fullwat®
professional solutions

IPX-060PxxM Series

60W series single output LED driver

Features

- Constant voltage design.
- 180-264 VAC input range.
- Fully encapsulated with IP67 level.
- Protections: shart circuit / over load.
- Cooling by free air convection.
- 100% full load burn-in test.
- Suitable for LED lighting and moving sign applications.
- High reliability / Low cost.

Specification

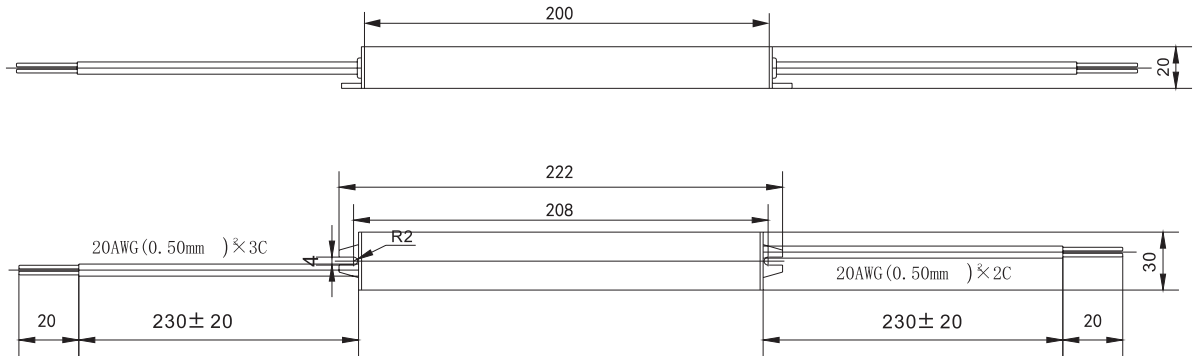
Model		IPX-060P12M	IPX-060P24M
Output	DC Voltage	12V	24V
	Rated current	5A	2.5A
	Current range	0 ~ 5A	0 ~ 2.5A
	Rated power	60W	60W
	Ripple&noise	120mVp-p	150mVp-p
	Voltage tolerance	±3.0%	±2.0%
	Line regulation	±1.0%	
	Load regulation	±2.0%	
	Setup, rise time	800ms, 20ms/230VAC at full load	
	Hold up time	24ms/230VAC at full load	
Input	Voltage range	180 ~ 264VAC 255 ~ 373VDC	
	Efficiency	82%	85%
	Frequency range	47~63Hz	
	AC current	0.85A/230VAC	
	Inrush current	Cold start 45A/230VAC (t_{width})500μs meausred at 50%I_{peak})	
	Leakage current	<0.5mA/240VAC	
Protection	Overload	110% ~ 135% rated output power Start overload protection	
		Protection type: hiccup mode, auto-recovery alter fault condition is removed	
Environment	Working temperature	-20ºC ~ +50ºC (Please refer to “derating curve”)	
	Working humidity	20%~90%RH Non-condensing	
	Storage temp, humidity	-40ºC ~ +85ºC; 10% ~ 95% RH	
	Temp. coeficient	±0.03%/ºC (0~50ºC)	
	Vibration	10 ~ 500Hz, 5G 10min/1 Cycle, Period for 60min, Each axes	
Safety&EMC	Safety standards	Compliance to IEC62368-1,UL62368-1, EN62368-1,IEC61347-1,UL61347, EN61347-1	
	Withstand voltage	I/P-O/P: 1.5KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC	
	Isolation resistance	I/P-O/P: 100M Ohms/500VDC/25ºC/70%RH	
	EMC emission	Compliance to EN55015(CISPR22)Class A, GB9254 Class A,EN55014,EN61000-3-2,3	
	EMC immunity	Compliance to EN61000-4-2,3,4,5,6,8,11,EN55024, light industry level, criteria A	
Others	MTBF	890K hrs min. MIL-HDBK-217F(25ºC)	
	Dimension	222*30*20mm (L*W*H)	
	Packing	0.26kg/100pcs/26kgs/0.039m^3/1.39CUFT	

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 as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-quailfy EMC Directive on the complete installation again.
5. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minute.
6. Derating may be needed under low input voltage. Please check the static characteristics form more details.
7. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.

Mechanical specification

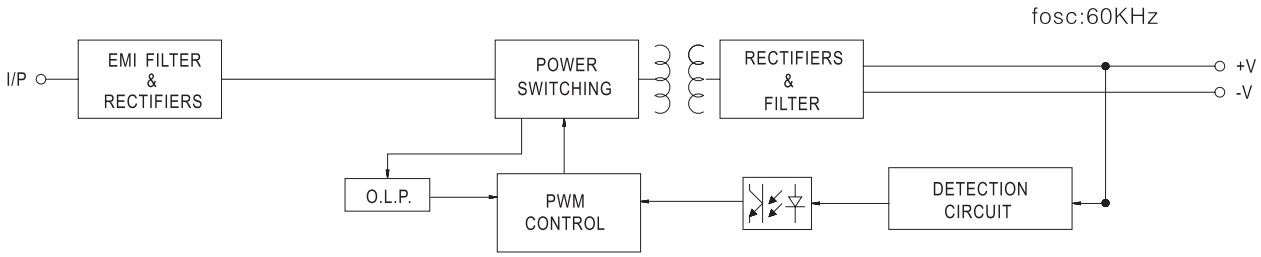
Unit mm



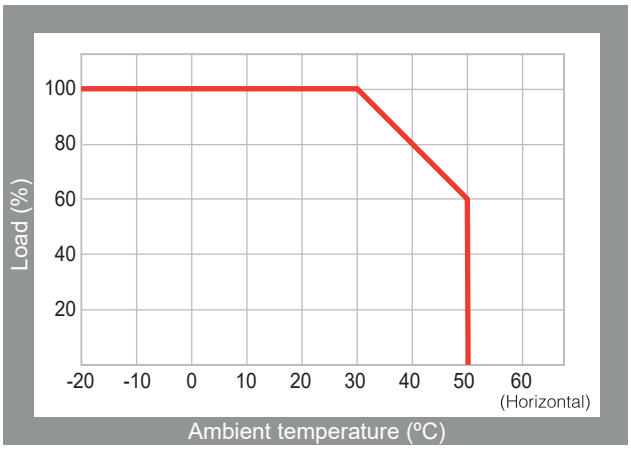
Lead-out wire assigment

Input (Black three-core)		Output (White two-core)	
Brown	AC/L	Red	DC OUTPUT +V
Blue	AC/N	Black	DC OUTPUT -V
Yellow-green	FG ⏚	Shell connect with earth	

Block diagram



Derating curve



Static characteristics