

Powerland's PLD030-1SCF791PA/B-XXX “Pickle” series fLED drivers offer flicker-free, adjustable and wide-range dimmable output current with less than 5% current ripple at 108~305Vac universal input.

The output currents of this series are adjustable at 350~750mA which is set in the factory, and designed for 0(0.5)-10V/PWM/Rset dimming applications.

Applications

- Indoor LED lights
- LED lights with flexible current settings
- Downlights, high bay and low bay lights, spot lights, LED panels



Specifications

Input Voltage	Output Power	Output Voltage	Output Current Program Range	Efficiency	Max. Case Temperature	Max. Input Current	Max. Input Power	THD	Power Factor
108~305Vac	30W	27~45V	0.35~0.75A	85%	90°C	0.4A	38W	<20%	>0.9

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

** Refer to Page 2 for detailed specifications for this series of LED drivers.

Features

- Flicker-free with < 5% current ripple
- > 50,000 hours lifetime at 75°C Tcase
- > 5 years warranty at 75°C Tcase
- Constant current output
- Output current adjustable
- Compatible with 0(0.5)-10V, PWM, external resistor
- Universal input voltage: 108~305Vac
- Safety according to UL1310 & EN61347-2-13
- UL Class 2 Output
- EMC according to FCC Part 15 Class A
- Lightning, OVP, SCP, OTP & Open Circuit Protection

Enclosure

	mm (inch) A Version	mm (inch) B Version
Case Length	130.7 (5.15)	129 (5.07)
Case Width	40.8 (1.60)	33 (1.29)
Case Height	28.5 (1.12)	28 (1.10)
Mounting Length	136.9 (5.38)	146 (5.75)
Overall Length	148.8 (5.85)	154 (6.06)

