

■ 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

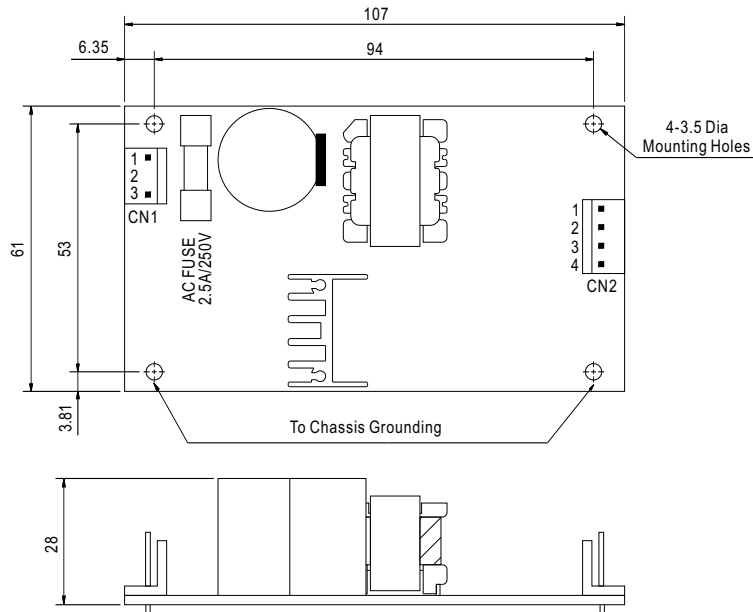


## SPECIFICATION

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	<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

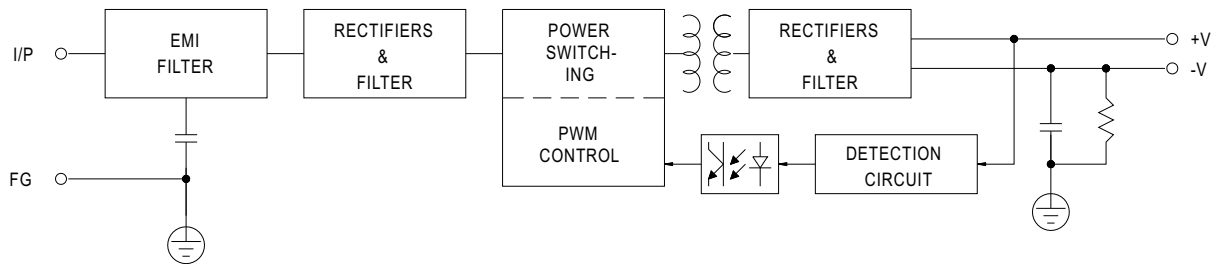
Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	Molex 2139 or equivalent	Molex 2478 or equivalent
2	No Pin		
3	AC/N		

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

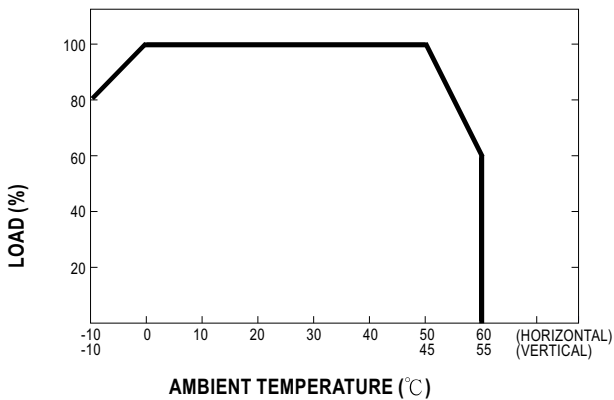
Pin No.	Assignment	Mating Housing	Terminal
1,2	+V	Molex 2139 or equivalent	Molex 2478 or equivalent
3,4	-V		

