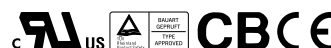


■ Features :

- 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
- 2 years warranty

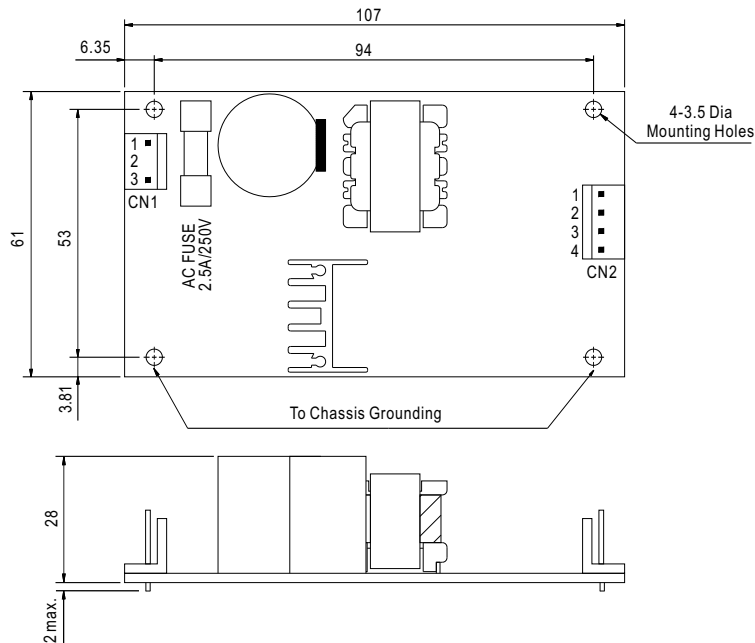


SPECIFICATION

MODEL	PD-25A		PD-25B		PD-2505		PD-2512		PD-2515		
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2	CH1	CH2	CH1	CH2	CH1	CH2
	DC VOLTAGE	5V	12V	5V	24V	5V	-5V	12V	-12V	15V	-15V
	RATED CURRENT	2.1A	1.2A	1.2A	0.8A	2.5A	2.5A	1A	1A	0.8A	0.8A
	CURRENT RANGE	0.2 ~ 2.5A	0.1 ~ 1.5A	0.2 ~ 2A	0.1 ~ 1A	0.1 ~ 3A	0.1 ~ 2.5A	0.1 ~ 1.2A	0.1 ~ 1.2A	0.1 ~ 1A	0.1 ~ 1A
	RATED POWER	25W		25.2W		25W		24W		24W	
	RIPPLE & NOISE (max.) Note.2	50mVp-p	150mVp-p	50mVp-p	200mVp-p	50mVp-p	50mVp-p	50mVp-p	50mVp-p	50mVp-p	50mVp-p
	VOLTAGE TOLERANCE Note.3	±2.0%	±6.0%	±2.0%	±6.0%	±6.0%	±6.0%	±4.0%	±4.0%	±4.0%	±4.0%
	LINE REGULATION	±0.5%	±2.0%	±0.5%	±2.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±4.0%	±1.0%	±4.0%	±4.0%	±4.0%	±3.0%	±3.0%	±3.0%	±3.0%
	SETUP, RISE TIME	250ms, 50ms/230VAC		250ms, 30ms/115VAC at full load							
HOLD UP TIME (Typ.)	100ms/230VAC		16ms/115VAC at full load								
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 370VDC									
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY(Typ.)	71%		77%		73%		74%		75%	
	AC CURRENT (Typ.)	0.65A/115VAC 0.4A/230VAC									
	INRUSH CURRENT (Typ.)	COLD START 32A									
	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	5.75 ~ 6.75V	13.8 ~ 16.2V	5.75 ~ 6.75V	27.6 ~ 32.4V	5.75 ~ 6.75V	-5.75 ~ -6.75V	13.8 ~ 16.2V	-13.8 ~ -16.2V	17.3 ~ 20.3V	-17.3 ~ -20.3V
	OVER TEMPERATURE	Tj 135°C typically (U1) detect on main control IC Protection type : Shut down o/p voltage, re-power on to recover									
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)									
	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C) ON CH1 output									
	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	507.9Khrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	107*61*28mm (L*W*H)									
	PACKING	0.15Kg; 96pcs/15.9Kg/1.3CUFT									
NOTE	<ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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