* A: Plastic Case with Connector Terminal

B: Metal Case with Wire Terminal

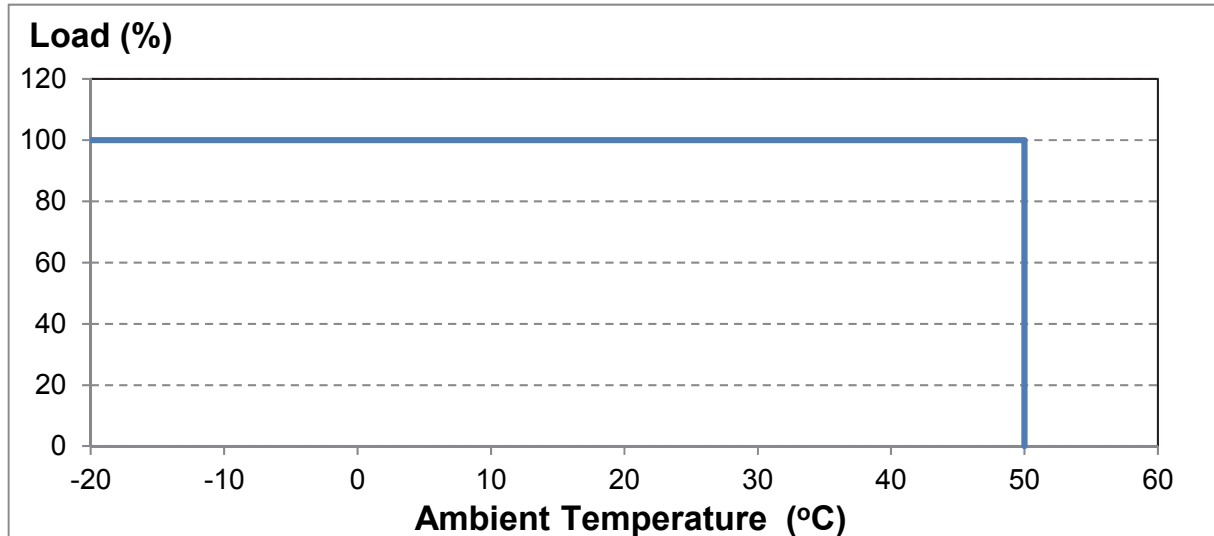
Electrical Specifications

Model	PLD030-1SCF791PA-XXX	PLD030-1SCF791PB-XXX
Output Voltage	27-45V	
Current Adjustable	Yes (by factory only)	
Output Current Programmable Range	350~750mA	
Dimming	0(0.5)~10V, PWM, External Resistor	
Dimming Range	5~100%	
Output Power	30W	
Max. Current Ripple	±5%	
Input Voltage Range	108~305Vac	
Input Frequency Range	47~63Hz	
Max. Input Current	0.4A	
Max. Input Power	38W	
Power Factor	>0.95 @ 120Vac & 80~100% full load; >0.91 @ 277Vac & 80~100% full load	
Efficiency	85%	
Max. Open Circuit Voltage	59.5V	
THD	<20% @ 120Vac/277Vac & 80~100% full load	
Protections	OVP, SCP, OTP & Open Circuit Protection	
Environmental Protection	UL Dry & Damp	
Working Temperature	-20~+50°C	
Max. Case Temperature	90°C	
Surge Protection	Line to Line 1kV	
Agency Approbations	UL1310 Class 2	
Electromagnetic Compliance	Per Title 47 CFR Part 15 Class A	
Ansi Surge Type	1.2/50µs Combination Wave (w/t 2Ω)	
Isolation	3750Vac / 10mA Max / 60seconds	
Case & Terminal Type	Plastic & Connector	Metal & Wire
Dimension	130.7x40.8x28.5 mm (5.15x1.60x1.12inch)	129x33x28mm (5.07x1.29x1.10inch)
Mounting Length	136.9mm (5.38inch)	146 mm (5.75inch)
Overall Length	148.8 mm (5.85 inch)	154 mm (6.06 inch)
Weight	0.13 kg (0.28 lb)	0.22 kg (0.48lb)
Life Time	> 50,000 hours @ full load, 75°C Tcase	

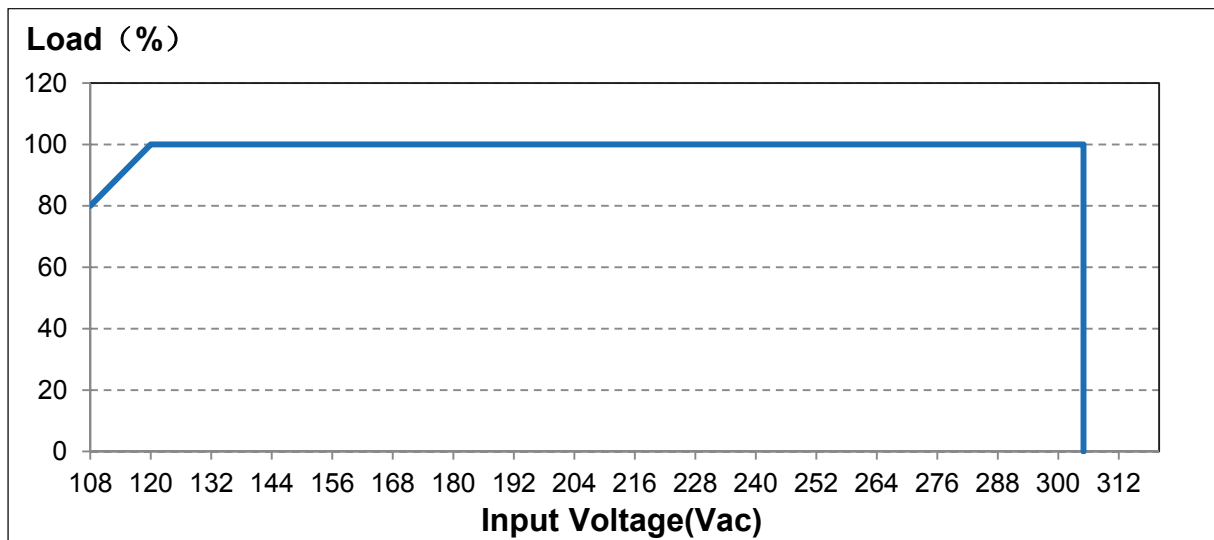
* Note: XXX stands for output current, e.g. 750 stands for 750mA. XXX=350~750.

