# MEAN WELL LPV-100 Series 100W Single Output Switching Power Supply Owner's Manual



**MEAN WELL LPV-100 Series 100W Single Output Switching Power Supply Owner's Manual**


Contents



## Features:

- Constant voltage design
- Universal AC input/ Full range
- Fully encapsulated with IP67 level (Note.7)
- Withstand 300VAC surge input for 5 seconds

- **Protections:** Short circuit/Overload/Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices) (Note.11)
- 2 years warranty

**User's Manual**

## SPECIFICATION

| MODEL | | LPV-100-5 | LPV-100-12 | LPV-100-15 | LPV-100-24 | LPV-100-36 | LPV-100-48 |
|---|---|---|---|---|---|---|---|
| OUTPUT | DC VOLTAGE | 5V | 12V | 15V | 24V | 36V | 48V |
| | RATED CURRENT | 12A | 8.5A | 6.7A | 4.2A | 2.8A | 2.1A |
| | CURRENT RANGE | 0 ~ 12A | 0 ~ 8.5A | 0 ~ 6.7A | 0 ~ 4.2A | 0 ~ 2.8A | 0 ~ 2.1A |
| | RATED POWER | 60W | 102W | 100.5W | 100.8W | 100.8W | 100.8W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 120mVp-p | 120mVp-p | 150mVp-p | 150mVp-p | 150mVp-p |
| | VOLTAGE TOLERANCE Note.3 | ±8.0% | ±5.0% | | | | |
| | LINE REGULATION | ±1.0% | | | | | |
| | LOAD REGULATION | ±6.0% | ±2.0% | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SETUP, RISE TIME | Note. 6 | 2000ms, 25ms / 230VAC 2000ms, 25ms / 115VAC | | | | | |
| | HOLD UP TIME (Typ.) | | 50ms/230VAC 14ms/115VAC at full load | | | | | |
| INPUT | VOLTAGE RANGE | Note. 4 | 90 ~ 264VAC 127 ~ 370VDC | | | | | |
| | FREQUENCY RANGE | | 47 ~ 63Hz | | | | | |
| | EFFICIENCY (Typ.) | | 80% | 85% | 87% | 88% | 88% | 89% |
| | AC CURRENT | | 2.2A/115VAC 1.2A/230VAC | | | | | |
| | INRUSH CURRENT(Typ.) | | COLD START 75A(twidth=700μs measured at 50% Ipeak) at 230VAC | | | | | |
| | MAX. No. of PSUs on 16A CIRCUIT BREAKER | | 2 units (circuit breaker of type B) / 3 units (circuit breaker of type C) at 230VAC | | | | | |
| | LEAKAGE CURRENT | | 0.25mA / 240VAC | | | | | |
| PROTECTION | OVERLOAD | | 110 ~ 150% rated output power | | | | | |
| | | | Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | | 5.75 ~ 6.75V | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 27.6 ~ 32.4V | 41.4 ~ 48.6V | 55.2 ~ 64.8V |
| | | | Protection type : Shut down o/p voltage, re-power on to recover | | | | | |
| ENVIRONMENT | WORKING TEMP. | | -25 ~ +70℃ (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 along X, Y, Z axes | | | | | |
| SAFETY&EM | SAFETY STANDARDS | | UL8750,CSA C22.2 No 250.13-12,UL879,CSA C22.2 No.207-M89,BIS IS15885(Note12),EAC TP TC 004,IP67, IEC62368-1 , BS EN/EN62368-1 approved | | | | | |
| | WITHSTAND VOLTAGE | | I/P-O/P:3KVAC | | | | | |
| | ISOLATION RESISTANCE | | I/P-O/P:>100M Ohms / 500VDC / 25℃/ 70% RH | | | | | |
| | EMC EMISSION | | 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 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| C | EMC IMMUNITY | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN55035, light industry level, EAC TP TC 020 | | | |
| OTHERS | MTBF | 4497.1K hrs min. Telcordia SR-332 (Bellcore) ; | 681.6Khrs min. | MIL-HDBK-217F ( 25℃) | |
| | DIMENSION | 190*52*37mm (L*W*H) | | | |
| | PACKING | 0.63Kg;20pcs/13.6Kg/0.55CUFT | | | |

