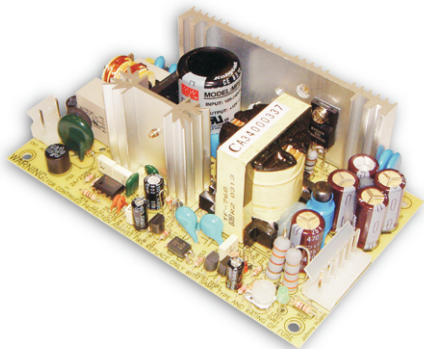




■ Features :

- Universal AC input / Full range
- Low leakage current $\leq 0.3\text{mA}$
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 3 years warranty



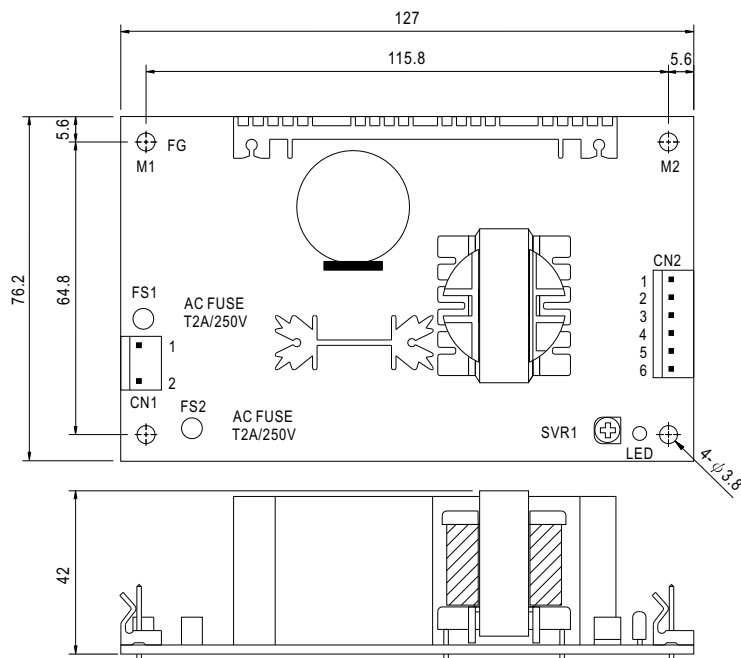
SPECIFICATION

MODEL		MPS-65-3.3	MPS-65-5	MPS-65-7.5	MPS-65-12	MPS-65-13.5	MPS-65-15	MPS-65-24	MPS-65-27	MPS-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.)	72W(+3.3V:50W;+5V:69W)with 18CFM min. Forced air convection								
	RIPPLE & NOISE (max.) Note.2	80mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p
	VOLTAGE ADJ. RANGE	2.97 ~ 3.63V	4.5 ~ 5.5V	6.75 ~ 8.25V	10.8 ~ 13.2V	12.2 ~ 14.85V	13.5 ~ 16.5V	21.6 ~ 26.4V	24.3 ~ 29.7V	43.2 ~ 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%
INPUT	SETUP, RISE TIME	800ms, 30ms/230VAC 800ms, 30ms/115VAC at full load								
	HOLD TIME (Typ.)	50ms/230VAC 16ms/115VAC at full load								
	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 440Hz								
	EFFICIENCY(Typ.)	66%	74%	76%	77%	78%	79%	80%	80%	80%
	AC CURRENT (Typ.)	1.6A/115VAC 0.9A/230VAC								
PROTECTION	INRUSH CURRENT (Typ.)	COLD START 15A/115VAC 30A/230VAC								
	LEAKAGE CURRENT	<0.3mA / 264VAC								
	OVER LOAD	73 ~ 105W (3.3V:51 ~ 75W)(5V:70 ~ 105W) rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
ENVIRONMENT	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
	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
SAFETY & EMC (Note 4)	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								
OTHERS	SAFETY STANDARDS	UL2601-1, TUV EN60601-1, IEC601-1 Approved								
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG:100M Ohms/500VDC								
	EMI CONDUCTION & RADIATION	Compliance to EN55011 (CISPR11) Class B								
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN60601-1-2 Medical level, criteria A								
NOTE	MTBF	359.7Khrs min. MIL-HDBK-217F (25°C)								
	DIMENSION	127*76.2*42mm (L*W*H)								
	PACKING	0.23Kg; 54pcs/14.6Kg/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

