

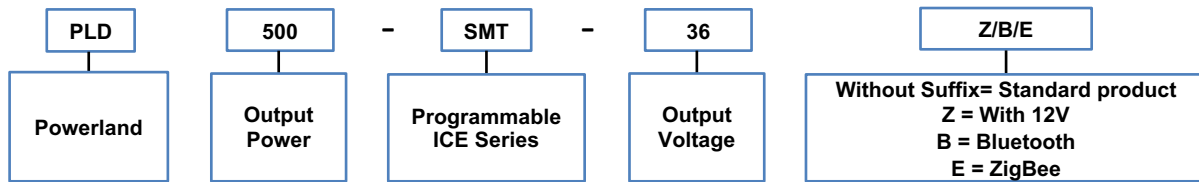
Powerland's ICE-305 Programmable Series 500W LED Drivers offers digital programmable drivers with wide-range adjustable output current, together with 12V/250mA auxiliary output (optional) for smart lighting.

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.