

SPECIFICATION

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

Model No.: **KL40CC-PDii**

Issue Date: **May 15, 2025**

CUSTOMER APPROVED

Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL40CC-PDii LED driver		Design verification	2023-03-06
A1	KL40CC-PDii LED driver	Change the logo		2024-07-17
A2	KL40CC-PDii LED driver	Update Automatic circuit breaker		2025-01-06
A3	KL40CC-PDii LED driver	Fix Bug		2025-03-22
A4	KL40CC-PDii LED driver	Add color temperature adjustment methods		2025-05-15

Specification for DALI 2 Dimmable LED Driver KL40CC-PDii C.C.



- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- Built-in DALI interface DT8
- Centrally-supplied DC emergency operation DT19
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function
- 5 year warranty

1. Parameters

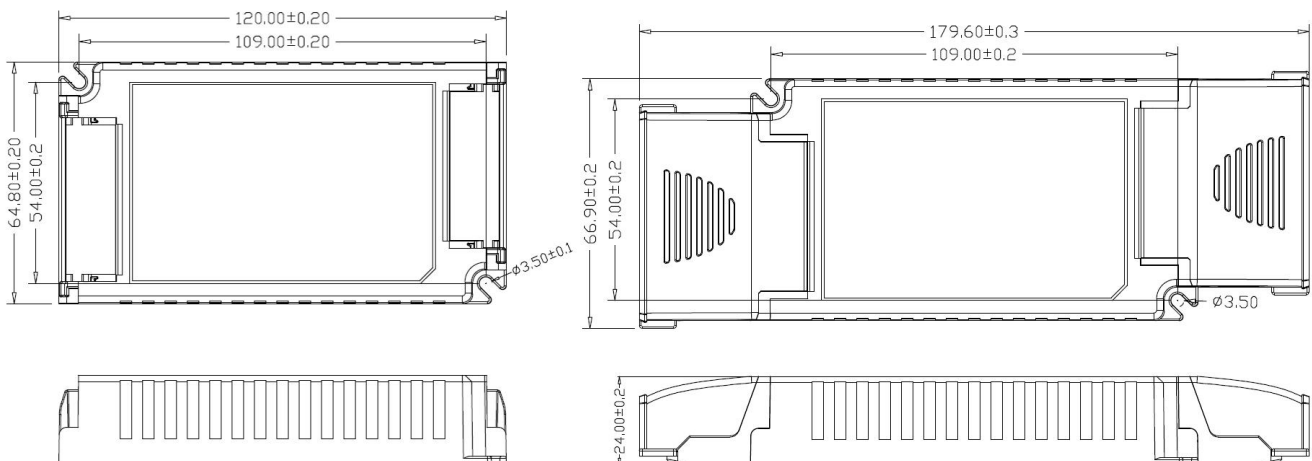
Input	Operating Voltage	198-264VAC 50Hz /60Hz						
	Rated Input Voltage	220-240VAC 50Hz /60Hz						
	DC Input Voltage range	200-240VDC						
	Input Cuttent	0.21A Max.						
	Input Inrush Current	<15A (Half current pulse width 100US) @230VAC						
	Power Factor	≥0.95 @230VAC （Full load）						
	Total harmonic distortion	Typical: 13% （@230Vac, 100% load）						
	Stand-by Power	≤0.5W （@230Vac）						
	Efficiency	86%Max. @230VAC （Full load）						
	Wiring Method	Push terminal, wire cross section:0.75-1.5mm ²						
	Loop-in&Loop-out quantity	22PCS （@230Vac）						
	Automatic circuit breaker (Calculate current in the wire)	type	B10	B13	B16	B20	B25	/
Number		20	25	30	45	50	/	
type		C10	C13	C16	C20	C25	C32	
Number		35	48	55	70	90	110	

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	12-50VDC						
	Full load output power	40W Max.						
	Load output current	500~1050mA : For details<Current gear setting>						