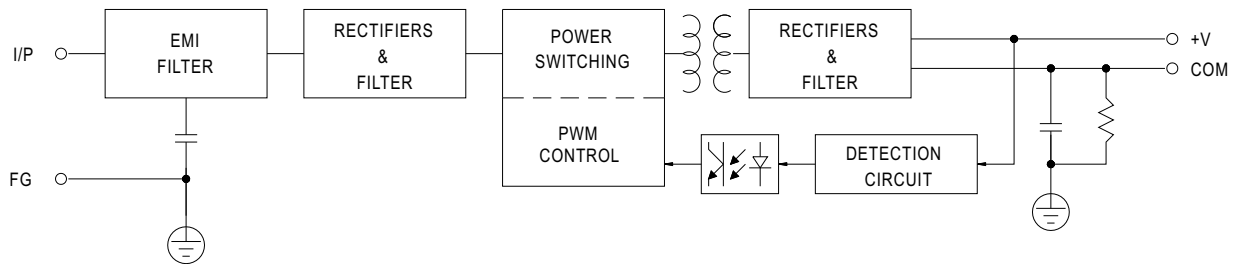
Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	Molex 2139 or equivalent	Molex 2478 or equivalent
2	No Pin		
3	AC/N		

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

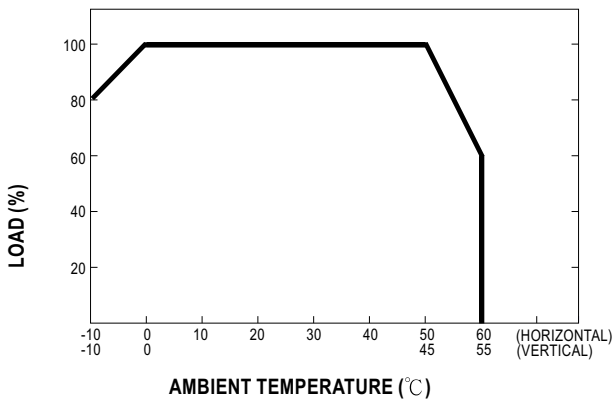
Pin No.	Assignment	Mating Housing	Terminal
1	V1	Molex 2139 or equivalent	Molex 2478 or equivalent
2,3	COM		
4	V2		

Block Diagram

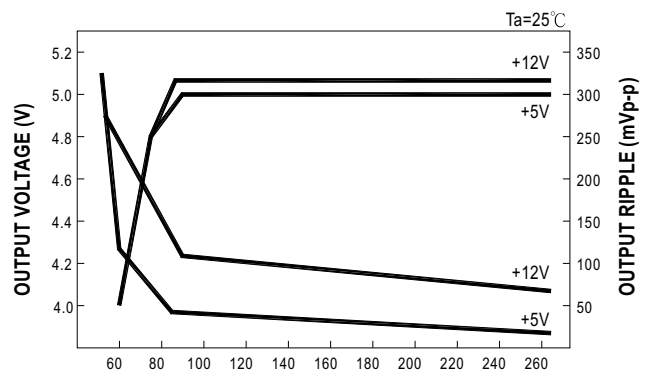
fosc : 100KHz



Derating Curve



Static Characteristics (A)



NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT
6	AC INPUT CURRENT	I/P:230VAC O/P:FULL LOAD SPEC:0.4A	F:0.312A	P
7	MAX. INRUSH CURREN	I/P:230VAC O/P: FULL LOAD SPEC:40A	F:33.273A	P
8	SET UP TIME	I/P:230VAC O/P:FULL LOAD SPEC:250ms	F:132mS	P
9	HOLD UP TIME	I/P:230VAC O/P:FULL LOAD SPEC:50mS	F:129mS	P
10	EFFICIENCY	I/P:230VAC O/P:FULL LOAD SPEC: A:71% B:77% C:73% D:74% E:75% F:72%	A:72.12% B:78.66% C:74.84% D:75.77% E:76.60% F:73.18%	P
11	OVER LOAD PROTECTION	I/P:230VAC O/P:TESTING SPEC:ABOVE 105%	A:246% B:269% C:239% D:286.5% E:285% F:230%	P
12	OVER VOLTAGE PROTECTION	I/P:230VAC O/P:FULL LOAD SPEC: V1:115%~135% V2:115%~135%	A : V1: 123% V2: 128% B : V1: 124% V2: 123% C : V1: 124.4% V2: 126% D : V1: 121% V2: 129% E : V1: 124.3% V2: 130.7% F : V1: 124% V2: 130%	P
13	OVER TEMPERATURE PROTECTION & FAN ON/OFF TEST	I/P:230VAC O/P:FULL LOAD SPEC: U1 Tj 135°C TYPICALLY POWER SHUTDOWN	A: OTP:115°C	P
14	GROUND LEAKAGE CURRENT	I/P:240VAC SPEC: L-FG--<0.5mA N-FG--<0.5mA	A: L-FG:0.25mA N-FG:0.24mA	P
15	INSULATION RESISTANCE	SPEC: O/P-FG 500VDC/100M Ohms MIN. I/P-O/P 500VDC/100M Ohms MIN. I/P-FG 500VDC/100M Ohms MIN.	A: O/P-FG >100M Ohms I/P-O/P >100M Ohms I/P-FG >100M Ohms	P
16	DIELECTRIC / WITHSTAND VOLTAGE	SPEC: I/P- O/P: 3000VAC/ 1 sec (10mA CUT-OFF) I/P - FG: 1500VAC/ 1 sec (10mA CUT-OFF) O/P - FG: 500VAC/ 1 sec (10mA CUT-OFF)	A: I/P-O/P :1.8mA I/P-FG :2.8mA	P
17	BURN-IN TEST	I/P: 230VAC O/P:FULL LOAD TA:23.6°C BURN-IN DURATION : 1 hrs	NON BREAK	P

