



150W Single Output Switching Power Supply

LPV-150 series



IS 15885(Part 2/Sec13)

R-41027766

IP67

FC

(for L type only)

cRus

EAC

CE

UK

CA

(for Blank type only)

(for Blank type only)

■

Applications

- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)(Note.10)

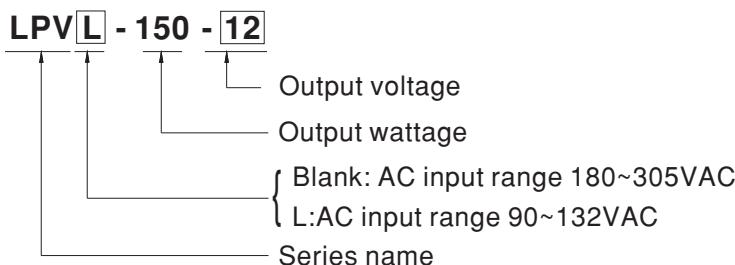
■ Features

- Constant voltage design
- 90~132VAC input for LPVL-150
- 180~305VAC input for LPV-150
- Fully encapsulated with IP67 level (Note.7)
- Class II power unit, no FG
- Protections: Short circuit/Overload/Over voltage/Over temperature
- Fully isolated plastic case
- Fanless design, cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- Listed in UL Sign Component Manual (SAM)
- Type "HL" for use in class I, Division 2 hazardous (Classified) location luminaires for LPVL-150
- 2 years warranty

■ Description

LPV-150 and LPVL-150 are 150W single output power supplies that specifically and perfectly work for LED lighting and LED moving sign applications. As a class II power unit, these two series are housed with the UL 94V-0 rated flame retardant plastic enclosure. The IP67 design allows every model to fit the use at dry, damp and wet locations. Both series are constant voltage mode design that various models with 12V, 15V, 24V, 36V and 48V are offered for LPV-150 where as 12V and 24V are provided for LPVL-150.

■ Model Encoding





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LPV-150 series

SPECIFICATION

MODEL	LPV□-150-12	LPV-150-15	LPV□-150-24	LPV-150-36	LPV-150-48
OUTPUT	DC VOLTAGE	12V	15V	24V	36V
	RATED CURRENT	10A	8A	6.3A	4.2A
	CURRENT RANGE	0 ~ 10A	0 ~ 8A	0 ~ 6.3A	0 ~ 4.2A
	RATED POWER	120W	120W	151.2W	151.2W
	RIPLPE & NOISE (max.) Note.2	200mVp-p	200mVp-p	200mVp-p	200mVp-p
	VOLTAGE TOLERANCE Note.3	±5.0%			
	LINE REGULATION	±1.0%			
	LOAD REGULATION	±2.0%			
	SETUP, RISE TIME Note.6	LPV-150: 500ms, 50ms / 230VAC 500ms, 50ms / 277VAC; LPVL-150: 1500ms, 50ms / 115VAC			
	HOLD UP TIME (Typ.)	LPV-150: 18ms/230VAC 20ms/277VAC at full load; LPVL-150: 10ms/115VAC at full load			
INPUT	VOLTAGE RANGE Note.4	LPV-150: 180 ~ 305VAC 254 ~ 431VDC; LPVL-150: 90 ~ 132VAC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	87%	88%	89%	89%
	AC CURRENT	LPV-150: 1.7A/230VAC 1.5A/277VAC; LPVL-150: 3.0A/115VAC			
	INRUSH CURRENT (Typ.)	Blank type COLD START 60A(twidth=900μs measured at 50% Ipeak) at 230VAC			
		L type COLD START 75A(twidth=900μs measured at 50% Ipeak) at 115VAC			
	MAX. No. of PSUs on 16A CIRCUIT	Blank type 2 units (circuit breaker of type B) / 3 units (circuit breaker of type C) at 230VAC			
	BREAKER	L type 1 units (circuit breaker of type B) / 2 units (circuit breaker of type C) at 115VAC			
	LEAKAGE CURRENT	LPV-150: 0.25mA / 240VAC LPVL-150: 0.25mA / 120VAC			
	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed			
PROTECTION	OVER VOLTAGE	13.5 ~ 18V	17 ~ 25V	27 ~ 35V	40 ~ 49V
		Protection type : Shut down o/p voltage, re-power on to recover			
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down			
ENVIRONMENT	WORKING TEMP.	-25 ~ +65°C (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 40°C for LPV-150-12,15 and LPVL-150-12,24; 0 ~ 50°C for LPV-150-24,36,48)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC	SAFETY STANDARDS	Blank type UL8750, CSA C22.2 No 250.13-12, UL879, CSA C22.2 No.207-M89, BIS IS15885(for LPV-150-12,24 only), EAC TP TC 004, IP67, IEC62368-1 approved; Design refer to BS EN/EN62368-1			
		L type UL8750(type "HL"), CSA C22.2 No 250.13-12, UL879, CSA C22.2 No.207-M89, IP67 approved			
	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC			
	ISOLATION RESISTANCE	I/P-O/P: >100M Ohms / 500VDC / 25°C / 70% RH			
	EMC EMISSION	Blank type Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2 Class A(≤80% load), BS EN/EN61000-3-3, EAC TP TC 020			
		L type Compliance to FCC part 15			
OTHERS	EMC IMMUNITY	Blank type Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN55024, light industry level, criteria A, EAC TP TC 020			
		L type Design refer to IEC61000-4-2,3,4,5,6,8,11; light industry level, criteria A			
	MTBF	703Khrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	191*63*37.5mm (L*W*H)			
NOTE	PACKING	LPV-150: 0.74Kg; 20pcs/15.8Kg/0.95CUFT; LPVL-150: 0.85Kg; 20pcs/17Kg/0.95CUFT			
	1.	All parameters NOT specially mentioned are measured at 230VAC(115VAC for LPVL) 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.	Derating may be needed under low input voltage. Please check the static characteristics for more details.			
	5.	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.			
	6.	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.			
	7.	Suitable for indoor use or outdoor use without direct sunlight exposure.			
	8.	The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).			
	9.	For any application note and IP water proof function installation caution, please refer our user manual before using. https://www.meanwell.com/Upload/PDF/LED_EN.pdf			
	10.	This product is not intended for LED lighting luminaire applications in the EU.(In the EU the LPF/NPF/XLG series are recommended.)			
	11.	To fulfill requirements of latest ErP regulation for lighting luminaires, this LED Driver can only be used behind a switch without permanently connected to mains.			
	※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx				

