

SPECIFICATION

Product Name: DALI 2 Dimmable LED driver

Model No.: KL40VC-PDiiV; KL40VC-PDiiV1

Issue Date: February 12, 2025

CUSTOMER APPROVED

Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL40VC-PDiV&1 LED driver		Design verification	2023-05-09
A1	KL40VC-PDiV&1 LED driver	Change the logo		2024-07-22
A2	KL40VC-PDiV&1 LED driver	Revise Wiring Diagram		2024-11-11
A3	KL40VC-PDiV&1 LED driver	Update Automatic circuit breaker		2025-01-06
A4	KL40VC-PDiV&1 LED driver	Correct the error		2025-02-12

Specification for DALI 2 Dimmable LED Driver KL40VC-PDiV&1 C.V.



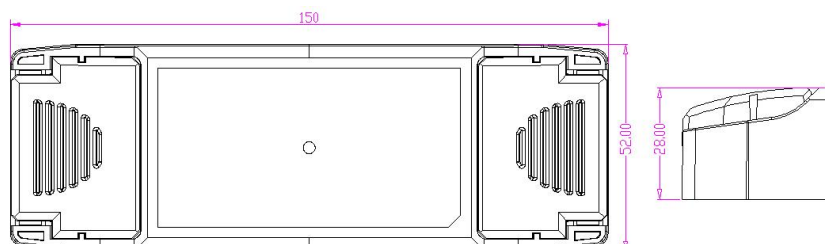
- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- Secondary dimming with 0-10V dimmer and potentiometer
- Built-in DALI interface DT8
- Supports 10V PWM dimming (3KHz-8KHz)
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function
- 5 year warranty

1. Parameters

Series	Name	KL40VC-PDiiv				KL40VC-PDiiv1			
Input	Voltage range	198~264Vac 50Hz /60Hz							
	Rated supply voltage	220~240Vac 50Hz /60Hz							
	DC voltage range	200~240Vdc							
	Input current	0.21A Max.@230Vac							
	Inrush Current	15A (Half current pulse width 100US) @230VAC							
	Power factor	> 0.95 (@230Vac,100% load)							
	Total harmonic distortion	Typical: 16% (@230Vac, 100% load)							
	Stand-by power	≤0.5W							
	Efficienc (@230Vac,100% load)	87%Max				89%Max			
	Wiring method	Push terminal, wire cross section:0.5-1.5mm ²							
	Loop-in&Loop-out quantity	30PCS (@230Vac)							
	Automatic circuit breaker (Calculate current in the wire)	type	B10	B13	B16	B20	B25	/	
		Number	20	25	30	42	50	/	
type		C10	C13	C16	C20	C25	C32		
Number		25	40	50	70	80	100		
Output	Operating mode	Constant voltage							
	Load type	LED							
	Flickering / Flickering-Free	Flickering-Free							
	Start up time	<1s (@230Vac)							
	Load output voltagerange	12V CV				24V CV			
	Load output current	3.33A Max.				1.67A Max.			
	Full load output power	40W Max.				40W Max.			
	Minimum load	3W				3W			

Output	Output current/voltage tolerance	±5%
	Wiring method	Push terminal, wirecross section:2*0.5-2.0mm ²
Control Method	Primary PUSH Dimming	Primary PUSH dimming (Max. lead wire length: 20m)
	1-10V (0-10V) Dimming	0-10V dimming (Port current<1mA), (Max. lead wire length: 20m)
	Dimming Range	0%-100%
	Secondary PWM dimming	0-10V port PWM dimming (3KHz-8KHz)
	Potentiometer	Yes, 100kΩ
	DALI function	DALI dimming (Max. lead wire length: 300m)
Exception Protection Requirements	Output over temperature protection	Yes, reset power on to recover
	Output short circuit protection	Yes, reset power on to recover
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 standard	IEC62386-101 / 102 / 207 DT6 / 209 DT8
	Safety standard	EN61347-1, EN61347-2-13
	Certification	CE
	Withstand voltage	3750Vac, 5mA, 60s (Input "L N"- Output "SEC")
Others	IP Rating	IP20
	Type of protection	Class II
	Installation type	Independent installation
	Installation dimension	150*52*28mm
	Memory function	Yes, (PUSH with memory function)
	PUSH dimming synchronization	Parallel: 15 units Max. Series: 25 units Max.
	Packaging requirements	Instruction+clapboard+outer carton (K=A)
	Weight	300g
	Life	5 years @Ta 100% 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