■ Block Diagram

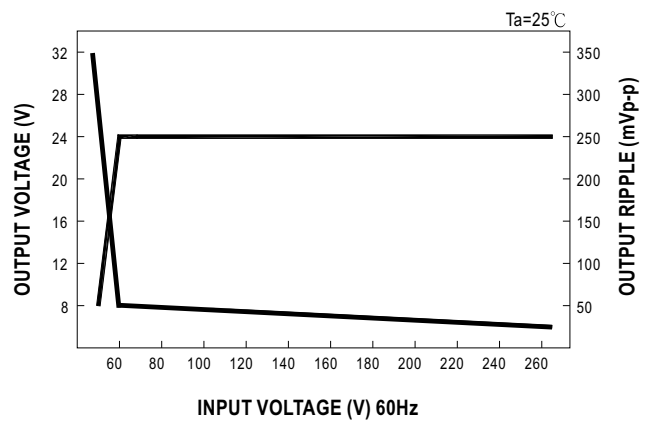
fosc : 100KHz

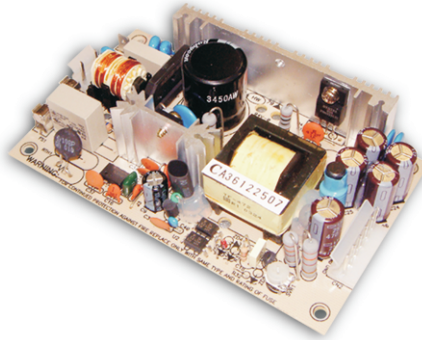


■ Output Derating

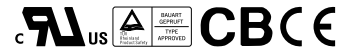


■ Static Characteristics (24V)





- Features :
  - Universal AC input/Full range
  - Low leakage current<0.5mA
  - Protections:Short circuit/Over load/Over voltage
  - Cooling by free air convection
  - 100% full load burn-in test
  - Fixed switching frequency at 65KHz
  - 2 years warranty

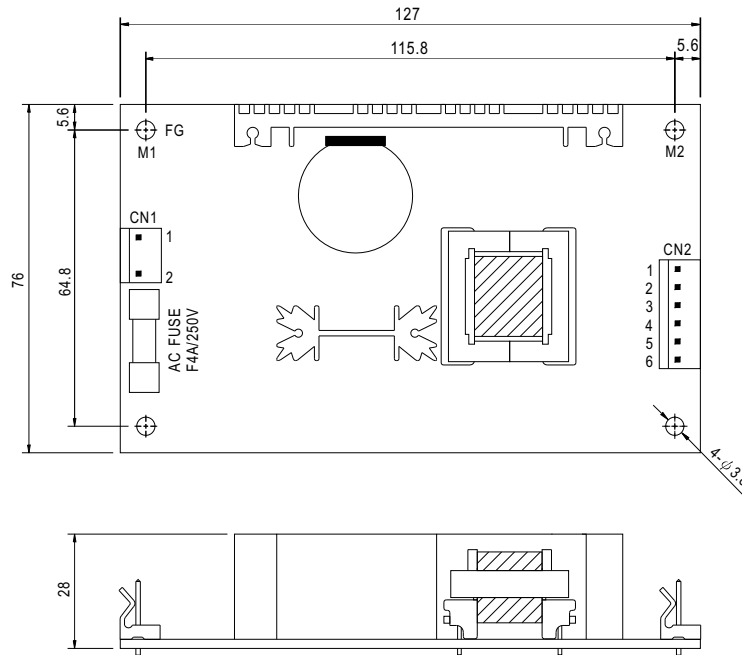


**SPECIFICATION**

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	44.6W	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	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 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	OVER LOAD	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	
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	±0.05%/°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, 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									
OTHERS	EMT IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, Light industry level, criteria A									
	MTBF	300.7K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	127*76*28mm (L*W*H)									
NOTE	PACKING	0.19Kg; 72pcs/15.6Kg/1.35CUFT									
		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. 5. Mounting holes M1 and M2 should be grounded for EMI purposes.									

■ Mechanical Specification

Unit:mm



AC Input Connector (CN1) : Molex 5277-02 or equivalent

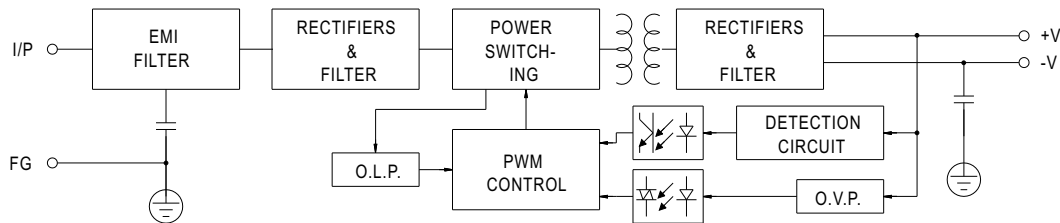
Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	Molex 5195 or equivalent	Molex 5194 or equivalent
2	AC/L		

