

SPECIFICATION

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

Model No.: **KL45C-PDii**

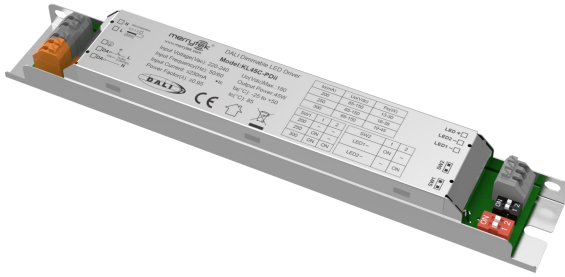
Issue Date: **September 9, 2025**

CUSTOMER APPROVED



Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL45C-PDii LED driver		Design verification	2025-06-18
A1	KL45C-PDii LED driver	Update parameters	Design verification	2025-09-09

Specification for DALI 2 Dimmable LED Driver KL45C-PDii C.C.



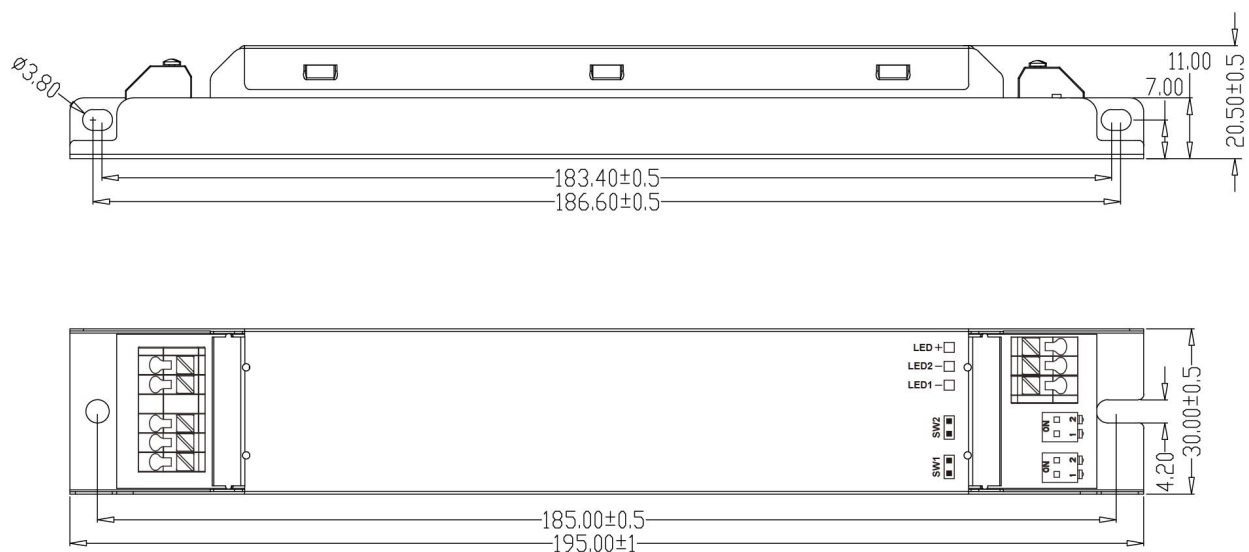
- Flicker-free for whole dimming range
- Built-in DALI interface DT6
- Centrally-supplied DC emergency operation DT19
- Primary dimming with push button; with memory function
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- DIP setting CW、WW color temperature output
- 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 Current	0.23A Max.						
	Input Inrush Current	<15A (Half current pulse width 100US) @230VAC						
	Power Factor	≥0.95 @230VAC (Full load)						
	Total harmonic distortion	Typical: 15% (@230Vac, 100% load)						
	Stand-by Power	≤0.5W (@230Vac)						
	Efficiency	92%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	40	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	180V DC Max.						
	Load output voltage range	65-150V DC						
	Full load output power	45W Max.						
	Load output current	200~350mA : For details<Current gear setting>						
	Constant current/voltage Precision	Constant Current Precision ±5%						
	Wiring method	Push terminal, wire cross section: 0.5-1.5mm ²						

Control Method	Primary PUSH Dimming	Primary PUSH dimming (Max.lead length: 20M)
	Dimming Range	Primary PUSH & DALI dimming: 2%-100%
	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 / 220 DT19 / 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 I
	Built-in installation	195*30*21mm
	Blackout memory function	Yes, PUSH blackout memory
	PUSH dimming synchronization	Parallel: 15 units Max. Series: 25 units Max.
	Packaging requirement	PE bag+white box+Instructions+Clapboard+Outer Carton (K=A)
	Weight	126.8±5g
	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)



3. Wiring Diagram

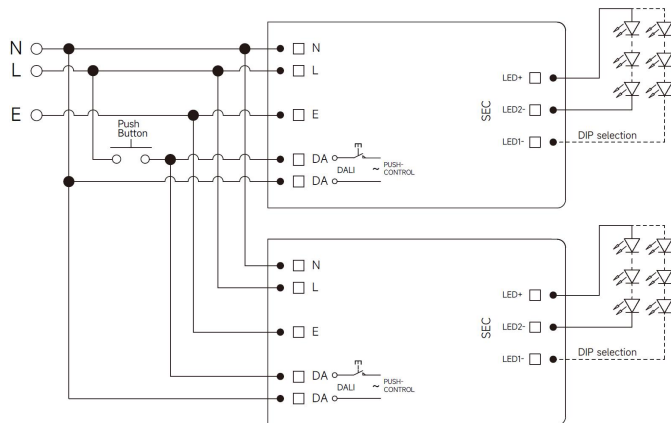


Fig. A: Push Dimming (Parallel)

