at full load								
	HOLD UP TIME (Typ.)	100ms/230VAC 20ms/115VAC at full load								
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY(Typ.)	66%	74%	76%	78%	78%	78%	79%	79%	79%
	AC CURRENT (Typ.)	0.6A/115VAC 0.4A/230VAC								
	INRUSH CURRENT (Typ.)	COLD START 36A								
	LEAKAGE CURRENT	<0.5mA / 240VAC								
PROTECTION	OVERLOAD	Above 105% rated output power								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	3.8 ~ 4.46V	5.75 ~ 6.75V	8.6 ~ 10.1V	13.8 ~ 16.2V	15.5 ~ 18.2V	17.3 ~ 20.3V	27.6 ~ 32.4V	31 ~ 36.5V	55.2 ~ 64.8V
		Protection type : Shut off o/p voltage, clamping by zener diode								
	OVER TEMPERATURE	Tj 135℃ typically (U1) detect on main control IC								
		Protection type : Shut down o/p voltage, re-power on to recover								
ENVIRONMENT	WORKING TEMP.	-10 ~ +60℃ (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%/℃ (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:1.5KVAC O/P-FG:0.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC								
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B								
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5, light industry level, criteria A								
OTHERS	MTBF	576.4Khrs min. MIL-HDBK-217F (25℃)								
	DIMENSION	107*61*28mm (L*W*H)								
	PACKING	0.14Kg; 96pcs/15Kg/1.3CUFT								
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.									

■ Mechanical Specification

Unit:mm



AC Input Connector (CN1) : Molex 41791-03 or equivalent

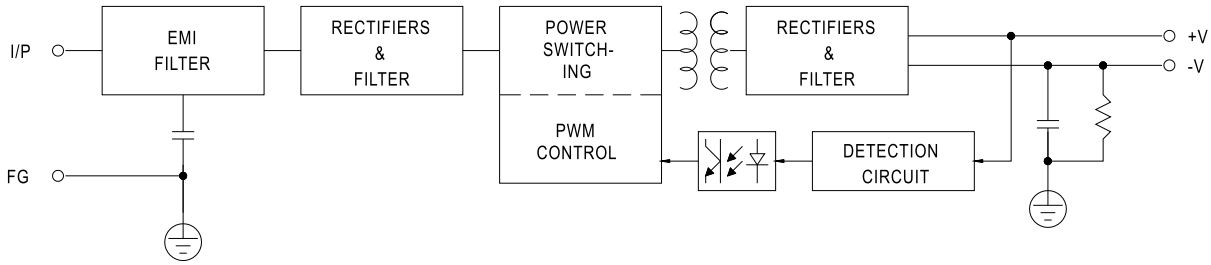
Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	Molex 2139 or equivalent	Molex 2478 or equivalent
2	No Pin		
3	AC/N		

DC Output Connector (CN2) : Molex 41791-04 or equivalent

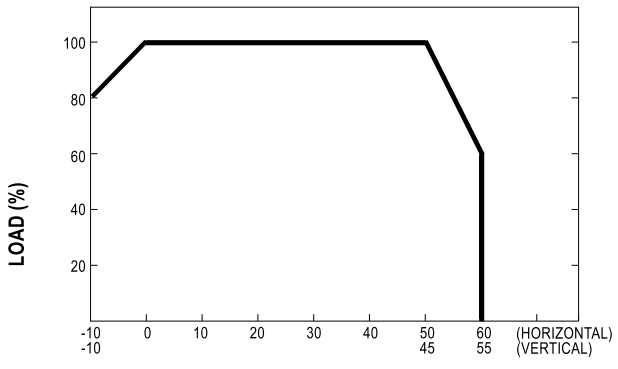
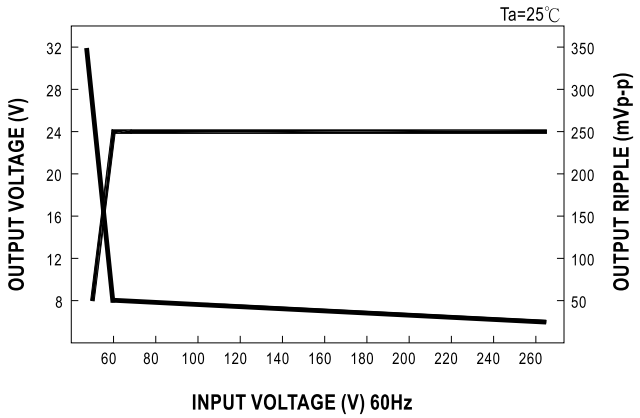
Pin No.	Assignment	Mating Housing	Terminal
1,2	+V	Molex 2139 or equivalent	Molex 2478 or equivalent
3,4	-V		

■ Block Diagram

fosc : 100KHz



■ Derating Curve



■ Static Characteristics (24V)