



SPECIFICATION

Product Name: **DALI 2 Dimmable LED driver**

Model No.: **KL10C-PDiIV**

Issue Date: **April 23, 2025**

CUSTOMER APPROVED	

Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL10C-PDiiV LED Driver		Design verification	2019-11-08
A1	KL10C-PDiiV LED Driver	fix bug		2023-06-08
A2	KL10C-PDiiV LED Driver	Change the logo		2024-08-24
A3	KL10C-PDiiV LED Driver	Update Automatic circuit breaker		2025-01-06
A4	KL10C-PDiiV LED Driver	Fix bug		2025-04-23

Specification for DALI 2 Dimmable LED Driver KL10C-PDiV C.C.



- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- Secondary dimming with 1-10V dimmer and potentiometer
- Built-in DALI interface DT6
- Supports 10V PWM dimming (3KHz-8KHz)
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function
- 5 year warranty

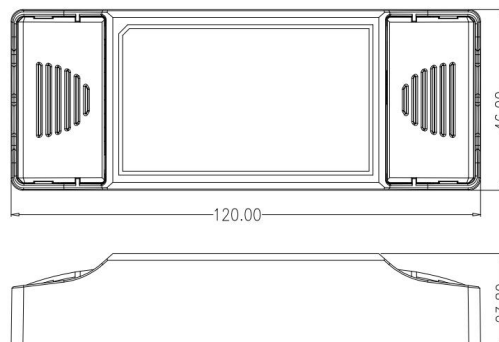
1. Parameters

Input	Voltage range	198~264Vac 50Hz /60Hz						
	Rated supply voltage	220~240Vac 50Hz /60Hz						
	DC voltage range	200~240Vdc						
	Input current	0.07A Max.@230Vac						
	Inrush Current	10A (Half current pulse width 100US) @230VAC						
	Power factor	≥ 0.9C (@230Vac,100% load)						
	Total harmonic distortion	Typical: 18% (@230Vac, 100% load)						
	Stand-by power	≤0.5W (@230Vac when PUSH or DALI turn off)						
	Efficiency	83%Max (@230Vac,100% 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		40	50	65	85	100	/	
type		C10	C13	C16	C20	C25	C32	
Number		70	90	110	140	170	220	
Output	Operating mode	Constant current						
	Load type	LED						
	Flickering / Flickering-Free	Flicker value: less than 2% for whole dimming range						
	Start up time	<1s (@230Vac)						
	Ripple current	±5% (@230Vac, 100% load: LED load)						
	No-load output voltage	55Vdc Max.						
	Load output voltage range	9-40Vdc						
	Full load output power	13W Max.						
	Load output current	100~440mA : For details<Current gear setting>						
	Constant current/voltage accuracy	Constant current accuracy ±5%						
	Wiring method	Push terminal, wire cross section:0.75-1.5mm ²						

Control Method	Primary PUSH Dimming	Primary PUSH dimming (Max. lead wire length: 20m)
	1-10V (0-10V) Dimming	1-10V dimming (Port current<1mA), (Max. lead wire length: 20m)
	Dimming Range	Primary PUSH & DALI dimming: 0%-100% 0&1-10V dimming: 0&2%-100%
	Secondary PWM dimming	1-10V port PWM dimming (3KHz-8KHz)
	Potentiometer	Yes, 100kΩ
	DALI function	DALI dimming (Max. lead wire length: 300m)
Exception Protection Requirements	Output over temperature protection	Yes, reset power on to recover
	Output short circuit protection	Yes, reset power on to recover
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
	DALI standard	IEC62386-102, IEC62386-207 DT6
	Safety standard	EN61347-1, EN61347-2-13
	Certification	ENEC SEMKO CB 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	120*46*23.8mm
	Memory function	Yes, (PUSH with memory function)
	PUSH dimming synchronization	15 units Max.
	Packaging requirements	Instruction+clapboard+outer carton (K=A)
	Weight	78g
	Life	5 years guarantee @Ta full load

