



# SPECIFICATION

**Product Name:**    **Casambi Dimmable LED driver**

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**Model No.:**    **KL20C-B1**

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**Issue Date:**    **September 9, 2024**

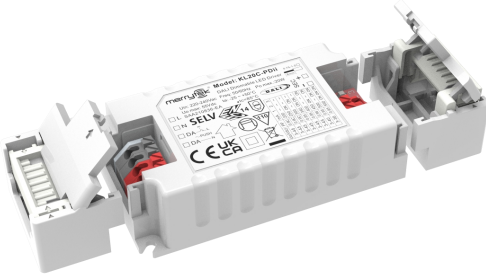
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|                      |  |
|----------------------|--|
| CUSTOMER    APPROVED |  |
|                      |  |



| Version | Product Name /<br>Product Model | Reason / content<br>for change | Stage               | Date       |
|---------|---------------------------------|--------------------------------|---------------------|------------|
| A0      | KL20C-B1<br>LED driver          |                                | Design verification | 2024-09-09 |
|         |                                 |                                |                     |            |
|         |                                 |                                |                     |            |
|         |                                 |                                |                     |            |
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## Specification for Casambi Dimmable LED Driver KL20C-B1 C.C.



- Built-in Casambi module
- Flicker-free for whole dimming range
- Stand-by power below 0.5W
- Protection: short circuit / over temperature/ over voltage
- Derating current for over high ambient temperature
- 5 year warranty

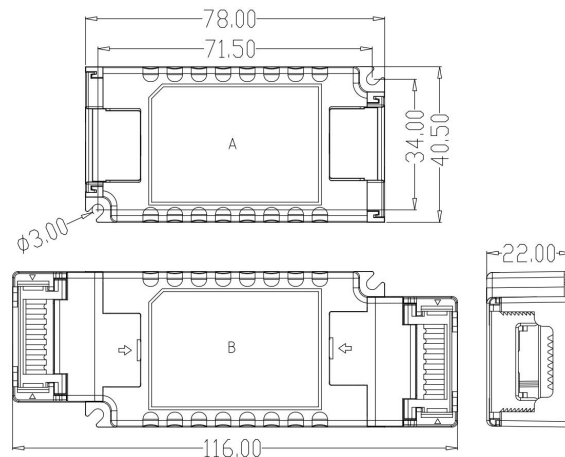
### 1. Parameters

|                |                                                     |                                                                                               |
|----------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Input          | Operating Voltage                                   | 198-264VAC 50Hz /60Hz                                                                         |
|                | Rated Input Voltage                                 | 220-240VAC 50Hz /60Hz                                                                         |
|                | DC Input Voltage range                              | 200-240VDC                                                                                    |
|                | Input Current                                       | 0.12A Max.                                                                                    |
|                | Input Inrush Current                                | <25A (Half current pulse width 100US) @230VAC                                                 |
|                | Power Factor                                        | ≥0.93 @230VAC (Full load)                                                                     |
|                | Total harmonic distortion                           | Typical: 13% (@230Vac, 100% load)                                                             |
|                | No-load power                                       | ≤0.5W                                                                                         |
|                | Stand-by Power                                      | ≤0.5W (@230Vac)                                                                               |
|                | Efficiency                                          | 83%Max. @230VAC (Full load)                                                                   |
|                | Wiring Method                                       | Push terminal, wire cross section:0.75-1.5mm <sup>2</sup>                                     |
| Output         | Operating mode                                      | Constant Current                                                                              |
|                | Load type                                           | LED                                                                                           |
|                | Ripple requirement (Flickering or flickering-Free ) | Flicker value: less than 5% for whole dimming range                                           |
|                | Start up time                                       | <1s (@230Vac)                                                                                 |
|                | No-load output voltage                              | 57VDC Max.                                                                                    |
|                | Load output voltage range                           | 9-45VDC                                                                                       |
|                | Full load output power                              | 20W Max.                                                                                      |
|                | Load output current                                 | 200mA(9-45V) 300mA(9-45V) 350mA(9-45V) 400mA(9-45V)<br>450mA(9-45V) 500mA(9-40V) 550mA(9-36V) |
|                | Constant current/voltage Precision                  | Constant Current Precision ±5%                                                                |
|                | Wiring method                                       | Push terminal, wire cross section:0.75-1.5mm <sup>2</sup>                                     |
|                |                                                     |                                                                                               |
| Control Method | Working frequency                                   | 2.4-2.48GHz                                                                                   |
|                | Transmitting power                                  | +8dBm (Max.)                                                                                  |
|                | Transmission distance                               | <50m (Visible distance)                                                                       |
|                | Modulation mode                                     | O-QPSK PHY                                                                                    |

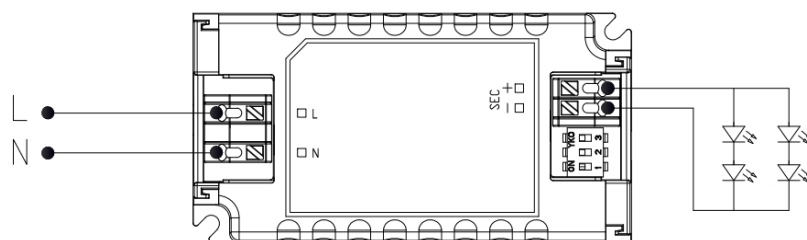
|                                          |                                    |                                                            |
|------------------------------------------|------------------------------------|------------------------------------------------------------|
| <b>Exception 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                    |
|                                          | Safety standard                    | EN61347-1 EN61347-2-13                                     |
|                                          | Certification                      | CB, 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             | With crimping: 116*40.5*22mm                               |
|                                          |                                    | Without crimping: 78*40.5*22mm                             |
|                                          | Packaging requirement              | PE bag+white box+Instructions+Clapboard+Outer Carton (K=A) |
|                                          | Weight                             | 53.5±5g                                                    |
|                                          | Life                               | 5 year @Ta full load                                       |

Note: All parameters are tested at the input voltage of 230Vac and 25 degree environment unless specified.

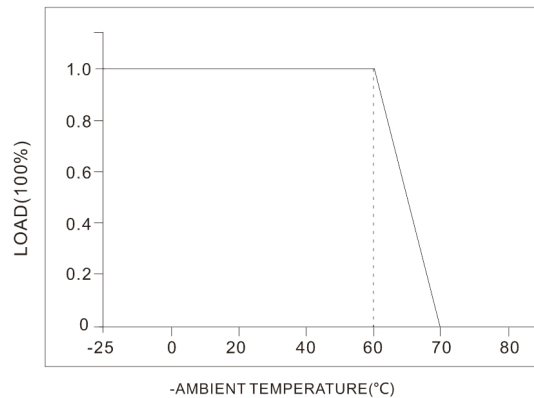
## 2. Dimension (Unit: mm)



## 3. Wiring Diagram



#### 4. Derating



#### 5. Current gear Setting ●:ON ○:OFF (SEC1 SEC2)

| Current / voltage gear setting | 1 | 2 | 3 |
|--------------------------------|---|---|---|
| 200mA(9-45V)                   | ○ | ○ | ○ |
| 250mA(9-45V)                   | ● | ○ | ○ |
| 300mA(9-45V)                   | ○ | ● | ○ |
| 450mA(9-45V)                   | ● | ● | ○ |
| 400mA(9-45V)                   | ○ | ○ | ● |
| 450mA(9-45V)                   | ● | ○ | ● |
| 500mA(9-40V)                   | ○ | ● | ● |
| 550mA(9-36V)                   | ● | ● | ● |

#### 6. 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.