DC Output Connector (CN2) : Molex 5273-06 or equivalent

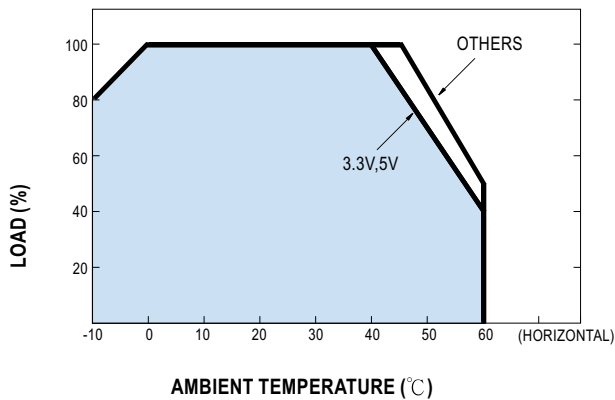
Pin No.	Assignment	Mating Housing	Terminal
1,2,3	+V	Molex 5195 or equivalent	Molex 5194 or equivalent
4,5,6	-V		

■ Block Diagram

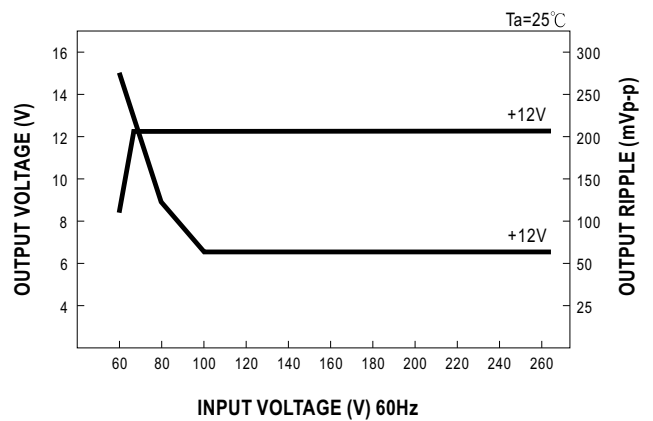
fosc : 65KHz



■ Output Derating



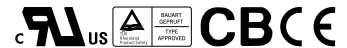
■ Static Characteristics (12V)





■ Features :

- Universal AC input/Full range
- Low leakage current<0.5mA
- 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