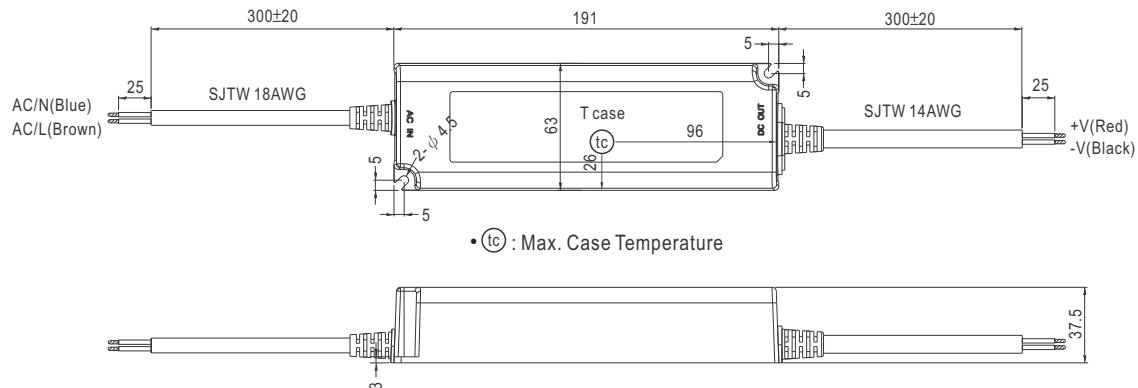


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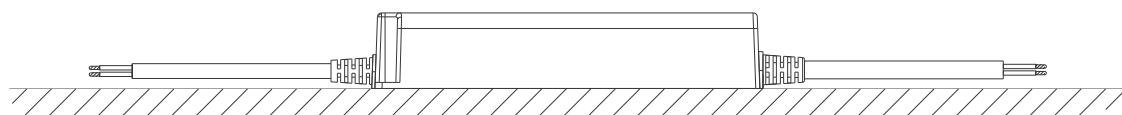
LPV-150 series

■ Mechanical Specification

Case No. LPC-150 Unit:mm

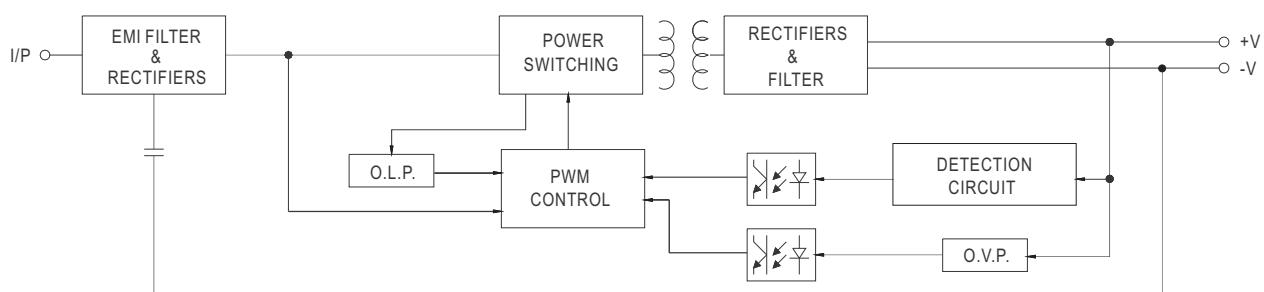


■ Recommend Mounting Direction



■ Block Diagram

PWM fosc : 47KHz



■ Derating Curve

■ Static Characteristics

