LPV-18E Series single output switching power supply

Features：

- Constant voltage design
- 180-264VAC input range
- Fully encapsulated with IP67 level,Fully isolated plastic case,laser labeling
- Protections：short circuit,over load,over voltage,over temperature
- Cooling by free air convection
- Class II power unit,no FG
- Passed LPS(Limited Power Source) Test
- 100% full load burn-in test
- Suitable for LED lighting and moving sign applications
- High reliability/Low cost
- 3 Years warranty

SPECIFICATION　　Dimension：140×30×22mm

LPS IP67

	Model	LPV-18E-12	LPV-18E-24	LPV-18E-36
Output	DC voltage	12V	24V	36V
	Rated current	1.5A	0.75A	0.5A
	Current range	0～1.5A	0～0.75A	0～0.5A
	Rated power	18W	18W	18W
	Ripple&noise	120mVp-p	150mVp-p	200mVp-p
	Voltage tolerance	±3.0%		
	Line regulation	±1.0%		
	Load regulation	±2.0%		
	Setup,rise time	1500ms,30ms/230VAC at full load		
	Hold up time	50ms/230VAC at full load		
Input	Voltage range	180~264VAC　254~370VDC		
	Efficiency	77%	82%	83%
	Frequency range	47~63Hz		
	AC current	0.3A/230VAC		
	Inrush current	Cold start 50A/230VAC (twidth=155μs measured at 50% Ipeak)		
	Leakage current	<0.25mA/240VAC		
Protection	Overload	Above 105% rated output power Start overload protection		
		Protection type：hiccup mode，auto-recovery after fault condition is removed		
	Over voltage	13.8~16.2V	27.6~32.4V	41.4~48.6V
		Protection type：shut off output voltage,clamping by zener diode		
	Over temperature	Tj 170℃ typically （U1） Detect on main control IC		
		Protection type：hiccup mode，recovers automatically after temperature goes down		
Environment	Working temperature	-30℃～+70℃(Please refer to “derating curve”)		
	Working humidity	20%～90%RH Non-condensing		
	Storage temp，humidity	-40℃～+80℃;10%～95%RH		
	Temp.coefficient	±0.03%/℃（0~50℃）		
	Vibration	10～500Hz，2G 10min./1Cycle，Period for 60min，Each axes		
Safety& EMC	Safety standards	TUV EN60950-1,TUV EN61347-2-13,IP67 approved;design refer to UL 1310 Class 2,CAN/CSA No.223-M91		
	Withstand voltage	I/P-O/P：3KVAC		
	Isolation resistance	I/P-O/P：100M Ohms/500VDC/25℃/70%RH		
	EMC emission	Compliance to EN55022(CISPR22)Class B,EN61000-3-2 Class A,EN61000-3-3		
	EMC immunity	Compliance to EN61000-4-2,3,4,5,6,8,11,EN55024,light industry level,criteria A		
Others	MTBF	1100K hrs min.　MIL-HDBK-217F(25℃)		
	Dimension	140*30*22 mm（L*W*H）		
	Packing	0.185kg/70pcs/13kgs/0.024m³/0.71CUFT		

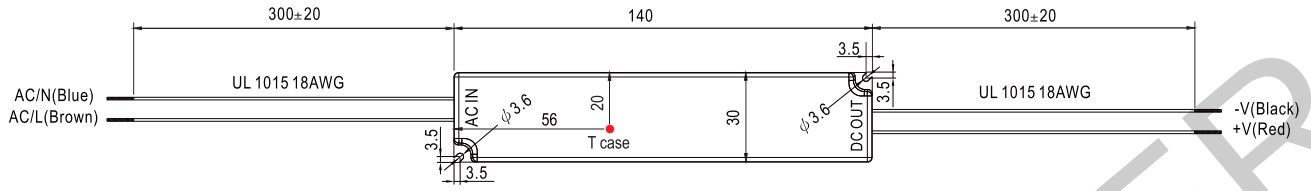
Note: 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line 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.

lead–out wire assignment

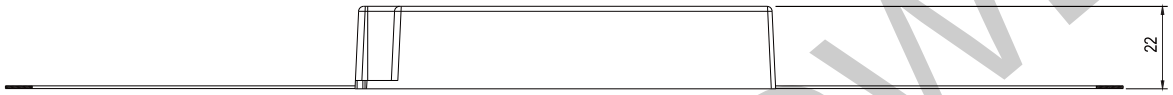
Input		Output	
Blue	AC/N	Black	DC OUTPUT -V
Brown	AC/L	Red	DC OUTPUT +V

Mechanical specification

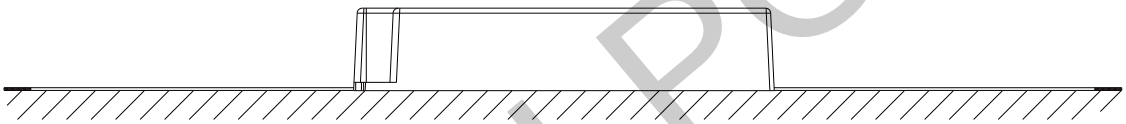
Unit:mm



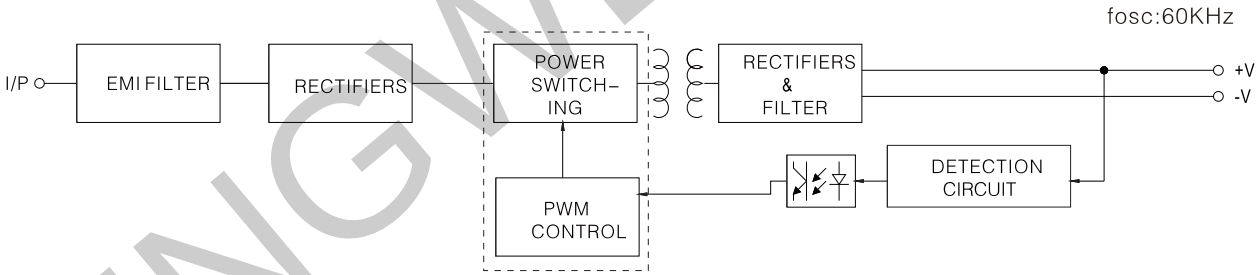
※ T case: Max. Case Temperature



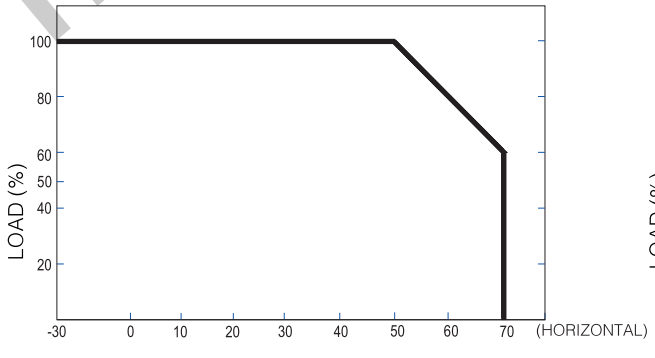
Recommend Mounting Direction



Block diagram



Derating curve



Static characteristic