

## MLCC 4028

### LED Driver-Constant Current



#### Areas of application

- Suitable for indoor installations
- Suitable for luminaires of protection class II

#### Product benefits

- Wide Operating Range 100...264 VAc
- O/P overload-S/C, over temperature Auto restart Auto recovery protections,
- High efficiency and reliability,
- High quality of light.
- Small PCFR-White housing.
- ATHD<10%,Efficiency >85%.
- Non Flicker Free

#### Product features

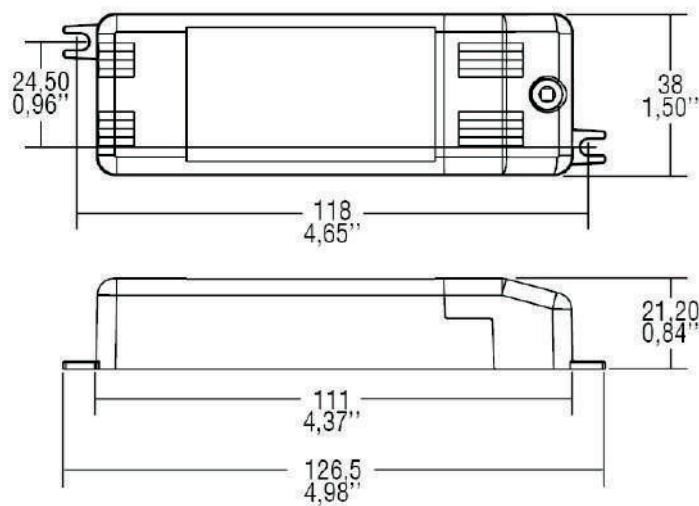
- Supply voltage: 220...240 VAc
- Line frequency: 50 Hz | 60 Hz
- Line voltage: 100...264 VAc
- Safety according to EN 61347-1, 61347-2-13, 62384
- Line harmonics according to EN 61000-3-2
- Immunity according to EN 61547
- Lifetime: up to 30,000 h (temperature at  $T_c = 65^\circ\text{C}$ , max. 10 % failure rate)

Technical data

Electrical data

|                               |                                                               |
|-------------------------------|---------------------------------------------------------------|
| Nominal voltage               | 220...240 V                                                   |
| Mains frequency               | 50...60 Hz                                                    |
| Input voltage AC              | 100...264 Vac                                                 |
| Total harmonic distortion     | 10%                                                           |
| Power factor è                | >0.96                                                         |
| ECG efficiency                | >84%                                                          |
| Device power loss             | <4.0 W                                                        |
| Inrush current                | COLD START 20A(twidth=260 us measured at 50% Ipeak) at 230VAc |
| Surge capability (L/N-Ground) | 2KV                                                           |
| Surge capability (L-N)        | 2.5KV                                                         |
| Nominal output voltage        | 27-42VDc                                                      |
| U-OUT (working voltage)       | <60VDc                                                        |
| Nominal output current        | 700mA                                                         |
| Output current tolerance      | ±5 %                                                          |
| Output ripple (@100 Hz)       | < 2 %                                                         |
| Nominal output power          | 28 W                                                          |
| Galvanic isolation            | SELV                                                          |

Dimensions & weight



|                               |      |
|-------------------------------|------|
| Length                        | 55mm |
| Width                         | 21mm |
| Height                        | 22mm |
| Mounting hole spacing, length | 48mm |

## Product datasheet

|                                      |                           |
|--------------------------------------|---------------------------|
| Mounting hole spacing, width         | 120 mm                    |
| Product weight                       | 145.00 gm                 |
| Cable cross-section, input side      | 0.5...1.5 mm <sup>2</sup> |
| Cable cross-section, output side     | 0.5...1.5 mm <sup>2</sup> |
| Wire preparation length, input side  | 6.5...7.5 mm              |
| Wire preparation length, output side | 6.5...7.5 mm              |

### Colors & materials

|                 |                  |
|-----------------|------------------|
| Casing material | PC FR 94V0 White |
|-----------------|------------------|

### Temperatures & operating conditions

|                                          |              |
|------------------------------------------|--------------|
| Ambient temperature range                | -20...+50 °C |
| Maximum temperature at tc test point     | 75 °C        |
| Max.housing temperature in case of fault | 110 °C       |
| Permitted rel. humidity during operation | 5...85 %     |

### Lifespan

|              |               |
|--------------|---------------|
| ECG lifetime | min 30,000 h* |
|--------------|---------------|

