



# SPECIFICATION

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

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**Model No.:** KL10C-PDii

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**Issue Date:** 2023-12-5

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CUSTOMER      APPROVED

Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL10C-PDii LED driver		Design verification	2023-12-5

## Specification for DALI 2 Dimmable LED Driver KL10C-PDii C.C.



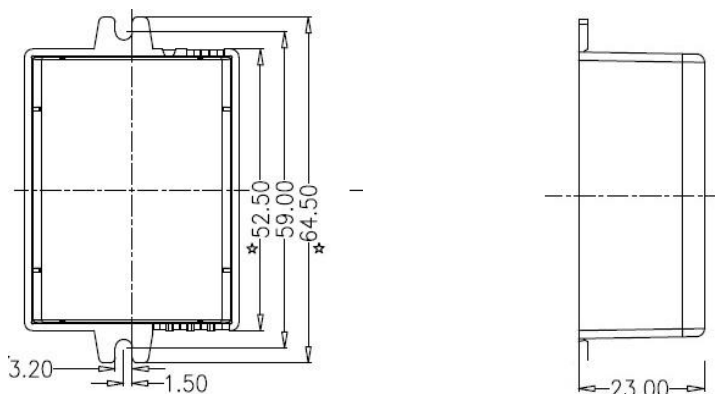
- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- Built-in DALI interface DT6
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function

### 1. Parameters

<b>Input</b>	Models	150mA	200mA	250mA	300mA	350mA	500mA	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	≥0.95 @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 <sup>2</sup> DALI:0.5mm <sup>2</sup> ;						
	Automatic circuit breaker	type	B10	B13	B16	B20	B25	
Number		70	80	105	130	160		
Diameter		1.5mm <sup>2</sup>	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>	2.5mm <sup>2</sup>	2.5mm <sup>2</sup>		
type		C10	C13	C16	C20	C25		
Number		40	50	65	85	100		
Diameter		1.5mm <sup>2</sup>	1.5mm <sup>2</sup>	1.5mm <sup>2</sup>	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>		
<b>Output</b>	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	48VDC Max.						
	Operating mode	150mA	200mA	250mA	300mA	350mA	500mA	700mA
	Load output voltage range	3-40V	3-40V	3-40V	3-33V	3-28V	3-21V	3-14V
	Full load output power(W)	0.45-6.0	0.6-8.0	0.7-10	0.9-9.9	1.05-9.8	1.5-10	2.1-10
	Load output current	Single Current						
	Output current/voltage tolerance	±5%						

	Wiring method	wirecross section:0.5mm <sup>2</sup>
<b>Control Method</b>	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)
<b>Exception Protection Requirements</b>	Output over temperature protection	Yes, without self recovery function (Can be inquired)
	Output short circuit protection	Yes, without self recovery function (Can be inquired)
<b>Operating Environment</b>	Operating temperature/ humidity	-25℃~50℃ Humidity:85% (Non-condensing)
	Storage temperature/ humidity	-40℃~80℃, Humidity:10% - 95%
	Max. case temp (Tc)	85℃
<b>Safety &amp; EMC</b>	EMC standard	EN55015 EN61547 EN61000-3-2 EN61000-3-3
	DALI protocol standard	IEC62386-102 IEC62386-207 DT6 251 253
	Safety standard	EN61347-1 EN61347-2-13
	Certification	CE
	Withstand voltage	3750Vac, 5mA, 60s (Input "L N"- Output "SEC")
<b>Others</b>	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	20 units Max.
	Packaging requirement	white box+ Instructions Clapboard Outer Carton (K=A)
	Weight	80g
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

