

**Powerland's 42/50W "Pickle-Plus" Series** LED drivers offer flicker-free, programmable and wide-range dimmable output current LED Driver with less than 5% current ripple at 108~305Vac universal input.

The output currents of this series are adjustable at 600-1400mA which is programmed through Bluetooth (BLT SIG5.0), and designed for 0(0.5)-10V/PWM/Rest dimming applications, complying with UL8750 2<sup>th</sup> edition. It also offers optional 12V auxiliary power which is isolated from main output.

## **Applications**

- Indoor LED lights
- LED lights with flexible current settings
- Downlights, high bay and low bay lights, spot lights, LED troffers





## **Specifications**

| Model                | Max. Output<br>Power | Input<br>Voltage | Output Voltage<br>Range | Max. Output<br>Current | Efficiency | Max. Case<br>Temperature | THD  | Power<br>Factor | Dimensions     |
|----------------------|----------------------|------------------|-------------------------|------------------------|------------|--------------------------|------|-----------------|----------------|
| PLD042-1SCF992PB-XXX | 42W                  | 108~305Vac       | 27~45V                  | 1250mA                 | 87.0%      | 90°C                     | <20% | >0.9            | 160x30x26mm    |
| PLD050-1SCF992PB-XXX | 50W                  | 108~305Vac       | 27~45V                  | 1400mA                 | 87.0%      | 90°C                     | <20% | >0.9            | 100x30x2011111 |

<sup>\*</sup> XXX stands for output current, e.g. 1400 stands for 1400mA. XXX=600~1400.

## **Features**

- Flicker-free with < 5% current ripple
- > 50,000 hours lifetime at 75°C Tcase
- > 5 years warranty at 75°C Tcase
- Constant current output
- Wired and wireless programmable
- Isolated 0-10V/PWM dimming /External resistor/Wireless Dimming
- MESH Bluetooth/BLT SIG5.0
- Universal input voltage: 108~305Vac
- Isolated 12V/100mA auxiliary power output
- Safety according to UL8750 & UL1310 & EN61347-2-13
- UL Class 2 output
- EMC according to FCC Part 15 Class A
- Lightning, OVP, SCP, OTP & Open Circuit Protection

<sup>\*\*</sup> Based on 25°C ambient temperature, rated input voltage, and full load.

<sup>\*\*\*</sup> Refer to the next page for detailed specifications for this series of LED drivers.



## **Electrical Specifications**

| Model                             | PLD042-1SCF992PB-XXX  | PLD050-1SCF992PB-XXX  |  |  |  |  |
|-----------------------------------|---|---|--|--|--|--|
| Output Voltage                    | 27~45V  | 27~45V  |  |  |  |  |
| Current Programmable              | Bluetooth & Wire  | Bluetooth & Wire  |  |  |  |  |
| Output Current Programmable Range | 600~1250mA  | 700~1400mA  |  |  |  |  |
| Dimming                           | Isolated 0-10V/PWM/External Resistor/Wireless Dimming   | Isolated 0-10V/PWM/External Resistor/Wireless Dimming   |  |  |  |  |
| Output Power                      | 42W   | 50W   |  |  |  |  |
| Max. Current Ripple               | ±5%   | ±5%   |  |  |  |  |
| Input Voltage Range               | 108~305Vac  | 108~305Vac  |  |  |  |  |
| Frequency Range                   | 47~63Hz   | 47~63Hz   |  |  |  |  |
| Max. Input Current                | 0.6A @ 25°C 120Vac input & full load<br>0.3A @ 25°C 230Vac input & full load<br>0.27A @ 25°C 277Vac input & full load | 0.6A @ 25°C 120Vac input & full load<br>0.3A @ 25°C 230Vac input & full load<br>0.27A @ 25°C 277Vac input & full load |  |  |  |  |
| Max. Input Power                  | 52W   | 62W   |  |  |  |  |
| Power Factor                      | >0.96 @ 120Vac & 80~100% full load<br>>0.94 @ 230Vac & 80~100% full load<br>>0.92 @ 277Vac & 80~100% full load        | >0.96 @ 120Vac & 80~100% full load<br>>0.94 @ 230Vac & 80~100% full load<br>>0.92 @ 277Vac & 80~100% full load        |  |  |  |  |
| Efficiency                        | 87.0%   | 87.0%   |  |  |  |  |
| Max. Open Circuit Voltage         | 59.5V   | 59.5V   |  |  |  |  |
| Ingress Protection                | IP20  | IP65  |  |  |  |  |
| THD                               | <20% @ 120Vac/230Vac/277Vac & 80~100% full load   |   |  |  |  |  |
| Protections                       | OVP, OCP, SCP, OTP & Open Circuit Protection  |   |  |  |  |  |
| Environmental Protection          | UL Dry & Damp   |   |  |  |  |  |
| Working Temperature               | -20~+50°C   |   |  |  |  |  |
| Max. Case Temperature             | 90°C  |   |  |  |  |  |
| Surge Protection                  | Line to Line 1kV  |   |  |  |  |  |
| ANSI Surge Type                   | 1.2/50μs Combination Wave (w/t 2Ω)  |   |  |  |  |  |
| Agency Approbations               | UL8750 & UL1310 da  | 3750 & UL1310 class 2 & EN61347-2-13  |  |  |  |  |
| Electromagnetic Compliance        | FCC Part1   | 5 Class A   |  |  |  |  |
| Isolation                         | Primary to Secondary: 3750Vac / 10mAN   | Max / 60seconds (3second for production)  |  |  |  |  |
| Case & Terminal Type              | Metal   | & Wire  |  |  |  |  |
| Dimension                         | 160x30x26mm   |   |  |  |  |  |
| Mounting Length                   | 160mm   |   |  |  |  |  |
| Overall Length                    | 168mm   |   |  |  |  |  |
| Weight                            | 0.26kg  |   |  |  |  |  |
| Life Time                         | >50,000 hours @ full load, 75°C Tcase   |   |  |  |  |  |

<sup>\*</sup> Note: XXX stands for output current, e.g. 1250 stands for 1250mA. XXX in PLD042-1SCF992PB-XXX=600~1250, XXX in PLD050-1SCF992PB-XXX=700~1400.

<sup>\*\*</sup> Unless otherwise noted, the data are based on 25°C ambient temperature, 230Vac input voltage, and full load.