

SPECIFICATION

Product Name: DALI 2 Dimmable LED driver

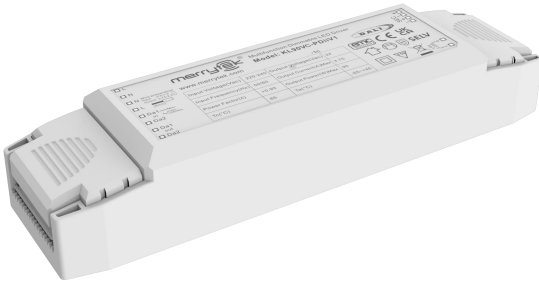
Model No.: KL90VC-PDiiV&1; KL120VC-PDiiV1

Issue Date: January 16, 2026

CUSTOMER APPROVED

Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	KL90VC-PDiV&1 KL120VC-PDiV1 LED driver	The newly edited version	Mass production	2026-01-16

Specification for DALI 2 Dimmable LED Driver KL120VC-PDiV1 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

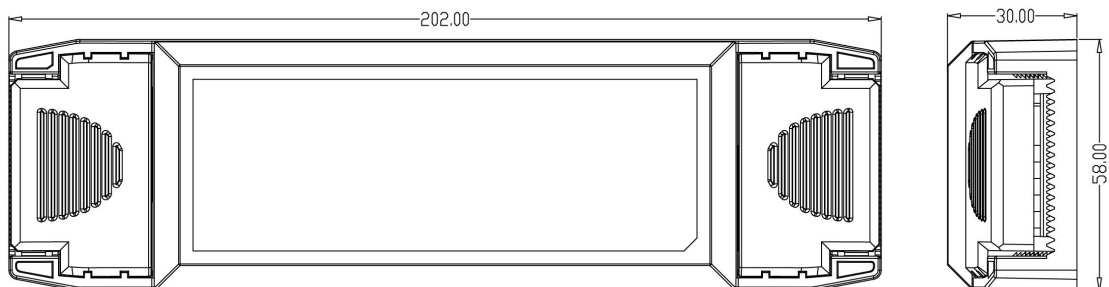
1. Parameters

Series	Name	KL90VC-PDiV				KL90VC-PDiV1				KL120VC-PDiV1			
Input	Voltage range	198~264Vac 50Hz /60Hz											
	Rated supply voltage	220~240Vac 50Hz /60Hz											
	DC voltage range	200~240Vdc											
	Input current (@230Vac)	0.46A Max.				0.45A Max.				0.6A Max.			
	Inrush Current	30A (Half current pulse width 100US) @230VAC											
	Power factor	≥ 0.99 (@230Vac,100% load)											
	Total harmonic distortion	Typical: 6% (@230Vac, 100% load)											
	Stand-by power	≤ 0.3W											
	Efficiency (230Vac,100% load)	91%Max.				92%Max.				92%Max.			
	Wiring method	Push terminal, wire cross section: 0.75-1.5mm ²											
	Loop-in&Loop-out quantity	16PCS (@230Vac)				16PCS (@230Vac)				12PCS (@230Vac)			
	Automatic circuit breaker type (Calculate current in the wire)	B10	7	C10	12	B10	7	C10	12	B10	6	C10	10
		B13	9	C13	16	B13	9	C13	16	B13	7	C13	13
B16		11	C16	20	B16	11	C16	20	B16	9	C16	16	
B20		14	C20	25	B20	14	C20	25	B20	11	C20	20	
B25		17	C25	35	B25	17	C25	35	B25	14	C25	25	
/		/	C32	35	/	/	C32	35	/	/	C32	30	
Output	Operating mode	Constant voltage											
	Load type	LED											
	Flickering / Flickering-Free	Flickering-Free											
	Start up time	<1s (@230Vac)											
	Forward voltage	12V				24V				24V			
	Output current	7.5A				3.75A				5A			
	Full load output power	90W Max.				90W Max.				120W Max.			
	Minimum load	9W				9W				12W			