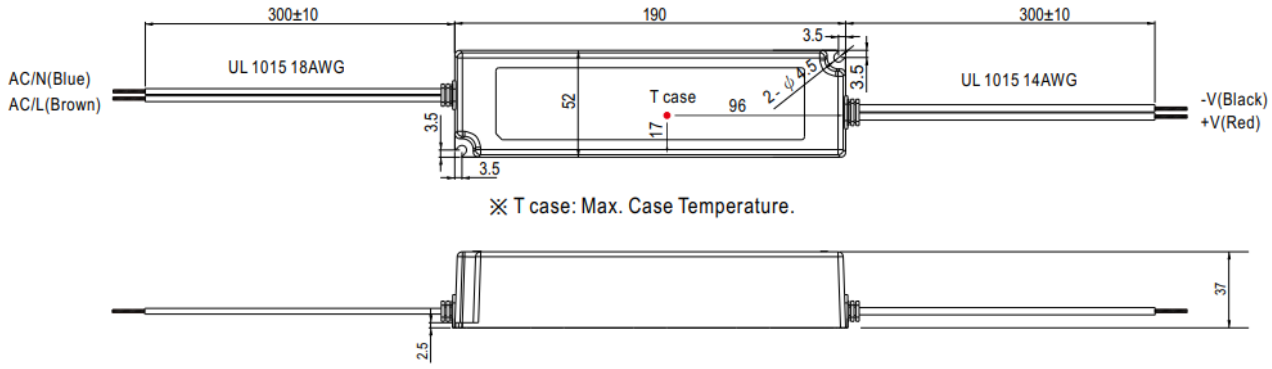
NOTE

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. 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.(as available on https://**www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)**
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℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).
9. Products sourced from the Americas regions may not have the TUV/BIS/CCC logo. Please contact your MEAN WELL sales for more information.
10. 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**
11. This product is not intended for LED lighting luminaire applications in the EU.(In the EU the LPF/NPF/XLG series are recommended.)
12. R-41027766 (GZ factory) only for 12V,24V / R-62002178 (ID factory) for 5V~48V

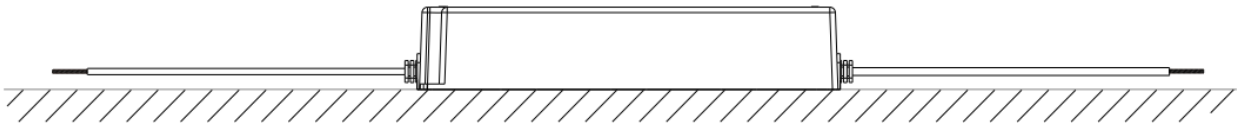
※ Product Liability Disclaimer For detailed information, please refer to https://**www.meanwell.com/serviceDisclaimer.aspx**