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

Derating Curve

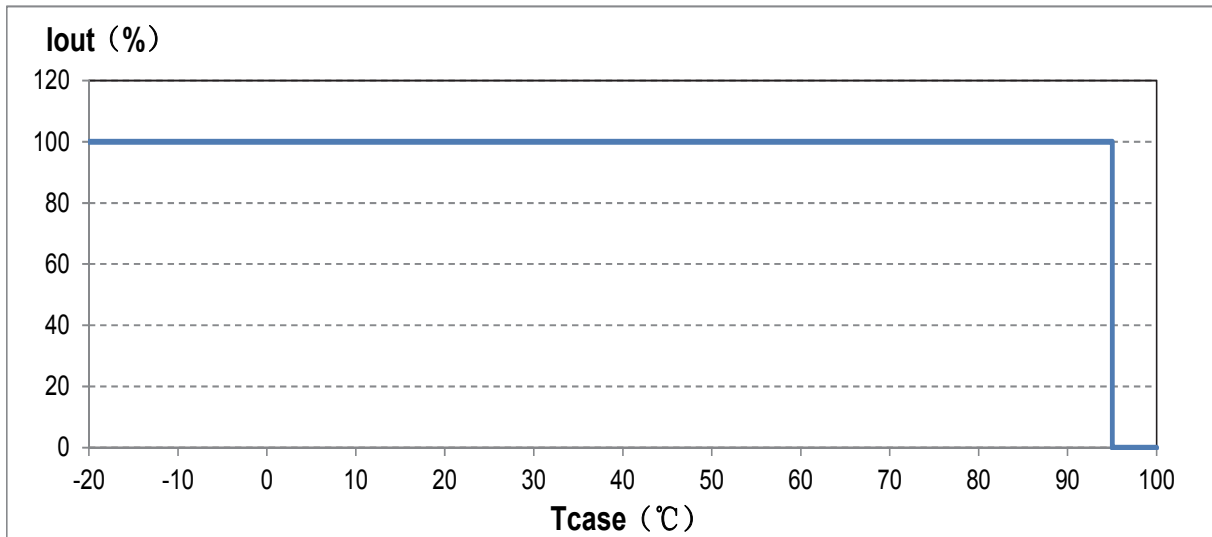


Static Characteristics

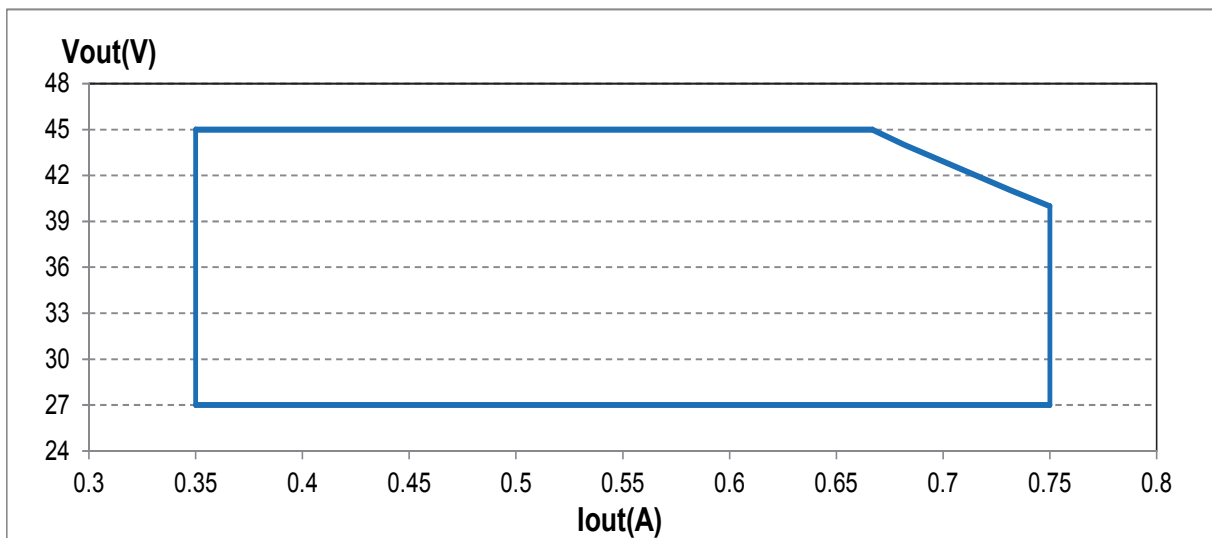


Electrical Specifications

Output Current vs. Case Temperature (with $\pm 5^{\circ}\text{C}$ Tolerance)

