



# SPECIFICATION

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

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**Model No.:**     KL35C-PDii1

\_\_\_\_\_

**Issue Date:**     January 6, 2025

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



| Version | Product Name /<br>Product Model | Reason / content<br>for change      | Stage               | Date       |
|---------|---------------------------------|-------------------------------------|---------------------|------------|
| A0      | KL35C-PDii1<br>LED driver       |                                     | Design verification | 2024-09-07 |
| A1      | KL35C-PDii1<br>LED driver       | Update Automatic<br>circuit breaker |                     | 2025-01-06 |
|         |                                 |                                     |                     |            |
|         |                                 |                                     |                     |            |
|         |                                 |                                     |                     |            |
|         |                                 |                                     |                     |            |
|         |                                 |                                     |                     |            |
|         |                                 |                                     |                     |            |
|         |                                 |                                     |                     |            |

## Specification for DALI 2 Dimmable LED Driver KL35C-PDii1 C.C.



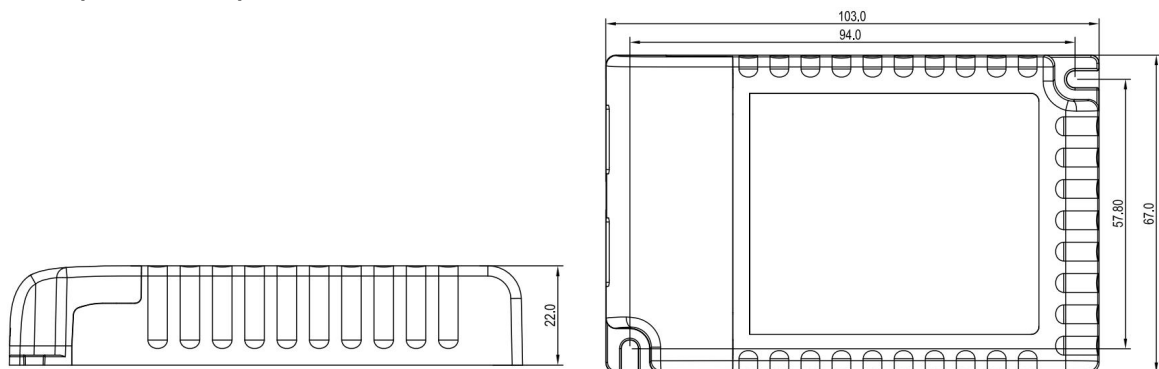
- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Primary dimming with push button
- Built-in DALI interface DT6
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- Push dim with memory function
- 5 year warranty

### 1. Parameters

|                |                                                              |                                                                |     |     |     |     |     |   |
|----------------|--------------------------------------------------------------|----------------------------------------------------------------|-----|-----|-----|-----|-----|---|
| Input          | Operating Voltage                                            | 198-264VAC 50Hz/60Hz                                           |     |     |     |     |     |   |
|                | Rated Input Voltage                                          | 220-240VAC 50Hz/60Hz                                           |     |     |     |     |     |   |
|                | DC Input Voltage range                                       | 200-240VDC                                                     |     |     |     |     |     |   |
|                | Input Current                                                | 0.2A Max.                                                      |     |     |     |     |     |   |
|                | Input Inrush Current                                         | <10A (Half current pulse width 100US) @230VAC                  |     |     |     |     |     |   |
|                | Power Factor                                                 | ≥ 0.95 (@230Vac, 100% load)                                    |     |     |     |     |     |   |
|                | Total harmonic distortion                                    | Typical: 15% (@230Vac, 100% load)                              |     |     |     |     |     |   |
|                | Stand-by Power                                               | ≤0.5W (@230Vac when PUSH or DALI turn off)                     |     |     |     |     |     |   |
|                | Efficiency                                                   | 87%Max (@230Vac, 100% load)                                    |     |     |     |     |     |   |
|                | Wiring Method                                                | Push terminal, wire cross section:0.75-1.5mm <sup>2</sup>      |     |     |     |     |     |   |
|                | Automatic circuit breaker<br>(Calculate current in the wire) | type                                                           | B10 | B13 | B16 | B20 | B25 | / |
| Number         |                                                              | 25                                                             | 30  | 40  | 50  | 60  | /   |   |
| type           |                                                              | C10                                                            | C13 | C16 | C20 | C25 | C32 |   |
| Number         |                                                              | 40                                                             | 55  | 60  | 80  | 105 | 130 |   |
| Output         | Operating mode                                               | Constant Current                                               |     |     |     |     |     |   |
|                | Load type                                                    | LED                                                            |     |     |     |     |     |   |
|                | Flickering / Flickering-Free                                 | Flicker value: less than 2% for whole dimming range            |     |     |     |     |     |   |
|                | Start up time                                                | <1s (@230Vac)                                                  |     |     |     |     |     |   |
|                | No-load output voltage                                       | 65VDC Max.                                                     |     |     |     |     |     |   |
|                | Load output voltage range                                    | 12-48VDC                                                       |     |     |     |     |     |   |
|                | Full load output power                                       | 35W Max.                                                       |     |     |     |     |     |   |
|                | Load output current                                          | 500~900mA : For details<Current gear setting>                  |     |     |     |     |     |   |
|                | Constant current/voltage Precision                           | Constant Current Precision ±5%                                 |     |     |     |     |     |   |
|                | Wiring method                                                | Push terminal, wire cross section:0.75-1.5mm <sup>2</sup>      |     |     |     |     |     |   |
| Control Method | Primary PUSH Dimming                                         | Primary PUSH dimming (Max.lead length: 20M)                    |     |     |     |     |     |   |
|                | Dimming Range                                                | Primary PUSH & DALI dimming: 0%-100%<br>1-10V dimming: 2%-100% |     |     |     |     |     |   |
|                | DALI Dimming                                                 | DALI dimming (Max.lead length: 300M)                           |     |     |     |     |     |   |