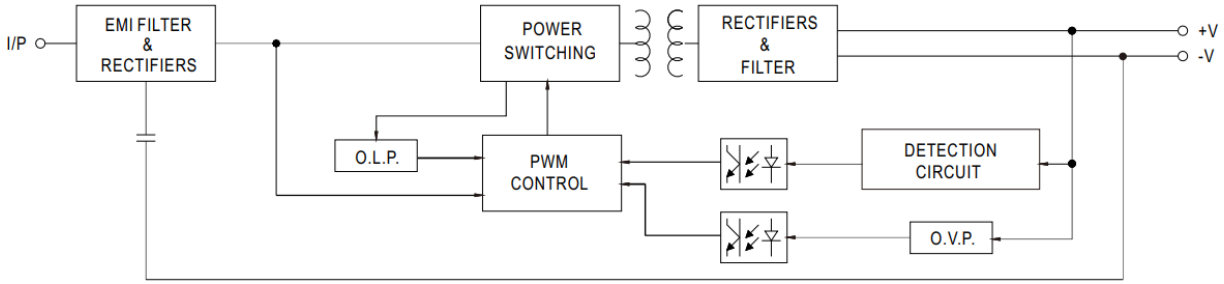
## Mechanical Specification



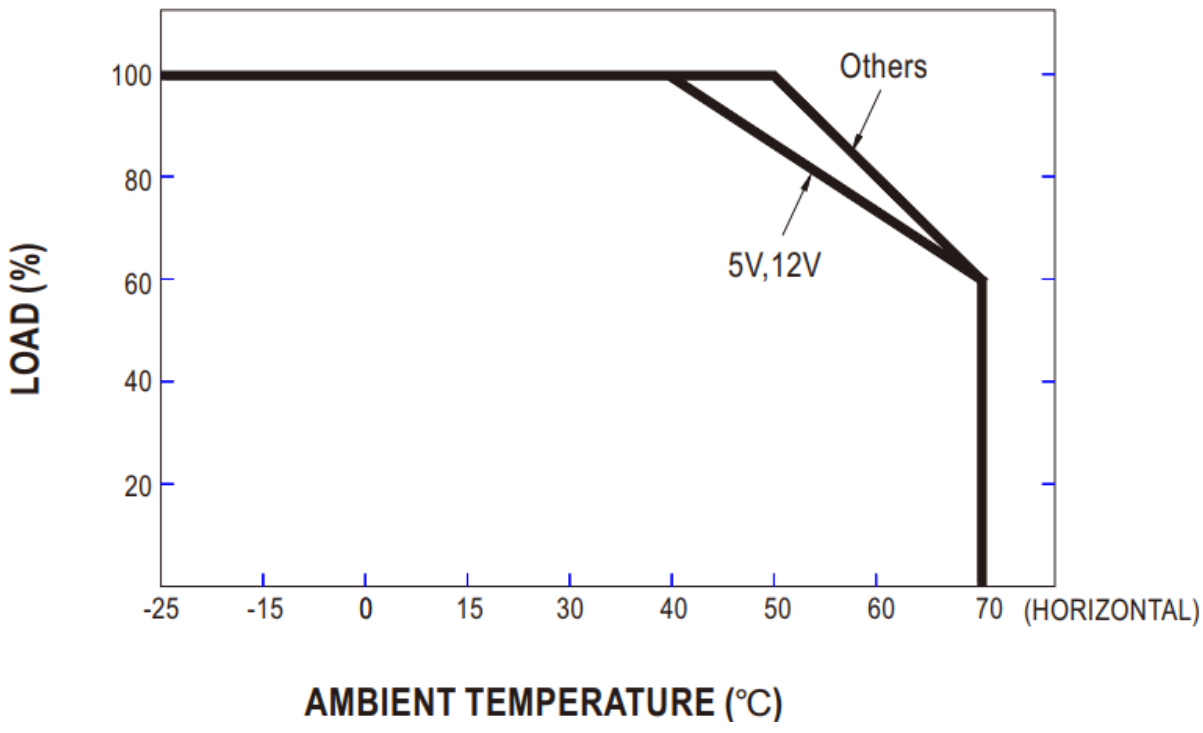

## Recommend Mounting Direction



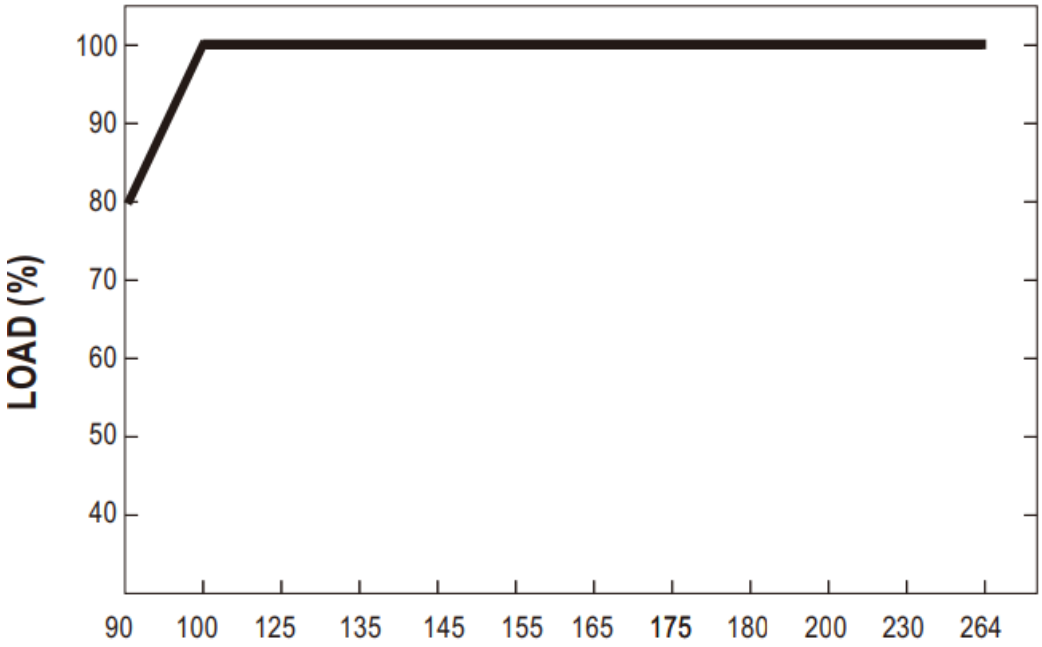
## Block Diagram




## Aerating Curve




## Static Characteristics




## Documents / Resources

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|---|---|
|  | MEAN WELL LPV-100 Series 100W Single Output Switching Power Supply [pdf] Owner's Manual<br>LPV-100 Series, LPV-100 Series 100W Single Output Switching Power Supply, 100W Single Output Switching Power Supply, Single Output Switching Power Supply, Switching Power Supply, Power Supply, Supply |

## References

- User Manual