Output	Output current/voltage tolerance	±5%		
	Wiring method	Screw terminal, wire cross section: 0.75-1.5mm ²		
Control Method	Primary PUSH Dimming	Primary PUSH dimming (Max. lead wire length: 20m)		
	DALI Dimming	DALI dimming (Max. lead wire length: 300m)		
	1-10V (0-10V) Dimming	0-10V dimming (Port current<1mA), (Max. lead wire length: 20m)		
	Secondary PWM dimming	0-10V port PWM dimming (3KHz-8KHz)		
	Potentiometer	Yes, 100kΩ		
	Dimming Range	Primary PUSH & DALI dimming: 2%-100% 0-10V dimming: 0%-100%		
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	Storage temperature/ humidity	-40℃~80℃, Humidity: 10% - 95%		
	Operating temperature/ humidity	-25~50℃	-25~50℃	-25~40℃
	Max. case temp(Tc)	85℃	85℃	90℃
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	202*58*30mm		
	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	400g		
	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

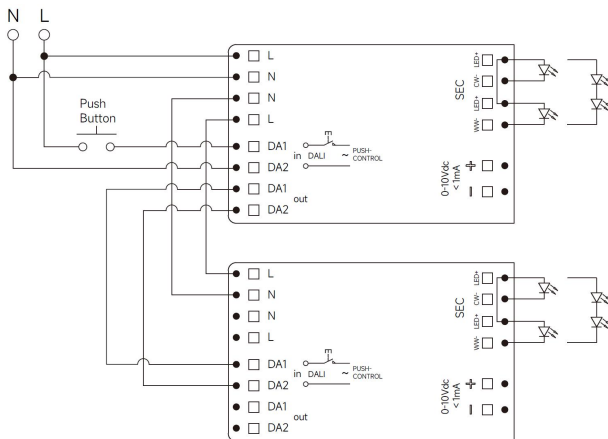


Fig. A: Push Dimming (Parallel)

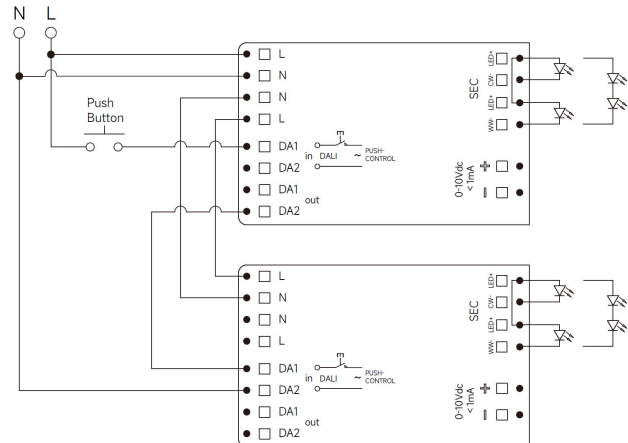


Fig. B: Push Dimming (series)

