

Powerland's 320W Programmable Series offers digital programmable drivers with wide-range adjustable output current, together with 12V/100mA auxiliary output (optional) for smart lighting.

The output current of this series are programmable, and designed for 0(0.05)-10V/PWM/Rset/Clock/DMX (upon request) ultra-deep dimming applications. Bluetooth and ZigBee dimming are provided in B and E versions, respectively.

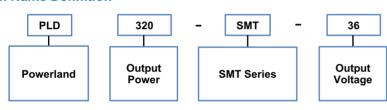
Applications

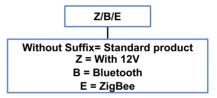
- Outdoor & indoor LED lights
- LED lights with flexible current settings
- Street lights, parking lights and architecture decoration lights
- LED horticulture lights
- Wireless dimming lights





Model Name Definition





Specifications

| Model | Max. Output Power | Input Voltage | Output Voltage Range | Max. Output Current | Efficiency | Max. Case Temperature | THD | Power Factor | Dimensions |
|-----------------------|--|------------------|-------------------------|------------------------|------------|--------------------------|------|-----------------|---------------|
| PLD320-SMT-36(Z/B/E) | 320W | 108~305Vac | 24~36V | 8.88A | 92.5% | 90°C | <20% | >0.95 | 245x84x42.5mm |
| PLD320-SMT-48(Z/B/E) | 320W | 108~305Vac | 32~48V | 6.66A | 92.5% | 90°C | <20% | >0.95 | 245x84x42.5mm |
| PLD320-SMT-54(Z/B/E) | 320W | 108~305Vac | 36~54V | 5.93A | 93.0% | 90°C | <20% | >0.95 | 245x84x42.5mm |
| PLD320-SMT-58(Z/B/E) | 320W | 108~305Vac | 40~58.8V | 5.52A | 93.0% | 90°C | <20% | >0.95 | 245x84x42.5mm |
| PLD320-SMT-152(Z/B/E) | 320W | 108~305Vac | 94~152V | 2.1A | 93.0% | 90°C | <20% | >0.95 | 245x84x42.5mm |
| PLD320-SMT-228(Z/B/E) | 320W | 108~305Vac | 142~228V | 1.4A | 93.5% | 90°C | <20% | >0.95 | 245x84x42.5mm |
| PLD320-SMT-428(Z/B/E) | 320W | 108~305Vac | 320~428V | 0.7A | 94.0% | 90°C | <20% | >0.95 | 245x84x42.5mm |
| PLDC-CSCA | Powerland LED drivers programmer (accessory) | | | | | | | | |

^{*} Based on 25°C ambient temperature, rated input voltage, and full load.

Features

- Ultra-deep dimming down to 0.5%, compatible with DMX (upon request)
- Universal input voltage: 108~305Vac
- 12V/100mA auxiliary output (optional)
- Constant current & constant voltage output
- Output current & output voltage programmable
- Compatible with 0(0.05)-10V, PWM, external resistor, clock, DMX (upon request) dimming
- Support wireless dimming (Bluetooth or ZigBee protocol)

- > 70,000 hours lifetime at 75°C Tcase
- > 7 years warranty at 75°C Tcase
- Min. operating temperature @ -40°C
- Safety according to UL8750 & EN61347-2-13
- Surge voltage rating: L-N 5.5kV, L/N-Earth 11kV
- EMC according to FCC Part 15 Class B (Class A with 12V Aux)
- Lightning, OVP, SCP, OTP & Open Circuit Protection