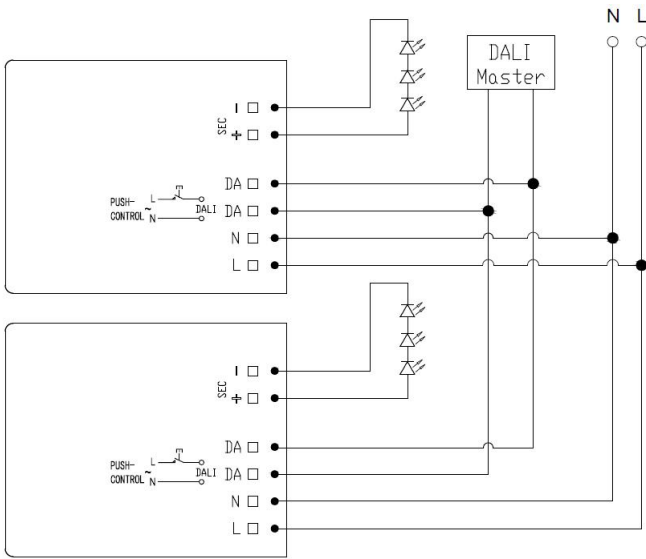


Fig. A DALI Dimming

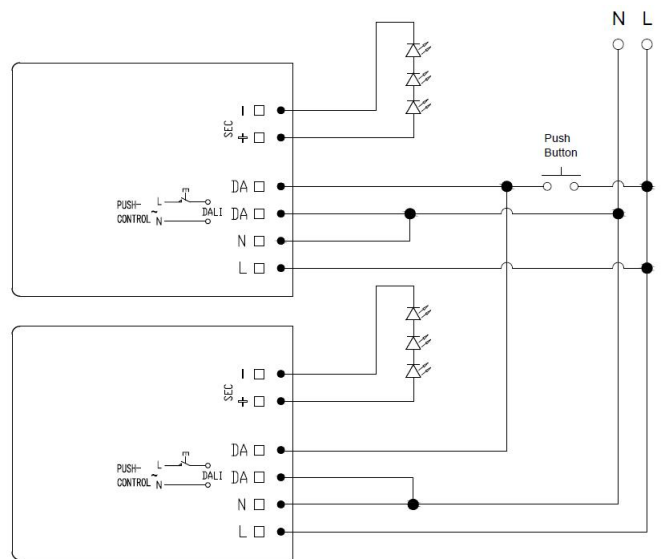
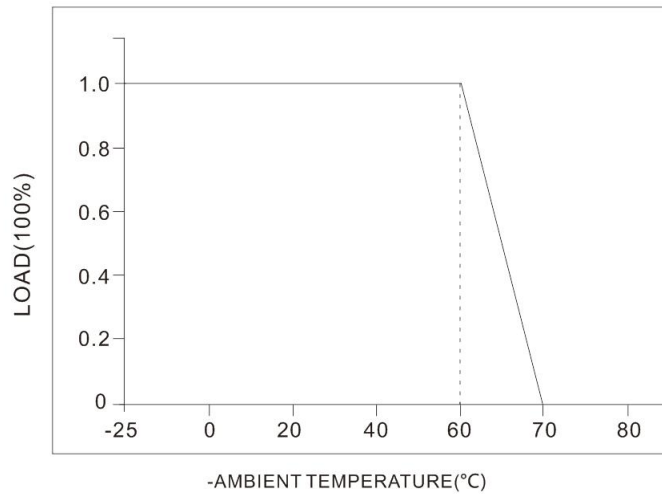
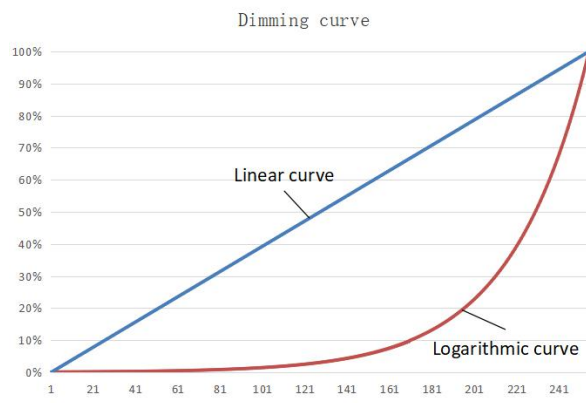


Fig. B Push Dimming

### 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%.

## 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.