



SPECIFICATION

Product Name: DALI 2 Dimmable LED driver

Model No.: KL25C-PDiiV

Issue Date: January 6, 2025

CUSTOMER APPROVED	



Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL25C-PDiIV LED driver		Design verification	2024-06-05
A1	KL25C-PDiIV LED driver	Update Automatic circuit breaker		2025-01-06

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



- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- 1-10V dimming function
- Built-in DALI interface DT6
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function

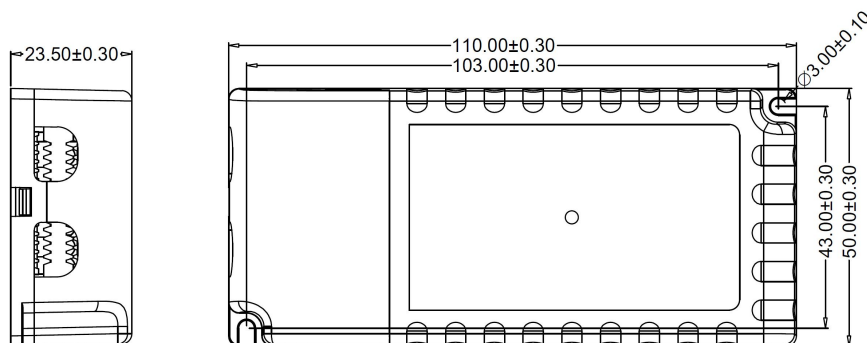
1. Parameters

Input	Voltage range	198~264Vac 50Hz/60Hz						
	Rated supply voltage	220~240Vac 50Hz/60Hz						
	DC voltage range	200~240Vdc						
	Input current	0.14A Max.@230Vac						
	Inrush Current	8A (Half current pulse width 50us) @230VAC						
	Power factor	≥0.95 (@230Vac, 500mA/45Vdc, 100% load)						
	Total harmonic distortion	Typical: 20% (@230Vac, 100% load)						
	Stand-by power	≤0.5W						
	Efficienc（@230Vac,100% load）	86%Max						
	Wiring method	Push terminal, wire cross section:0.75-1.0mm ²						
	Loop-in&Loop-out quantity	30PCS（@230Vac）						
	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						
	Flickering / Flickering-Free	Flickering-Free						
	Start up time	<1s (@230Vac)						
	Load output voltage range	9-58Vdc						
	Load output current	150mA(9-58Vdc) ,350mA(9-58Vdc), 550mA(9-45Vdc)						
	Full load output power	25W Max.						
	No load output voltage	72Vdc Max.						
Output	Output current/voltage tolerance	±5%						
	Wiring method	Push terminal, wire cross section:0.75-1.0mm ²						
Control Method	Primary PUSH Dimming	Primary PUSH dimming (Max. lead wire length: 20m)						
	Dimming Range	Primary PUSH & DALI dimming: 0%-100% 1-10V dimming: 2%-100%						

Control Method	DALI function	DALI dimming (Max. lead wire length: 300m)
	1-10V Dimming	1-10V
	Output auxiliary power port	12Vdc, 0.1A Max.
	Sensor Dimming port	1-10V
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% - 85% (Non-condensing)
	Max. case temp (Tc)	85℃
Safety & EMC	EMC standard	EN55015, EN61547, EN61000-3-2, EN61000-3-3
	DALI standard	IEC62386-102, IEC62386-207
	Safety standard	EN61347-1, EN61347-2-13
	Certification	CE
	Withstand voltage	3750Vac, 5mA, 60s (Input "L N"- Output "SEC") 1500Vac, 5mA, 60s (Input "L N"- "PE") 500Vac, 5mA, 60s (Input "PE"- Output "SEC")
Others	Degrees of protection	IP20
	Type of protection	Class I
	Installation type	Independent installation
	Installation dimension	110*50*23.5mm
	Memory function	Yes, (PUSH with memory function)
	PUSH dimming synchronization	Parallel: 15 units Max. Series: 25 units Max.
	Packaging requirements	PE bag + white-box + Instruction+clapboard+outer carton (K=A)
	Weight	140±5g
	Life	5 years @Ta 100% 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

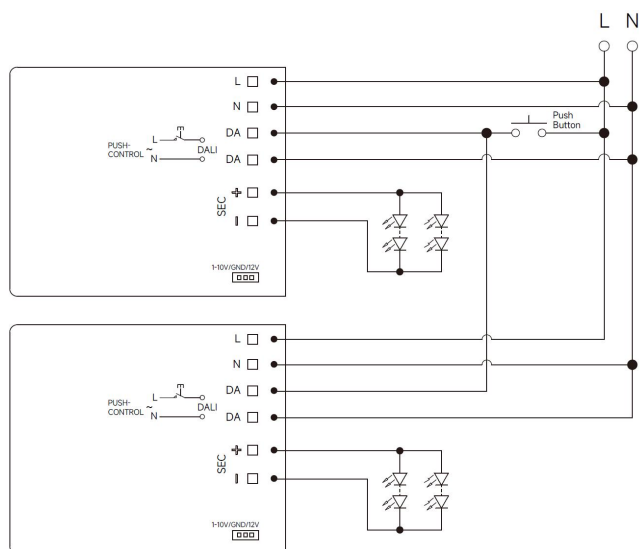


Fig. A: Push Dimming (Parallel)