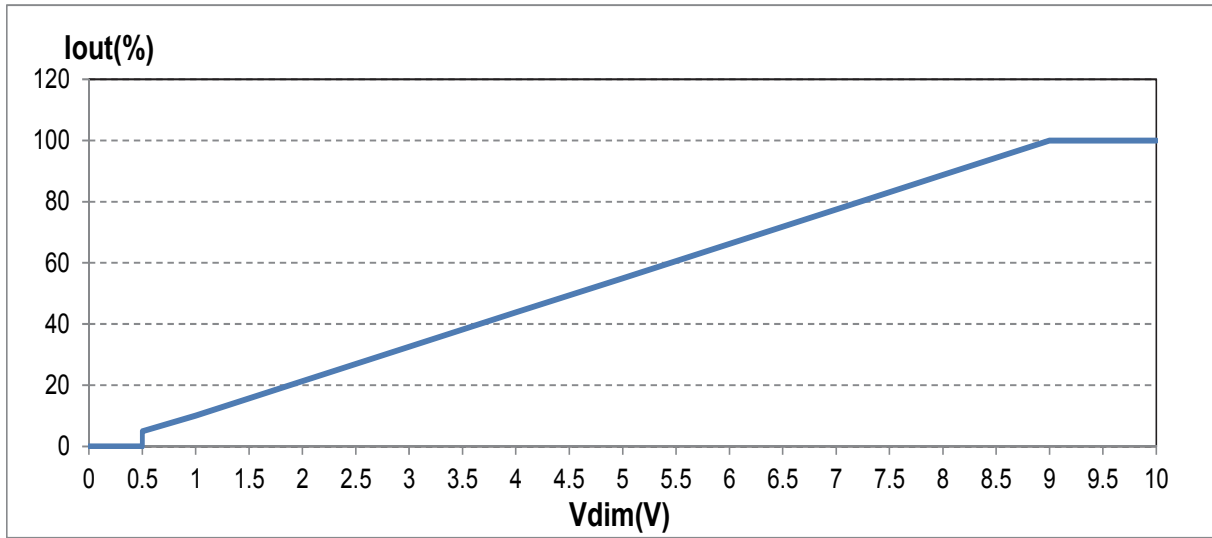


I-V Programming Area: Output Voltage vs. Output Current

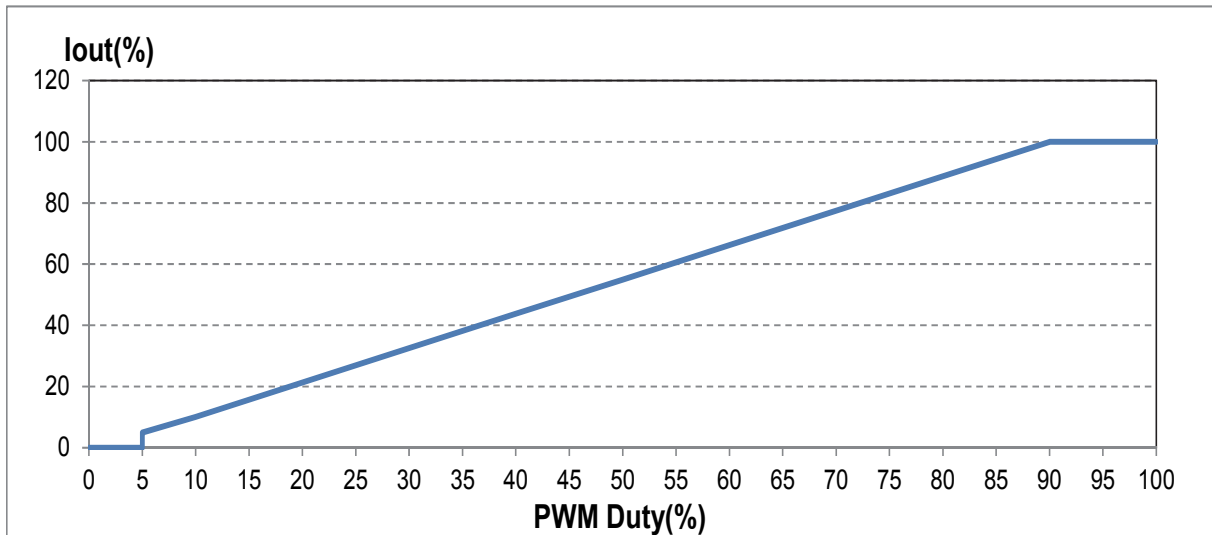


Electrical Specifications

Output Current vs. 0(0.5)-10V Dimming Control Voltage

