

SPECIFICATION

Product Name: Dimmable LED driver

Model No.: KL50C2-PV

Issue Date: January 6, 2025

CUSTOMER APPROVED

Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL50C2-PV LED driver		Design verification	2022-03-07
A1	KL50C2-PV LED driver	Change the logo	Mass production	2024-11-15
A2	KL50C2-PV LED driver	Update Automatic circuit breaker		2025-01-06

Specification for Dimmable LED Driver KL50C2-PV C.C.



- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- Secondary dimming with 0-10V dimmer
- Supports 10V PWM dimming (3KHz-8KHz)
- 0-10V port PUSH dimming
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function
- Push dim port with corridor function
- 5 year warranty

1. Parameters

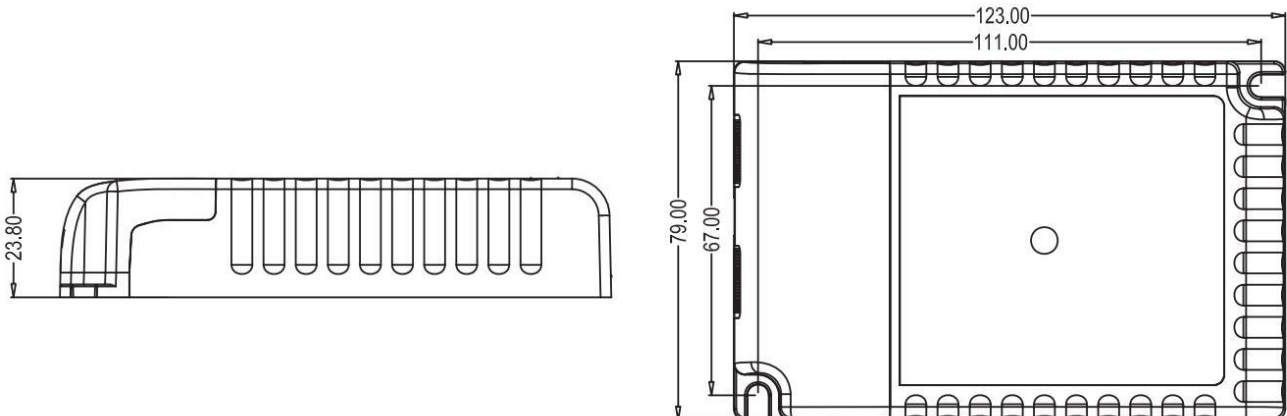
Input	Operating Voltage	198-264VAC 50Hz /60Hz						
	Rated Input Voltage	220-240VAC 50Hz /60Hz						
	DC Input Voltage range	200-240VDC						
	Input Current	0.28A Max.						
	Input Inrush Current	<15A (Half current pulse width 100US) @230VAC						
	Power Factor	≥0.9 (@230VAC Full load)						
	Total harmonic distortion	Typical: 13% (@230Vac Full load)						
	Stand-by Power	≤0.5W						
	Efficiency	89%Max. @230VAC (Full load)						
	Wiring Method	Push terminal, wire cross section:0.75-1.5mm ²						
	Automatic circuit breaker (Calculate current in the wire)	type	B10	B13	B16	B20	B25	/
Number		20	25	30	40	50	/	
type		C10	C13	C16	C20	C25	C32	
Number		28	40	45	55	70	90	

Output	Operating mode	Constant Current						
	Load type	LED						
	Ripple requirement (Flickering or flickering-Free)	Flicker value: less than 2% for whole dimming range						
	Start up time	<0.5s (@230Vac;Auxiliary has no output)						
	No-load output voltage	68VDC Max.						
	Load output voltage range	9-52VDC						
	Full load output power	OUT1+OUT2 : 50W Max.						
	Load output current	2*CC:350mA;500mA;550mA;700mA;750mA;900mA;						
	Constant current/voltage Precision	Constant Current Precision ±5%						
	Wiring method	Push terminal, wire cross section:0.5-1.5mm ²						

