

## MLCV 2460

LED Driver / SMPS / POWER ADAPTER



### Areas of application

- Suitable for SELV installations
- Suitable for In-door Installations LED Strips power supply



### Product benefits

- Wide Operating Range 145-264 Vac
- Safety requirement due to Input Over Voltage, O/P overload-S/C, over temperature Auto recovery protections,
- High efficiency and reliability,
- High quality of light.
- Efficiency >85%.

### Product features

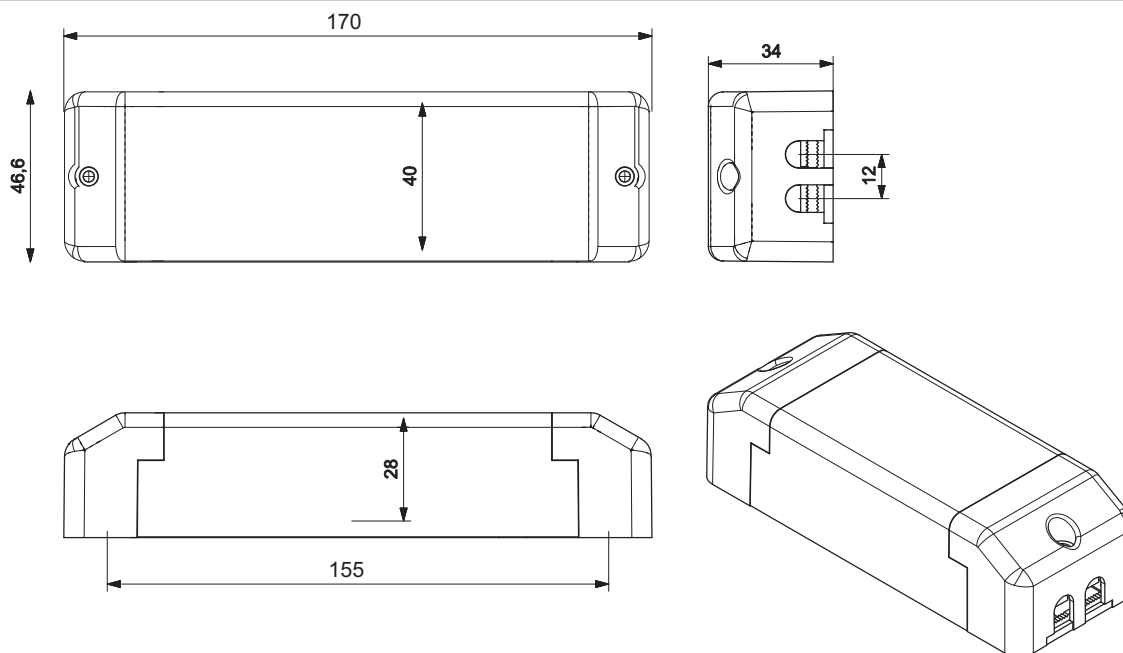
- Supply voltage: 220...240 V
- Line frequency: 50 Hz | 60 Hz
- Line voltage: 145...264 Vac
- Safety according to EN 61347-1, 61347-2-13, 62384
- EMI CE suppression: to EN 55015A
- Line harmonics according to EN 61000-3-2
- Immunity according to EN 61547
- Lifetime: up to 30,000 h (temperature at  $T_c = 65^\circ\text{C}$ , max. 10 % failure rate)

