
VOLTAGE
# 24V

CURRENT
# 4A

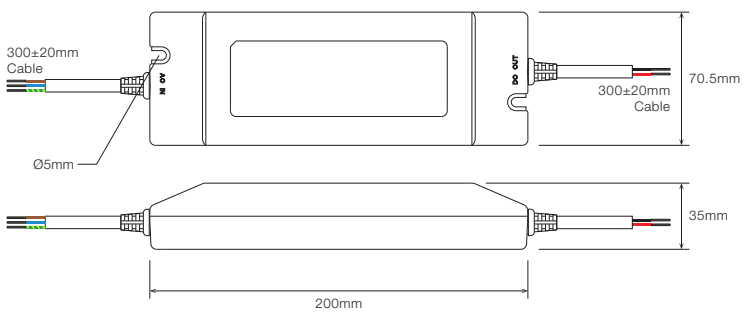
POWER
# 96W

Mean Well 100W Single Output LED Power Supply

## FEATURES

- Universal AC input / Full range (up to 295VAC)
- High efficiency 88.5%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- Built-in active PFC function
- Fully isolated plastic case with IP64 design for indoor or outdoor installations
- Pass LPS
- Class II power unit
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications
- Suitable for dry / damp locations
- Compliance to worldwide safety regulations for lighting
- 2 years warranty

## DIMENSIONS



## ▪ TECHNICAL SPECIFICATIONS

| Model | | PLN-100-12 | PLN-100-15 | PLN-100-20 | PLN-100-24 | PLN-100-27 | PLN-100-36 | PLN-100-48 |
|---|---|---|---|---|---|---|---|---|
| Output | DC Voltage | 12V | 15V | 20V | 24V | 27V | 36V | 48V |
| | Constant Current Region [6] | 9 ~ 12V | 11.25 ~ 15V | 15 ~ 20V | 18 ~ 24V | 20.25 ~ 27V | 27 ~ 36V | 36 ~ 48V |
| | Rated Current [5] | 5A | 5A | 4.8A | 4A | 3.55A | 2.65A | 2A |
| | Rated Power [5] | 60W | 75W | 96W | 96W | 95.85W | 95.4W | 96W |
| | Ripple & Noise (max.) [2] | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 200mVp-p |
| | Voltage Adj. Range (SVR2) | 10.2 ~ 12V | 12.8 ~ 15V | 17 ~ 20V | 20.4 ~ 24V | 23 ~ 27V | 30.6 ~ 36V | 40.8 ~ 48V |
| | Current Adj. Range (SVR2) | 3.75 ~ 5A | 3.75 ~ 5A | 3.6 ~ 4.8A | 3 ~ 4A | 2.6 ~ 3.55A | 2 ~ 2.65A | 1.5 ~ 2A |
| | Voltage Tolerance [3] | ±3.0% | ±3.0% | ±3.0% | ±3.0% | ±3.0% | ±2.0% | ±2.0% |
| | Line Regulation | ±1.0% | | | | | | |
| | Load Regulation | ±2.0% | | | | | | |
| | Setup, Rise Time | 500ms, 80ms/230VAC | | 1200ms, 80ms/115VAC at full load | | | | |
| | Hold Up Time | 60ms/230VAC | | 16ms/115VAC at full load | | | | |
| Input | Voltage Range [4] | 90 ~ 295VAC | | 127 ~ 417VDC | | | | |
| | Frequency Range | 47 ~ 63Hz | | | | | | |
| | Power Factor (typ.) | PF>0.95/115VAC, PF>0.95/230VAC, PF>0.92/277VAC at full load (Please refer to "Power Factor Characteristic" curve) | | | | | | |
| | Total Harmonic Distortion | THD< 20% when output loading ≥ 75% at 115VAC/230VAC input and output loading ≥ 75% at 277VAC input | | | | | | |
| | Efficiency (Typ.) | 83% | 85% | 88.5% | 88.5% | 88% | 88% | 88.5% |
| | AC Current (Typ.) | 12V:0.8A/115VAC 0.4A/230VAC 0.3A/277VAC | | | 15V:0.9A/115VAC 0.45A/230VAC 0.35A/277VAC | | | |
| | | 20V ~ 48V:1.1A/115VAC 0.55A/230VAC 0.45A/277VAC | | | | | | |
| | Inrush Current (Typ.) | COLD START 40A (twidth=1030μs measured at 50% Ipeak) at 230VAC | | | | | | |
| | Max No. of PSUs on 16A Circuit Breaker | 3 units (circuit breaker of type B) / 5 units (circuit breaker of type C) at 230VAC | | | | | | |
| | Leakage Current | <0.75mA / 240VAC | | | | | | |
| Protection | Over Current [4] | 95 ~ 102% | | | | | | |
| | | Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | | | | |
| | Short Circuit | Hiccup mode, recovers automatically after fault condition is removed | | | | | | |
| | Over Voltage | 13 ~ 16V | 16.5 ~ 20V | 22 ~ 27V | 27 ~ 34V | 30 ~ 36V | 39 ~ 48V | 52 ~ 64V |
| | | Protection type : Shut down and latch off o/p voltage, re-power on to recover | | | | | | |
| | Over Temperature | Shut down o/p voltage, re-power on to recover | | | | | | |
| Environment | Working Temp. | -30 ~ +50°C (Refer to "Derating Curve") | | | | | | |
| | Working Humidity | 20 ~ 95% RH non-condensing | | | | | | |
| | Storage Temp., Humidity | -40 ~ +80°C, 10 ~ 95% RH | | | | | | |
| | Temp. Coefficient | ±0.03%/°C (0 ~ 50°C) | | | | | | |
| | Vibration | 10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes | | | | | | |
| Safety & EMC | Safety Standards [7] | UL879, UL1310, UL8750, CSA C22.2 No. 207-M89(except for 48V), TUV EN61347-1, EN61347-2-13 independent, TUV EN60950-1, CAN/CSA C22.2 No. 223-M91(except for 48V), CSA C22.2 No. 250.0-08(except for 48V), IP64, J61347-1, J61347-2-13 approved ; design refer to UL60950-1 | | | | | | |
| | Withstand Voltage | I/P-O/P:3.75KVAC | | I/P-FG:2KVAC | | O/P-FG:0.5KVAC | | |
| | Isolation Resistance | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH | | | | | | |
| | EMC Emission | Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (>75% load) ; EN61000-3-3 | | | | | | |
| | EMC Immunity | Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria A | | | | | | |
| Others | MTBF | 303.1Khrs min. | | MIL-HDBK-217F (25°C) | | | | |
| | Dimension (LxWxH) | 200 x 70.5 x 35mm | | | | | | |
| | Packing | 0.52Kg; 20pcs / 12.5Kg / 0.9cu.ft | | | | | | |

[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] Derating may be needed under low input voltages. Please check the static characteristics in Meanwell's specification sheet for more details.
[5] This is the maximum possible output current and power. Over load protection may be activated slightly below this level to comply with the requirement of UL1310 class 2.
[6] Please refer to "DRIVING METHODS OF LED MODULE" in Meanwell's specification sheet.
[7] Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.
[8] The power supply is considered as a component that will be operated in combinationwith 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.
[9] To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED power supply can only be used behind a switch without permanently connected to the mains.

## ▪ ORDERING EXAMPLE

**PWR-PLN100-24**

IP64 rated