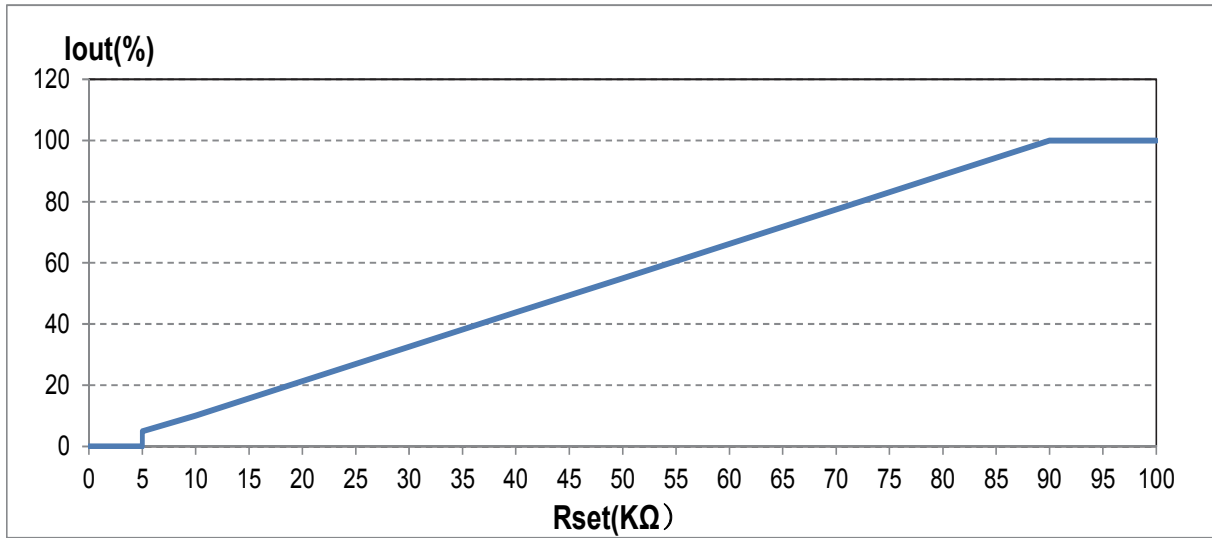


Output Current vs. PWM Dimming Duty Cycle



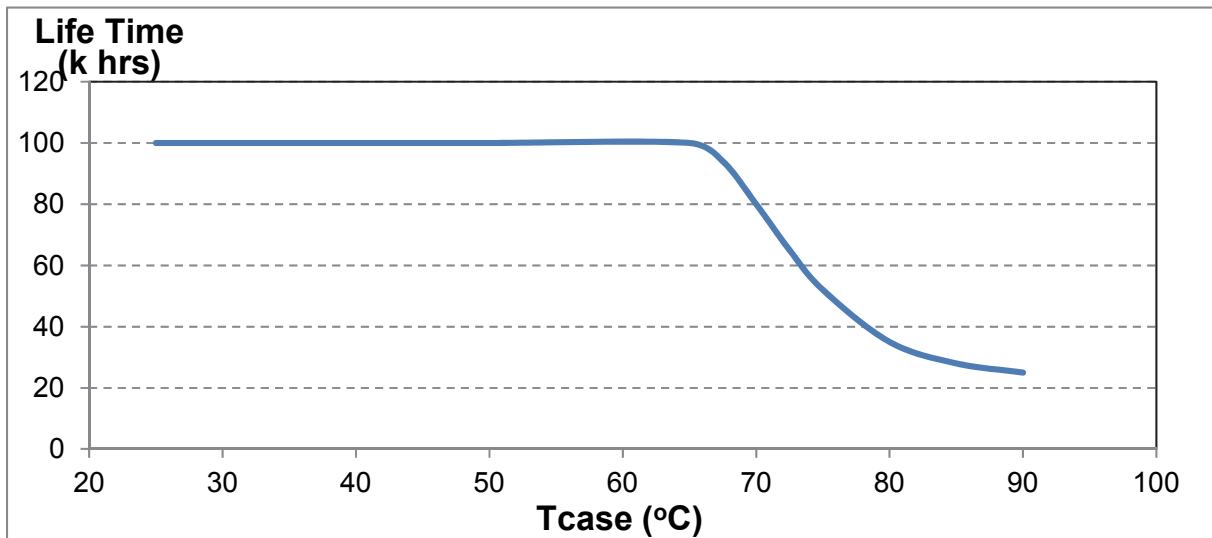
Electrical Specifications

Output Current vs. External Setting Resistor



