



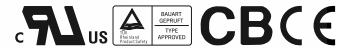
25W Single Output Switching Power Supply

PS-25 series



■ Features :

- Universal AC input / Full range
- Low leakage current <0.5mA
- Protections:Short circuit/Over load/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



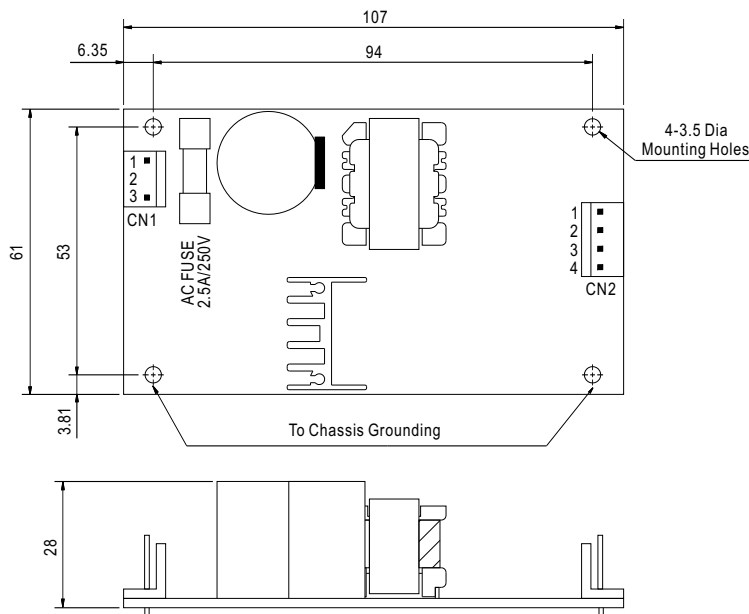
SPECIFICATION

MODEL		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 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	OVER LOAD	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	
	OVER TEMPERATURE	Tj 135°C typically (U1) Detect on main control IC Protection type : Shut down o/p voltage, recovers automatically after temperature goes down									
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)									
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°C)									
	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°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

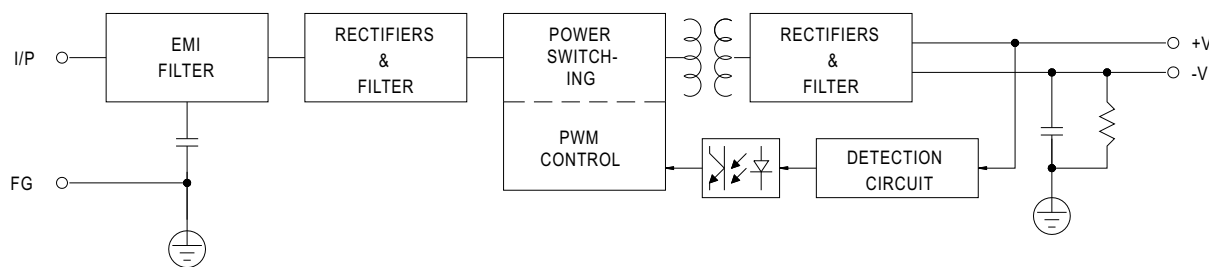
Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	Molex 2139 or equivalent	Molex 2478 or equivalent
2	No Pin		
3	AC/N		

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

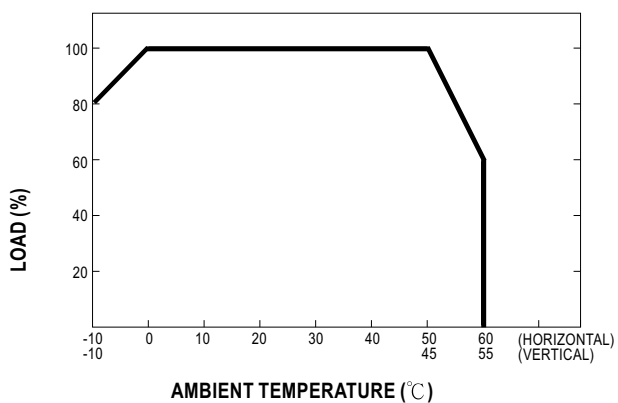
Pin No.	Assignment	Mating Housing	Terminal
1,2	+V	Molex 2139 or equivalent	Molex 2478 or equivalent
3,4	-V		

