

EMERGENCY LIGHTING UNIT

EMCU H

Emergency lighting LED driver for the conversion of existing LED luminaires



Technical specifications

| | |
|------------------------------------|--|
| Mains voltage range | 220 – 240 V |
| Mains frequency | 50 / 60 Hz |
| Output voltage range | 25 – 220 V |
| Max. output voltage (50 V device) | 60 V |
| Max. output voltage (130 V device) | 150 V |
| Max. output voltage (220 V device) | 250 V |
| Output power in emergency mode | 10 / 15 / 20 W |
| Power consumption | max. 12 VA |
| Switchover time mains to emergency | < 0,5 s |
| Max. housing temperature tc | 65 °C |
| Ambient temperature range ta | 5 – 50 °C |
| Functionality test | weekly 2 min. (random – see data sheet selftest) |
| Duration test | annually |
| Battery charging time | 24 h |
| Protection class | I |
| Protection type | IP20 |
| Weight | 170 g |
| Dimensions | L 180 x W 40 x H 28 mm |
| Hole spacing | 175,5 mm |

Product description

The emergency lighting unit EMCU H serves the extension of existing LED luminaires with emergency lighting functionality conforming to the European selftest standard. The compact metal housing is suitable for protection class I luminaires. The NiCd and NiMH battery technologies are supported and charged by microprocessor controlled cycles corresponding to the relevant battery type.

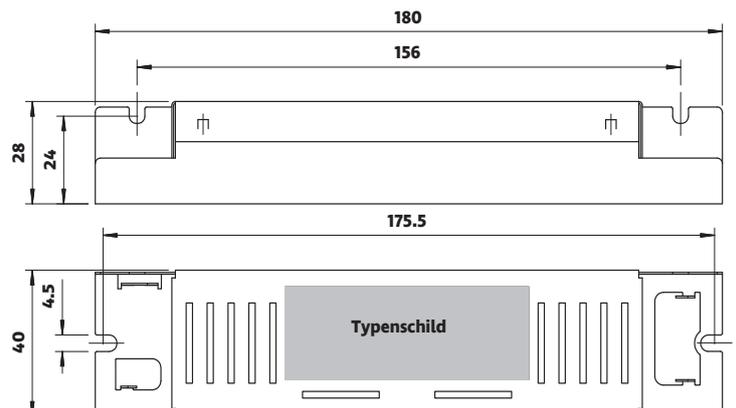
- Self-contained emergency lighting unit for LED luminaires and LED applications
- Three voltage ranges available to cover LED module forward voltages between 25 and 220 V
- Compact metal housing for usage in protection class I luminaires (L 180 x W 40 x H 28 mm) or suitable for protection class II luminaires by integration in a separate metal housing outside the luminaire (housing upon request)
- 60 months warranty

Properties

- Non-maintained mode
- Maintained mode in combination with an external LED driver
- 1 h or 3 h emergency operation duration (variant upon request)
- Selftest conforming to IEC 62034
- Optional bus communication (DALI or Meterbus)
- Bi-colour LED status display
- Compatible with all dimmable and non-dimmable LED drivers
- 3-pin technology: LED module changeover switching and delayed LED driver power switching
- Constant power output in emergency mode
- Specific charging currents and charging cycles corresponding with the respective battery technology (NiCd or NiMH)
- Deep discharge protection
- 30 % higher NiMH battery life duration due to microprocessor controlled cyclic charging

The maximum LED current in maintained mode, i.e. in active operation in the LED module should not exceed 2,5 A.