Control Method	Primary PUSH Dimming	Primary PUSH dimming (Max.lead length: 100M)
	1-10V Dimming	0-10V dimming (Port current<1MA) (Max.lead length: 20M)
	Dimming Range	3%-100%
	PWM Dimming	0-10V port PWM dimming (3KHZ-8KHZ)
	Potentiometer	Yes, 100kΩ
	Secondary PUSH dimming	Yes, Change factory settings
Exception Protection Requirements	Output over temperature protection	Yes, without self recovery function (Can be inquired)
	Over voltage protection	Yes, without self recovery function
	Output short circuit protection	Yes, self recovery function (Can be inquired)
Operating Environment	Operating temperature/ humidity	-25℃~50℃ Humidity:85% (Non-condensing)
	Storage temperature/ humidity	-40℃~80℃, Humidity:10% - 95%
	Max. case temp (Tc)	85℃
Safety & EMC	EMC standard	EN55015 EN61547 EN61000-3-2 EN61000-3-3
	Safety standard	EN61347-1 EN61347-2-13
	Certification	CE
	Withstand voltage	3750Vac, 5mA, 60s (Input "L N"- Output "SEC")
Others	Degrees of protection	IP20
	Type of protection	Class II
	Installation type	Independent installation
	Installation dimension	123*79*24mm
	Blackout memory function	Yes, PUSH blackout memory
	PUSH dimming synchronization	15 units .
	Packaging requirement	white box+ Instructions Clapboard Outer Carton (K=A)
	Weight	220g
	Life	50000h @Ta full load

Note: All parameters are tested at the input voltage of 230Vac and 25 degree environment unless specified.

