

SPECIFICATION

Product Name: DALI2 Dimmable LED driver

Model No.: KL10C-PDiIV

Issue Date: November 08, 2019

CUSTOMER APPROVED

Version	Product Name / Product Model	Reason / content for change	Stage	Date
A0	DALI2 LED Driver KL10C-PDiV		Design verification	2019-11-08

1. Features



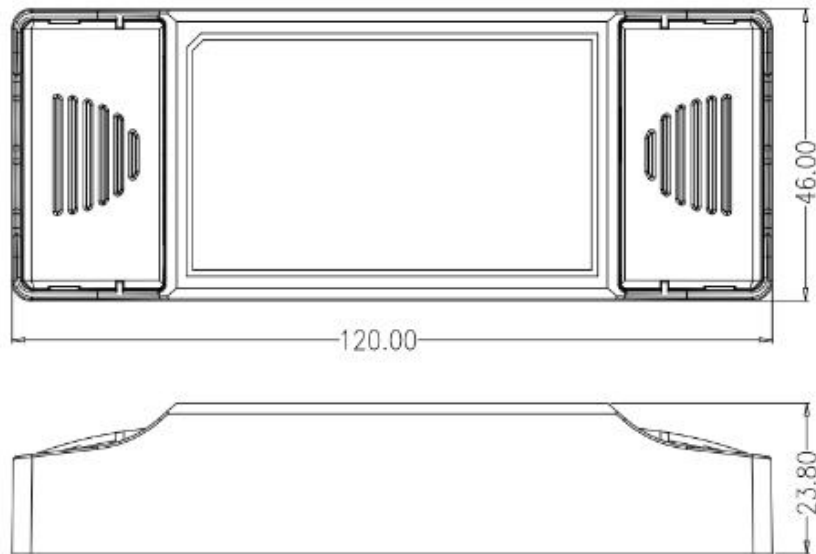
- 1) Built-in DALI2 protocol, no flicker in full dimming range;
- 2) Primary Push dimming function; Push dimming has state memory function;
- 3) Short circuit / over temperature / over voltage protection; reduce output current after over temperature;
- 4) Standby power consumption $\leq 0.5W$;
- 5) 5 years warranty.

2. Parameters

Input	voltage range	Minimum value	198V AC
		Typical value	230V AC
		Max	264V AC
	Frequency Range	Minimum value	47Hz
		Typical value	50/60Hz
		Max	63Hz
	DC voltage range	200-240V DC	
	Rated voltage	220-240V AC 50Hz /60Hz	
	input power	14W Max	
	Input Current	0.07 MAX (230Vac, under full load)	
	Inrush current	8A (tested at 50% Ipeak with a width of 50us @ 230Vac under cold load and start)	
	Total harmonic distortion	full load @ 230Vac total harmonic distortion is less than 16%	
	Power Factor	0.80C (@ 230Vac, 100mA / 40V, under full load) 0.90C (@ 230Vac, 180mA / 40V, under full load) 0.95 (@ 230Vac, 270mA / 40V, 350mA / 36V, 440mA / 27V, under full load)	
	Standby power consumption	<0.5W	
	No-load power consumption	$\leq 1W$	
Output	Leak current	<0.5mA/240V	
	Work efficiency	79% max	
	Operating mode	CC	
	Load type	LED	
	Start Time	$\leq 1S$ (@230Vac Under full load)	
	Ripple current	$\pm 5\%$ (@230Vac, 100% load,LED load)	
	Strobe requirements	Full range without strobe (stroboscope test less than 2%)	
	No-load output voltage	55V Max	
	Load output voltage	9-40V	
	Full load output power	12.6W	

