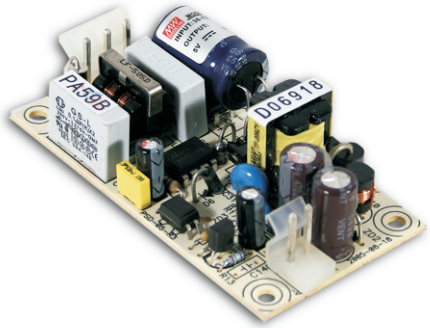
5W Single Output DC-DC Converter

PSD-05 series



Features :

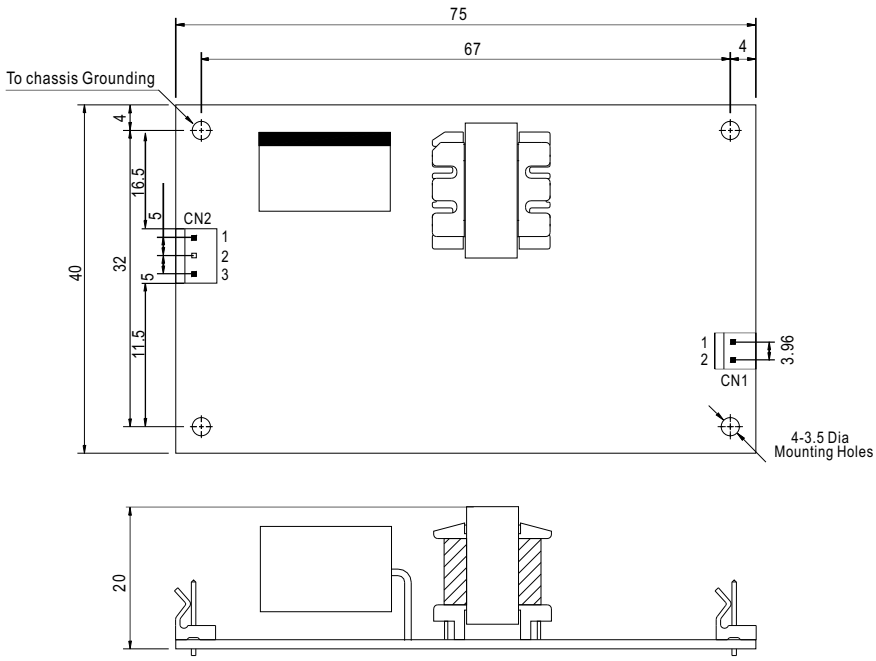
- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Fix switching frequency at 67KHz
- Low cost
- High reliability
- 2 years warranty

SPECIFICATION

MODEL		PSD-05-05	PSD-05-12	PSD-05-24
OUTPUT	DC VOLTAGE	5V	12V	24V
	RATED CURRENT	1A	0.45A	0.22A
	CURRENT RANGE	0 ~ 1A	0 ~ 0.5A	0 ~ 0.25A
	RATED POWER	5W	5.4W	5.28W
	RIPPLE & NOISE (max.) Note.2	50mVp-p	100mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±1.0%	±1.0%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±0.5%
	SETUP, RISE, HOLD UP TIME	1.2s, 20ms,--- at full load		
INPUT	VOLTAGE RANGE	36 ~ 72VDC		
	EFFICIENCY(Typ.)	75%	78%	78%
	DC CURRENT(Typ.)	0.15A/48V		
PROTECTION	OVERLOAD	Above 105% rated output power		
		Protection type : Fold back current limiting, recovery automatically after fault condition is removed		
	OVER VOLTAGE	5.75~ 6.75V	13.8~16.2V	27.6~ 32.4V
		Protection type : Hiccup mode, recovery automatically after fault condition is removed		
	OVER TEMPERATURE	U1 Tj140 typically(U1)detect on main control IC		
		Protection type : Hiccup mode, recovery automatically after temperature goes down		
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	±0.05%/℃ (0 ~ 50℃)		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
SAFETY & EMC	WITHSTAND VOLTAGE	I/P-O/P:2KVAC		
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH		
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B		
	EMS IMMUNITY	Compliance to EN61000-4-2, 3, 4, 6, 8 ENV50204, EN55024, EN61000-6-1, light industry level, criteria A		
OTHERS	DIMENSION	75*40*20mm (L*W*H)		
	PACKING	50mg;120pcs/6.25Kg/1CUFT		
NOTE	1. All parameters NOT specially mentioned are measured at 48VDC 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



DC Input Connector (CN2) : MOLEX5285-03 or equivalent

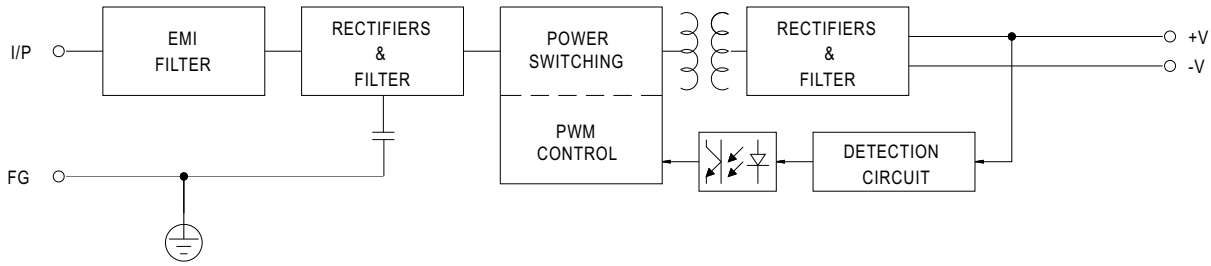
Pin No.	Assignment	Mating Housing	Terminal
1	FG	MOLEX 5058 or equivalent	MOLEX 2478 or equivalent
2	(-V)		
3	(+V)		

DC Output Connector (CN1) : MOLEX5273-02 or equivalent

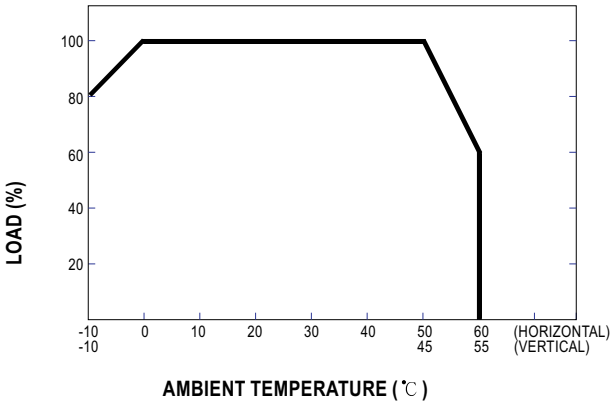
Pin No.	Assignment	Mating Housing	Terminal
1	+V	MOLEX 5195 or equivalent	MOLEX 5194 or equivalent
2	-V		

■ Block Diagram

fosc : 67KHz



■ Derating Curve



■ Static Characteristics