Output	Constant current/voltage Precision	Constant Current Precision $\pm 5\%$
	Wiring method	Push terminal, wire cross section: $0.75-1.5\text{mm}^2$
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	$-25^{\circ}\text{C}\sim 50^{\circ}\text{C}$ Humidity:85% (Non-condensing)
	Storage temperature/ humidity	$-40^{\circ}\text{C}\sim 80^{\circ}\text{C}$, Humidity:10% - 95%
	Max. case temp (T_c)	85°C
Safety & EMC	EMC standard	EN55015 EN61547 EN61000-3-2 EN61000-3-3
	DALI protocol standard	IEC62386-101 / 102 / 207 DT6 / 209 DT8 / 220 DT19
	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
	Built-in installation	$120*64.8*24\text{mm}$
	Independent installation	$179.6*66.9*24\text{mm}$
	Blackout memory function	Yes, PUSH blackout memory
	PUSH dimming synchronization	15 units Max.
	Packaging requirement	white box+ Instructions Clapboard Outer Carton (K=A)
	Weight	150g
	Life	5 year @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

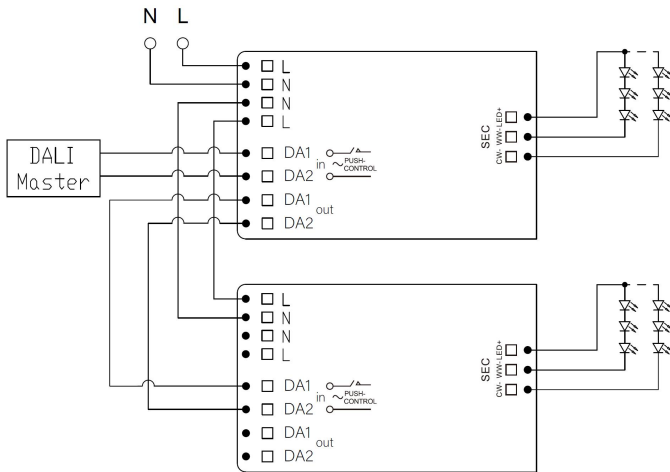


Fig.A DALI Dimming

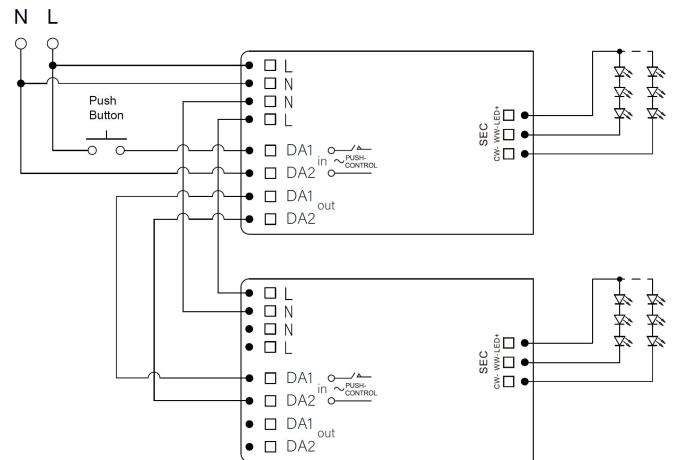
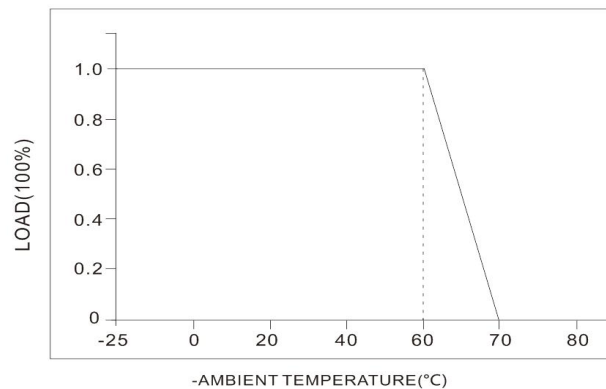
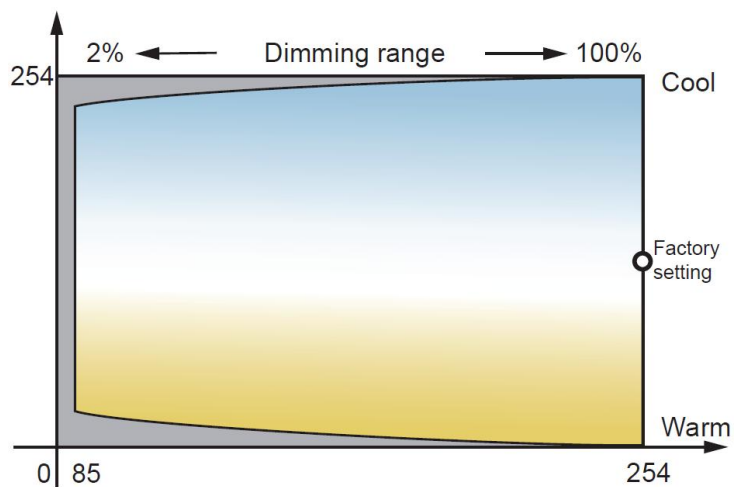