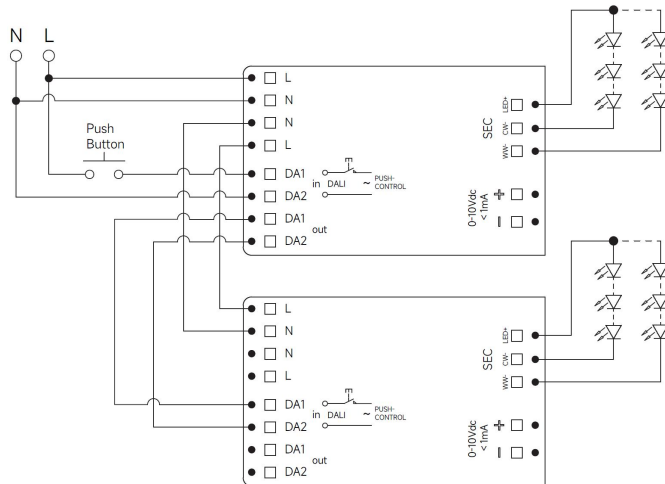


Fig. A: Push Dimming (Parallel)

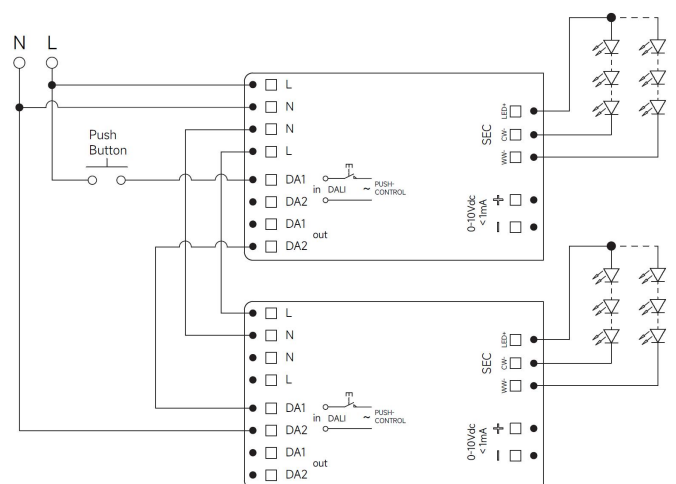


Fig. B: Push Dimming (series)

