

**SPECIFICATION** 

# HPS-60 single output constant voltage LED driver



## Dimension: $190 \times 49 \times 34$ mm

#### Features:

- · Universal AC input range
- · Fully encapsulated with IP67 level
- · Protections: short circuit, over load, over voltage, over temperature
- · Cooling by free air convection
- · Built in active PFC function, PF ≥ 0.95
- Efficiency up to 89%
- · 100% full load burn-in test
- · Suitable for LED lighting and moving sign applications
- · Compliance to worldwide safety regulations for lighting
- 5 Years warranty











	Model	HPS-12-60	HPS-24-60	
	DC voltage	12V	24V	
Output	Rated current	5A	2.5A	
	Current range	0 ~ 5A	0 ~ 2.5A	
	Rated power	60W	60W	
	Ripple&noise	150mVp-p	150mVp-p	
	Voltage tolerance	± 3%		
	Line regulation	± 3%		
	Load regulation	± 3%		
	Setup,rise,hold time	500ms,20ms,24ms/230VAC 1200ms,20ms,24ms/115VAC at full load		
Input	Voltage range	90~264VAC 127~370VDC 47~63Hz		
	AC current	0.8A/115VAC 0.4A/230VAC		
	Efficiency	87%	89%	
	Power factor	PF≥0.95/230VAC PF≥0.95/115VAC (at full load)		
	Total Harmonic Distortion	THD<20% (90/264VAC input,output load>50%)		
	Inrush current	Cold start 40A/230VAC (twidth=120 µ s measured at 50% lpeak)		
	Leakage current	< 0.75mA/240VAC		
	Overload	110~150% rated output power Start overload protection		
	Overload	Protection type: Hiccup mode, auto-recovery after fault condition is removed		
rotection	Over voltage	13.5~16V	27~30V	
		Protection type: Hiccup mode, auto-recovery after fault condition is removed		
	Over temperature	90°C ± 10°C(RTH2)		
	Overtemperature	Protection type:Shut down output voltage, recovers automatically after temperature goes down		
Environment	Working temperature	-30°C ~ +60°C(Please refer to "derating curve")		
	Working humidity	20%~90%RH Non-condensing		
	Storage temp, humidity	-40°C ~ +80°C;10%∼95%RH		
	Temp.coefficient	±0.03%/℃ (0~50℃)		
	Vibration	10~500Hz, 2G 12min./1Cycle, Period for 72min, Each axes		
		UL1020,CAN/CSA-C22.2No. 107.1-01,UL8570,CSA C22.2 No,250.0-08,TUV EN61347-1		
	Safety standards	EN61347-2-13 independent, UL60950-1,UL8750,TUV EN60950-1		
		IP67 certificated,J61347-1,J61347-2-13		
Safety& EMC	Withstand voltage	I/P-O/P: 3KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC		
	Isolation resistance	I/P-O/P: 100M Ohms/500VDC/25°C/70%RH		
	EMC emission	Compliance to EN55022-B, EN61000-3-2 Class C ( 60% load); EN61000-3-3		
	EMC immunity	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024, light industry level (surge 4KV), criteria A		
Others	MTBF	504K hrs min. MIL−HDBK−217F(25°C)		
	Dimension	190*49*34 mm ( L*W*H )		
	Packing	0.55kg/30pcs/16.5kg/0.025m³/0.88CUFT		
	1 acking	0.55kg/50pcs/10.5kg/0.025HF/0.66CUF1		

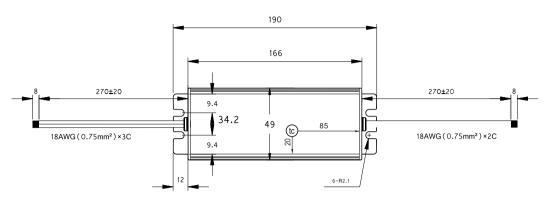
Note: 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.

- 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 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-qualify 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 for more details.
- 7.Length of set uo time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.

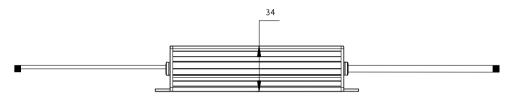


#### Mechanical specification

Unit:mm



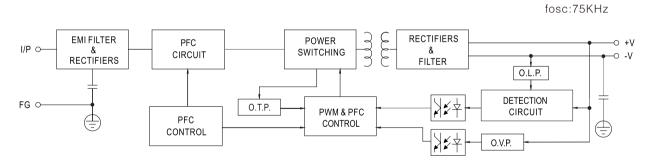
• (tc): Max. Case Temperature



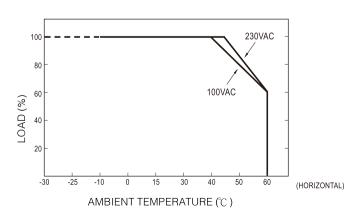
lead-out wire assignment

Input(Black	(three-core)	Output (Black two-core)	
Brown	AC/L	Red	DC OUTPUT +V
Blue	AC/N	Black	DC OUTPUT -V
Yellow-green	FG ≟		

#### Block diagram



### Derating curve



#### Static characteristic

