

Powerland's ICE-347 Programmable Series 640W LED Drivers offers digital programmable drivers with wide-range adjustable output current, together with 12V/250mA auxiliary output (optional) for smart lighting.

The drivers comply with high AC input voltage up to 382Vac. 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
PLD640-SMT-24-H1(Z/B/E)	640W	240~382Vac	18~24V	26.67A	95.5%	90°C	<20%	>0.95	240x123x54mm
PLD640-SMT-36-H1(Z/B/E)	640W	240~382Vac	27~36V	17.78A	96%	90°C	<20%	>0.95	240x123x54mm
PLD640-SMT-42-H1(Z/B/E)	640W	240~382Vac	31~42V	15.23A	96.5%	90°C	<20%	>0.95	240x123x54mm
PLD640-SMT-48-H1(Z/B/E)	640W	240~382Vac	36~48V	13.3A	97%	90°C	<20%	>0.95	240x123x54mm
PLD640-SMT-54-H1(Z/B/E)	640W	240~382Vac	42~54V	11.85A	97%	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: 240~382Vac
- 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
- 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



Ultra High Efficiency @ 97%

Electrical Specifications

Model	PLD640-SMT-24-H1(Z/B/E)	PLD640-SMT-36-H1(Z/B/E)	PLD640-SMT-42-H1(Z/B/E)	PLD640-SMT-48-H1(Z/B/E)	PLD640-SMT-54-H1(Z/B/E)
Output Voltage Range	18~24V	27~36V	31~42V	36~48V	42~54V
Current Programmable	Yes	Yes	Yes	Yes	Yes
Max Output Current	26.67A	17.78A	15.23A	13.3A	11.85A
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	640W				
Max. Current Ripple	±5%	±5%	±5%	±5%	±5%
Max. Voltage Ripple	250mVp-p	250mVp-p	250mVp-p	350mVp-p	350mVp-p
Input Voltage Range	240~382Vac	240~382Vac	240~382Vac	240~382Vac	240~382Vac
Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Max. Input Current	3.1A				
Max. Input Power	700W				
Power Factor	>0.95 @ 347Vac & 80~100% full load				
Efficiency	95.5%	96%	96.5%	97%	97%
Max. Open Circuit Voltage	28V	39V	45V	51V	63V
Ingress Protection	IP67				
THD	< 20% 277-347Vac 80%-100% 640W 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				
Electromagnetic Compliance	Per Title 47 CFR Part 15 Class A				
Isolation	Primary to Secondary: 3750Vac / 10mAMax / 60seconds Primary to Earth: 1875Vac / 10mAMax / 60seconds Secondary to Earth: 1150Vac / 10mAMax / 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, 347Vac input voltage, and full load.