Electrical Specifications

| Model | PLD320-SMT -36(Z/B/E) | PLD320-SMT -48(Z/B/E) | PLD320-SMT -54(Z/B/E) | PLD320-SMT -58(Z/B/E) | PLD320-SMT -152(Z/B/E) | PLD320-SMT -228(Z/B/E) | PLD320-SMT -428(Z/B/E) | | | | |
|-------------------------------------|--|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|--|--|--|--|
| Output Voltage | 24~36V | 32~48V | 36~54V | 40-58.8V | 94~152V | 142~228V | 320~428V | | | | |
| Current Programmable | Yes | Yes | Yes | Yes | Yes | Yes | Yes | | | | |
| Max Output Current | 8.88A | 6.66A | 5.93A | 5.52A | 2.1A | 1.4A | 0.7A | | | | |
| Output AUX Power Voltage (Optional) | N/A | 12V | 12V | 12V | 12V | 12V | 12V | | | | |
| Output AUX Power Current (Optional) | N/A | 0-100mA | 0-100mA | 0-100mA | 0-100mA | 0-100mA | 0-100mA | | | | |
| Dimming | 0(0.05)~10V, PWM, External Resistor, Clock, DMX (upon request) | | | | | | | | | | |
| Wireless Dimming | B Version: Bluetooth; E Version: ZigBee | | | | | | | | | | |
| Output Power | 320W | 320W | 320W | 320W | 320W | 320W | 320W | | | | |
| Max. Current Ripple | ±10% | ±10% | ±10% | ±10% | ±10% | ±10% | ±10% | | | | |
| Max. Voltage Ripple | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | | | | |
| Voltage Range | 108~305Vac | 108~305Vac | 108~305Vac | 108~305Vac | 108~305Vac | 108~305Vac | 108~305Vac | | | | |
| Frequency Range | 47~63Hz | 47~63Hz | 47~63Hz | 47~63Hz | 47~63Hz | 47~63Hz | 47~63Hz | | | | |
| Max. Input Current | 3.5A | 3.5A | 3.5A | 3.5A | 3.5A | 3.5A | 3.5A | | | | |
| Max. Input Power | 360W | 360W | 360W | 360W | 360W | 360W | 360W | | | | |
| Power Factor | >0.95 @ 115Vac & 80~100% full load, >0.90 @ 284Vac & 85~100% full load | | | | | | | | | | |
| Efficiency | 92.5% | 92.5% | 93.0% | 93.0% | 93.0% | 93.5% | 94.0% | | | | |
| Max. Open Circuit Voltage | 45V | 65V | 65V | 65V | 175V | 265V | 480V | | | | |
| Ingress Protection | IP67 | | | | | | | | | | |
| THD | <20% @ 120Vac & 80~100% full load, <20% @ 284Vac & 85~100% full load | | | | | | | | | | |
| Protections | OVP, OCP, SCP, OTP & Open Circuit Protection | | | | | | | | | | |
| Environmental Protection | UL Dry & Damp & Wet | | | | | | | | | | |
| Working Temperature | -40~+70°C | | | | | | | | | | |
| Max. Case Temperature | 90°C | | | | | | | | | | |
| Surge Protection | L-N 5.5kV, L/N-Earth 11kV | | | | | | | | | | |
| ANSI Surge Type | 1.2/50μs Combination Wave (w/t 2Ω) | | | | | | | | | | |
| Agency Approbations | UL8750 & EN61347-2-13 | | | | | | | | | | |
| Electromagnetic Compliance | Per Title 47 CFR Part 15 Class B | | | | | | | | | | |
| Isolation(Primary to Secondary) | 3750Vac / 10mAMax / 60seconds | | | | | | | | | | |
| Isolation(Primary to Earth) | 1875Vac / 10mAMax / 60seconds | | | | | | | | | | |
| Isolation(Secondary to Earth) | 1875Vac / 10mAMax / 60seconds | | | | | | | | | | |
| Dimension | 245x84x42.5mm | | | | | | | | | | |
| Mounting Length | 259mm | | | | | | | | | | |
| Overall Length | 269mm | | | | | | | | | | |
| Weight | 1.7kg | | | | | | | | | | |
| Life Time | >70,000 hours @ full load, 75°C Tcase | | | | | | | | | | |

^{*} Unless otherwise noted, the data are based on 25°C ambient temperature, 230Vac input voltage, and full load.