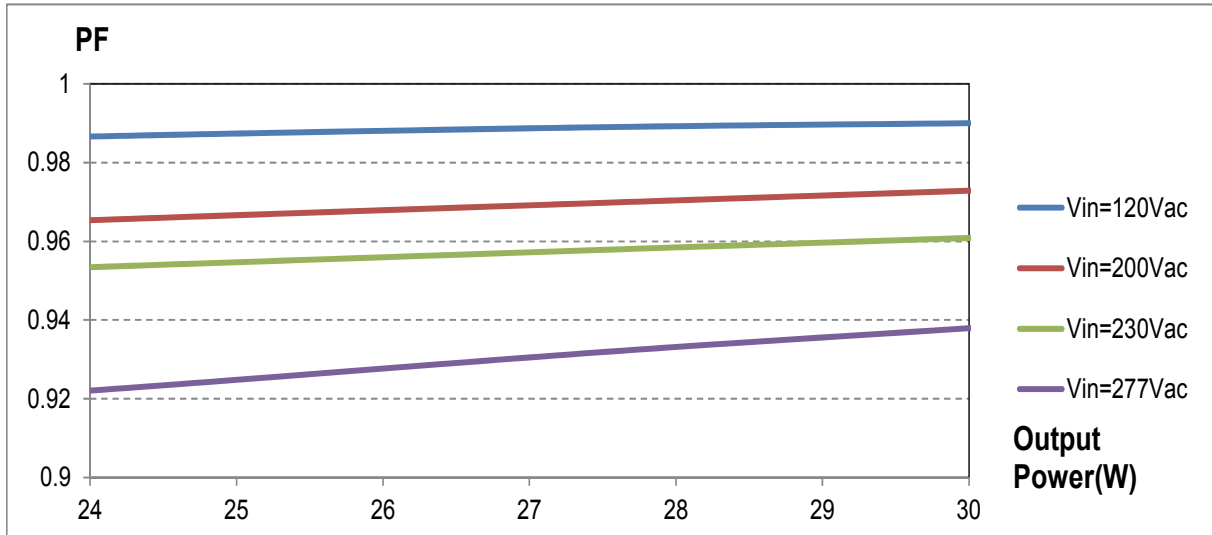
Performance Characteristics

Life Time vs. Case Temperature

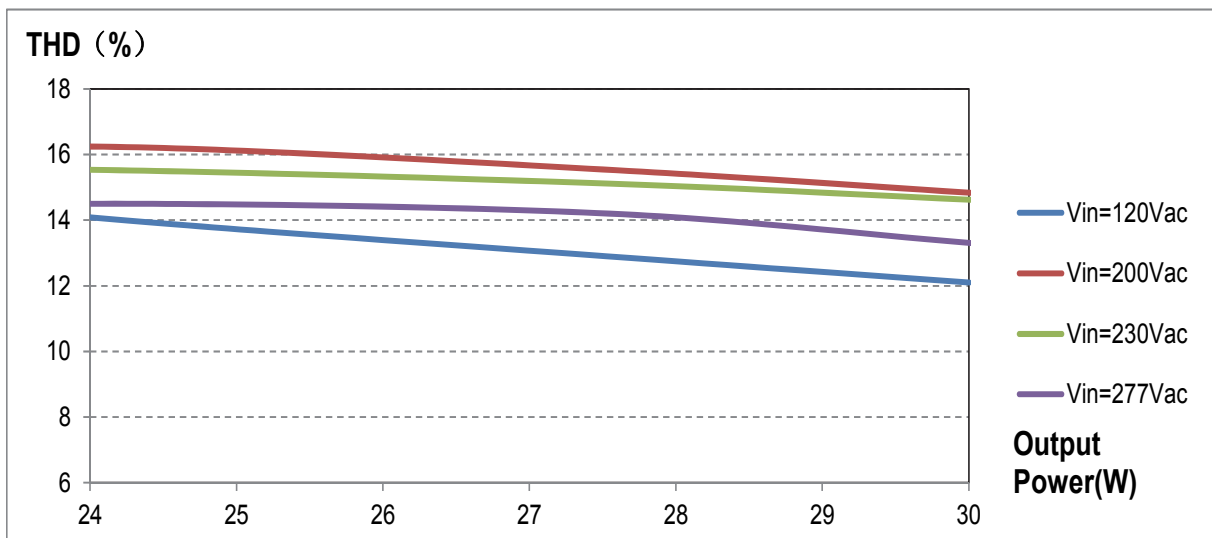


Performance Characteristics

Power Factor vs. Output Power (@ 25°C)