|                                                                                                            |                                    |                                                       |
|------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------|
| <b>Exception Protection Requirements</b>                                                                   | Output over temperature protection | Yes, without self recovery function (Can be inquired) |
|                                                                                                            | Output short circuit protection    | Yes, without self recovery function (Can be inquired) |
| <b>Operating Environment</b>                                                                               | Operating temperature/ humidity    | -25℃~50℃ Humidity:85% (Non-condensing)                |
|                                                                                                            | Storage temperature/ humidity      | -40℃~80℃, Humidity:10% - 95%                          |
|                                                                                                            | Max. case temp (Tc)                | 85℃                                                   |
| <b>Safety &amp; EMC</b>                                                                                    | EMC standard                       | EN55015 EN61547 EN61000-3-2 EN61000-3-3               |
|                                                                                                            | DALI protocol standard             | IEC62386-102 IEC62386-207 DT6                         |
|                                                                                                            | Safety standard                    | EN61347-1, EN61347-2-13, EN62493, EN60598-1           |
|                                                                                                            | Certification                      | CE                                                    |
|                                                                                                            | Withstand voltage                  | 3750Vac, 5mA, 60s (Input "L N"- Output "SEC")         |
| <b>Others</b>                                                                                              | Degrees of protection              | IP20                                                  |
|                                                                                                            | Type of protection                 | Class II                                              |
|                                                                                                            | Installation type                  | Independent installation                              |
|                                                                                                            | Installation dimension             | 123*79*24mm                                           |
|                                                                                                            | Blackout memory function           | Yes, PUSH blackout memory                             |
|                                                                                                            | PUSH dimming synchronization       | 15 units Max.                                         |
|                                                                                                            | Packaging requirement              | white box+ Instructions Clapboard Outer Carton (K=A)  |
|                                                                                                            | Weight                             | 132g                                                  |
|                                                                                                            | Life                               | 5 years guarantee @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

