

DATASHEET

50W Non-flickering 1-10V/Push Dimmable LED Driver

LD50C-PV2



- Flicker-free for whole dimming range
- Hot pluggable – load can be directly attached to output
- Stand-by power below 0.5W
- Primary & secondary dimming with push button
- 1-10V dimming
- Dim via a potentiometer
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature.
- Dimming level memory at mains restores
- Multi-output currents set via dip switches



Data

INPUT	Input voltage	220-240Vac
	Input frequency	50Hz/60Hz
	Input current	0.3A max
	Power factor (Note 1)	≥0.9
	Efficiency (Note 1)	≥88%
	Stand-by power (Note 2)	≤0.5W
	Circuit Breakers, max per connection	32
OUTPUT	Constant current mode	500mA 6~60V DC 30W max 650mA 6~60V DC 39W max 700mA 6~60V DC 42W max 800mA 6~60V DC 48W max 850mA 6~59V DC 50W max 900mA 6~56V DC 50W max 1000mA 6~50V DC 50W max 1050mA 6~48V DC 50W max 1200mA 6~42V DC 50W max
	Constant voltage mode	12V DC 0-1200mA 14.4 max 24V DC 0-1200mA 28.8W max
	No-load output voltage	68VDC MAX.
	Current accuracy	±5%
	Start-up time	≤1s @230Vac (Note: soft start-up protection of LED load)
DIMMING	1-10V dim	Yes, port-current <1 mA
	Push dim	Primary push and secondary (on 1-10V port)
	Potentiometer	Yes, 100kΩ
	PWM Dimming	10V signal on 1-10V port. Frequency range should be 3kHz-8kHz.
	Flickering rate	<2% from 1%-100% dimming

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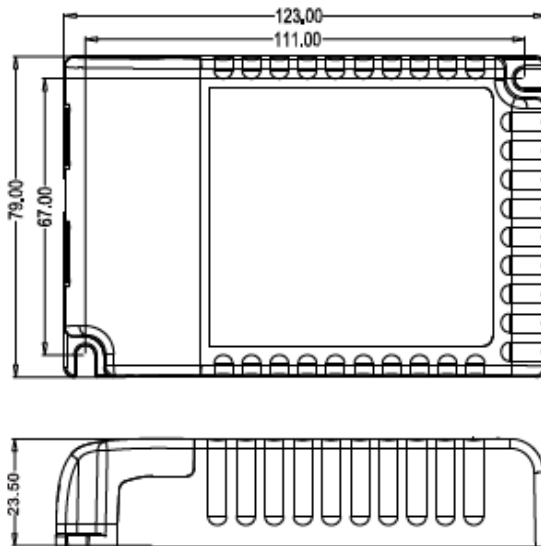
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	Supportable cable length	2m Max. between driver and fixture
	Supportable signal wire length	20m Max. between dimmer and dim interface
ENVIRONMENT	Working temp. range (Ta)	-25°C-50°C
	Max. Surface temp. on case (Tc)	85°C
	Working humidity	20%-85% non-condensing
	Storage temp./humidity	-40°C-80°C; humidity 10-95% non-condensing
	Life time	50,000 hours
PROTECTION	Isolation class	Class I
	Protection class	IP20
	Over voltage	300Vac, 2h
	Short circuit	Protection type; auto rest
	No load	Protection type; auto rest
	Over temperature	Protection type; auto rest
	Output hot-plug protection	Min 2 pcs of 3V LEDs on output
OTHERS	Safety	EN61347-1, EN61347-2-13
	EMC	EN55015, EN61000-3-2, EN61547, EN61000-3-2, EN61000-3-3
	Approvals	CE, RoHS
	Withstand voltage	IN(L,N)-OUT(SEC+,SEC-,1-10V): 3.75kVAC/5mA/60s IN(L,N)-GND: 1.5kVAC/5mA/60s OUT(SEC+,SEC-,1-10V)-GND: 500VAC/5mA/60s
	Dimension (LxHxW)	123x79x23.8mm
	Connection	Press-in type terminals, 0.5-1.5mm ² Input: L, N, PUSH, PE Output: SEC(+)SEC(-), 1-10V(+),1-10V(-)
	Memory function	Automatically stores last push dim setting
	Max synchronization	15 unit
	Weight	204g
	Lifetime	50 000 hours at 230VAC 100%

Note:

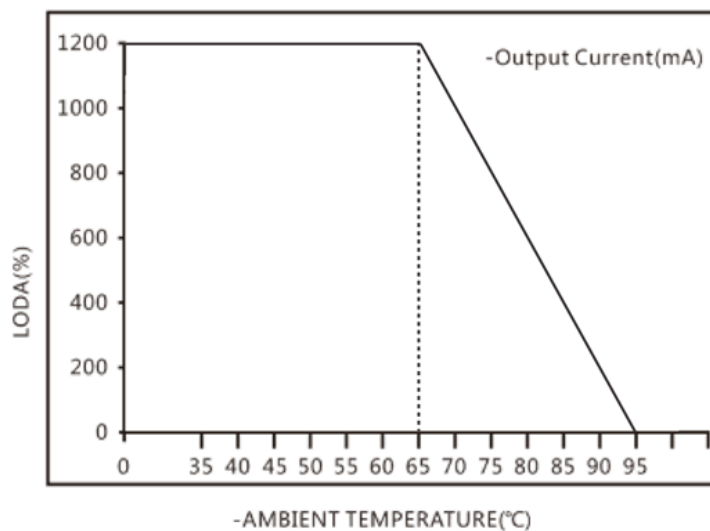
1. Power factor and efficiency is detected at 230VAC input and full load.
2. Standby power is detected at 230VAC input and switch off led load by push button.

