



SPECIFICATION

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

Model No.: **KL25C-PDii3**

Issue Date: **January 6, 2025**

CUSTOMER APPROVED



Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL25C-PDii3 LED driver		Design verification	2021-12-31
A1	KL25C-PDii3 LED driver		Design verification	2022-06-07
A2	KL25C-PDii3 LED driver	Change the logo		2024-09-07
A3	KL25C-PDii3 LED driver	Update Automatic circuit breaker		2025-01-06

Specification for DALI 2 Dimmable LED Driver KL25C-PDii3 C.C.



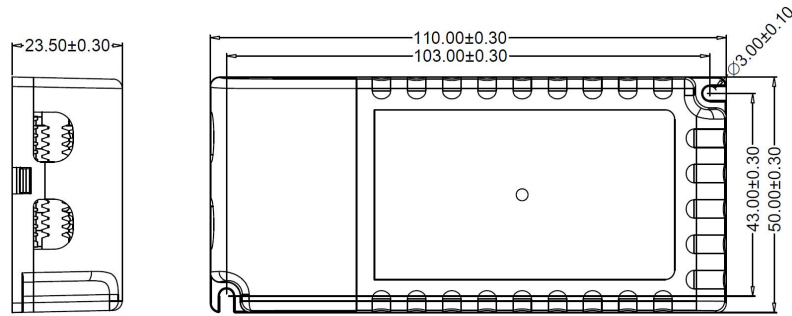
- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- Secondary dimming with 1-10V dimmer and 12V auxiliary power supply
- Supports 10V PWM dimming (3KHz-8KHz)
- Built-in DALI interface DT6
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function
- 5 year warranty

1. Parameters

Input	Operating Voltage	198-264VAC 50Hz /60Hz						
	Rated Input Voltage	220-240VAC 50Hz /60Hz						
	DC Input Voltage range	200-240VDC						
	Input Current	0.15A Max.						
	Input Inrush Current	<15A (Half current pulse width 100US) @230VAC						
	Power Factor	≥ 0.95 (@230Vac,100% load)						
	Total harmonic distortion	Typical: 15% (@230Vac, 100% load)						
	Stand-by Power	≤0.5W (@230Vac)						
	Efficiency	86%Max (@230Vac,100% load)						
	Wiring Method	Push terminal, wire cross section:0.75-1.0mm ²						
	Automatic circuit breaker (Calculate current in the wire)	type	B10	B13	B16	B20	B25	/
Number		25	35	45	50	65	/	
type		C10	C13	C16	C20	C25	C32	
Number		55	65	75	110	130	160	
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	<1s (@230Vac)						
	No-load output voltage	68VDC Max.						
	Load output voltage range	9-58VDC						
	Full load output power	25W Max.						
	Load output current	350MA(9-58V)500MA(9-50V)550MA(9-45V)700MA(9-36V)						
	Constant current/voltage Precision	Constant Current Precision ±5%						
	Wiring method	Push terminal, wire cross section:0.75-1.0mm ²						

Control Method	Primary PUSH Dimming	Primary PUSH dimming (Max.lead length: 20M)
	1-10V Dimming	1-10V dimming (Port current<1MA) (Max.lead length: 20M)
	Dimming Range	Primary PUSH & DALI dimming: 0%-100% 1-10V dimming: 2%-100% (Turn off below 1V)
Control Method	Primary PWM Dimming	1-10V port PWM dimming (3KHZ-8KHZ)
	Output auxiliary power port	12±0.6V Port load capability:50mA
	Sensor Dimming	Could be dimmable working with our sensor, match to PWM (3KHZ-8KHZ) or 1-10V..
	Wiring Method	Push Terminal, sensor port 3pin;
	Potentiometer	Yes, 100kΩ
	DALI Dimming	DALI dimming (Max.lead length: 300M)
Exception Protection Requirements	Output over temperature protection	Yes, without self recovery function (Can be inquired)
	Output short circuit protection	Yes, without 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
	DALI protocol standard	IEC62386-102 IEC62386-207 DT6
	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	110*50*23.5mm
	Blackout memory function	Yes, PUSH blackout memory
	PUSH dimming synchronization	Parallel: 15 units Max. Series: 25 units Max.
	Packaging requirement	white box+ Instructions Clapboard Outer Carton (K=A)
	Weight	140±5g
	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. Dimension (Unit: mm)