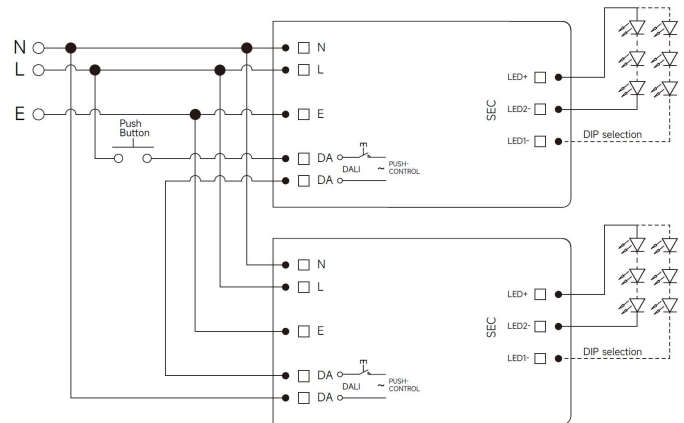


Fig. B: Push Dimming (series)

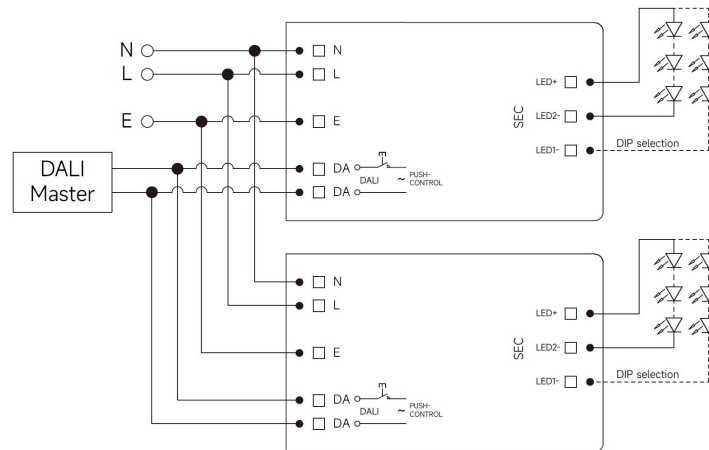
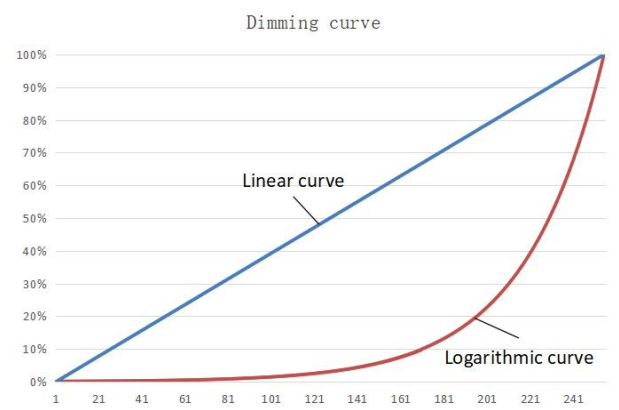
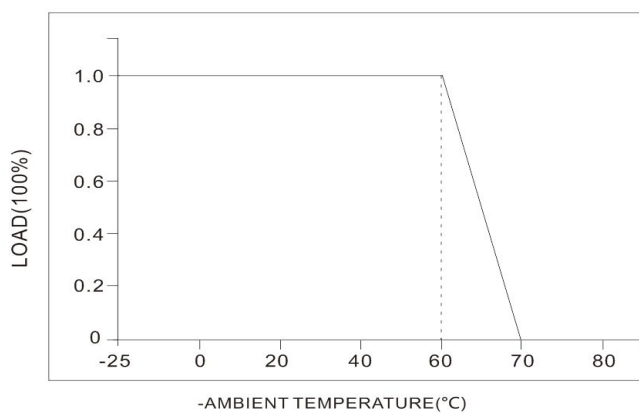


Fig. C: DALI Dimming

4. Derating & Dimming curve



5. Current gear setting:

Current (mA)	SW1		Pomax (W)	Uout (V)
	1	2		
200	–	–	30.0	65~ 150
250	ON	–	37.5	65~ 150
300	–	ON	45.0	65~ 150
350	ON	ON	45.2	65~ 129

6. Output port setting:

SW2		Output port
1	2	
ON	–	LED1–
–	ON	LED2–
ON	ON	LED1– & LED2–

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: Set SW2 DIP switch, selection of three different color temperature.
- 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.
- 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.
- 3) When the LED light board is aluminum substrate and access ground wire, a 18kΩ resistor can be connected in parallel with each string of lamp beads to solve the glow phenomenon after power off.