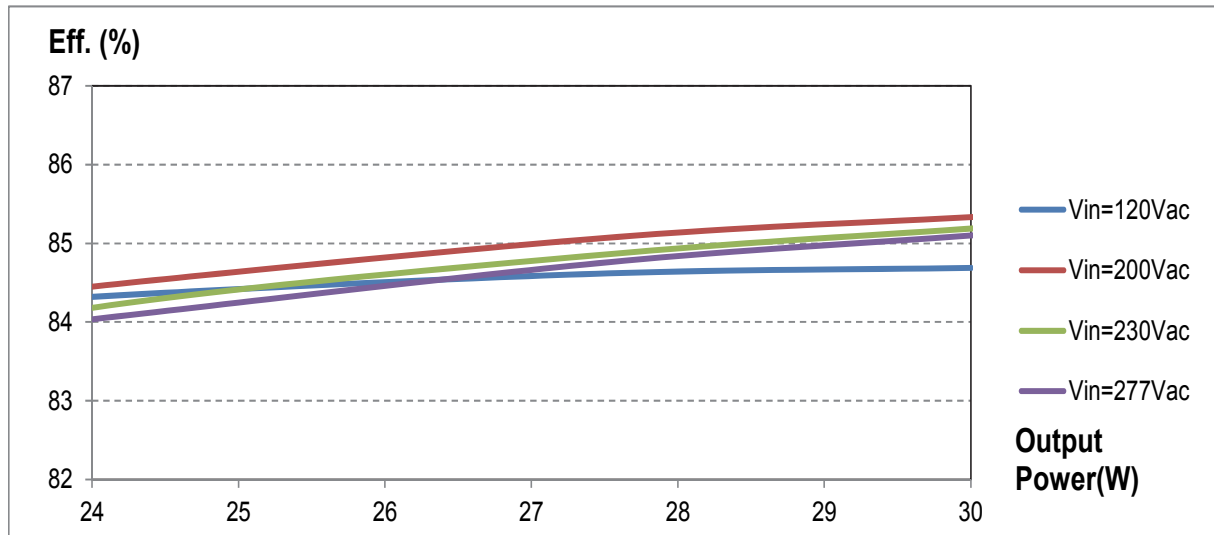


THD vs. Output Power (@ 25°C)

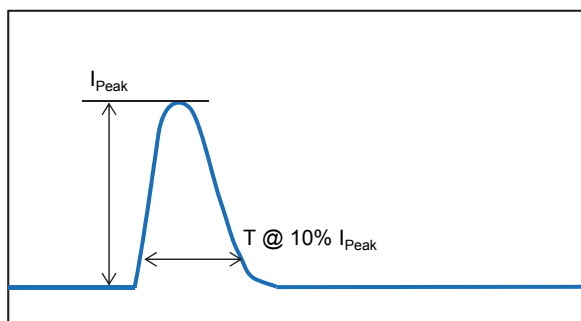


Performance Characteristics

Efficiency vs. Output Power (@ 25°C) (Tested with PLD030-1SCF791PA-750)