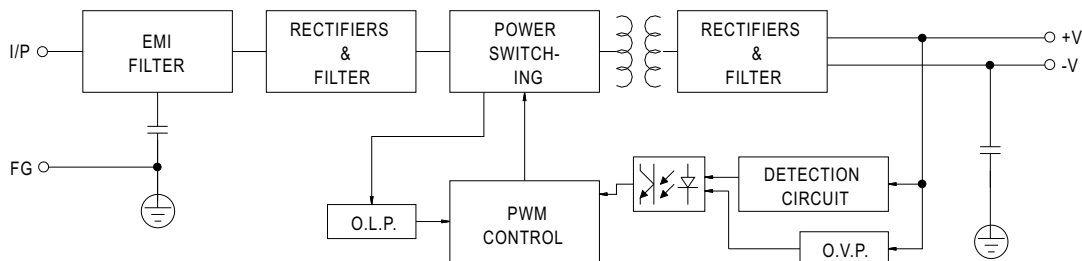
Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	Molex 5195 or equivalent	Molex 5194 or equivalent
2	AC/N		

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

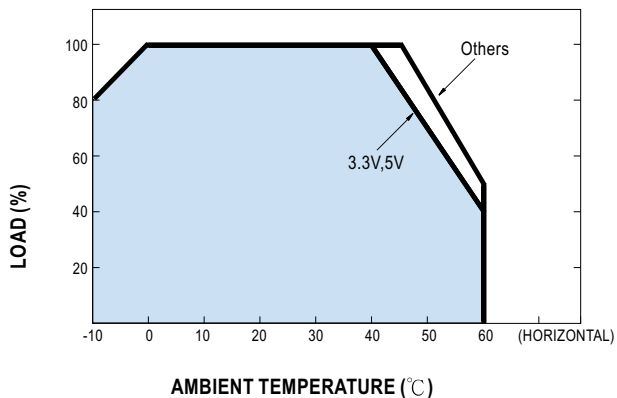
Pin No.	Assignment	Mating Housing	Terminal
1,2,3	+V	Molex 5195 or equivalent	Molex 5194 or equivalent
4,5,6	-V		

Block Diagram

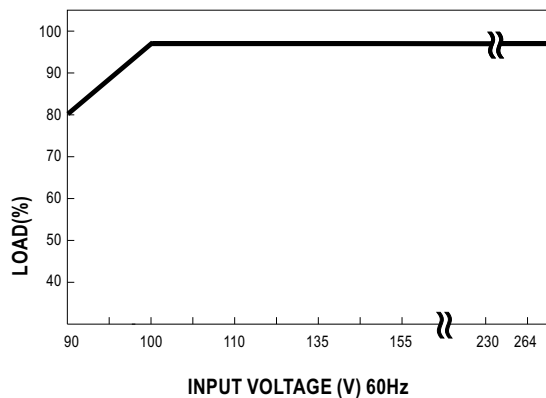
fosc : 45KHz

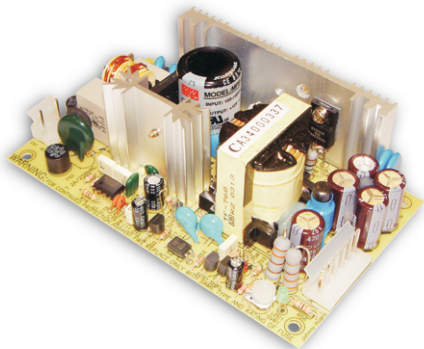


Output Derating



Static Characteristics





■ Features :

- Universal AC input / Full range
- Low leakage current $\leq 0.3\text{mA}$
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 3 years warranty