3. Wiring Diagram

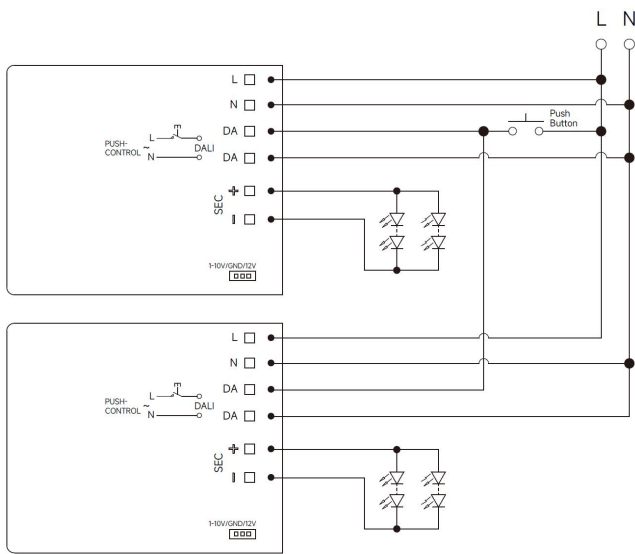


Fig. A: Push Dimming (Parallel)

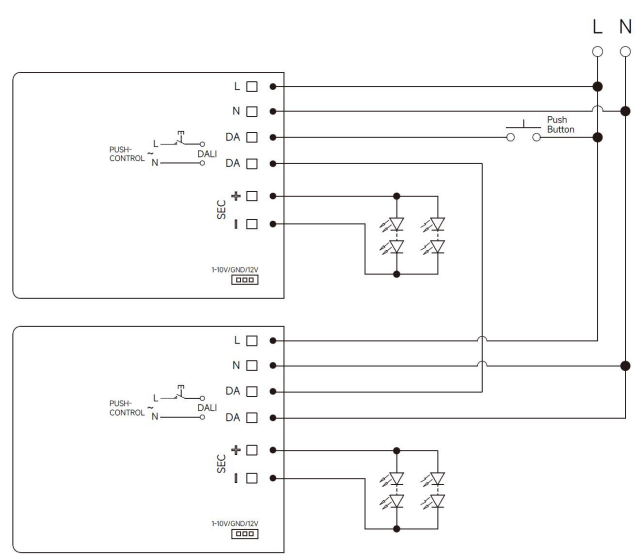


Fig. B: Push Dimming (series)