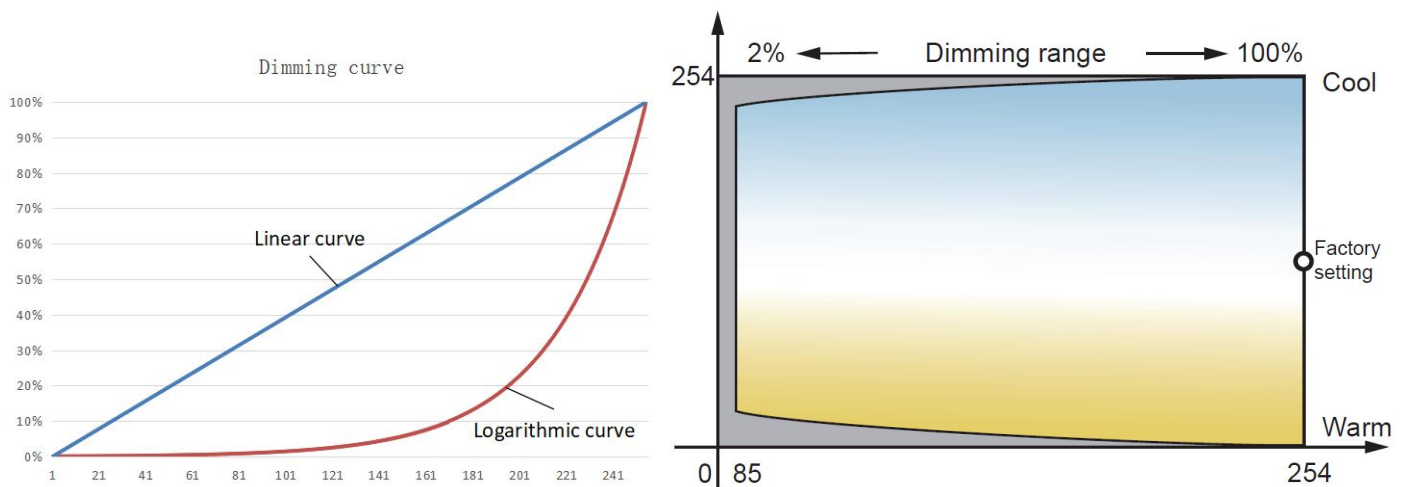


Fig. B Push Dimming

4. Derating



5. Dimming curve



6. Current gear setting:

Current (mA)	DIP				Pomax (W)	Uout (V)
	1	2	3	4		
500	–	–	–	–	25.0	12~ 50
550	ON	–	–	–	27.5	12~ 50
600	–	ON	–	–	30.0	12~ 50
650	ON	ON	–	–	32.5	12~ 50
700	–	–	ON	–	35.0	12~ 50
750	ON	–	ON	–	37.5	12~ 50
800	–	ON	ON	–	40.0	12~ 50
850	ON	ON	ON	–	40.0	12~ 47
900	–	–	ON	ON	39.6	12~ 44
950	ON	–	ON	ON	39.9	12~ 42
1000	–	ON	ON	ON	40.0	12~ 40
1050	ON	ON	ON	ON	39.9	12~ 38

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. Color temperature adj:

Step 1, PUSH turns off the lights; Step 2, press and hold PUSH to adjust the color temperature starting from the current brightness; Release PUSH, press and hold PUSH again, and adjust the color temperature in the opposite direction; No operation for 5 seconds, exit color adjustment mode.

D. Memory: PUSH dimming has dimming memory function.

E. Dimming synchronization: The power connected to the same PUSH switch can be synchronized by pressing and holding the PUSH switch for longer than 15S

F. 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.