

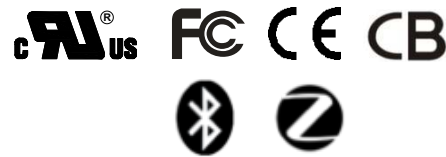
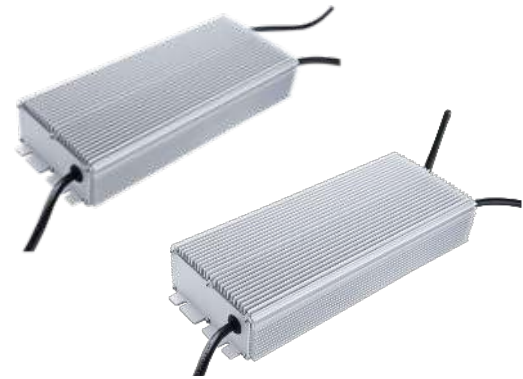
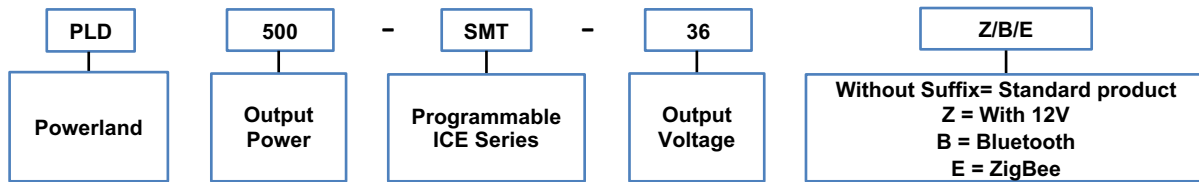
Powerland's ICE-305 Programmable Series 500W LED Drivers offers digital programmable drivers with wide-range adjustable output current, together with 12V/250mA auxiliary output (optional) for smart lighting.

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
- Parking lights and architecture decoration lights
- LED horticulture lights
- LED fishing 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 |
|----------------------|--|---------------|----------------------|---------------------|------------|-----------------------|------|--------------|--------------|
| PLD500-SMT-36(Z/B/E) | 500W | 108~305Vac | 24~36V | 13.8A | 96.5% | 90°C | <20% | >0.95 | 240x123x54mm |
| PLD500-SMT-42(Z/B/E) | 500W | 108~305Vac | 27~42V | 11.9A | 96.5% | 90°C | <20% | >0.95 | 240x123x54mm |
| PLD500-SMT-48(Z/B/E) | 500W | 108~305Vac | 32~48V | 10.4A | 96.5% | 90°C | <20% | >0.95 | 240x123x54mm |
| PLD500-SMT-54(Z/B/E) | 500W | 108~305Vac | 36~54V | 9.3A | 96.5% | 90°C | <20% | >0.95 | 240x123x54mm |
| PLD500-SMT-58(Z/B/E) | 500W | 108~305Vac | 40~58.8V | 8.5A | 96.5% | 90°C | <20% | >0.95 | 240x123x54mm |
| 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/250mA 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)
- Support isolated 12V auxiliary power output & dimming (optional)
- > 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 A
- Lightning, OVP, SCP, OTP & Open Circuit Protection

Electrical Specifications

| Model | PLD500-SMT-36(Z/B/E) | PLD500-SMT-42(Z/B/E) | PLD500-SMT-48(Z/B/E) | PLD500-SMT-54(Z/B/E) | PLD500-SMT-58(Z/B/E) |
|-------------------------------------|--|----------------------|----------------------|----------------------|----------------------|
| Output Voltage Range | 24~36V | 27~42V | 32~48V | 36~54V | 40~58.8V |
| Current Programmable | Yes | Yes | Yes | Yes | Yes |
| Max Output Current | 13.8A | 11.9A | 10.4A | 9.3A | 8.5A |
| Output AUX Power Voltage (Optional) | 12V | 12V | 12V | 12V | 12V |
| Output AUX Power Current (Optional) | 0-250mA | 0-250mA | 0-250mA | 0-250mA | 0-250mA |
| Dimming | 0(0.05)~10V, PWM, External Resistor, Clock, DMX (upon request) | | | | |
| Wireless Dimming | B Version: Bluetooth; E Version: ZigBee | | | | |
| Output Power | 500W | 500W | 500W | 500W | 500W |
| Max. Current Ripple | ±5% | ±5% | ±5% | ±5% | ±5% |
| Max. Voltage Ripple | 250mVp-p | 250mVp-p | 250mVp-p | 350mVp-p | 350mVp-p |
| Input Voltage Range | 108~305Vac | 108~305Vac | 108~305Vac | 108~305Vac | 108~305Vac |
| Frequency Range | 47~63Hz | 47~63Hz | 47~63Hz | 47~63Hz | 47~63Hz |
| Max. Input Current | 5.5A | 5.5A | 5.5A | 5.5A | 5.5A |
| Max. Input Power | 570W | 570W | 570W | 570W | 570W |
| Power Factor | >0.95 @ 120Vac & 80~100% full load, >0.90 @ 277Vac & 80~100% full load | | | | |
| Efficiency | 96.5% | 96.5% | 96.5% | 96.5% | 96.5% |
| Max. Open Circuit Voltage | 39V | 48V | 51V | 61.8V | 61.8V |
| Ingress Protection | IP67 | | | | |
| THD | <10% @ 120Vac & 80~100% full load, <15% @ 284Vac & 80~100% 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 A | | | | |
| Isolation (Primary to Secondary) | 3750Vac / 10mA Max / 60seconds | | | | |
| Isolation (Primary to Earth) | 1875Vac / 10mA Max / 60seconds | | | | |
| Isolation (Secondary to Earth) | 1150Vac / 10mA Max / 60seconds | | | | |
| Case Type | Aluminum | | | | |
| Dimension | 240x123x54mm | | | | |
| Mounting Length | 251mm | | | | |
| Overall Length | 270mm | | | | |
| Weight | 2.92kg | | | | |
| 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.