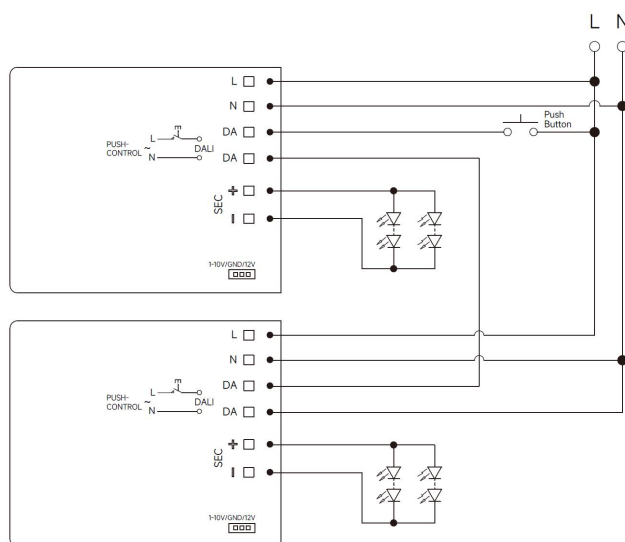


Fig. B: Push Dimming (series)

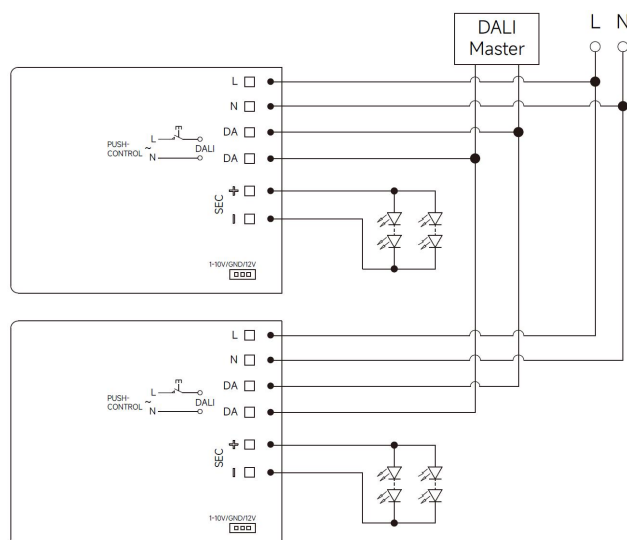


Fig. C: DALI Dimming

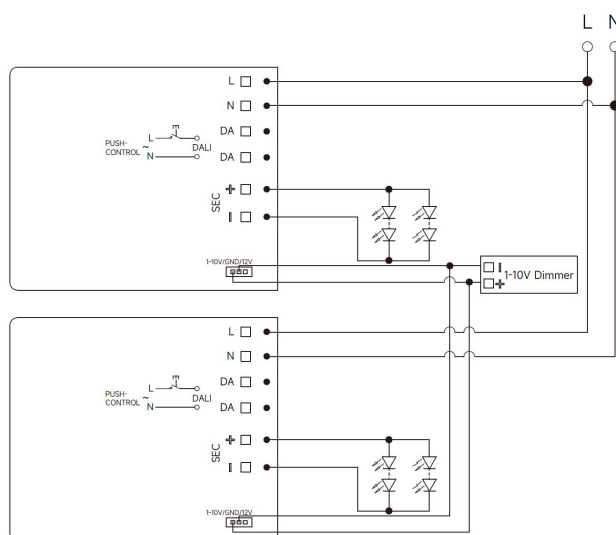


Fig. D: 1-10V Dimming

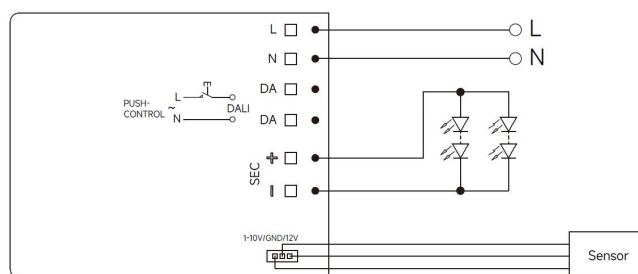
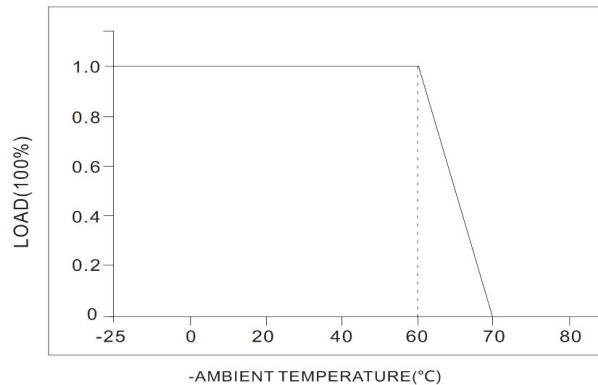
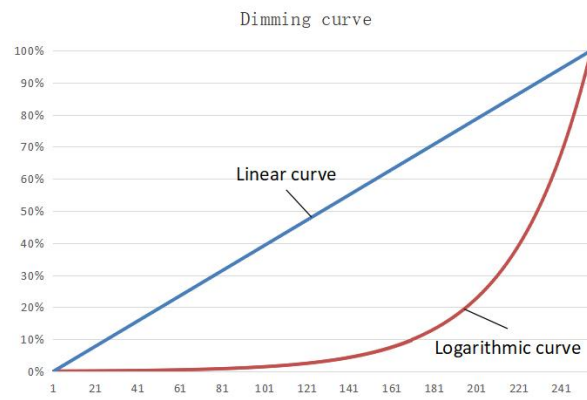


Fig. E: Sensor Dimming

4. Derating



5. Dimming curve



6. Current gear setting: ●: ON ○: OFF

Current gear setting	1	2
550mA (9-45Vdc)	●	●
350mA (9-48Vdc)	●	○
150mA (9-48Vdc)	○	○

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.