

SPECIFICATION

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

Model No.: **KL10C-PDii1**

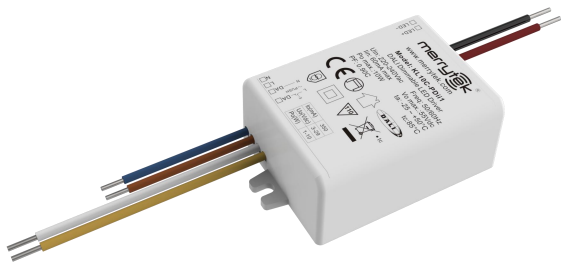
Issue Date: **January 6, 2025**

CUSTOMER APPROVED



Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL10C-PDii1 LED driver		Design verification	2022-11-09
A1	KL10C-PDii1 LED driver	Change the logo	Mass production	2024-07-23
A2	KL10C-PDii1 LED driver	Update Automatic circuit breaker		2025-01-06

Specification for DALI 2 Dimmable LED Driver KL10C-PDii1 C.C.



- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- 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

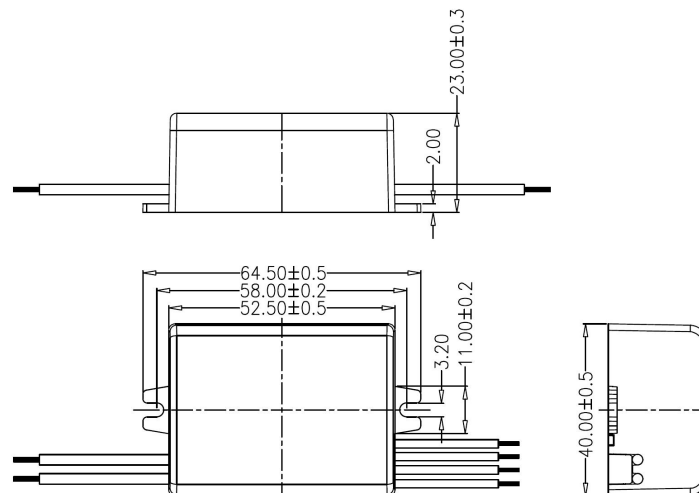
1. Parameters

Input	Models	150mA	200mA	250mA	300mA	350mA	700mA
	Operating Voltage	198-264VAC 50Hz /60Hz					
	Rated Input Voltage	220-240VAC 50Hz /60Hz					
	DC Input Voltage range	200-240VDC					
	Input Current	0.06A Max.					
	Input Inrush Current	<10A (Half current pulse width 100US) @230VAC					
	Power Factor	≥0.9C @230VAC (Full load)					
	Total harmonic distortion	Typical: 20% (@230Vac, 100% load)					
	Stand-by Power	≤0.5W (@230Vac)					
	Efficiency	83%Max. @230VAC (Full load)					
	Wiring Method	INPUT: AC:0.5mm ² DALI:0.5mm ² ;					
	Automatic circuit breaker (Calculate current in the wire)	type	B10	B13	B16	B20	B25 /
		Number	40	50	65	85	100 /
		Diameter	1.5mm ²	1.5mm ²	2.5mm ²	2.5mm ²	2.5mm ² /
		type	C10	C13	C16	C20	C25 C32
		Number	70	90	110	140	170 220
		Diameter	1.5mm ²	1.5mm ²	1.5mm ²	1.5mm ²	2.5mm ² 2.5mm ²
Output	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	55VDC Max.					
	Operating mode	150mA	200mA	250mA	300mA	350mA	700mA
	Load output voltage range	3-40V	3-40V	3-40V	3-33V	3-29V	3-14V
	Full load output power	0.45-6W	0.6-8W	0.7-10W	0.9-10W	1.05-10W	2-10W
	Load output current	Single Current					
	Output current/voltage tolerance	±5%					
	Wiring method	wirecross section:0.5mm ²					

Control Method	Primary PUSH Dimming	Primary PUSH dimming (Max.lead length: 20M)
	1-10V Dimming	NO
	Dimming Range	Primary PUSH & DALI dimming: 0%-100%
	Potentiometer	NO
	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 251 252 253
	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	64.5*40*23mm
	Blackout memory function	Yes, PUSH blackout memory
	PUSH dimming synchronization	15 units Max.
	Packaging requirement	white box+ Instructions Clapboard Outer Carton (K=A)
	Weight	80g
	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)