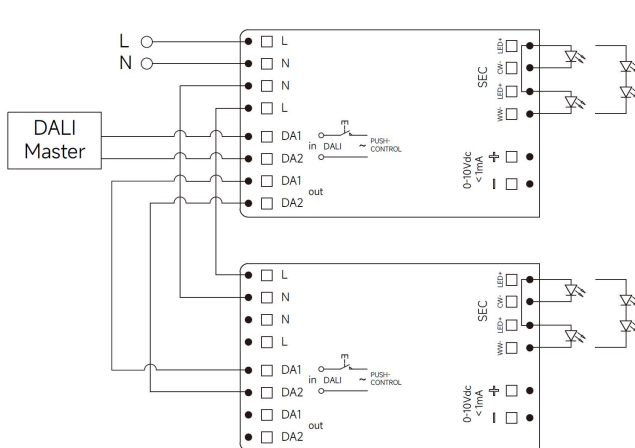


Fig. C: DALI Dimming

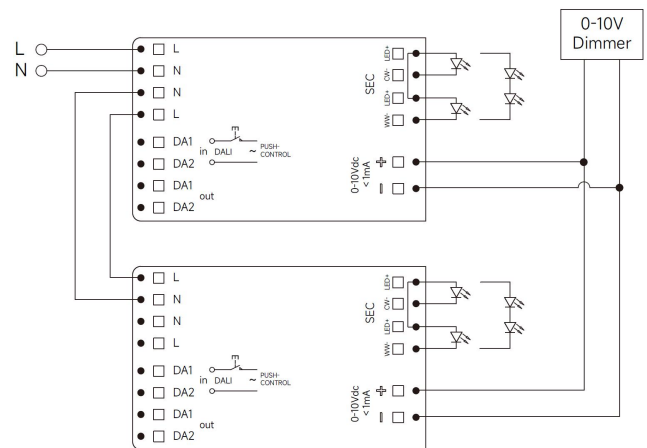
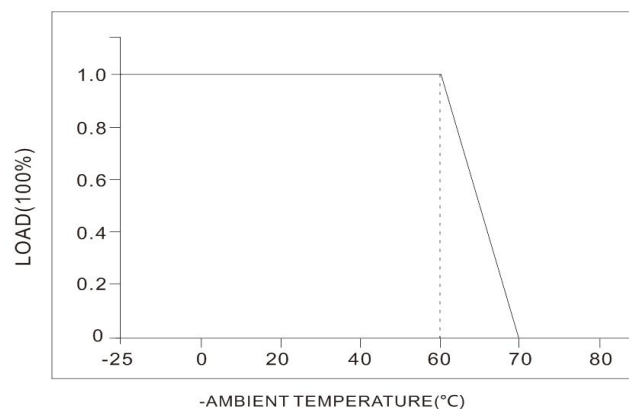
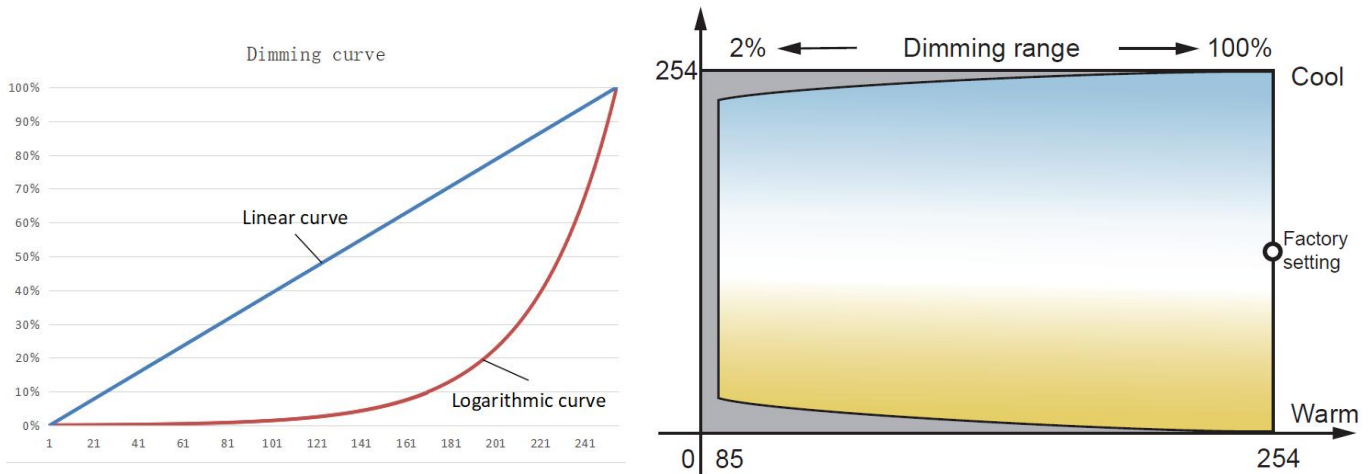


Fig. D: 0-10V Dimming

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 2-100%.

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