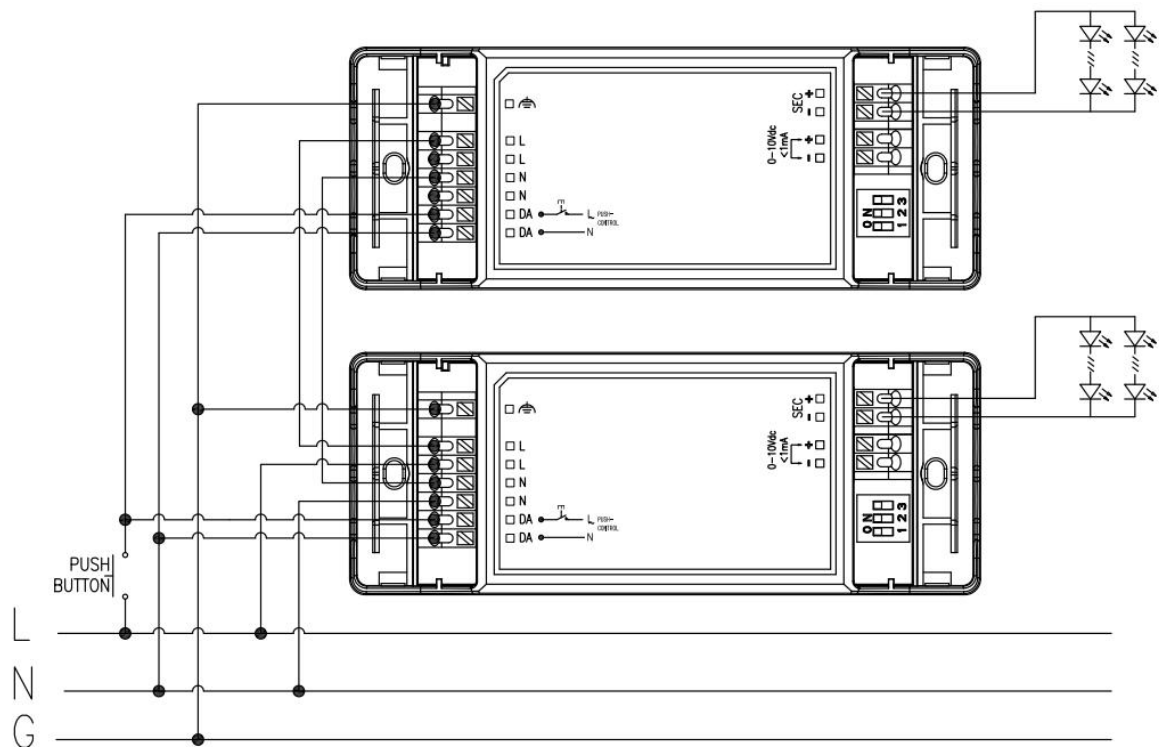
	Load current	Typical value	100mA(9-40V) 180mA(9-40V) 270mA(9-40V) 350mA(9-36V) 440mA(9-27V)
	Constant voltage accuracy / constant current accuracy	±5%	
Control Method	Primary PUSH dimming	Yes, Primary PUSH dimming	
	1-10V (0-10V) dimming	Yes, secondary 0-10V dimming, the darkest below 1V does not turn off	
	Dimming range	2%-100%	
	Potentiometer dimming	100K Potentiometer	
	DALI dimming	Yes (max lead length: 300m)	
Exception Protection Requirements	Output over load protection	Yes	
	Output no load protection	Yes, self-recovery (with query function)	
	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	Working environment temperature / humidity	Typical value	-25℃...+50℃ Humidity: 85% (non-condensing)
	Storage temperature/ humidity	-40 ℃... + 80 ℃ 10 ~ 95% RH (non-condensing)	
	Max. Case Temp (Tc)	85℃	
Certification standards	Safety standards	EN61347-1, EN61347-2-13, EN62493, EN60598-1	
	Electromagnetic compatibility (EMC) standards	EN55015, EN61547, EN61000-3-2, EN61000-3-3	
	Environmental requirements	Compliant with EU RoHS requirements	
	Certified	CE ENEC	
others	Withstand voltage	3750Vac 5mA 60S (Input to output)	
	Input / output (terminal / lead) specifications	Push-type terminal block Wire diameter: 0.75-1.0mm2	
	Degrees of protection	IP20	
	Product Category	Class I appliances	
	Packaging requirement	Independent installation	
	Installation dimension	120*46*23.8mm	
	Packaging requirements	PE bag + white box + manual + partition + outer box (K = A)	
	Net Weight	90g	
	Warranty	5 years warranty @ Ta 230V full load	
Remarks: 1. All parameters are measured under the input voltage of 230Vac and the ambient temperature of 25 ℃, unless otherwise specified.			

