

# LED Series

20~96W Single Output Class 2 with PFC



## Features

- Universal AC input (up to 295VAC) / Full range
- Fully isolated plastic case with IP64 level
- Built-in active PFC function, PF>0.9 for 75% of load or higher
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- User adjustable output voltage (except for PLN-20) and constant current level
- UL1310 Class 2 power unit
- Pass LPS
- Cooling by free air convection
- 100% full load burn-in test
- Suitable for LED lighting and moving sign applications
- 2 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                 | PLN-20 <small>NEW</small>   | PLN-30  | PLN-45 <small>NEW</small>                         | PLN-60  | PLN-100                                    |
|---------------------------|---|---|---|---|--|
| AC input voltage range    | 90~277VAC   | 90~295VAC; 127~417VDC   |   |   |  |
| AC inrush current (max.)  | Cold start, 40A at 230VAC   |   |   |   |  |
| DC adjustment range       | None  | 95%~108% rated output voltage adjustable by internal potential meter  |   |   | 85%~100% rated output voltage              |
| Current adjustment range  | 75% ~ 100%  | 75%~ 103% rated output current adjustable by internal potential meter |   |   |  |
| Overload protection       | 95%~110% constant current limiting, auto-recovery   | 100%~110% constant current limiting, auto-recovery                    | 95%~110% constant current limiting, auto-recovery | 95%~102% constant current limiting, auto-recovery |  |
| Over voltage protection   | 105%~142% rated output voltage  | 110%~155% rated output voltage  | 115%~140% rated output voltage                    |   | 107%~135% rated output voltage             |
| Setup, rise, hold up time | 2300ms, 150ms at full load and 230VAC, <b>no hold up time</b>   | 1500ms (setup time) at full load and 230VAC, <b>no hold up time</b>   |   |   | 1200ms, 80ms, 60ms at full load and 230VAC |
| Withstand voltage         | I/P-O/P: 3.75kVAC   |   |   |   |  |
| Working temperature       | -30~+60°C   | -30~+50°C (refer to output derating curve)                            |   |   |  |
| Safety standards          | UL1310 Class 2, CAN/CSA-C22.2 No.223-M91 (except for 48V), EN61347-1, EN61347-2-13, UL879 (listed in sign components manual – SAM, except for PLN-20) approved ; UL60950-1, TUV EN60950-1 approved for PLN-100 only |   |   |   |  |
| EMC standards             | EN55015, EN55022 class B(PLN-60/100 only), EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, ENV50204, EN61547   |   |   |   |  |
| Connection                | Input   | UL rated, 18AWGx2C (32cm)   |   | UL rated, 18AWGx3C (30cm)                         | UL rated, 18AWGx3C (31cm)                  |
|                           | Output  | UL rated, 18AWGx2C (30cm)   |   | UL rated, 18AWGx2C (30cm)                         |  |
| Dimension (LxWxH)(mm)     | 147x 37x 28   | 145x 47x 30   | 181x 61.5x 35                                     |   | 200x 70.5x 35                              |
| Packing                   | 60pcs / 12.8kg  | 60pcs / 14.2kg  | 24pcs / 13.0kg                                    |   | 20pcs / 12.5kg                             |

## PLN-20 Series

| Model No. | Output       | Tol. | R&N  | Effi. |
|-----------|--------------|------|------|-------|
| PLN-20-12 | 12V, 0~1.6A  | ±10% | 2.5V | 80%   |
| PLN-20-18 | 18V, 0~1.1A  | ±10% | 3.0V | 81%   |
| PLN-20-24 | 24V, 0~0.8A  | ±10% | 3.0V | 82%   |
| PLN-20-36 | 36V, 0~0.55A | ±10% | 3.0V | 83%   |
| PLN-20-48 | 48V, 0~0.42A | ±10% | 3.8V | 84%   |

## PLN-30 Series

| Model No. | Output       | Tol. | R&N  | Effi. |
|-----------|--------------|------|------|-------|
| PLN-30-9  | 9V, 0~3.3A   | ±10% | 2.6V | 80%   |
| PLN-30-12 | 12V, 0~2.5A  | ±10% | 2.0V | 83%   |
| PLN-30-15 | 15V, 0~2.0A  | ±10% | 2.6V | 84%   |
| PLN-30-20 | 20V, 0~1.5A  | ±10% | 2.6V | 84%   |
| PLN-30-24 | 24V, 0~1.25A | ±10% | 2.6V | 85%   |
| PLN-30-27 | 27V, 0~1.12A | ±10% | 2.3V | 85%   |
| PLN-30-36 | 36V, 0~0.84A | ±10% | 4.5V | 86%   |
| PLN-30-48 | 48V, 0~0.63A | ±10% | 3.7V | 86%   |

## PLN-45 Series

| Model No. | Output      | Tol. | R&N  | Effi. |
|-----------|-------------|------|------|-------|
| PLN-45-12 | 12V, 0~3.8A | ±10% | 2.0V | 81.5% |
| PLN-45-15 | 15V, 0~3.0A | ±10% | 2.4V | 84.5% |
| PLN-45-20 | 20V, 0~2.3A | ±10% | 1.8V | 88.5% |

| Model No. | Output       | Tol. | R&N  | Effi. |
|-----------|--------------|------|------|-------|
| PLN-45-24 | 24V, 0~1.9A  | ±10% | 2.7V | 89.0% |
| PLN-45-27 | 27V, 0~1.7A  | ±10% | 2.7V | 89.0% |
| PLN-45-36 | 36V, 0~1.25A | ±10% | 3.6V | 89.0% |
| PLN-45-48 | 48V, 0~0.95A | ±10% | 4.6V | 89.5% |

## PLN-60 Series

| Model No. | Output      | Tol. | R&N  | Effi. |
|-----------|-------------|------|------|-------|
| PLN-60-12 | 12V, 0~5.0A | ±10% | 2.0V | 85.0% |
| PLN-60-15 | 15V, 0~4.0A | ±10% | 2.4V | 86.0% |
| PLN-60-20 | 20V, 0~3.0A | ±10% | 1.8V | 87.5% |
| PLN-60-24 | 24V, 0~2.5A | ±10% | 2.7V | 88.0% |
| PLN-60-27 | 27V, 0~2.3A | ±10% | 2.7V | 88.0% |
| PLN-60-36 | 36V, 0~1.7A | ±10% | 3.6V | 89.0% |
| PLN-60-48 | 48V, 0~1.3A | ±10% | 4.6V | 89.0% |

## PLN-100 Series

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| PLN-100-12 | 12V, 0~5.00A | ±3%  | 150mV | 86%   |
| PLN-100-15 | 15V, 0~5.00A | ±3%  | 150mV | 88%   |
| PLN-100-20 | 20V, 0~4.80A | ±3%  | 150mV | 90%   |
| PLN-100-24 | 24V, 0~4.00A | ±3%  | 150mV | 90%   |
| PLN-100-27 | 27V, 0~3.55A | ±3%  | 150mV | 90%   |
| PLN-100-36 | 36V, 0~2.65A | ±2%  | 150mV | 90%   |
| PLN-100-48 | 48V, 0~2.00A | ±2%  | 200mV | 89%   |