Technical data

Electrical data

|   |                 |
|---|-----------------|
| Nominal voltage                               | 220...240 V     |
| Mains frequency                               | 50...60 Hz      |
| Input voltage AC                              | 145-265 VAc     |
| ECG efficiency                                | >85 %           |
| Device power loss                             | <4.0 W          |
| Inrush current                                | 8 A             |
| Max. ECG no. on circuit breaker 10 A          | 8               |
| Max. ECG no. on circuit breaker 16 A (Type-B) | 16              |
| Max. ECG no. on circuit breaker 25 A (Type-B) | 24              |
| Surge capability (L/N-Ground)                 | 2.5 kV          |
| Surge capability (L-N)                        | 2 kV            |
| Nominal output voltage                        | 23.5 - 24.6 Vdc |
| U-OUT (working voltage)                       | 24 Vdc          |
| Nominal output current                        | 2500 mA (2.5 A) |
| Output current tolerance                      | ±5 %            |
| Output ripple (@100 Hz)                       | < 2 %           |
| Nominal output power                          | 14.5...58.5 W   |
| Galvanic isolation                            | SELV            |

Dimensions & weight



|                               |         |
|-------------------------------|---------|
| Length                        | 170 mm  |
| Width                         | 46.6 mm |
| Height                        | 34 mm   |
| Mounting hole spacing, length | 155 mm  |

## Product datasheet

|                                      |                           |
|--------------------------------------|---------------------------|
| Mounting hole spacing, width         | 155 mm                    |
| Product weight                       | 195.00 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 | FR 94V0 ABS/PC |
|-----------------|----------------|

## Temperatures & operating conditions

|  |              |
|--|--------------|
| Ambient temperature range                | -20...+50 °C |
| Maximum temperature at tc test point     | 85 °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<sub>case</sub> = 65°C at T<sub>c</sub> point / 10% failure rate