Dimensions



unit:mm

Derating



Push and 1-10V dimming

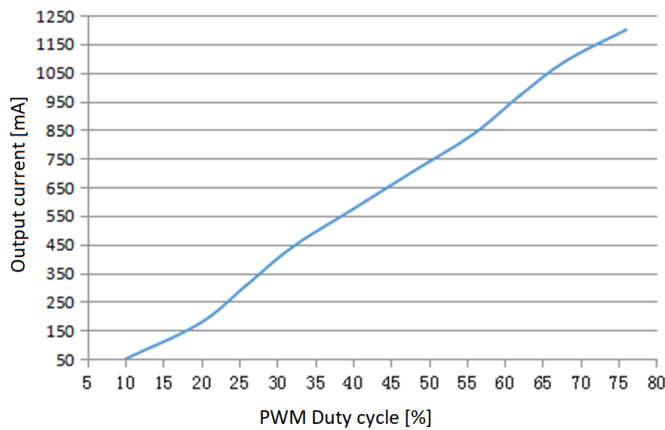
1) Push button switch for dimming (see wiring diagram, Fig A & B)

- ON/OFF: Short push (120ms~1sec) on the switch.
- Stepless dimming: Long push (>1sec) on the switch. With every other long push, the light level goes the opposite direction.
- Synchronization: Press and hold the button for at least 15 sec. The driver starts the light at 50% level, the system is now synchronized.

2) 1-10V dimming (see wiring diagram, Fig C)

The driver supports any active 1-10V dimmer. When the dimming signal is less than 0.8V~1V or short the dimming wires, the output of LED driver could be completely switch off.

PWM-dimming



Wiring diagram

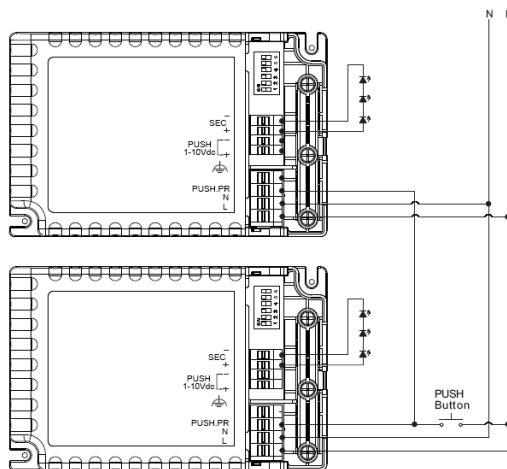


Fig. A Primary Push Dim

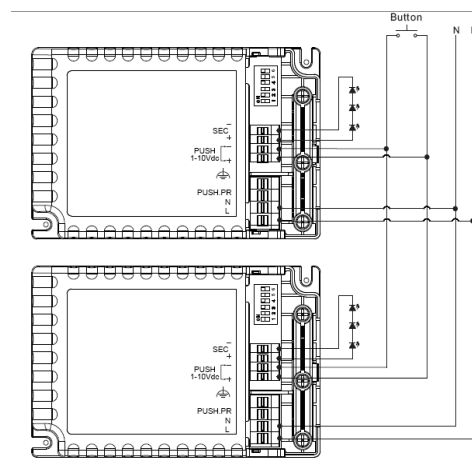


Fig. B Secondary Push Dim

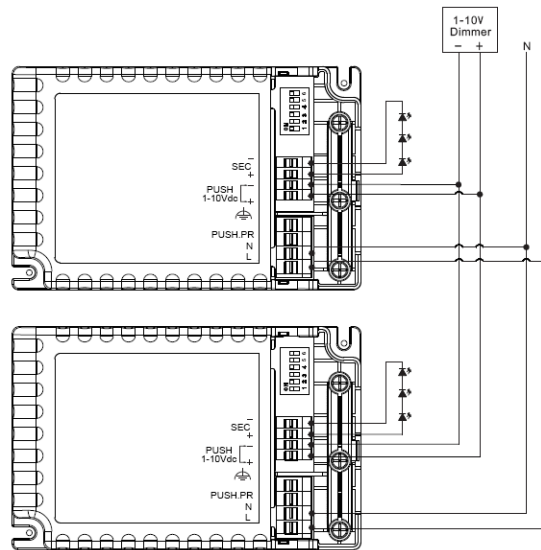


Fig. C 1-10V dim

DIP-switch settings

	1	2	3	4	5	6
24V	-	ON	ON	ON	ON	ON
12V	ON	-	ON	ON	ON	ON
1200mA	-	-	ON	ON	ON	ON
1050mA	-	-	ON	ON	ON	-
1000mA	-	-	ON	ON	-	ON
900mA	-	-	-	ON	ON	-
850mA	-	-	ON	ON	-	-
800mA	-	-	ON	-	-	ON
700mA	-	-	-	ON	-	-
650mA	-	-	ON	-	-	-
500mA	-	-	-	-	-	-