

# 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
- 2 Years warranty

## SPECIFICATION

Dimension: 140 × 30 × 22mm



	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=155 μ s measured at 50% I <sub>peak</sub> )		
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
	Over temperature	T <sub>j</sub> 170°C typically ( U <sub>1</sub> ) Detect on main control IC		
		Protection type: hiccup mode, recovers automatically after temperature goes down		
Environment	Working temperature	-30°C ~ +70°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%/°C ( 0~50°C )		
	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°C/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°C)		
	Dimension	140*30*22 mm ( L*W*H )		
	Packing	0.185kg/70pcs/13kgs/0.024m <sup>3</sup> /0.71CUFT		

- 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-qualify EMC Directive on the complete installation again.  
 5. Suitable for indoor use or outdoor use without direct sunlight exposure.