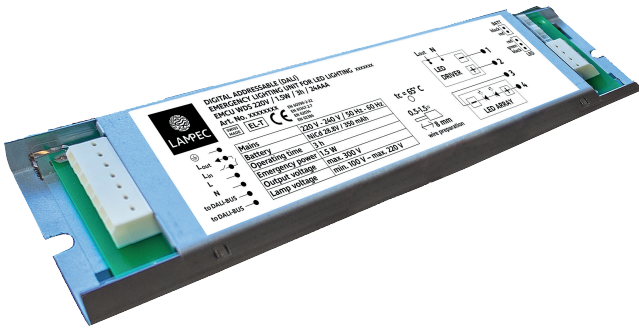


EMERGENCY LIGHTING UNIT

EMCU W

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	10 – 220 V
Max. output voltage (55 V device)	60 V
Max. output voltage (105 V device)	120 V
Max. output voltage (220 V device)	300 V
Output power in emergency mode	3 W *
Power consumption	max. 5 W / 7 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	four times annually
Battery charging time	24 h
Protection class	I
Protection type	IP20
Weight	140 g
Dimensions	L 234 x B 44 x H 11,5 mm
Hole spacing	226 mm

* ±15 %

Product description

The emergency lighting unit EMCU W serves the extension of existing LED luminaires with emergency lighting functionality conforming to the European selftest standard. The super-flat metal housing with a height of only 11 mm is suitable for protection class I luminaires with space constraints. The NiCd and NiMH battery technologies are supported and charged by microprocessor controlled cycles corresponding to the relevant battery type. A battery regeneration process for capacity optimisation is initiated automatically after commissioning as well as after each battery exchange.

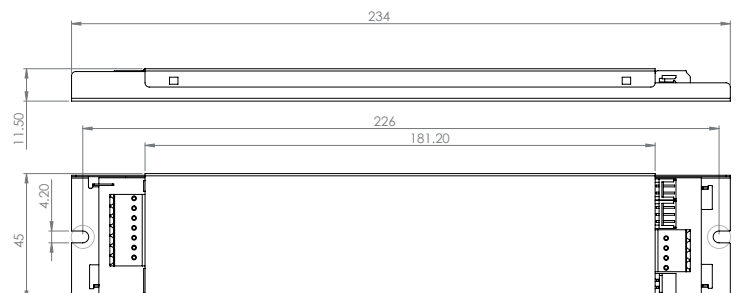
- Self-contained emergency lighting unit for LED luminaires and LED applications
- Four voltage ranges available to cover LED module forward voltages between 10 and 220 V
- Super-flat metal housing for usage in protection class I luminaires (L 234 x W 44 x H 11,5 mm) or suitable for protection class 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.

W 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. 10 V max. 55 V	min. 20 V max. 105 V	min. 100 V max. 220 V
Maximum output voltage (with faulty or defective LED array)	60 V	120 V	300 V
SELV	touchable LEDs	isolated LEDs	non-SELV
Device types with plastic housings for class I luminaires	EMCU WS 55V	EMCU WS 105V	EMCU WS 220V
Device types for DALI (WDS) and Meterbus (WBS) communication	EMCU WDS 55V EMCU WBS 55V	EMCU WDS 105V EMCU WBS 105V	EMCU WDS 220V EMCU WBS 220V
Device types for wireless communication	EMCU WW 55V	EMCU WW 105V	EMCU WW 220V
Batteries	NiCd (AAA cells) NiMH (AAA cells)		
Battery regeneration	EMCU WS 55V EMCU WBS 55V	EMCU WS 105V EMCU WBS 105V	EMCU WS 220V EMCU WBS 220V

Product liability

Please note that the maximum voltage in case of LED module failure may reach 60 V, 120 V or 300 V for the 55 V, 105 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 conforming to 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
- AAA cells
- Specific capacities depending on emergency operation duration
- Charging time 24 h
- Battery regeneration for capacity optimisation

Certification mark

- CENELEC certificate (pending)
- CE



Safety

- Protection class I
- Protection type IP20
- SELV (55 V and 105V devices)

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