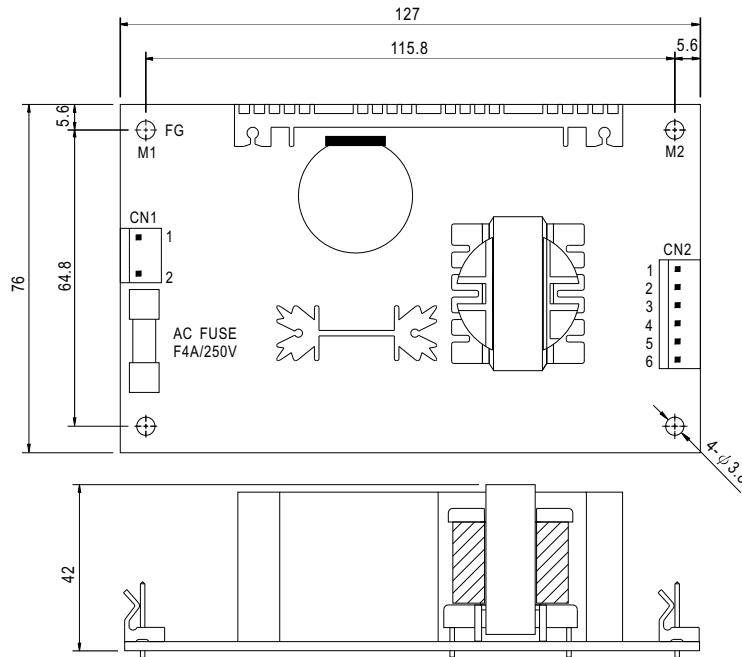


SPECIFICATION

MODEL	PS-65-3.3	PS-65-5	PS-65-7.5	PS-65-12	PS-65-13.5	PS-65-15	PS-65-24	PS-65-27	PS-65-48		
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V	
	RATED CURRENT	12A	12A	8A	5.2A	4.7A	4.2A	2.7A	2.4A	1.35A	
	CURRENT RANGE	0 ~ 15.2A	0 ~ 13.8A	0 ~ 9.6A	0 ~ 6A	0 ~ 5.4A	0 ~ 4.8A	0 ~ 3A	0 ~ 2.7A	0 ~ 1.5A	
	RATED POWER	39.6W	60W	60W	62.4W	63.5W	63W	64.8W	64.8W	64.8W	
	OUTPUT POWER (max.)	Rated output power for convection; 72W (+3.3V : 50W;+5V:69W) with 18 CFM min. Forced air									
	RIPPLE & NOISE (max.) Note.2	80mVp-p	100mVp-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 ~ 14.9V	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, 20ms 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%	76%	79%	79%	79%	79%	80%	80%	80%	
	AC CURRENT (Typ.)	1.2A/115VAC		0.72A/230VAC							
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC		40A/230VAC							
LEAKAGE CURRENT	<0.75mA / 240VAC										
PROTECTION	OVERLOAD	73 ~ 105W(3.3V : 51 ~ 75W)(5V : 70 ~ 105W) 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	
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	±0.04%/°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 EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, Light industry level, criteria A										
OTHERS	MTBF	300.7K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	127*76*42mm (L*W*H)									
	PACKING	0.21Kg; 54pcs/14.2Kg/1.35CUFT									
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>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>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>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> <li>Mounting holes M1 and M2 should be grounded for EMI purposes.</li> </ol>										

**Mechanical Specification**

Unit:mm



AC Input Connector (CN1) : Molex 5277-02 or equivalent

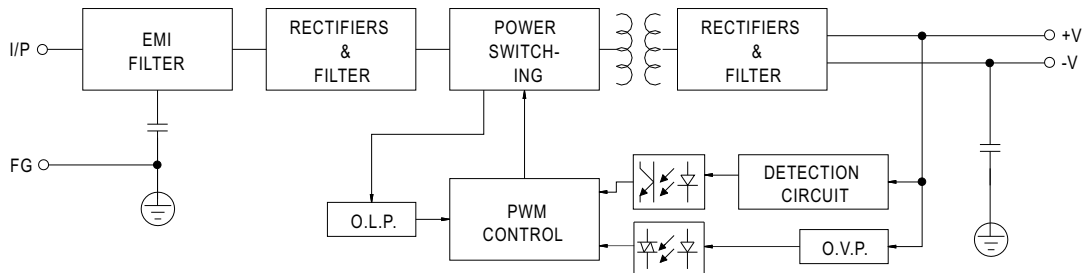
Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	Molex 5195 or equivalent	Molex 5194 or equivalent
2	AC/L	Molex 5195 or equivalent	Molex 5194 or equivalent

DC Output Connector (CN2) : Molex 5273-06 or equivalent

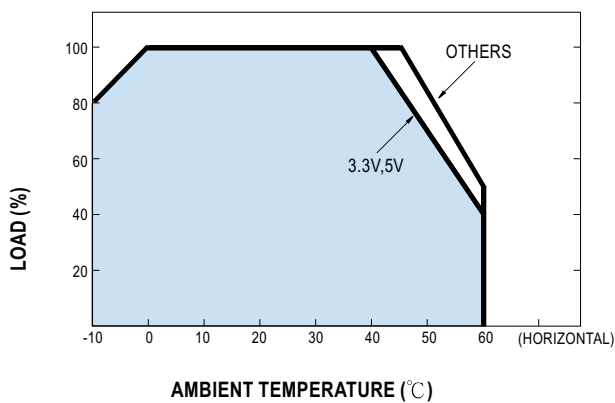
Pin No.	Assignment	Mating Housing	Terminal
1,2,3	+V	Molex 5195 or equivalent	Molex 5194 or equivalent
4,5,6	-V	Molex 5195 or equivalent	Molex 5194 or equivalent

**Block Diagram**

fosc : 65KHz



**Derating Curve**



**Output Derating VS Input Voltage**

