Powerland's 30/42/50/60W All-in-One Dimming and Programmable Series offers LED drivers with wide-range dimmable output current and 108~305Vac universal input.

The output currents of this series are digital programmable, and designed for 0(0.1)-10V/PWM/Rset/Clock dimming applications.

Applications

- Outdoor & indoor LED lights
- LED lights with flexible current settings
- Downlights, high bay and low bay lights, spot lights, LED troffers

Specifications

Model	Max. Output Power	Input Voltage	Output Voltage Range	Max. Output Current	Efficiency	Max. Case Temperature	THD	Power Factor	Dimensions
PLD030-1SCF691WX-700	30W	108~305Vac	20~50V	700mA	85.0%	90°C	<20%	>0.95	108x45x29.5mm (A/C versions) 136x46x31mm (B/D versions) 118x48x32mm (E version)
PLD042-1SCF691WX-1200	42W	108~305Vac	20~50V	1200mA	89.0%	90°C	<20%	>0.95	
PLD050-1SCF692WX-1400	50W	108~305Vac	20~50V	1400mA	88.0%	90°C	<20%	>0.95	
PLD060-1SCF692WE-800	60W	108~305Vac	30~75V	800mA	89.0%	90°C	<20%	>0.95	

* X=A, B, C, D, and E

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

*** Refer to the next page for detailed specifications for this series of LED drivers.

Features

- Ultra-deep dimming down to 1%, with dimming-off control
- > 50,000 hours lifetime at 75°C Tcase (A/B/C/D version)
- > 70,000 hours lifetime at 75°C Tcase (E version)
- > 5 years warranty at 75°C Tcase (A/B/C/D version)
- > 7 years warranty at 75°C Tcase (E version)
- Constant current output
- Output current programmable
- Compatible with 0(0.1)-10V, PWM, external resistor, clock dimming
- Universal input voltage: 108~305Vac
- Safety according to UL1310 & EN61347-2-13
- A/B/C/D version: UL Class 2 output
- EMC according to FCC Part 15 Class A
- Lightning, OVP, SCP, OTP & Open Circuit Protection

Electrical Specifications

Model	PLD030-1SCF691WA/C-700 PLD030-1SCF691WB/D-700 PLD030-1SCF691WE-700	PLD042-1SCF691WA/C-1200 PLD042-1SCF691WB/D-1200 PLD042-1SCF691WE-1200	PLD050-1SCF692WA/C-1400 PLD050-1SCF692WB/D-1400 PLD050-1SCF692WE-1400	PLD060-1SCF692WE-800
Output Voltage	20~50V	20~50V	20~50V	30~75V
Current Programmable	Yes	Yes	Yes	Yes
Output Current Programmable Range	350~700mA	600~1200mA	700~1400mA	400~800mA
Dimming	0~10V, PWM, External Resistor, Clock			
Dimming Range	1~100%	1~100%	1~100%	1~100%
Output Power	30W	42W	50W	60W
Max. Current Ripple	±40%	±40%	±40%	±40%
Input Voltage Range	108~305Vac			
Input Frequency Range	47~63Hz			
Max. Input Current	0.4A	0.5A	0.65A	0.7A
Max. Input Power	37W	50W	59W	71W
Power Factor	>0.95 @ 120Vac & 80~100% full load, >0.90 @ 277Vac & 80~100% full load			
Efficiency	85.0%	89.0%	88.0%	89.0%
Max. Open Circuit Voltage	59.5V	59.5V	59.5V	90V
THD	<20% @ 120Vac/230Vac/277Vac & 80~100% full load			
Protections	OVP, OCP, SCP, OTP & Open Circuit Protection			
Environmental Protection	UL Dry & Damp, and Type TL (A/B/C/D versions) UL Dry & Damp & Wet (E version)			
Working Temperature	-20~+50°C (A/B/C/D versions) -40~+60°C (E version)			
Max. Case Temperature	90°C			
Ingress Protection	IP20 (A/B/C/D versions) IP65 (E version)			
Surge Protection	Line to Line 1kV (A/B/C/D versions) Line to Line 1kV, Line To Earth 2kV (E version)			
ANSI Surge Type	1.2/50μs Combination Wave (w/t 2Ω)			
Agency Approbations	UL1310 Class 2 & EN61347-2-13 (A/B/C/D versions) UL8750 & EN61347-2-13 (E version)			
Electromagnetic Compliance	Per Title 47 CFR Part 15 Class A			
Isolation (Primary to Secondary)	3750Vac / 10mAMax / 60seconds			
Isolation (Primary to Earth)	1875Vac / 10mAMax / 60seconds (E version)			
Isolation (Secondary to Earth)	500Vac / 10mAMax / 60seconds (E version)			
Dimension and Case Material	108x45x29.5mm, Plastic (A/C versions) 136x46x31mm, Steel (B/D versions) 118x48x32mm, Aluminum (E version)			
Weight	0.13kg (A/C versions) 0.21kg (B/D versions) 0.37kg (E version)			
Life Time	>50,000 hours @ full load, 75°C Tcase (A/B/C/D versions) >70,000 hours @ full load, 75°C Tcase (E version)			

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