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

2. Dimenon (Unit: mm)



3. Wiring Diagram

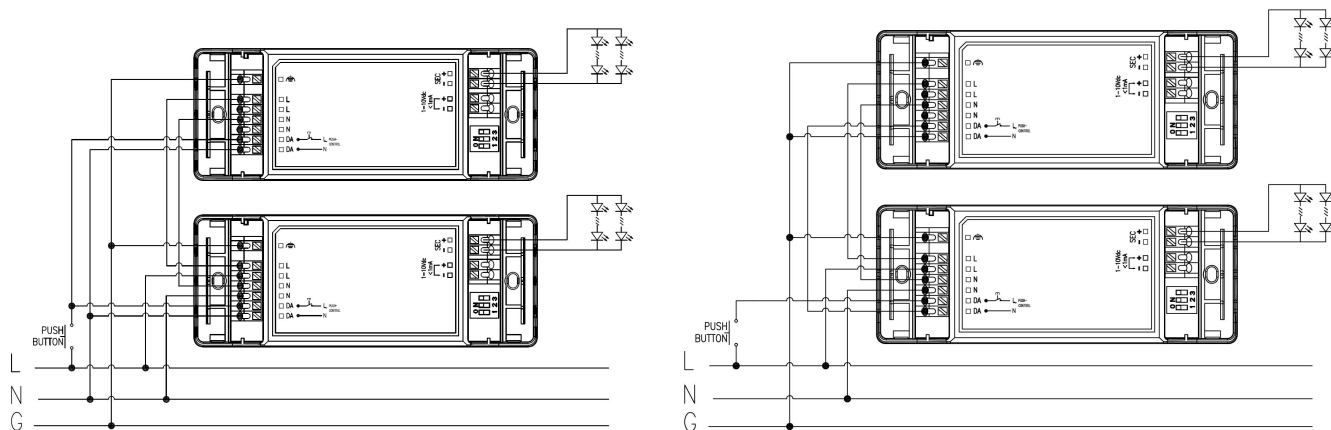


Fig. A Push Dimming

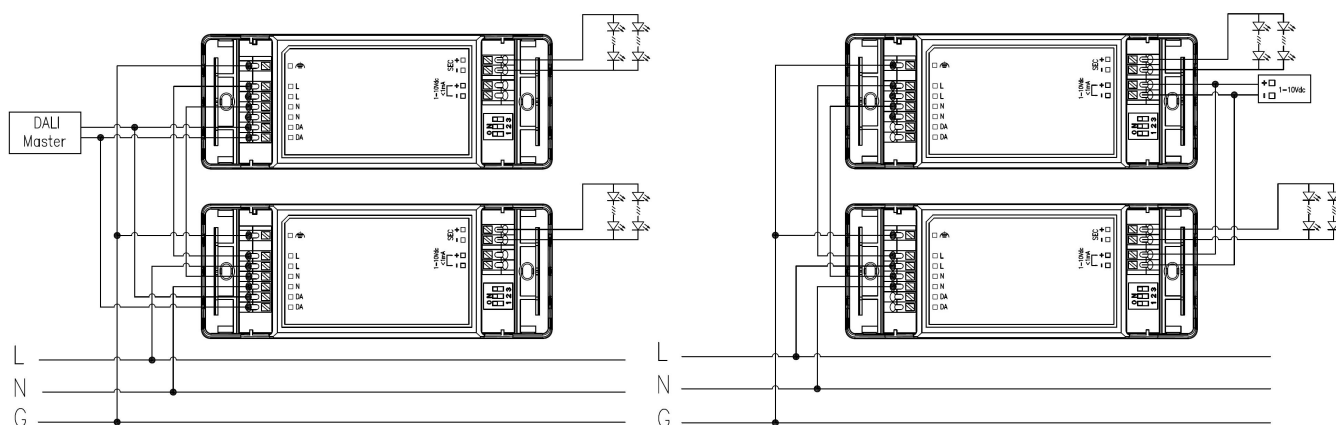
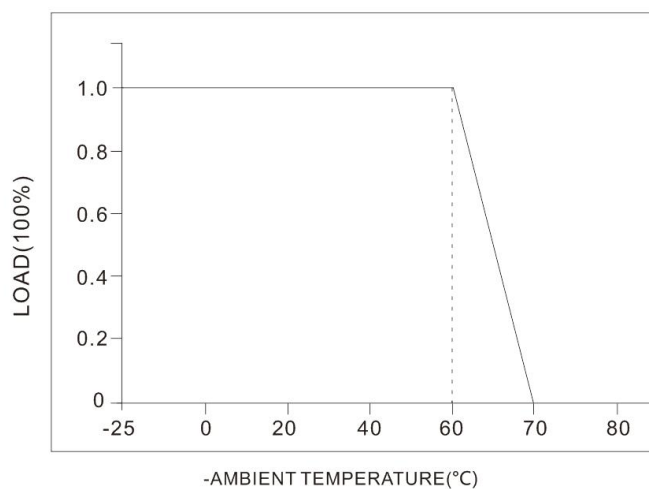


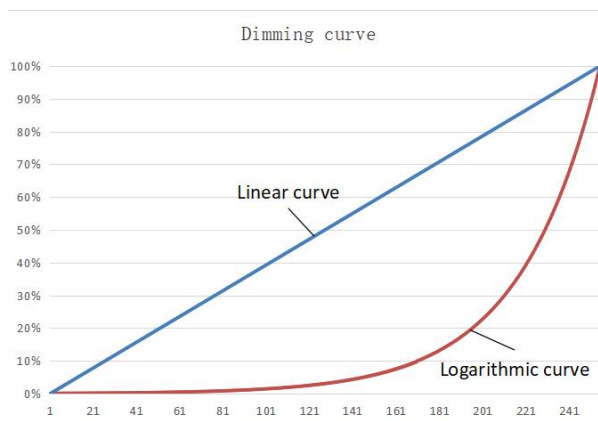
Fig. B DALI Dimming

Fig. C 1-10V Dimming

4. Derating



5. Dimming curve



6. Current gear setting:

Current(mA)	DIP			Pomax (W)	Uout (V)
	1	2	3		
100	—	—	—	4.0	9~ 40
180	ON	—	—	7.2	9~ 40
270	ON	ON	—	10.8	9~ 40
350	ON	—	ON	12.6	9~ 36
440	ON	ON	ON	11.9	9~ 27

7. ON/OFF & Description of Dimming Operation

- A. Short press the PUSH switch (short press time 0.1S-1S), the LED driver will turn on or off.
- B. Dimming: Press and hold the PUSH switch (1S-8S), the LED driver can achieve dimming, brightening or dimming, the dimming range is 2-100%.
- C. Memory: PUSH dimming has dimming memory function.
- D. Dimming synchronization: The power connected to the same PUSH switch can be synchronized by pressing and holding the PUSH switch for longer than 15S
- E. DALI dimming mode: Connect the power supply to the DALI system, and it can be dimmed by the DALI host. The dimming range is 0-100%.

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.
- 2) After the LED drive input is powered off, there will be a residual voltage at the output, which can be maintained for about 3 minutes.