18	ENVIRONMENT TEST (SAMPLE A:)	1.LOW TEMPERATURE TEST I/P:80 VAC O/P:FULL LOAD AMBIENT TEMPERATURE:-8.7°C	AFTER 1.33 hrs POWER ON OK	P																																
		2.HIGH AMBIENT TEMPERATURE FULL LOAD TEST I/P:230VAC O/P:FULL LOAD AMBIENT TEMPERATURE:51.2°C	AFTER 14 hrs NON BREAK																																	
		3.ACCELERATED LIFE TEST I/P:267VAC O/P:FULL LOAD POWER ON :3 min POWER OFF :5 sec AMBIENT TEMPERATURE:85°C AMBIENT HUMIDITY:95%	AFTER 4.5 hrs NON BREAK																																	
19	TEMPERATURE RISE TEST T rise OF PARTS	<p style="text-align: center;">A: I/P :230VAC O/P :FULL LOAD AFTER 1 hr BURN-IN TA:23.6°C</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>POSITION</th> <th>P/N</th> <th>TEMP</th> <th>T rise</th> </tr> </thead> <tbody> <tr> <td>BD1</td> <td>BRIDGE DIODE</td> <td>49.0°C</td> <td>25.4°C</td> </tr> <tr> <td>U1</td> <td>MAIN TRANSISTOR</td> <td>55.2°C</td> <td>31.6°C</td> </tr> <tr> <td>T1</td> <td>MAIN TRANSFORMER</td> <td>61.9°C</td> <td>38.3°C</td> </tr> <tr> <td>D7</td> <td>O/P DIODE</td> <td>63.8°C</td> <td>40.2°C</td> </tr> <tr> <td>C14</td> <td>O/P FILTER CAPACITOR</td> <td>43.4°C</td> <td>19.8°C</td> </tr> <tr> <td>C5</td> <td>I/P FILTER CAPACITOR</td> <td>36.1°C</td> <td>12.5°C</td> </tr> <tr> <td>D5</td> <td>CLAMP DIODE</td> <td>52.4°C</td> <td>28.8°C</td> </tr> </tbody> </table>		POSITION	P/N	TEMP	T rise	BD1	BRIDGE DIODE	49.0°C	25.4°C	U1	MAIN TRANSISTOR	55.2°C	31.6°C	T1	MAIN TRANSFORMER	61.9°C	38.3°C	D7	O/P DIODE	63.8°C	40.2°C	C14	O/P FILTER CAPACITOR	43.4°C	19.8°C	C5	I/P FILTER CAPACITOR	36.1°C	12.5°C	D5	CLAMP DIODE	52.4°C	28.8°C	P
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20	LIFE CYCLE	A: SUPPOSE C14 IS THE MOST CRITICAL COMPONENT I/P:230VAC O/P:FULL LOAD Ta:23.6°C Tc14:43.4°C Life: 424924 hrs I/P:230VAC O/P:FULL LOAD Ta:51.2°C Tc14:65.4°C Life: 92479 hrs		P																																
21	CRITICAL COMPONENT RECORD (FOR QC INSPECTION REFERENCE ONLY)	A: FUSE : T2.5AL/250VAC UL BRIDGE DIODE : KBP208G 2A/800V GLASS LINE FILTER : LF TF-416 ET-20V TRANSFOMER : MT TF-426 EI-28 POWER SWITCHER : PHIL TOP-223Y OUTPUT DIODE : C82-004 TO-220 OUTPUT CAPACITOR : 1000uF/25V ,LL 105°C, 5Khrs INPUT CAPACITOR : HITACHI 82uF/400V,85°C HP3 P.C.B : PD-25-R1,CEM-3 2 OZ SS																																		
DATE	SAMPLE	TEST RESULT	TEST	APPROVAL																																
980417	PD-25	PASS	H.C.LIOU	Max Lin																																
980930	PD-2503	PASS	H.C.LIOU	Max Lin																																