



■ Features

- Constant voltage design
- 90~132VAC input for LPVL-150
180~305VAC input for LPV-150
- Fully encapsulated with IP67 level (Note.8)
- 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

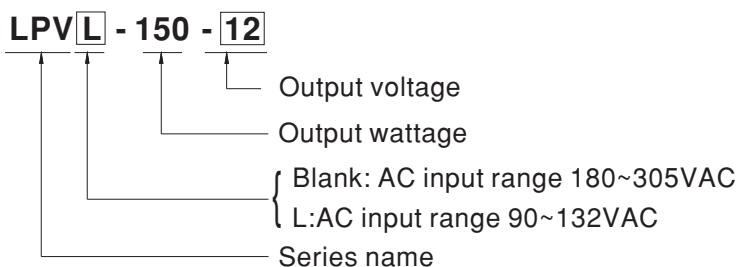
■ Applications

- LED channel letters
- Indoor LED lighting
- LED decorative lighting

■ 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



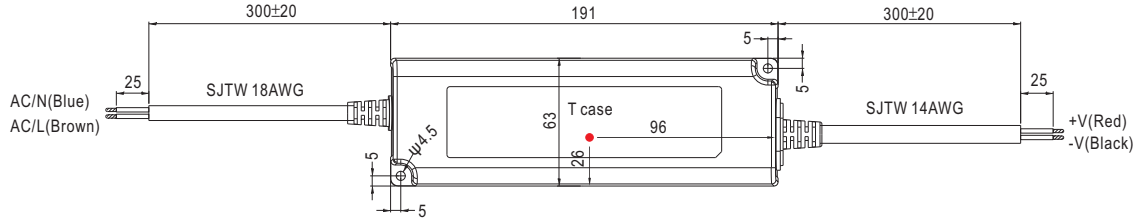


SPECIFICATION

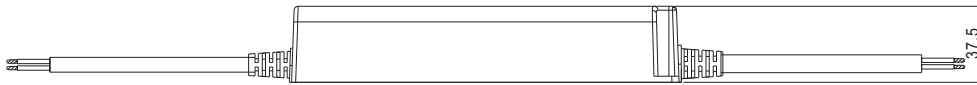
| MODEL | | LPV□-150-12 | LPV-150-15 | LPV□-150-24 | LPV-150-36 | LPV-150-48 | |
|---------------------|--|---|---|-------------|------------|------------|--|
| OUTPUT | DC VOLTAGE | 12V | 15V | 24V | 36V | 48V | |
| | RATED CURRENT | 10A | 8A | 6.3A | 4.2A | 3.2A | |
| | CURRENT RANGE | 0 ~ 10A | 0 ~ 8A | 0 ~ 6.3A | 0 ~ 4.2A | 0 ~ 3.2A | |
| | RATED POWER | 120W | 120W | 151.2W | 151.2W | 153.6W | |
| | RIPPLE & NOISE (max.) Note.2 | 200mVp-p | 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 254 ~ 370VDC | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | |
| | EFFICIENCY (Typ.) | 87% | 88% | 89% | 89% | 90% | |
| | 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 BREAKER | Blank type | 2 units (circuit breaker of type B) / 3 units (circuit breaker of type C) at 230VAC | | | | |
| 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 | | | | | | |
| PROTECTION | OVERLOAD | 110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 13.5 ~ 18V | 17 ~ 25V | 27 ~ 35V | 40 ~ 49V | 52 ~ 63V | |
| | 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, IP67 approved. Design refer to EN60950-1 | | | | |
| | | 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 EN55022 (CISPR22) Class B, EN61000-3-2 Class A(≤80% load), EN61000-3-3 | | | | |
| | | L type | Compliance to FCC part 15 | | | | |
| EMC IMMUNITY | Blank type | Compliance to EN61000-4-2,3,4,5,6,8,11; EN55024, light industry level, criteria A | | | | | |
| | L type | Design refer to IEC61000-4-2,3,4,5,6,8,11; light industry level, criteria A | | | | | |
| OTHERS | MTBF | 703Khrs min. MIL-HDBK-217F (25°C) | | | | | |
| | DIMENSION | 191*63*37.5mm (L*W*H) | | | | | |
| | PACKING | LPV-150: 0.74Kg;20pcs/15.8Kg/0.95CUFT; LPVL-150: 0.85Kg;20pcs/17Kg/0.95CUFT | | | | | |
| NOTE | <ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC(115VAC for LPVL) input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. Derating may be needed under low input voltage. Please check the static characteristics for more details. 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. 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. The unit might not be suitable for lighting applications in EU countries. Please check with your local authorities for the possible use of the unit. Suitable for indoor use or outdoor use without direct sunlight exposure. | | | | | | |

■ Mechanical Specification

Case No. LPC-150 Unit:mm



※ T case: Max. Case Temperature.

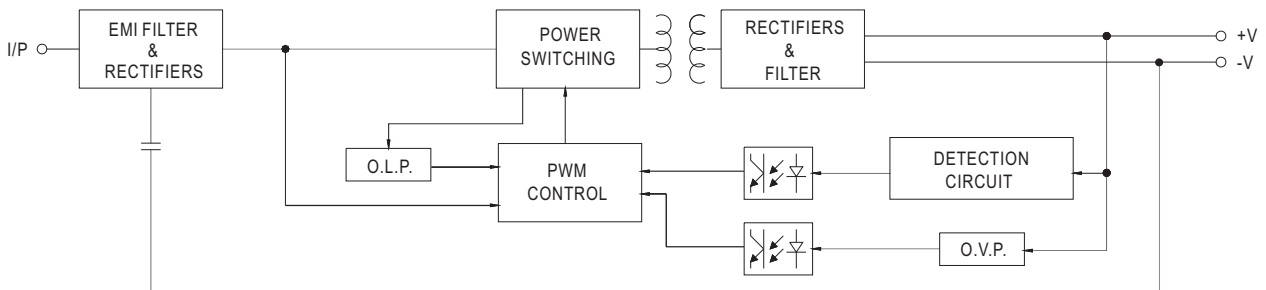


■ Recommend Mounting Direction

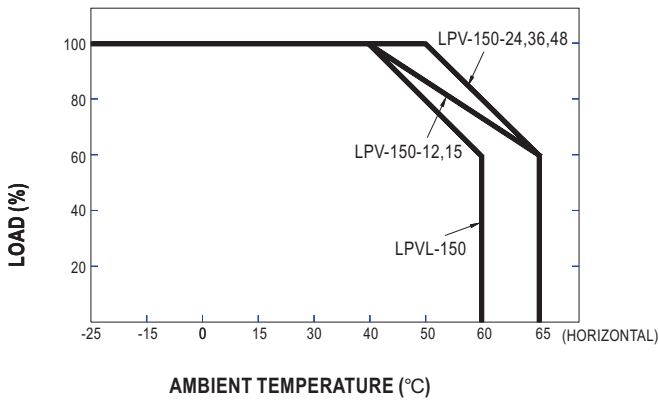


■ Block Diagram

PWM fosc : 47KHz



■ Derating Curve



■ Static Characteristics