### Block Diagram

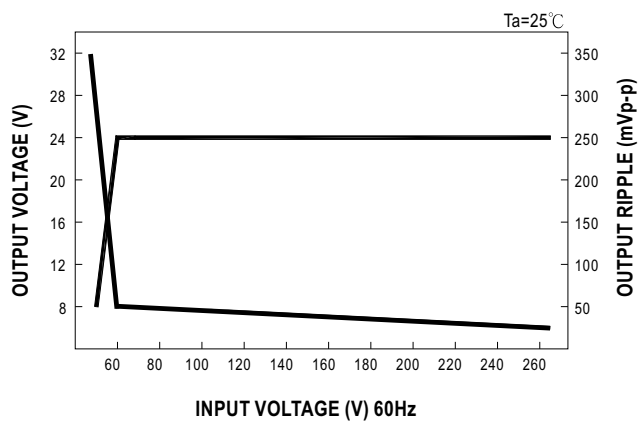
fosc : 100KHz

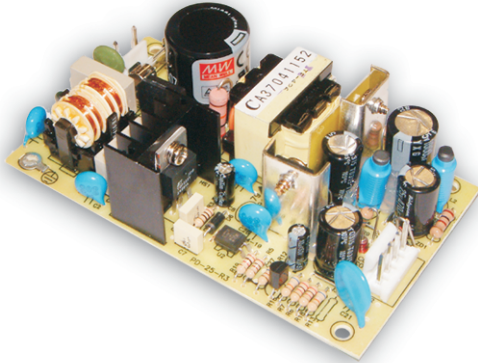


### Output Derating



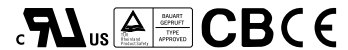
### Static Characteristics (24V)





### ■ Features :

- Universal AC input / Full range
- Low leakage current < 0.5mA
- Protections: Short circuit/Over load/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

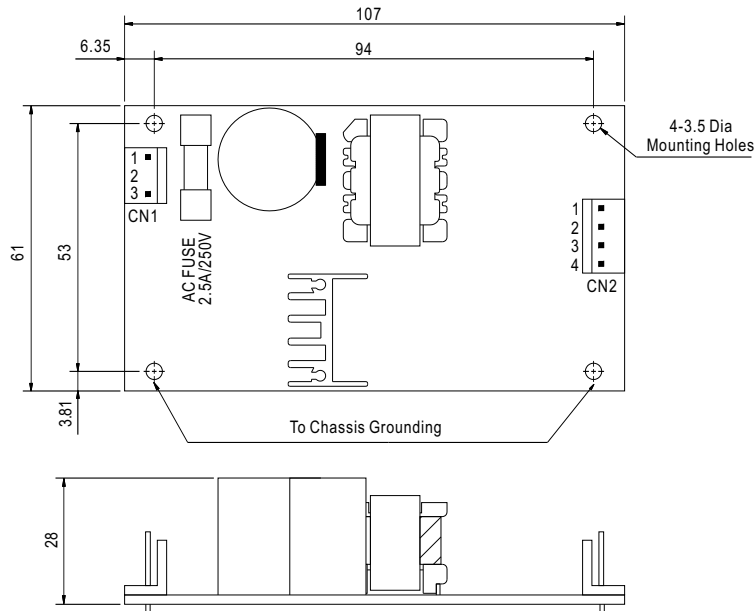


### SPECIFICATION

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 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	OVER LOAD	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, recovers automatically after temperature goes down									
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"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>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.</li> </ol>										

### Mechanical Specification

Unit:mm



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

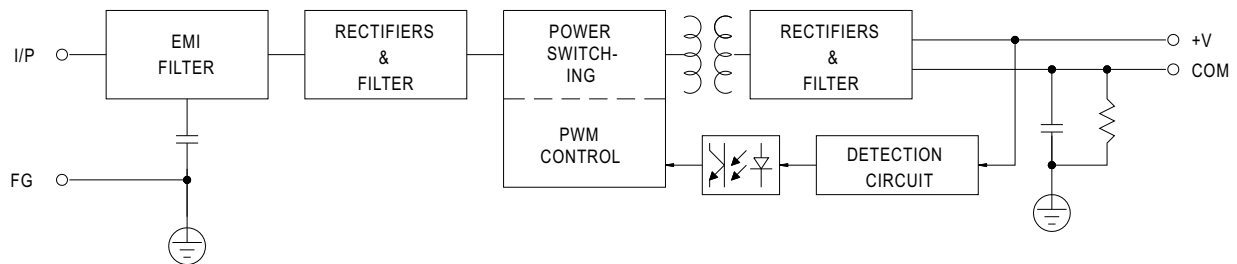
Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	Molex 2139 or equivalent	Molex 2478 or equivalent
2	No Pin		
3	AC/N		