3. Dimension (Unit: mm)

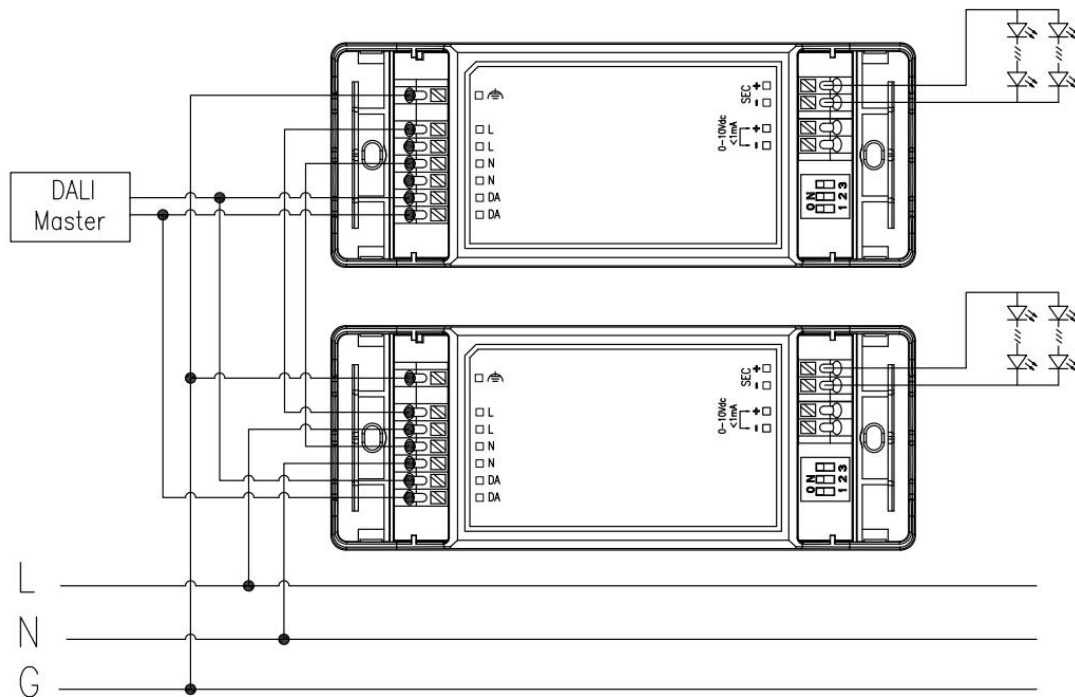


4. Wiring Diagram

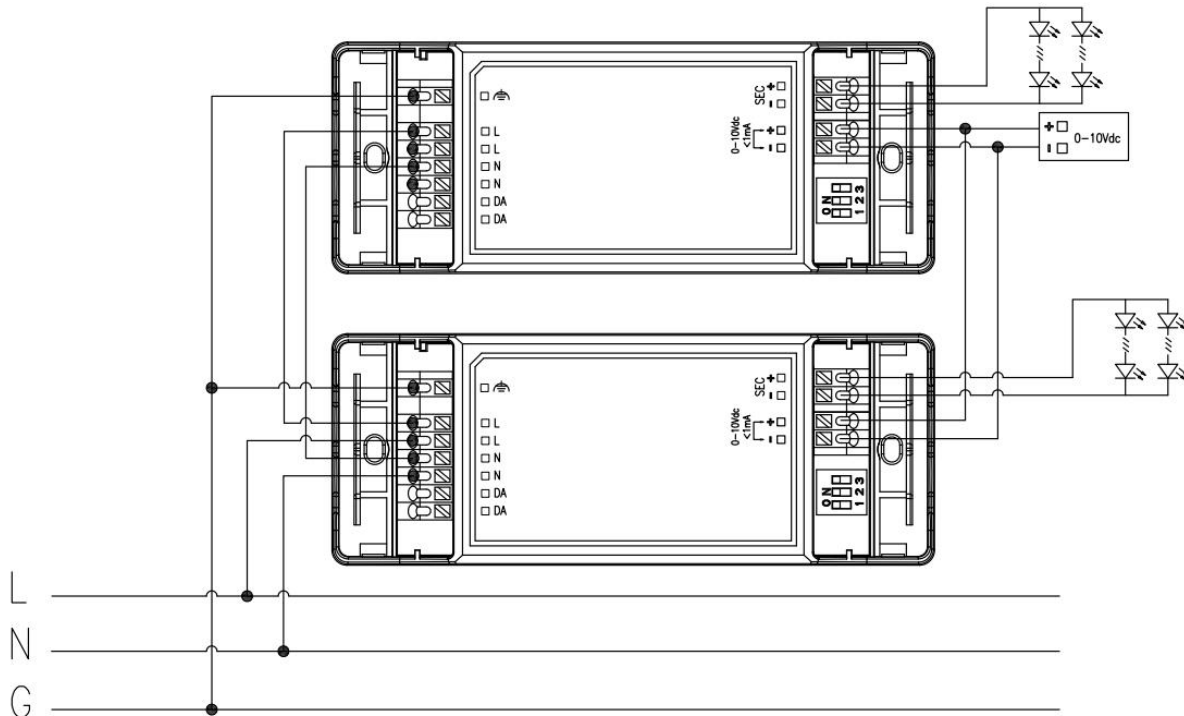
1) PUSH Dimming wiring diagram



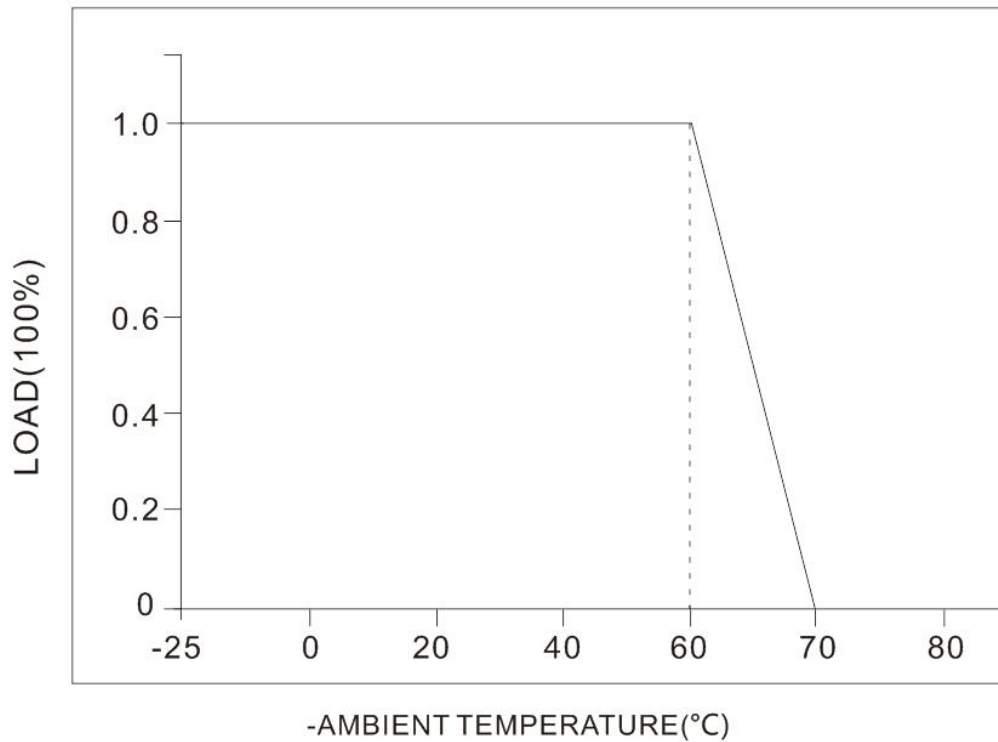
2) DALI wiring diagram



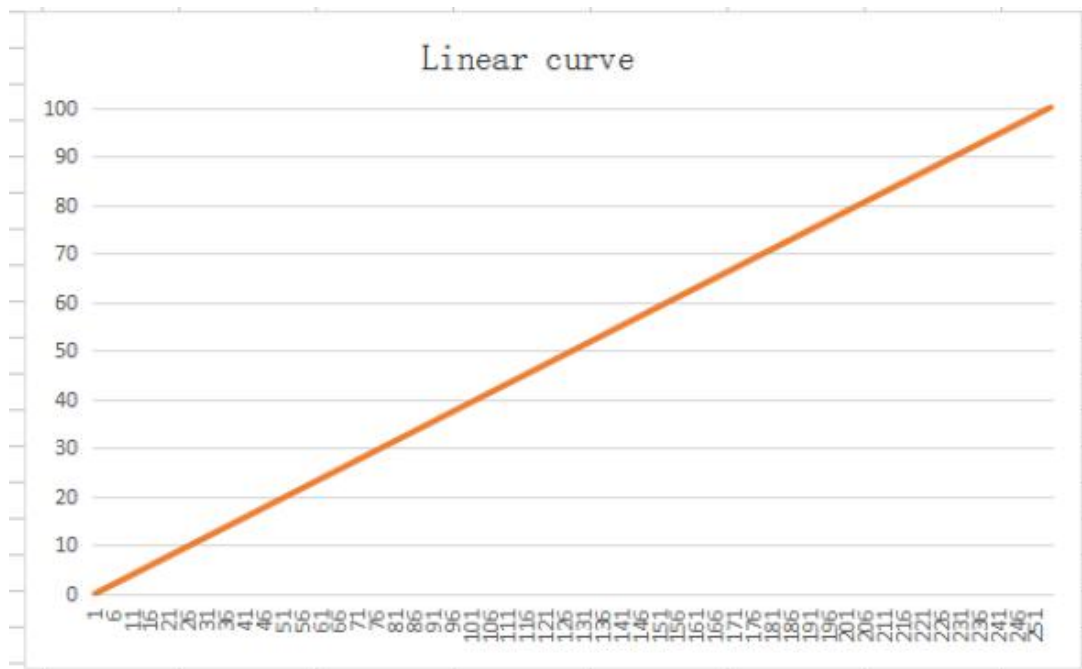