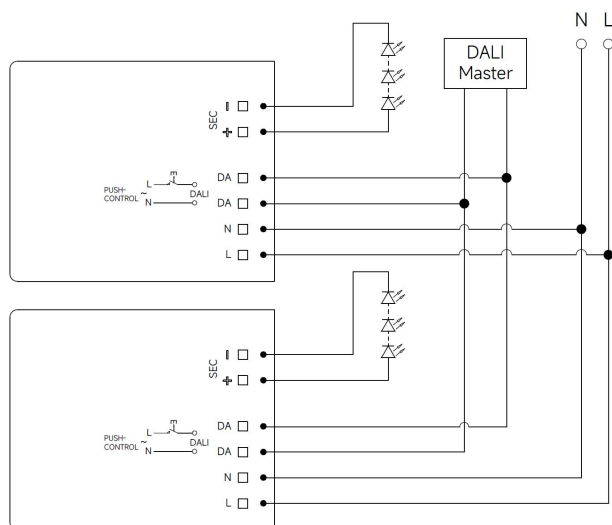


Fig.A DALI Dimming

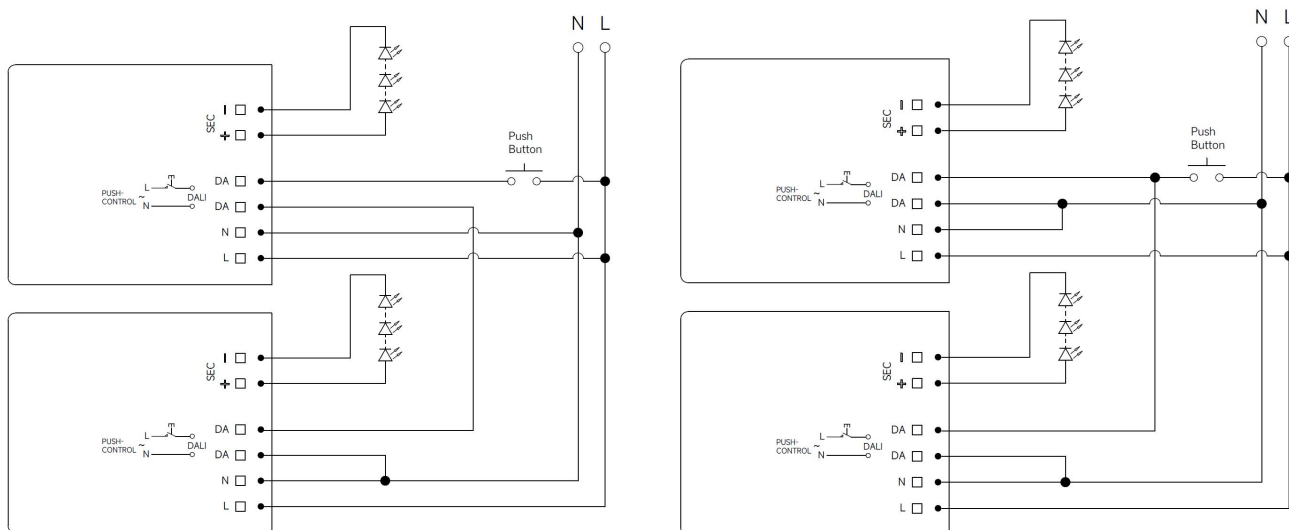
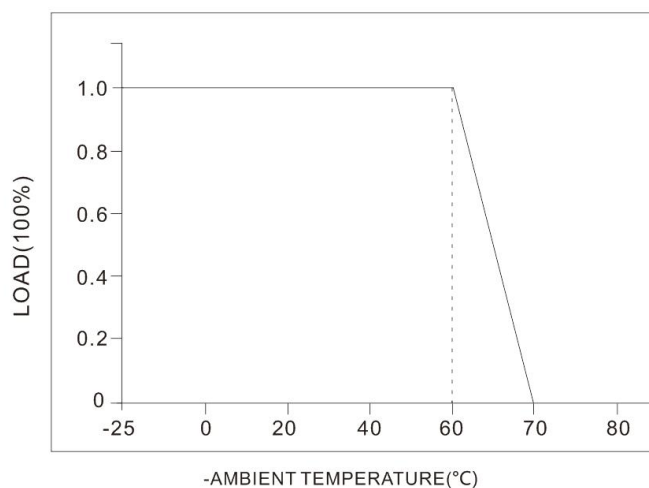
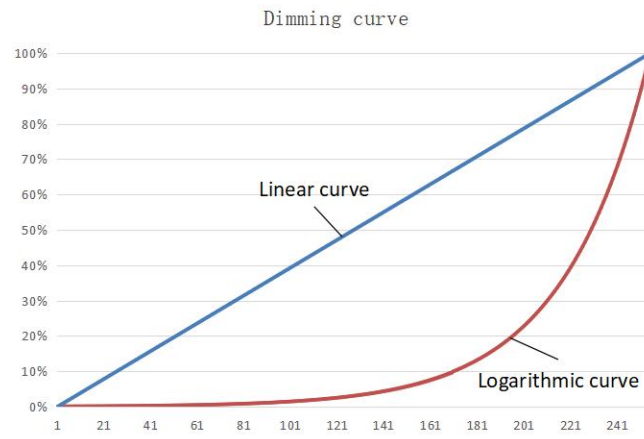


Fig.B Push Dimming

### 4. Derating



## 5. Dimming curve



## 6. Current gear setting:

| Current(mA) | DIP |    |    | Pomax (W) | Uout (V) |
|-------------|-----|----|----|-----------|----------|
|             | 1   | 2  | 3  |           |          |
| 500         | –   | –  | –  | 24        | 12~ 48   |
| 550         | ON  | –  | –  | 26.4      | 12~ 48   |
| 600         | –   | ON | –  | 28.8      | 12~ 48   |
| 650         | –   | –  | ON | 31.2      | 12~ 48   |
| 700         | ON  | ON | –  | 33.6      | 12~ 48   |
| 750         | ON  | –  | ON | 34.5      | 12~ 46   |
| 800         | –   | ON | ON | 35        | 12~ 44   |
| 900         | ON  | ON | ON | 35        | 12~ 39   |

## 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. 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%.

## 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.