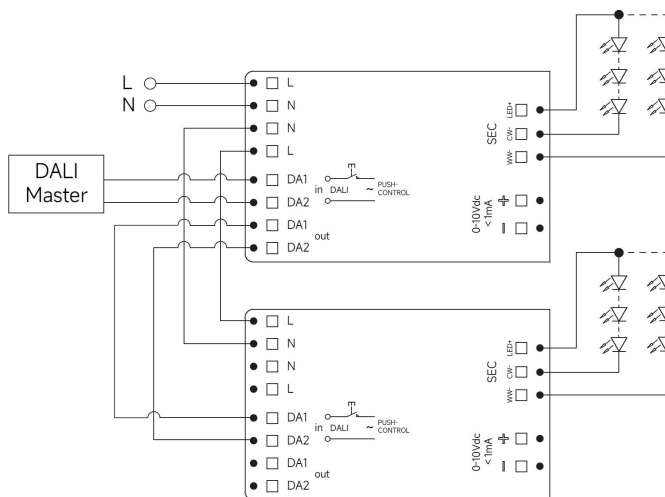


Fig. C: DALI Dimming

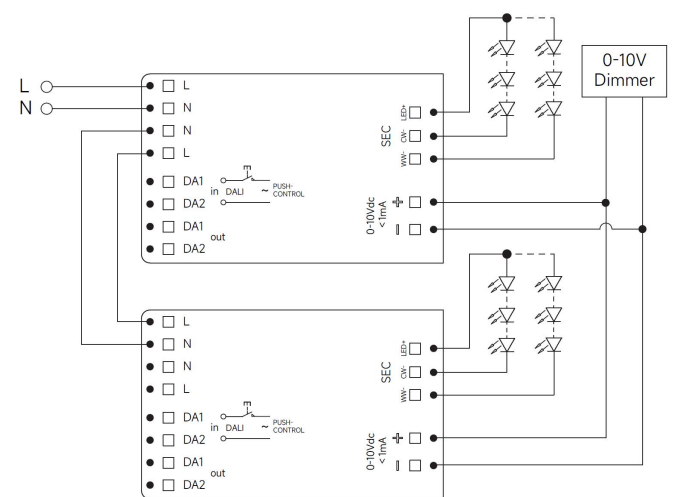
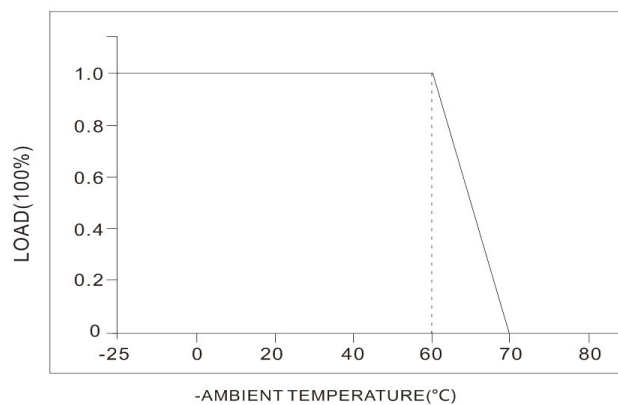
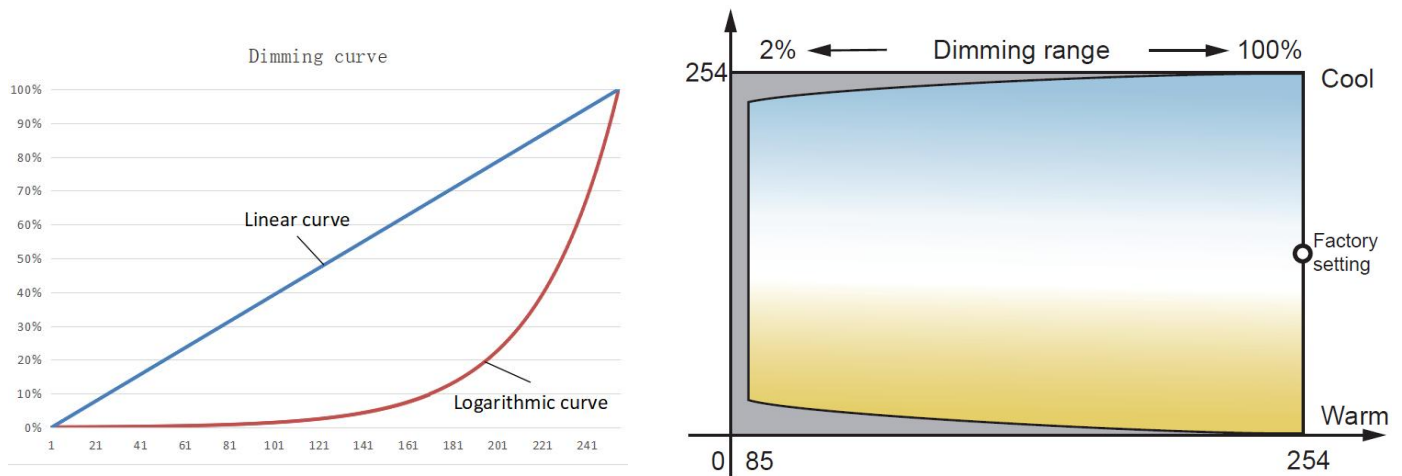


Fig. D: 0-10V Dimming

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. 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%.

G. Constant voltage dimming drivers cannot be used in lamps with constant current circuits.