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

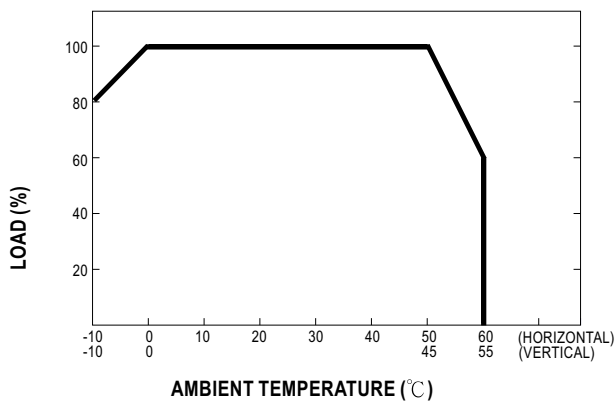
Pin No.	Assignment	Mating Housing	Terminal
1	V1	Molex 2139 or equivalent	Molex 2478 or equivalent
2,3	COM		
4	V2		

### Block Diagram

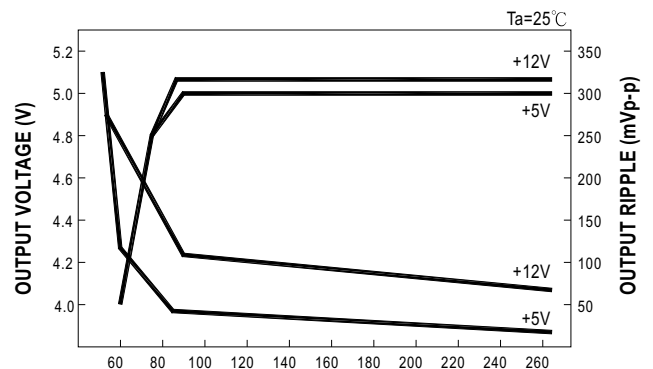
fosc: 100KHz

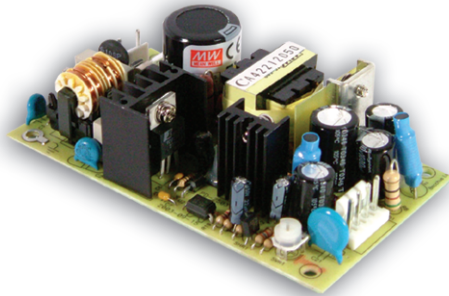


### Output Derating



### Static Characteristics (A)





### ■ Features :

- Universal AC input / Full range
- Low leakage current < 0.5mA
- Protections: Short circuit/Over load/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