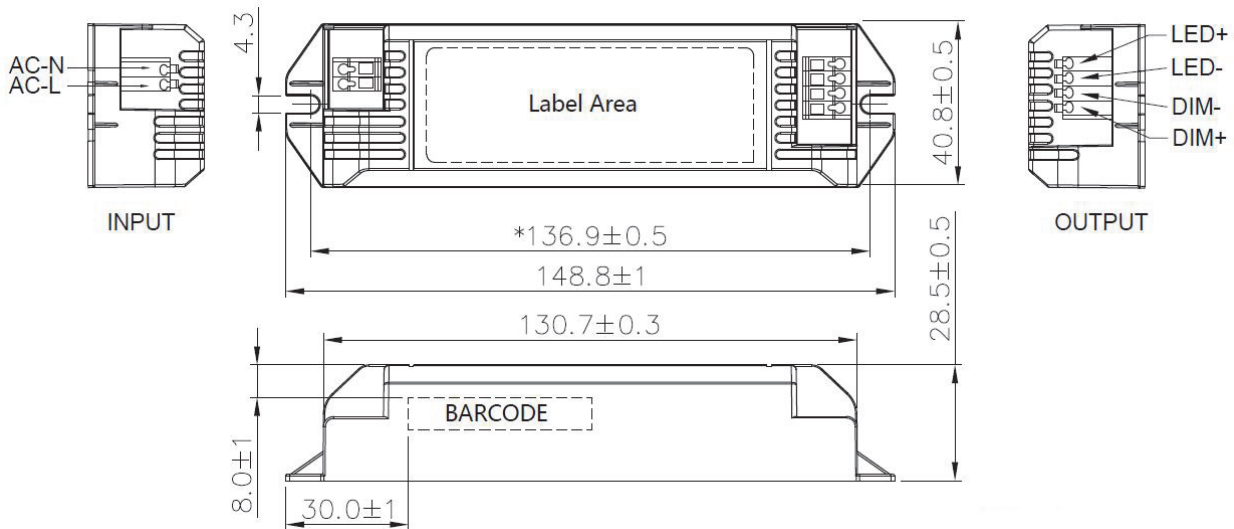
Inrush Current



V _{in}	I _{peak}	T
108 Vac	6.8 A	165 us
120 Vac	8.16 A	168 us
230 Vac	16.2 A	181 us
305 Vac	21 A	195 us

Mechanical Specification

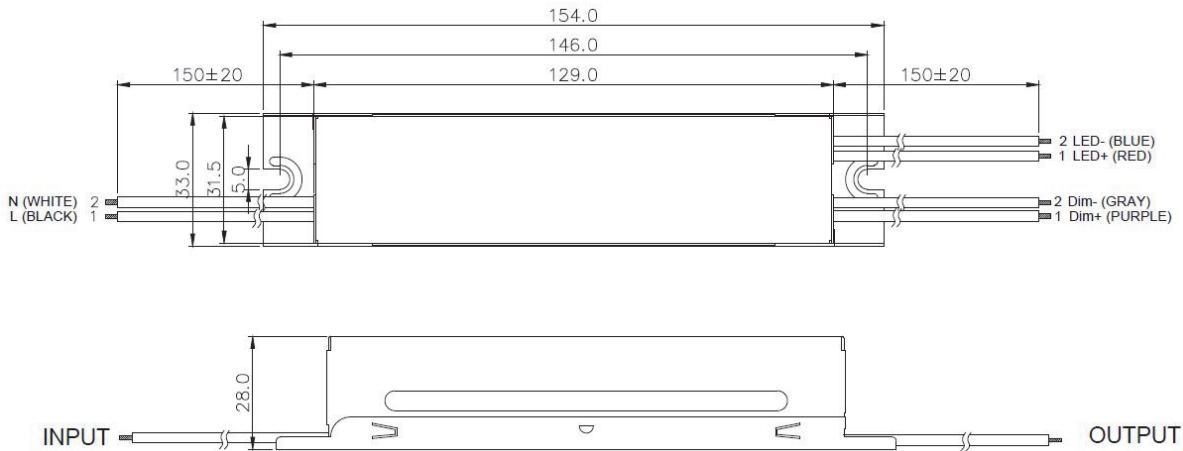
PLD030-1SCF791PA-XXX



- NOTES : 1. OUTLINE DIMENSION : 148.8L*40.8W*28.5H
 2. IF CASE BY NCT PROCESS, THE TOLERANCE OF ALL DIMENSIONS MUST BE ENLARGED ±0.2mm FOR CPK INSPECTION.

Mechanical Specification

PLD030-1SCF791PB-XXX



NOTES : 1. OUTLINE DIMENSION : 154*33*28

2. IF CASE BY NCT PROCESS, THE TOLERANCE OF ALL DIMENSIONS MUST BE ENLARGED $\pm 0.2\text{mm}$ FOR CPK INSPECTION.

3. INPUT AND OUTPUT CONNECTOR & PIN ASSIGNMENT:

INPUT WIRE	2	UL1015 18AWG	WHITE	N
	1	UL1015 18AWG	BLACK	L
	WIRE NUM	WIRE SPEC	COLOR	RATING
OUTPUT WIRE	2	UL1007 20AWG	BLUE	LED-
	1	UL1007 20AWG	RED	LED+
	WIRE NUM	WIRE SPEC	COLOR	RATING
Dimming WIRE	2	UL1007 22AWG	GRAY	Dim-
	1	UL1007 22AWG	PURPLE	Dim+
	WIRE NUM	WIRE SPEC	COLOR	RATING

UL Certification

Please refer to E359093 for Powerland’s UL File Number.

Please contact sales@fsp-powerland.com, +86-25-85582306, or our local sales representative for related documents.

Revision History

Date	Rev.	Item of Change
2017-10-12	A	Datasheets Release