



SPECIFICATION

Product Name: DALI2 Dimmable LED driver

Model No.: KL20C-PDiV

Issue Date: November 08, 2019

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|-------------------|
| CUSTOMER APPROVED |
| |

| Version | Product Name / Product Model | Reason / content for change | Stage | Date |
|---------|---------------------------------|--------------------------------|---------------------|------------|
| A0 | DALI2 LED Driver KL20C-PDiV | | Design verification | 2019-11-08 |
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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.

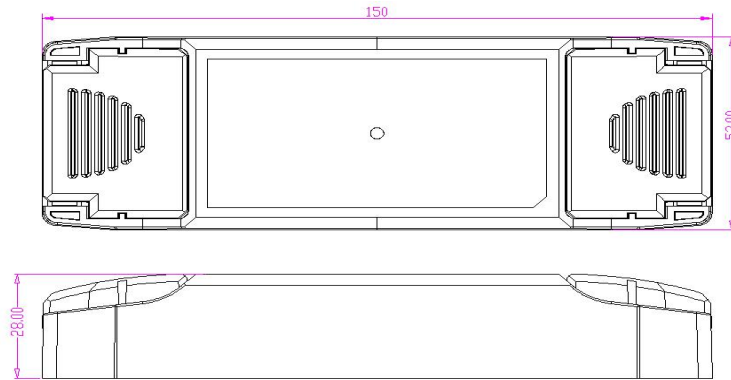
2.Parameters

| | | | | |
|-----------------------------|---------------------------|---|--------------|--------------|
| 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 | 24W Max | | |
| | Input Current | 0.12A MAX | | |
| | Inrush current | 10A (tested at 50% I _{peak} 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 | 0.95 (@ 230Vac, under full load) | | |
| | Standby power consumption | <0.5W | | |
| | No-load power consumption | $\leq 1W$ | | |
| Leak current | <0.5mA/240V | | | |
| Work efficiency | 85% max | | | |
| Output | 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 | 73V Max | | |
| | Load output voltage | 9-60V | | |
| | Full load output power | 21W | | |
| | Load current | Typical value | 250mA(9-60V) | 350mA(9-58V) |
| | | | 500mA(9-42V) | 700mA(9-30V) |
| Constant voltage accuracy / | $\pm 5\%$ | | | |

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| | constant current accuracy | | |
| 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: 0.75-1.0mm ² | |
| | Degrees of protection | IP20 | |
| | Product Category | Class II appliances | |
| | Packaging requirement | Independent installation | |
| | Installation dimension | 150*52*28mm | |
| | Packaging requirements | PE bag + white box + manual + partition + outer box (K = A) | |
| | Net Weight | 145g | |
| Warranty | 5 years warranty @ Ta230V full load | | |

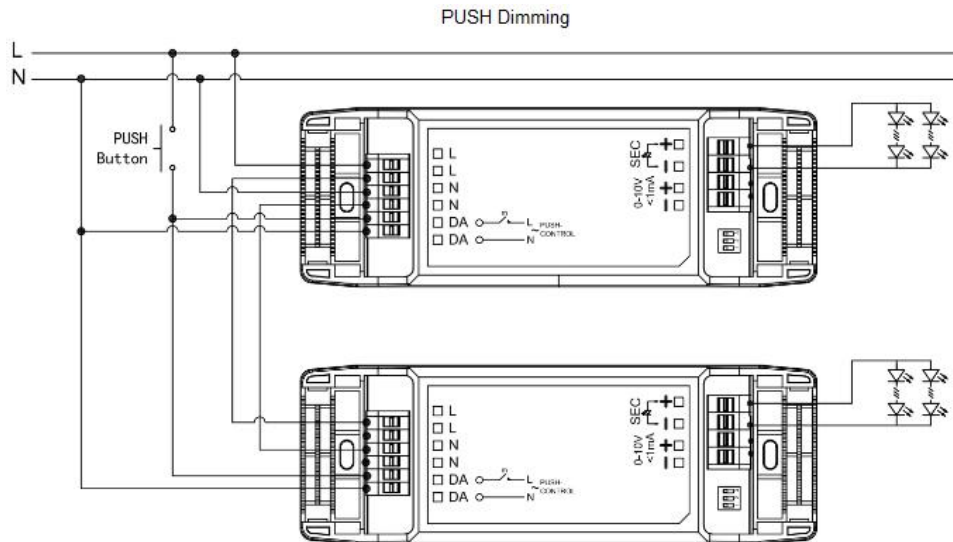
Remarks: 1. All parameters are measured under the input voltage of 230Vac and the ambient temperature of 25 °C, unless otherwise specified.