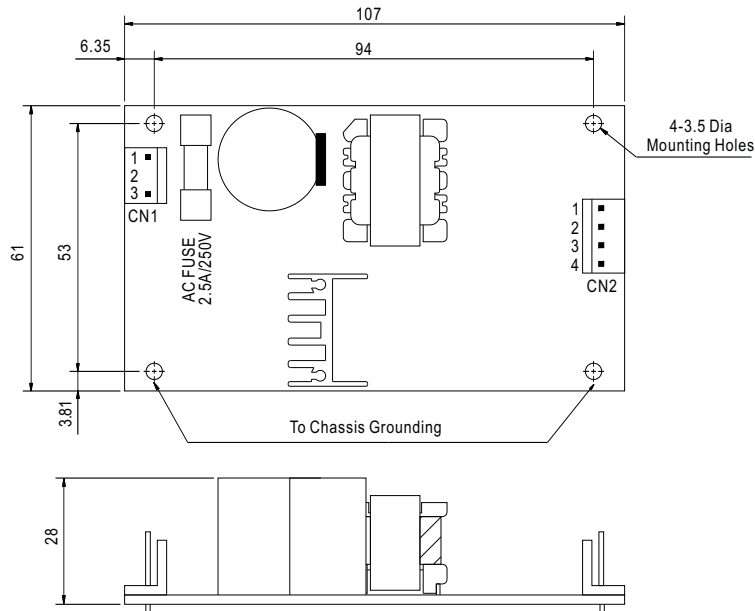


### SPECIFICATION

MODEL		PD-2503	
OUTPUT	OUTPUT NUMBER	CH1	CH2
	DC VOLTAGE	5V	3.3V
	RATED CURRENT	3A	3A
	CURRENT RANGE	0.1 ~ 4A	0.2 ~ 5A
	RATED POWER	24.9W(CH1+CH2 ≤ 6A)	
	RIPPLE & NOISE (max.) Note.2	50mVp-p	50mVp-p
	VOLTAGE ADJ. RANGE	Set CH2 +3.3V:3.35 ~ 3.40V	
	VOLTAGE TOLERANCE Note.3	+5,-8%	±2.0%
	LINE REGULATION	±2.0%	±1.0%
	LOAD REGULATION	±4.0%	±1.0%
SETUP, RISE, HOLD TIME	250ms, 50ms, 50ms/230VAC      250ms, 30ms, 16ms/115VAC at full load		
INPUT	VOLTAGE RANGE	85 ~ 264VAC      120 ~ 370VDC	
	FREQUENCY RANGE	47 ~ 63Hz	
	EFFICIENCY(Typ.)	72%	
	AC CURRENT	0.65A/115VAC	0.4A/230VAC
	INRUSH CURRENT(max.)	COLD START 40A	
LEAKAGE CURRENT	<0.5mA / 240VAC		
PROTECTION	OVER LOAD	Above 105% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed	
	OVER VOLTAGE	5.75 ~ 6.75V	3.8 ~ 4.46V
	OVER TEMPERATURE	Tj 135°C typically (U1) Detect on main control IC Protection type : Shut down o/p voltage, recovers automatically after temperature goes down	
ENVIRONMENT	WORKING TEMP.	-10 ~ +70°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	518Khrs min.    MIL-HDBK-217F (25°C)	
	DIMENSION	107*61*28mm (L*W*H)	
	PACKING	0.13Kg; 96pcs/15.4Kg/1.3CUFT	
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>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.</li> </ol>		

### Mechanical Specification

Unit:mm



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

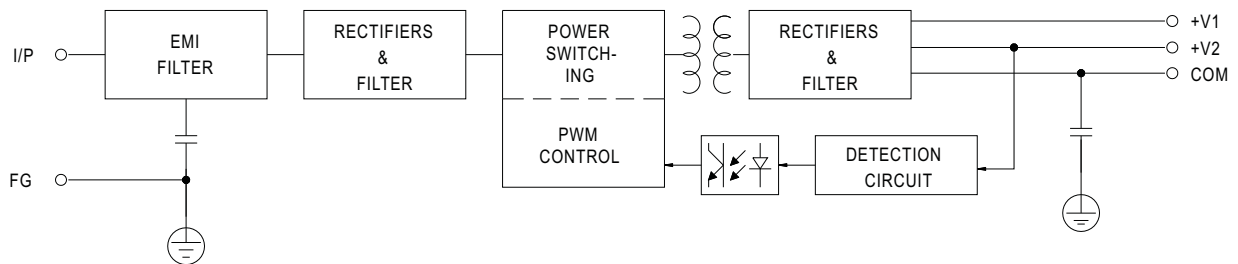
Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	Molex 2139 or equivalent	Molex 2478 or equivalent
2	No Pin		
3	AC/N		

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

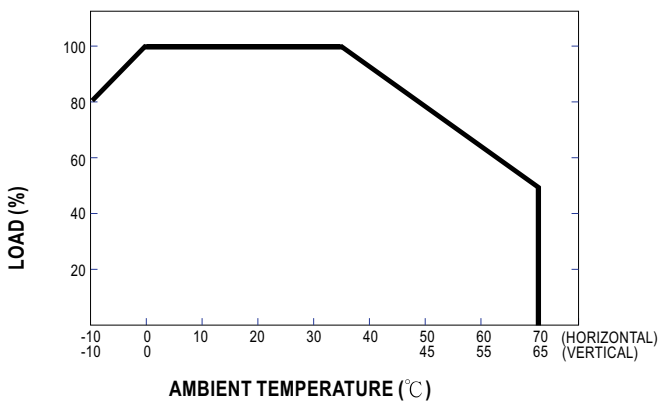
Pin No.	Assignment	Mating Housing	Terminal
1	+5V	Molex 2139 or equivalent	Molex 2478 or equivalent
2,3	COM		
4	+3.3V		

### Block Diagram

fosc : 100KHz



### Output Derating



### Static Characteristics