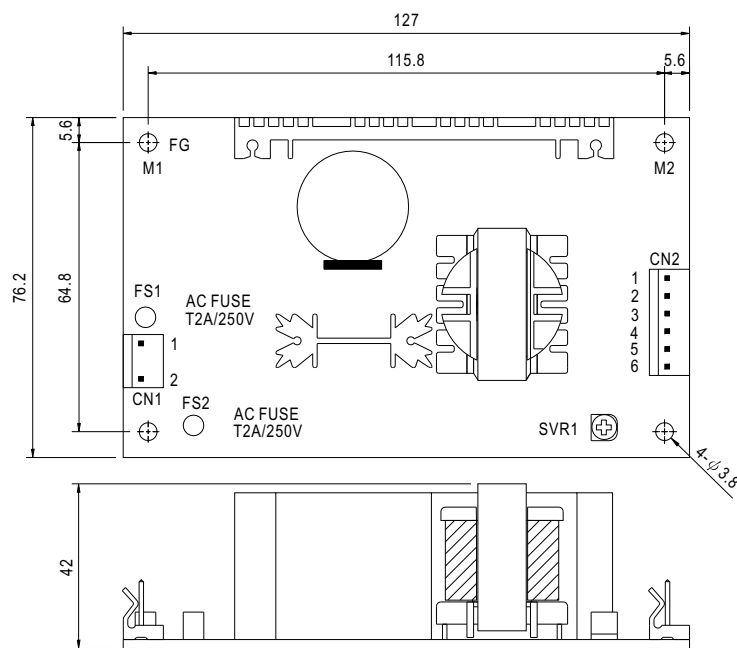


SPECIFICATION

MODEL		MPD-65A		MPD-65B	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	5V	12V	5V	24V
	RATED CURRENT	5.5A	2.8A	3.5A	2A
	CURRENT RANGE	0.4 ~ 7A	0.2 ~ 3.2A	0.4 ~ 6A	0.2 ~ 2.6A
	RATED POWER	61.1W		65.5W	
	OUTPUT POWER (max.)	72W with 18CFM min. Forced air convection			
	RIPPLE & NOISE (max.) Note.2	60mVp-p	150mVp-p	60mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	CH1:4.5 ~ 5.5V		CH1:4.5 ~ 5.5V	
	VOLTAGE TOLERANCE Note.3	±4.0%	±7.0%	±4.0%	±7.0%
	LINE REGULATION	±1.0%	±2.0%	±1.0%	±2.0%
	LOAD REGULATION	±3.0%	±4.0%	±3.0%	±4.0%
SETUP, RISE TIME	800ms, 20ms/230VAC 800ms, 20ms/115VAC at full load				
HOLD TIME (Typ.)	80ms/230VAC 12ms/115VAC at full load				
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 440Hz			
	EFFICIENCY(Typ.)	75%		78%	
	AC CURRENT (Typ.)	1.6A/115VAC 1A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC			
	LEAKAGE CURRENT	<0.3mA / 264VAC			
PROTECTION	OVER LOAD	73 ~ 105W rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	5.75 ~ 6.75VDC on CH1 Protection type : Hiccup mode, recovers automatically after fault condition is removed			
ENVIRONMENT	WORKING TEMP.	-10 ~ +55℃ (Refer to output load derating curve)			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.04%/℃ (0 ~ 50℃) on +5V output			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, Period for 60min.each along X, Y, Z axes			
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL2601-1, TUV EN60601-1, IEC601-1 Approved			
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG:100M Ohms/500VDC			
	EMI CONDUCTION & RADIATION	Compliance to EN55011 (CISPR11) Class B			
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3			
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN60601-1-2 Medical level, criteria A			
OTHERS	MTBF	291.3Khrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	127*76.2*42mm (L*W*H)			
	PACKING	0.25Kg; 54pcs/16Kg/1.35CUFT			
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. 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

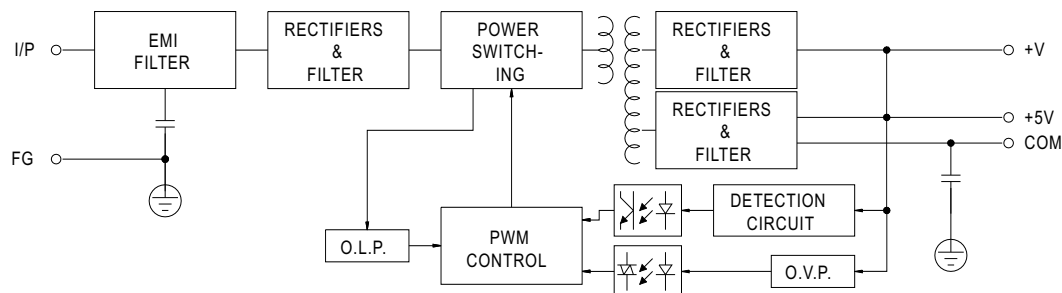
Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	Molex 5195 or equivalent	Molex 5194 or equivalent
2	AC/L		

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

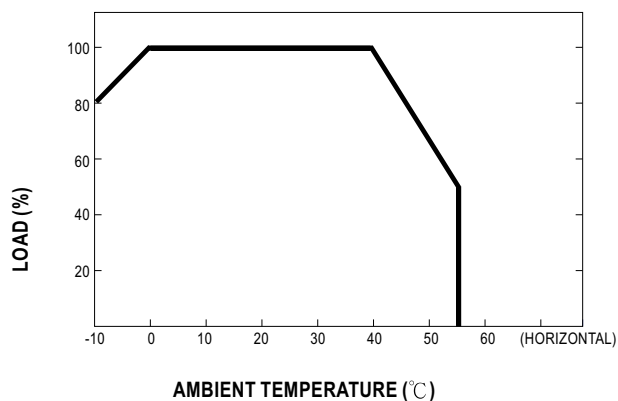
Pin No.	Assignment	Mating Housing	Terminal
1	+V	Molex 5195 or equivalent	Molex 5194 or equivalent
2,3	+5V		
4,5	COM		
6	NC		