## Additional product data

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

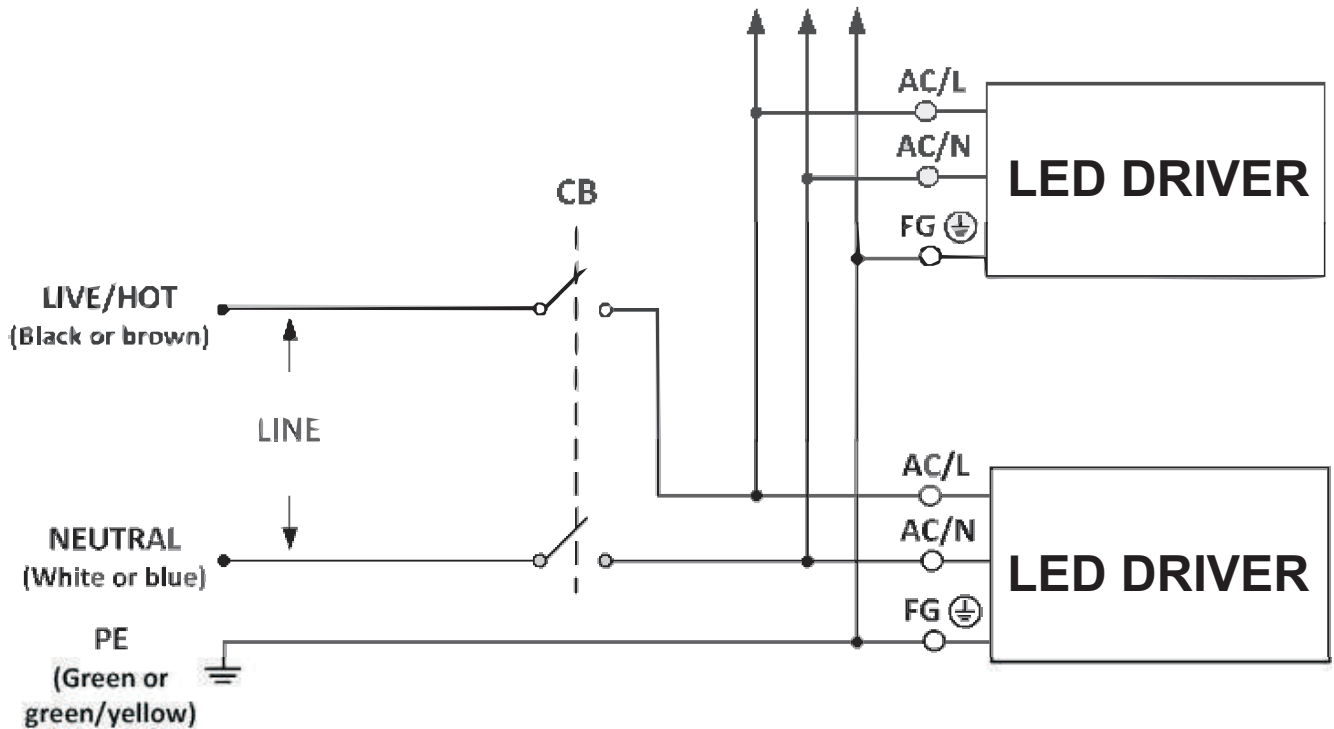
## Capabilities

|  |                              |
|--|------------------------------|
| 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 | II                           |
| Type of connection, output side        | Screw Fit terminals UL 94 V0 |

## 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   |

# Installation Instructions



## Installation Instructions:





- \* Before installation or maintenance work, please disconnect the power supply from the Mains. Ensure that it cannot be re-connected inadvertently as precaution!
- \* Keep proper ventilation around the unit and do not stack any object on it. Also a **10-15 cm** clearance must be kept when the adjacent device is a heat source.
- \* Mounting orientations other than standard orientation or operate under high ambient temperature may increase the internal component temperature and will require a de-rating in output current. Please refer to the specification sheet to receive the optimum mounting position and information about the de-rating curve.
- \* Current rating of an approved primary /secondary cable should be greater than or equal to that of the unit. Please refer to its specification.
- \* For LED power supplies with waterproof connectors, verify that the linkage between the unit and the lighting fixture is tight so that water cannot intrude into the system.
- \* For dimmable LED power supplies, make sure that your dimming controller is capable of Source/Sink Power Supply units.
- \* For those with “3 in 1” dimming or “2 in 1” dimming function, e.g. MLDA series, the output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-: 0/1 ~ 10VDC, 10V PWM signal or resistance. Please refer to DIMMING OPERATION Section of individual model specification sheet from <https://www.melconindia.com> for details.
- \* Note that the dimmable LED power supply series Please follow installation instructions accordingly.

## 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                     |
|--------------|---------------------|---|---|----------------------------------|
| MLCV2460     | CV SMPS/ Adapter    | Per tray 20pc                               | 240 mm x 210 mm x 80 mm                     | 3.16 kg                          |
| MLCV2460     | CV SMPS/ Adapter    | Shipping carton box100/Box<br>(5 Trays/Box) | 240 mm x 210 mm x 80 mm                     | 3.70 dm <sup>3</sup><br>19.00 Kg |

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  | V  | X           | 2 | 4 | X         | 6 | 0 | -   | 1   | E |
| MELCON | LED | C-Constant<br>F-Flicker Free<br>D- Dimming<br>N- Non-Isolated<br>S-Switch(AOI)<br>H-Non-SELV | A- Analog Dim<br>B-Bluetooth<br>C-Current<br>D-Dali Dim<br>E-Emergency<br>G-Slave Dim<br>I- IR Remote<br>M - Master Dim<br>P-PWM Dim<br>R-Potentiometer<br>T-Triac Dim<br>V-Voltage<br>W-CCT-Tunable white<br>X - W-Fi Dim<br>Z-Zigbee | O/P Voltage |   |   | O/P Power |   |   | No.Of O/P<br>1- Mono/DT6<br>2- CCT/DT8<br>3- RGB<br>4- RGBW<br>5- RGBWW | E-Enclosed-IP20<br>P-Enclosed-IP65<br>O-Open Const. |   |

#### Version Change History:

| Sr. | Revision | Notes   | Date       |
|-----|----------|---|------------|
| 1   | V-0.1    | Installation Instruction added<br>CB-CE certification added<br>ENEC certification added | 02.12.2019 |
| 2   | V-0.2    |   | 30.12.2021 |
| 3   | V-0.3    |   | 19.10.2022 |