## 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

## 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

```
LPV[L] - 150 - [T2]
```

- Output voltage
- Output wattage
- Blank: AC input range 180~305VAC
- L:AC input range 90~132VAC
- Series name
## 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.)**
  - 200mVp-p
  - 200mVp-p
  - 200mVp-p
  - 200mVp-p

- **VOLTAGE TOLERANCE**
  - ±5.0%

- **LINE REGULATION**
  - ±1.0%

- **LOAD REGULATION**
  - ±2.0%

### INPUT
- **VOLTAGE RANGE**
  - LPV-150: 180 ~ 305VAC
  - LPV-150: 254 ~ 370VDC

### PROTECTION
- **OVER LOAD**
  - Protection type: Shut down on fault condition is removed

### ENVIRONMENT
- **TEMPERATURE**
  - -25 ~ +65°C (Refer to "Derating Curve")

### SAFETY & EMC
- **SAFETY STANDARDS**
  - UL8750, CSA C22.2 No.250.13-12, UL879, CSA C22.2 No.207-M89, IP67 approved
  - Design refer to EN60950-1

### OTHERS
- **MTBF**
  - 703Khrs min.
  - MIL-HDBK-217F (25°C)

### NOTE
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 bandwidth. Using a 12" twisted pair wire terminated with a 0.1uf & 47uf 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 manufacturer 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. 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.
8. Suitable for indoor use or outdoor use without direct sunlight exposure.
**Mechanical Specification**

- PWM fosc: 47KHz
- SJTW 18AWG
- +V (Red) -V (Black)
- AC/N (Blue) AC/L (Brown)
- Case No. LPC-150 Unit: mm

**Recommend Mounting Direction**

**Block Diagram**

- EMI FILTER & RECTIFIERS
- POWER SWITCHING
- RECTIFIERS & FILTER
- PWM CONTROL
- DETECTION CIRCUIT
- O.V.P.

**Derating Curve**

**Static Characteristics**

- AMBIENT TEMPERATURE (°C)
- INPUT VOLTAGE (V) 60Hz

**Load (%)**

- LPV-150-12,15
- LPV-150-24,36,48
- LPVL-150

**Load (%)**

- 0 20 40 60 80 100

- 90 100

- INPUT VOLTAGE (V) 60Hz

- 0 10 20 30 40 50 60 70 80 90 100

- 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400

- Blank type L type

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