



SPECIFICATION

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

Model No.: **KL46C-PDii**

Issue Date: **January 6, 2025**

CUSTOMER APPROVED



Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL46C-PDii LED driver		Design verification	2022-09-20
A1	KL46C-PDii LED driver	Change the logo		2024-08-24
A2	KL46C-PDii LED driver	Update Automatic circuit breaker		2025-01-06

Specification for DALI 2 Dimmable LED Driver KL46C-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; DT19
- CLO compensation
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function
- 5 year warranty

1. Parameters

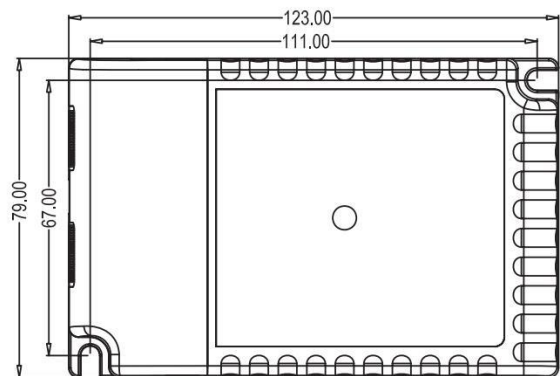
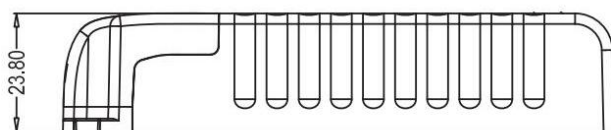
Input	Operating Voltage	198-264VAC 50Hz /60Hz						
	Rated Input Voltage	220-240VAC 50Hz /60Hz						
	DC Input Voltage range	200-240VDC						
	Input Currtent	0.23A Max.						
	Input Inrush Current	<20A (Half current pulse width 100US) @230VAC						
	Power Factor	≥0.95 @230VAC (Full load)						
	Total harmonic distortion	Typical: 13% (@230Vac, 100% load)						
	Stand-by Power	≤0.5W (@230Vac)						
	Efficiency	87%Max. @230VAC (Full 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	20	25	30	40	50	/
type		C10	C13	C16	C20	C25	C32	
Number		30	43	50	60	80	100	

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	<0.7s (@230Vac)			<0.5s (@ DC Input)		
	No-load output voltage	68VDC Max.					
	Load output voltage range	9-53VDC					
	Full load output power	46W Max.					
	Load output current	700~1050mA : For details<Current gear setting>					
	Output current/voltage tolerance	±5%					
	Wiring method	Push terminal, wire cross section:0.75-1.5mm 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, with self recovery function (Can be inquired)
	Output short circuit protection	Yes, with 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 251 253 220(DT19)
	Safety standard	EN61347-1 EN61347-2-13
	Certification	ENEC 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	123*79*24mm
	Blackout memory function	Yes, PUSH blackout memory
	PUSH dimming synchronization	15 units Max.
	Packaging requirement	white box+ Instructions Clapboard Outer Carton (K=A)
	Weight	155g
	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