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3. Wiring Diagram

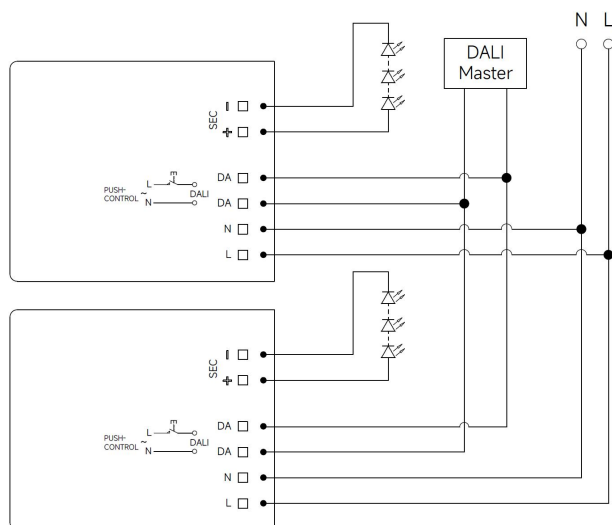


Fig.A DALI Dimming

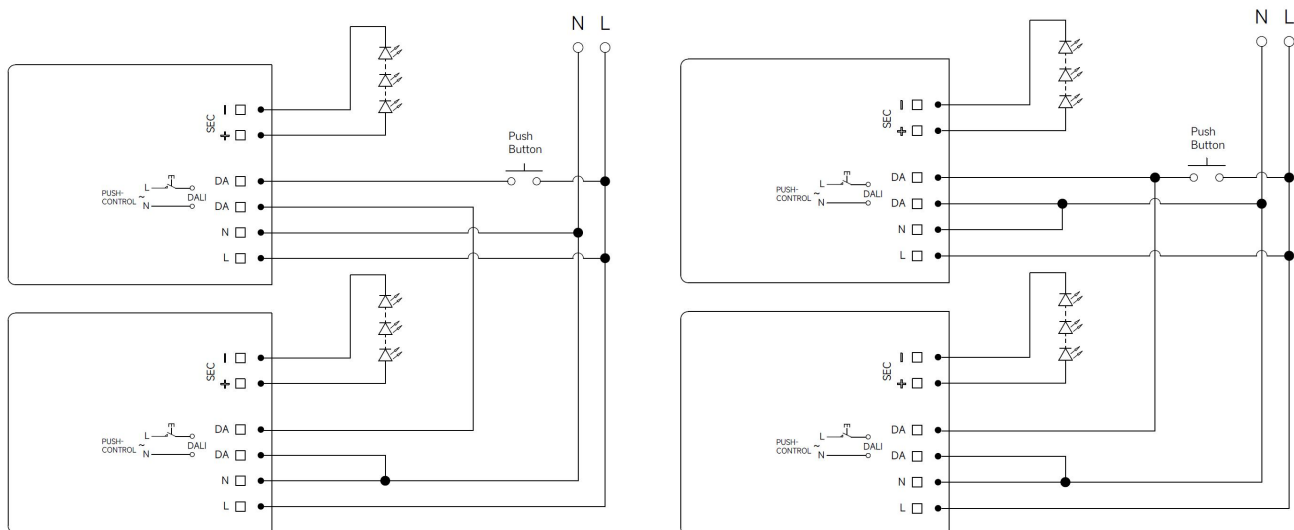
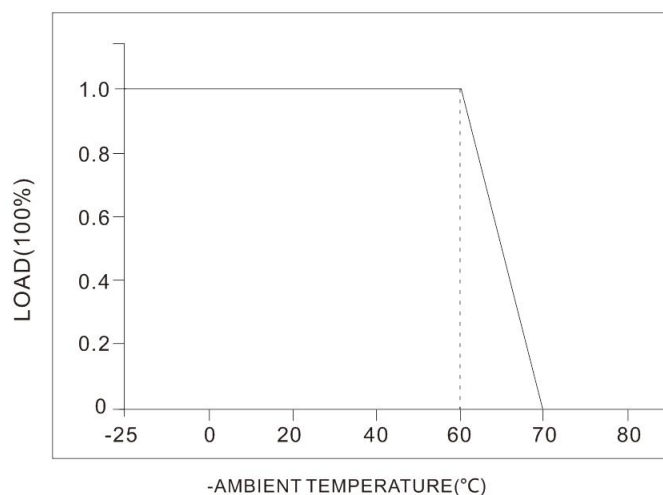
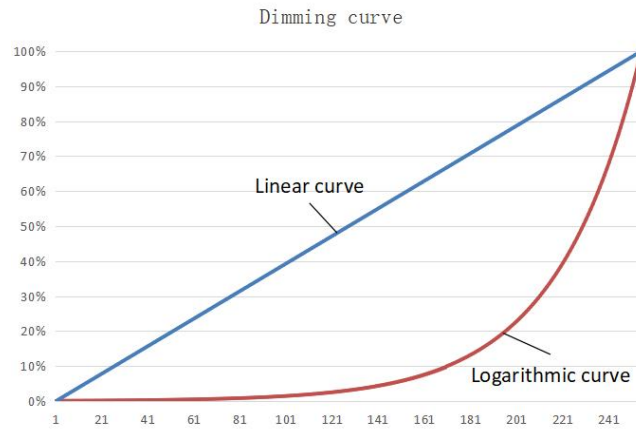


Fig.B Push Dimming

4. Derating



5. Dimming curve



6. 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%.

7. 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.