3) 0-10V dimming wiring diagram

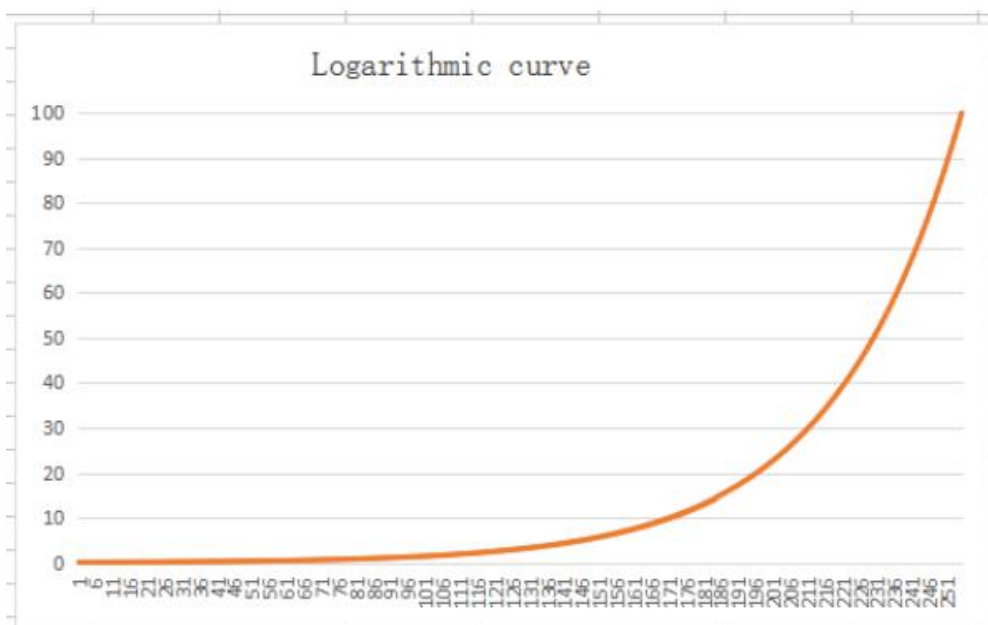


5. Derating



6. Dimming curve





7.Current gear setting

Current / voltage gear setting	1	2	3
100MA	-	-	-
180MA	ON	-	-
270MA	ON	ON	-
350MA	ON	-	ON
440MA	ON	ON	ON

8. 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%.

9. 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 driver input is powered off, there will be a residual voltage at the output, which can be maintained for about 3 minutes.