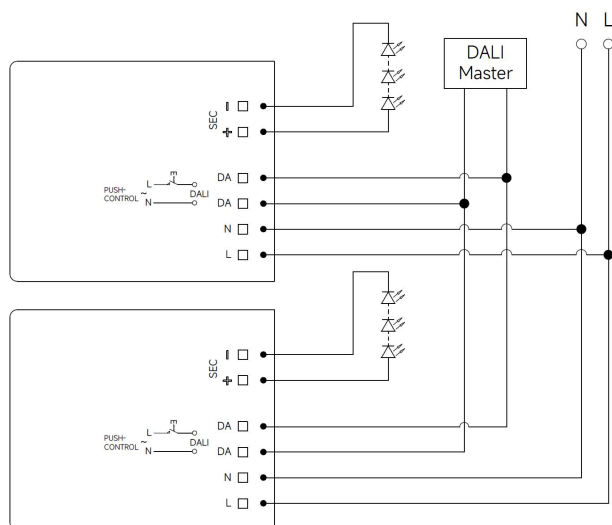


Fig.A DALI Dimming

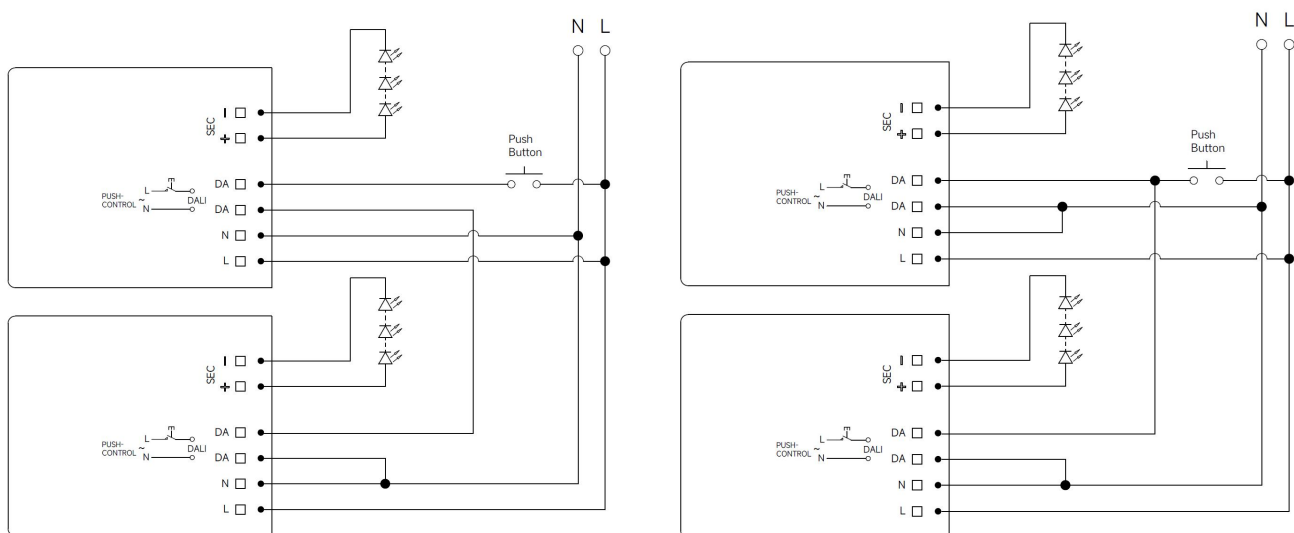
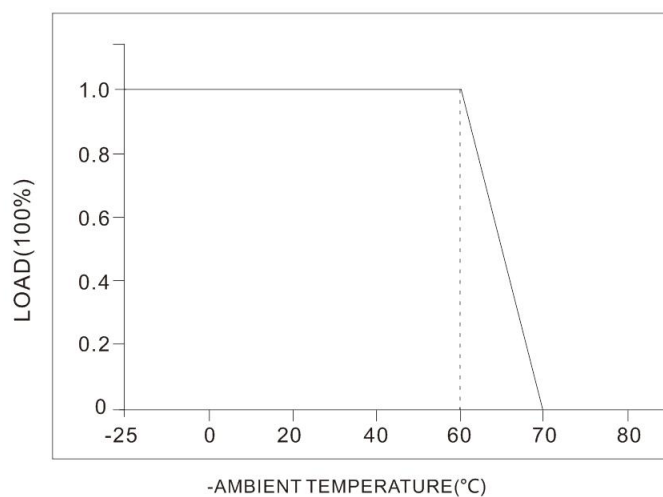
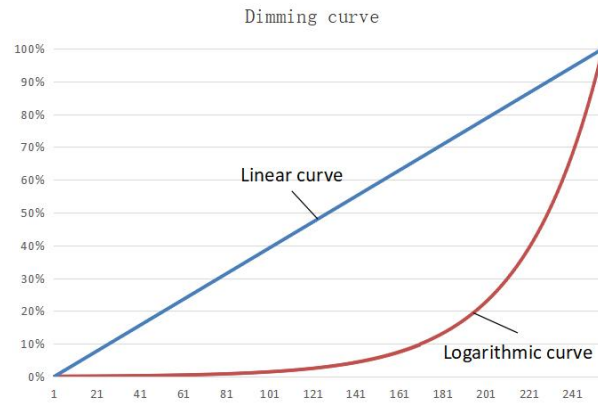


Fig.B Push Dimming

4. Derating



5. Dimming curve



6. Current gear setting:

Current(mA)	DIP			Pomax (W)	Uout (V)
	1	2	3		
700	—	—	—	37.1	9~ 53
750	ON	—	—	39.8	9~ 53
800	—	ON	—	42.4	9~ 53
850	ON	ON	—	45.1	9~ 53
900	—	—	ON	45.0	9~ 50
950	ON	—	ON	45.6	9~ 48
1000	—	ON	ON	46.0	9~ 46
1050	ON	ON	ON	46.2	9~ 44

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.