Block Diagram

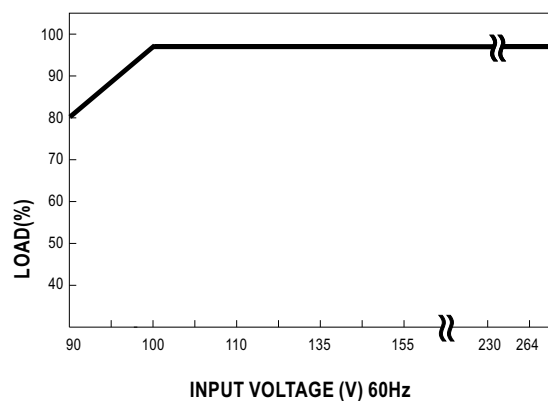
fosc : 45KHz

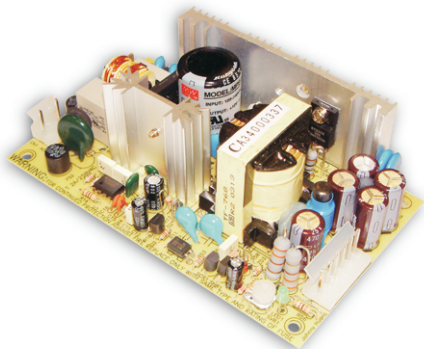


Output Derating



Static Characteristics





■ Features :

- Universal AC input / Full range
- Low leakage current $\leq 0.3\text{mA}$
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 3 years warranty