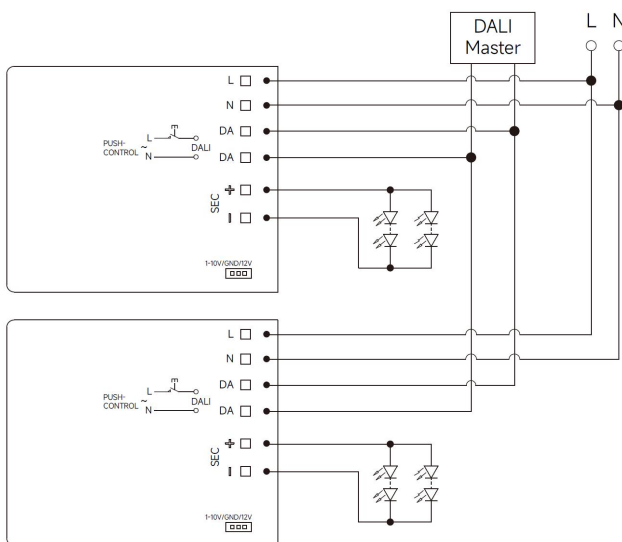


Fig. C: DALI Dimming

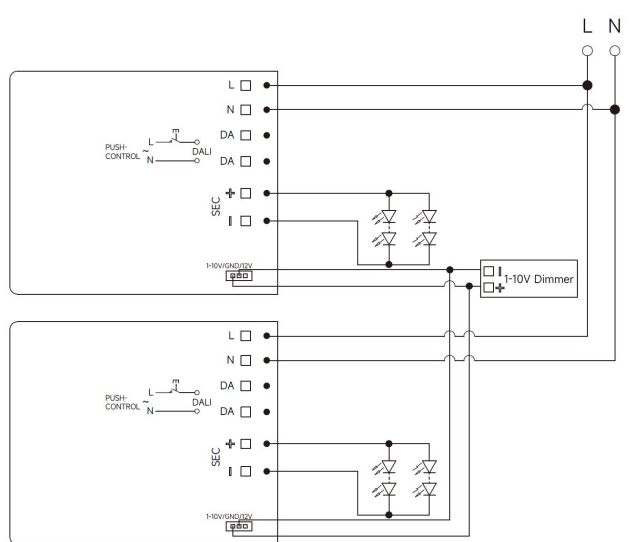


Fig. D: 1-10V Dimming

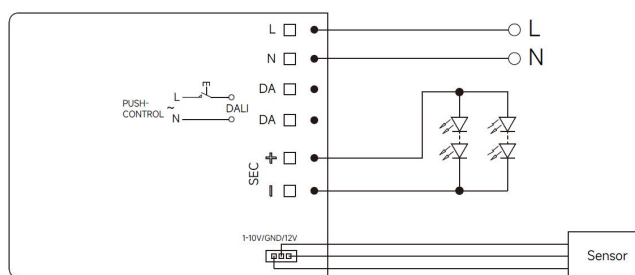
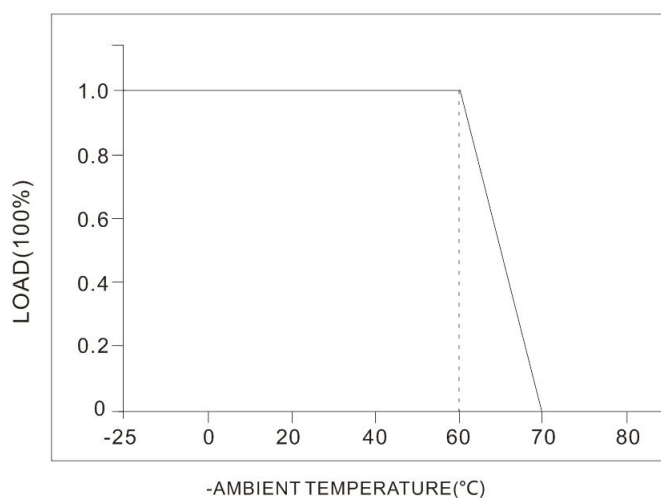
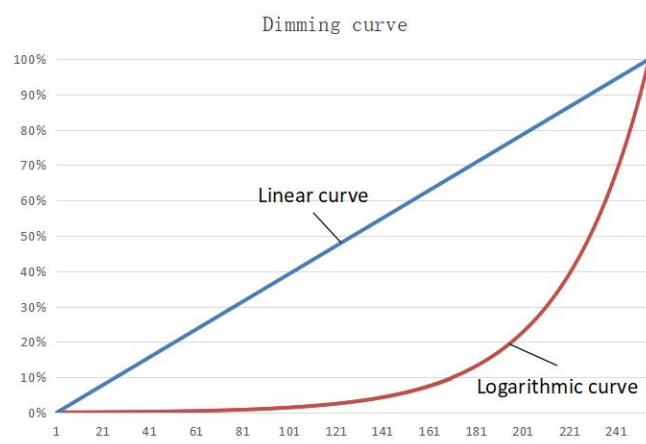


Fig. E: Sensor Dimming

4. Derating



5. Dimming curve



6. Current gear setting ● :ON ○ :OFF (SEC1 SEC2)

Current / voltage gear setting	1	2
350mA	○	○
500mA	●	○
550mA	○	●
700mA	●	●

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) Use the sensor, pay attention to the sensor interference; please test in the actual environment.