3. Dimension (Unit: mm)

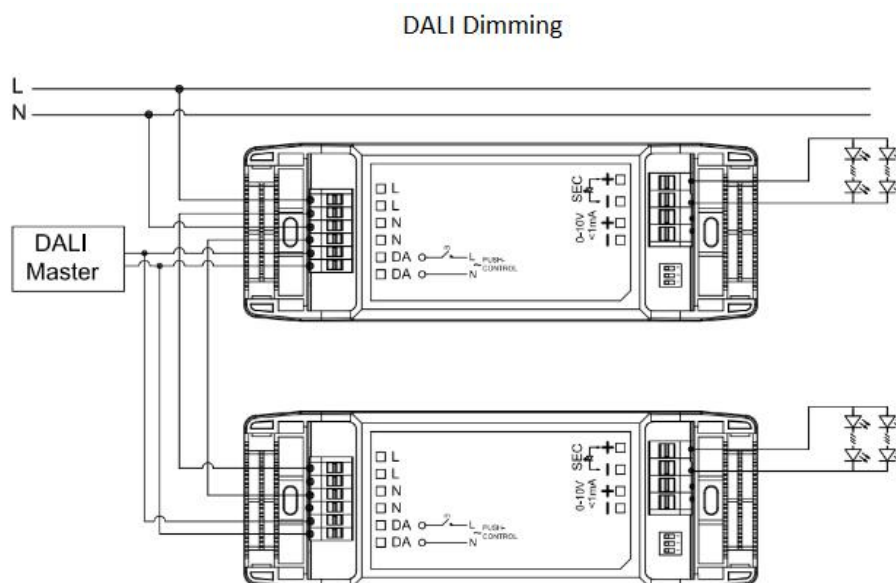


4. Wiring Diagram

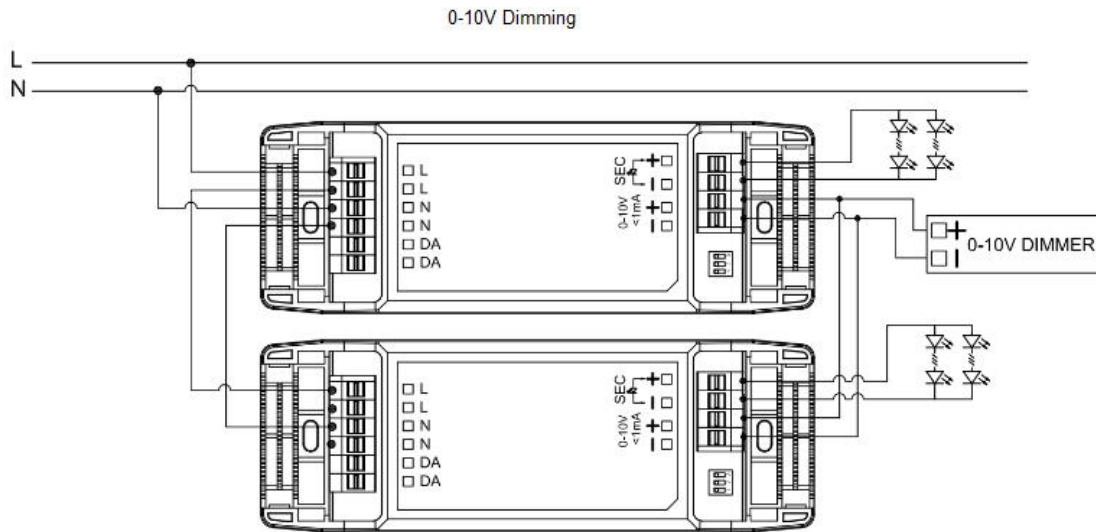
1) PUSH Dimming wiring diagram



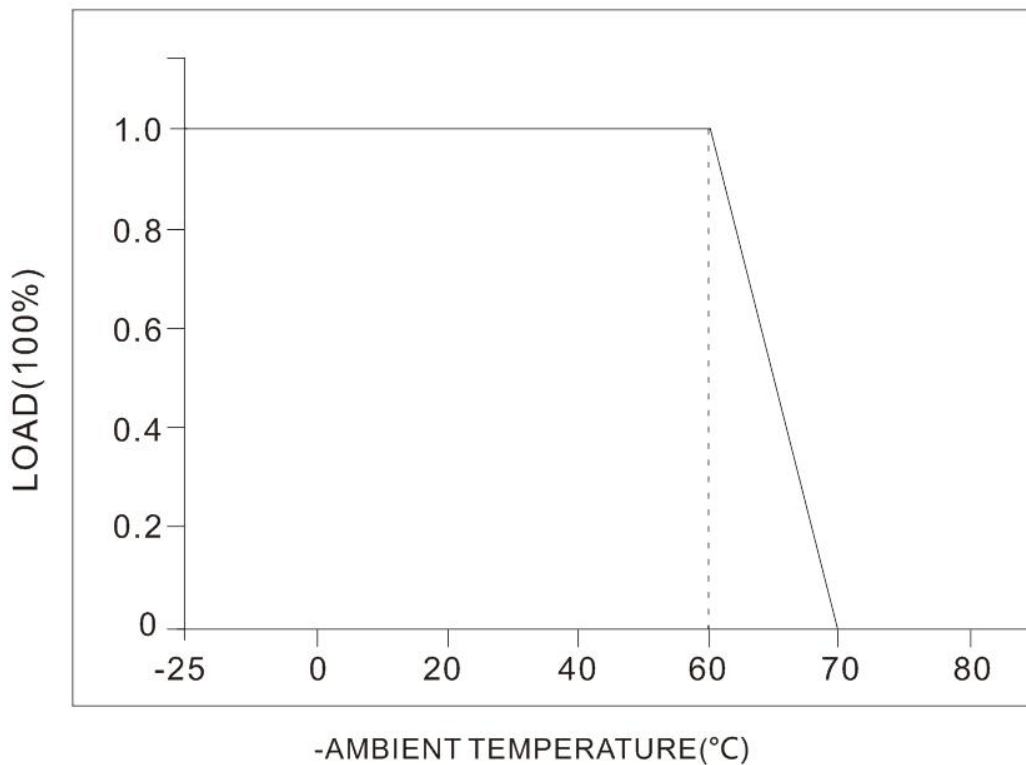
2) DALI wiring diagram



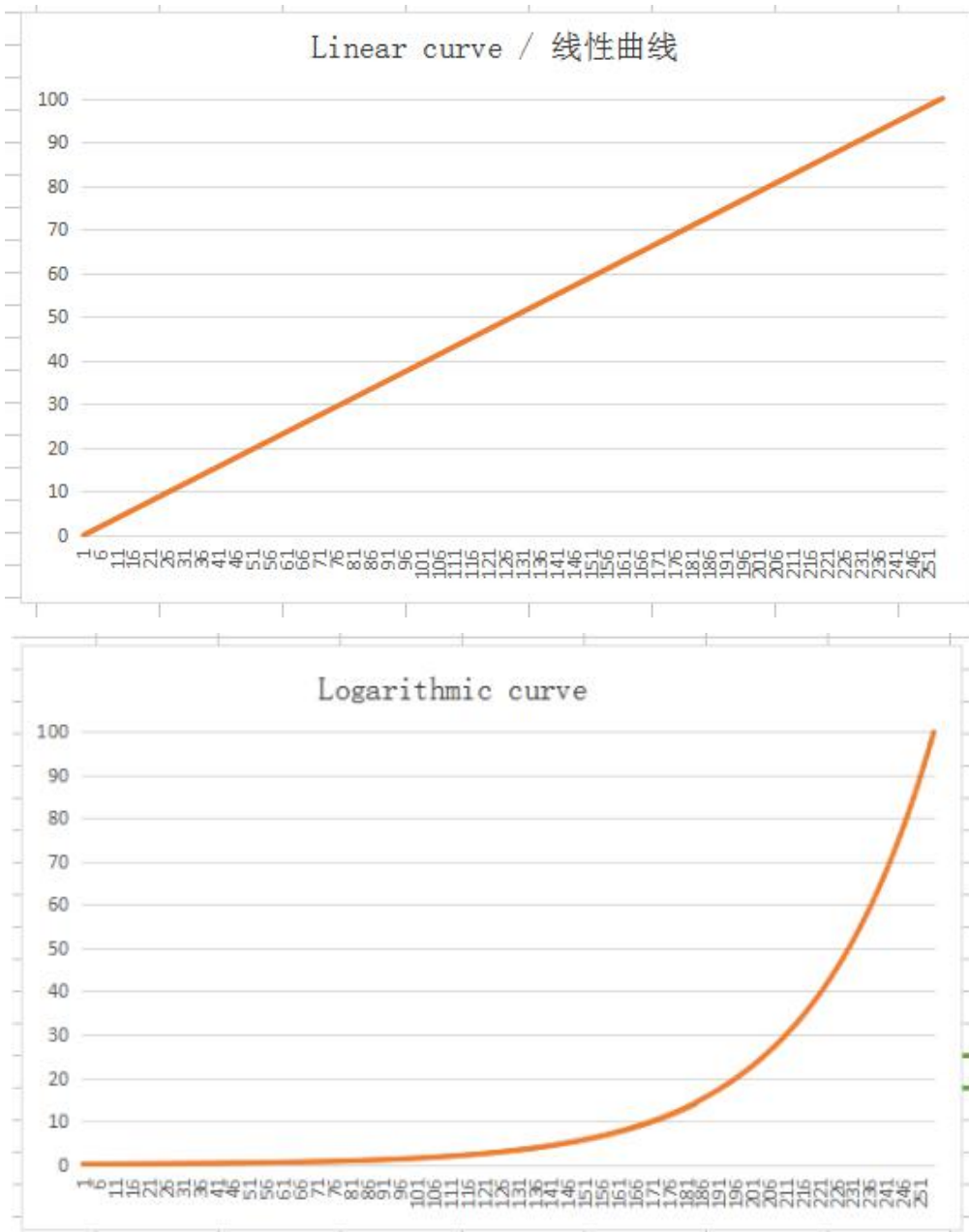
3) 0-10V dimming wiring diagram



5. Derating



6. Dimming curve



7. Current gear setting

| Current / voltage gear setting | 1 | 2 | 3 |
|--------------------------------|----|----|----|
| 700MA | ON | ON | ON |
| 500MA | ON | ON | - |
| 350MA | ON | - | - |
| 250MA | - | - | - |

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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.