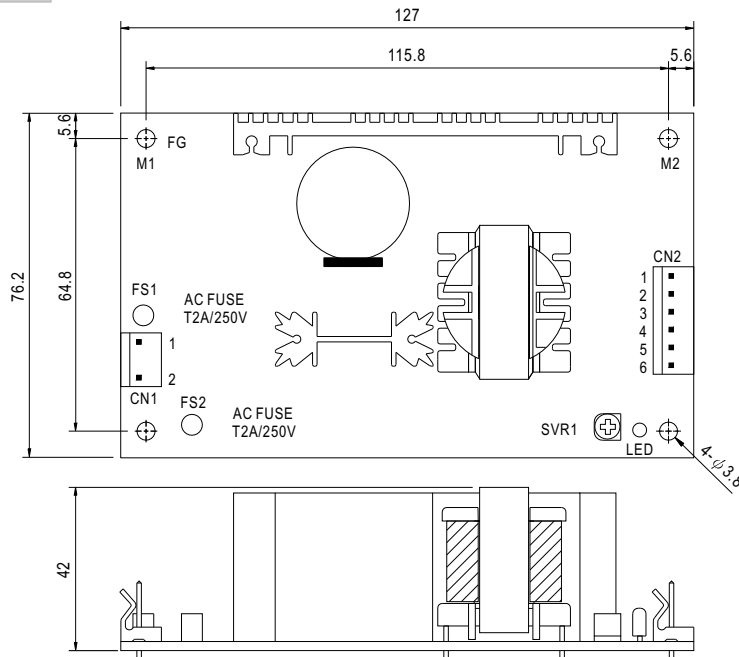
SPECIFICATION

MODEL		MPT-65A			MPT-65B			MPT-65C		
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
	DC VOLTAGE	5V	12V	-5V	5V	12V	-12V	5V	15V	-15V
	RATED CURRENT	5.5A	2.5A	0.5A	5.5A	2.5A	0.5A	5.5A	2A	0.5A
	CURRENT RANGE	0.4 ~ 7A	0.2 ~ 3.2A	0 ~ 0.7A	0.4 ~ 7A	0.2 ~ 3.2A	0 ~ 0.7A	0.4 ~ 7A	0.2 ~ 2.6A	0 ~ 0.7A
	RATED POWER	60W			63.5W			65W		
	OUTPUT POWER (max.)	72W with 18CFM min. Forced air convection								
	RIPPLE & NOISE (max.) Note.2	60mVp-p	120mVp-p	60mVp-p	60mVp-p	160mVp-p	100mVp-p	60mVp-p	180mVp-p	100mVp-p
	VOLTAGE ADJ. RANGE	CH1:4.5 ~ 5.5V								
	VOLTAGE TOLERANCE Note.3	±4.0%	+10,-7%	±5.0%	±4.0%	+10,-7%	±5.0%	±4.0%	+10,-7%	±5.0%
	LINE REGULATION	±1.0%	±2.0%	±1.0%	±1.0%	±2.0%	±1.0%	±1.0%	±2.0%	±1.0%
	LOAD REGULATION	±3.0%	±4.0%	±1.0%	±3.0%	±4.0%	±1.0%	±3.0%	±4.0%	±1.0%
SETUP, RISE TIME	800ms, 20ms/230VAC			800ms, 20ms/115VAC at full load						
HOLD TIME (Typ.)	80ms/230VAC		12ms/115VAC at full load							
INPUT	VOLTAGE RANGE	90 ~ 264VAC		127 ~ 370VDC						
	FREQUENCY RANGE	47 ~ 440Hz								
	EFFICIENCY(Typ.)	74%			74%			74%		
	AC CURRENT (Typ.)	1.6A/115VAC		1A/230VAC						
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC		40A/230VAC						
	LEAKAGE CURRENT	<0.3mA / 264VAC								
PROTECTION	OVER LOAD	73 ~ 95W rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	5.75 ~ 6.75VDC on CH1 Protection type : Hiccup mode, recovers automatically after fault condition is removed								
ENVIRONMENT	WORKING TEMP.	-10 ~ +55℃ (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.04%/℃ (0 ~ 50℃) on +5V output								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, Period for 60min.each along X, Y, Z axes								
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL2601-1, TUV EN60601-1, IEC601-1 Approved								
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC 1min.								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG:100M Ohms/500VDC								
	EMI CONDUCTION & RADIATION	Compliance to EN55011 (CISPR11) Class B								
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN60601-1-2 Medical level, criteria A								
OTHERS	MTBF	275.1Khrs min. MIL-HDBK-217F (25℃)								
	DIMENSION	127*76.2*42mm (L*W*H)								
	PACKING	0.27Kg; 54pcs/16.8Kg/1.35CUFT								
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. 5. Mounting holes M1 and M2 should be grounded for EMI purposes.									

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



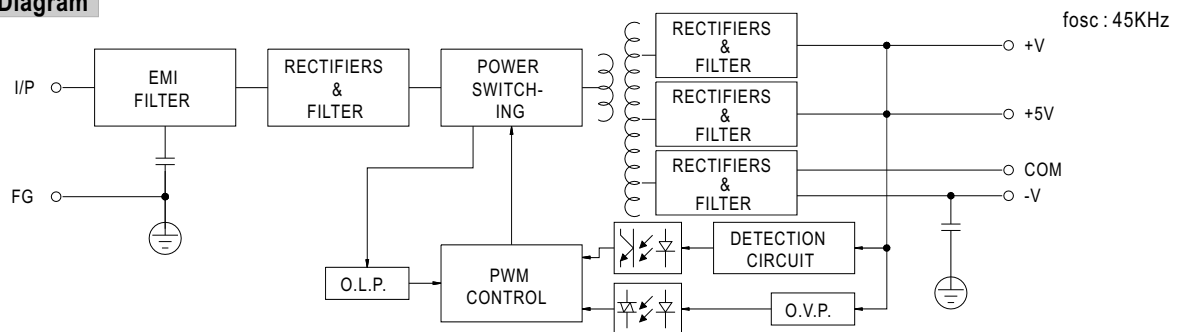
AC Input Connector (CN1) : Molex 5277-02 or equivalent

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

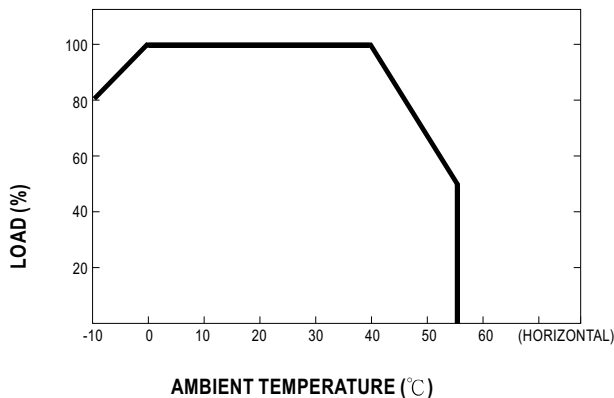
DC Output Connector (CN2) : Molex 5273-06 or equivalent

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

Block Diagram



Output Derating



Static Characteristics