H housing



Technical specification of different executions

| specification \ device type | EMCU Emergency Lighting Units for the Conversion of Existing LED Luminaires battery outside the housing | | |
|---|--|-------------------------|--------------------------|
| LED module voltage | min. 25 V max. 50 V | min. 50 V max. 130 V | min. 100 V max. 220 V |
| Maximum output voltage (with faulty or defective LED array) | 60 V | 150 V | 250 V |
| SELV | touchable LEDs | isolated LEDs | non-SELV |
| Device types with metal housings for class I luminaires | EMCU HS 50V | EMCU HS 130V | EMCU HS 220V |
| Device types for DALI installations | EMCU HDS 50V | EMCU HDS 130V | EMCU HDS 220V |
| Batteries | NiCd (D cells) NiMH (LA cells) | | |

Product liability

Please note that the maximum voltage in case of LED module failure may reach 60 V, 150 V or 250 V for the 50 V, 130 V and 220 V types respectively. The requirement of the EN 60598-1 standard concerning security must be fulfilled after the integration of the emergency lighting unit in the LED luminaire. It is the emergency lighting unit's user's full responsibility to comply with the EN 60598-1 standard. Any liability concerning standards compliance and correct emergency lighting unit selection will be denied by the manufacturer.

Selftest

- Selftest as per IEC 62034
- Bi-colour LED status display
- Battery status
- LED module status
- Charging cycle

Batteries

- High-temperature cells 5 to 50 °C
- NiCd / NiMH batteries
- D / LA cells
- Specific capacities depending on emergency operation duration
- Charging time 24 h

Certification mark

- CE



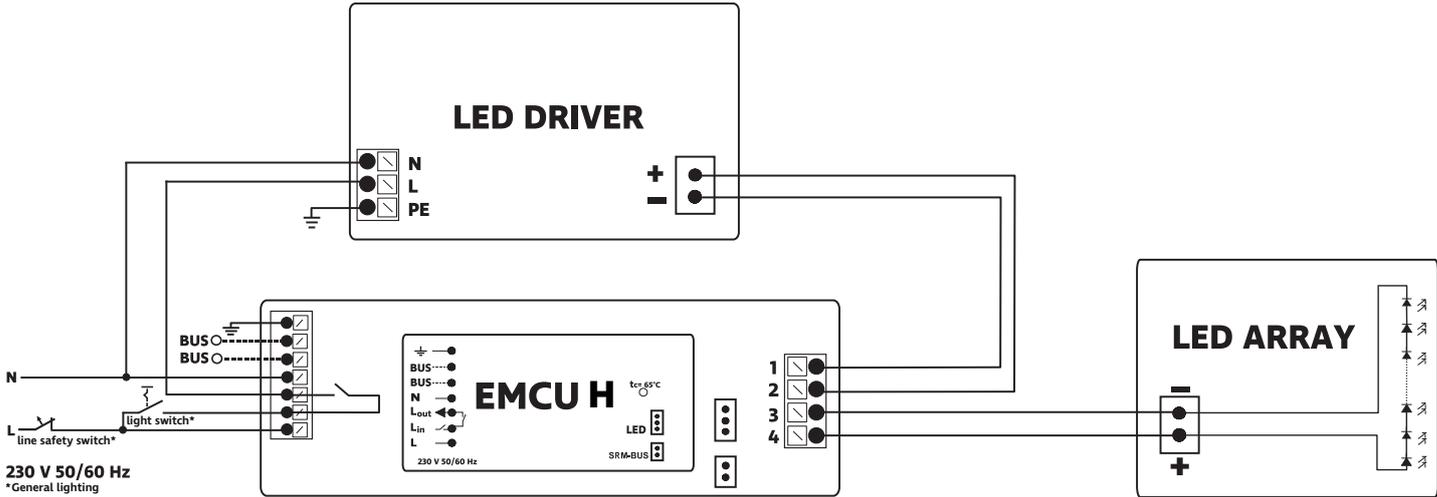
Safety

- Protection class I
- Protection type IP20
- SELV (50 V device)

Standards

- EN 60598-2-22
- EN 61347-2-7
- EN 61347-2-13
- EN 62386
- EN 62034
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- Suitable for systems conforming to: VDE 0108 or EN 50172

Connection diagram



All information is supplied without liability. Technical data subject to change without notice.