2. Dimension (Unit: mm)



3. Wiring Diagram

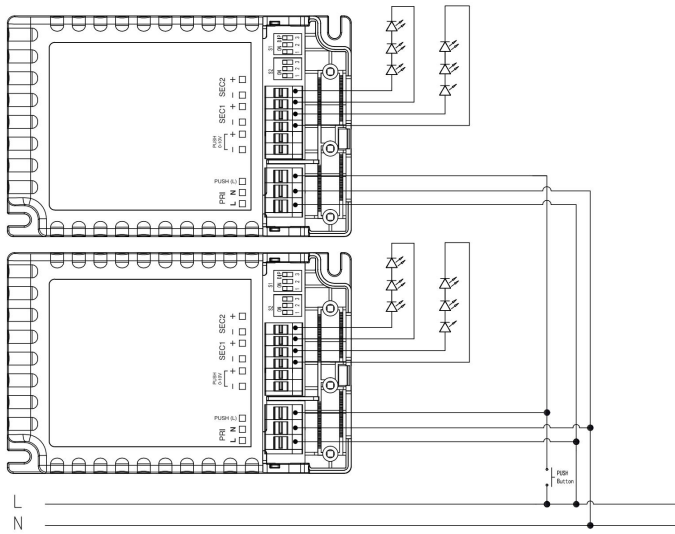


Fig. A Push Dimming or Corridor function

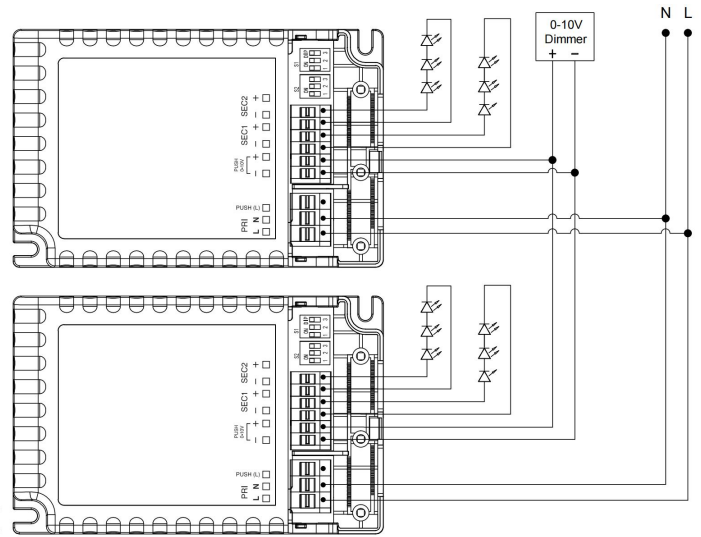


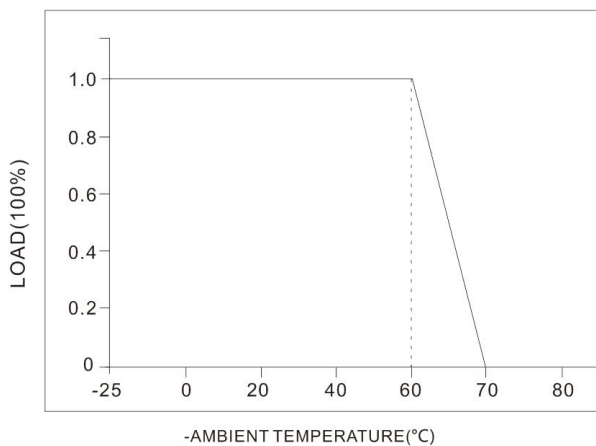
Fig. B 0-10V or Secondary PUSH

4. Current gear setting

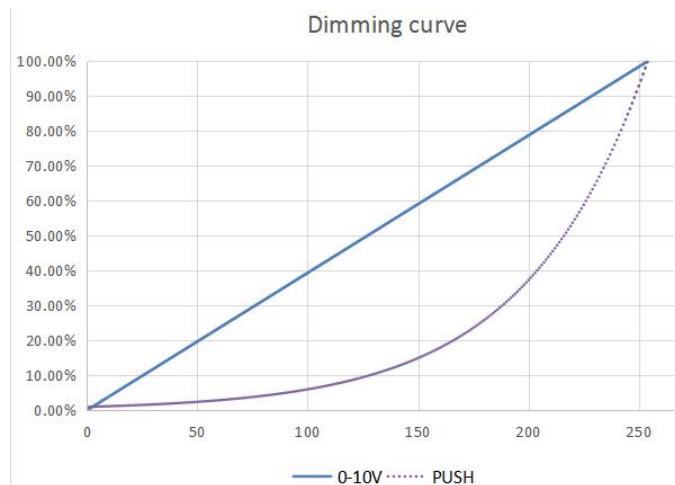
Current	OUT 1					OUT 2				
	voltage	Po (W)	1	2	3	voltage	Po (W)	1	2	3
350mA	9~50V	17.5	-	-	-	9~50V	17.5	-	-	-
500mA	9~50V	25	ON	-	-	9~52V	26	ON	-	-
550mA	9~45V	25	-	ON	-	9~52V	29	-	ON	-
700mA	9~36V	25	ON	ON	-	9~50V	35	ON	ON	-
750mA	9~33V	25	-	ON	ON	9~48V	36	-	ON	ON
900mA	9~28V	25	ON	ON	ON	9~40V	36	ON	ON	ON

Notice: The total power of the two outputs cannot exceed 50W; $P_{o1}+P_{o2} \leq 50W$

5. Derating



6. Dimming curve



7. ON/OFF & Description of Dimming Operation

- A. Brief push switches (< 1 s), LED driver ON or OFF. The brightness returns to the last dimming value.
- B. Press and hold the PUSH switch (1S~8S), the LED driver can achieve dimming; After pressing it again, the light changes in the opposite dimming directions.
- C. Push dimming has power-down memory and brightness memory.
- D. Dimming synchronization:
LED driver can synchronize to a 50% dimming level with a 15-second hold the push.
- E. Set fade times: Press push button to turn off lights, Then long press button, lights will turn on and dim. the time of long press will be saved to fade times. Turn of fade times function: Quickly press the PUSH switch 5 times within 3 seconds; Turn on fade times function: long press PUSH 15S.
- F. Corridor function: PUSH has an L signal greater than 60S, enter the corridor function, 100% brightness, 20% brightness, wait for 60S, and then turn off the lights. Brief push switches 5 times to exit the corridor function.
- G. Push button with indicator lights are not allowed.
- H. Secondary PUSH: The DIP switch “4” is closed; 0-10V: The red DIP switch “4” is open;

8. matters needing Attention

- 1) The LED string must be connected to the load before turning on the input power, otherwise the LED string may be damaged.