\* At  $T_{case} = 65^{\circ}\text{C}$  at  $T_c$  point / 10% failure rate

### Additional product data

|              |    |
|--------------|----|
| Encapsulated | No |
|--------------|----|

### Capabilities

|                                        |                    |
|----------------------------------------|--------------------|
| Dimmable                               | No                 |
| Overheating protection                 | Auto-recovery      |
| Overload protection                    | Auto-recovery      |
| Short-circuit protection               | Auto-recovery      |
| No-load proof                          | Yes                |
| Max. cable length to lamp/LED module   | 1 meter            |
| Suitable for fixtures with prot. class | Class II           |
| Type of connection, output side        | Press-fit terminal |

### Certificates & standards

|                           |                                                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| Approval marks – approval | CE , ENEC, IEC-CB, BIS                                                                                 |
| Standards                 | EN-61347-1:2015,+A1,EN-61347-2-23:2014+A1, EN-IEC62384:2020,IS-15885-2-23, EN-61000-3-2, EN61000-4-4&5 |
| Type of protection        | IP20                                                                                                   |

## Product datasheet

### Logistical data

|                              |           |
|------------------------------|-----------|
| Temperature range at storage | 0.. 45 °C |
|------------------------------|-----------|

#### Download Data

| File                                                                                                            |  |
|-----------------------------------------------------------------------------------------------------------------|--|
|  Product page                  |  |
|  Safety Instructions           |  |
|  ROHs & WEEE Decl.pdf          |  |
|  EMI-CE & EMC report.pdf       |  |
|  Installation Instructions.pdf |  |
|  CAD data.zip                  |  |

#### Logistical Data

| Product code | Product description | Packaging unit (Pieces/Box)                 | Dimensions (length x width x Volume height) | Gross weight |
|--------------|---------------------|---------------------------------------------|---------------------------------------------|--------------|
| MLCC4028     | O/P current fix     | Per tray 20pc                               |                                             | 1.6Kg        |
| MLCC4028     | O/P current fix     | Shipping carton box100/Box<br>(5 Trays/Box) |                                             | 8Kg          |

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

### Ordering Information:

|        |     |                 |                     |             |   |   |           |   |   |             |                 |   |
|--------|-----|-----------------|---------------------|-------------|---|---|-----------|---|---|-------------|-----------------|---|
| M      | L   | C               | C                   | X           | 4 | 0 | X         | 2 | 8 | -           | 1               | E |
| MELCON | LED | C-Constant      | A-Analog Dim        | O/P Voltage |   |   | O/P Power |   |   | No.Of O/P   | E-Enclosed-IP20 |   |
|        |     | F-Flicker Free  | B-Bluetooth         |             |   |   |           |   |   | 1- Mono/DT6 | P-Enclosed-IP65 |   |
|        |     | D- Dimming      | C-Current           |             |   |   |           |   |   | 2- CCT/DT8  | O-Open Const.   |   |
|        |     | N- Non-Isolated | D-Dali Dim          |             |   |   |           |   |   | 3- RGB      |                 |   |
|        |     | S-Switch(AOI)   | E-Emergency         |             |   |   |           |   |   | 4- RGBW     |                 |   |
|        |     | H-Non-SELV      | G-Slave Dim         |             |   |   |           |   |   | 5- RGBWW    |                 |   |
|        |     |                 | I- IR Remote        |             |   |   |           |   |   |             |                 |   |
|        |     |                 | M - Master Dim      |             |   |   |           |   |   |             |                 |   |
|        |     |                 | P-PWM Dim           |             |   |   |           |   |   |             |                 |   |
|        |     |                 | R-Potentiometer     |             |   |   |           |   |   |             |                 |   |
|        |     |                 | T-Triac Dim         |             |   |   |           |   |   |             |                 |   |
|        |     |                 | V-Voltage           |             |   |   |           |   |   |             |                 |   |
|        |     |                 | W-CCT-Tunable white |             |   |   |           |   |   |             |                 |   |
|        |     |                 | X - W-Fi Dim        |             |   |   |           |   |   |             |                 |   |
|        |     |                 | Z-Zigbee            |             |   |   |           |   |   |             |                 |   |

#### Version Change History:

| Sr. | Revision | Notes                                | Date       |
|-----|----------|--------------------------------------|------------|
| 1.  | V0.1     | IEC-CB- CE certified and added logos | 28.12.2021 |
| 2.  | V0.2     | ENEC Logo added, Order info change   | 21.10.2022 |