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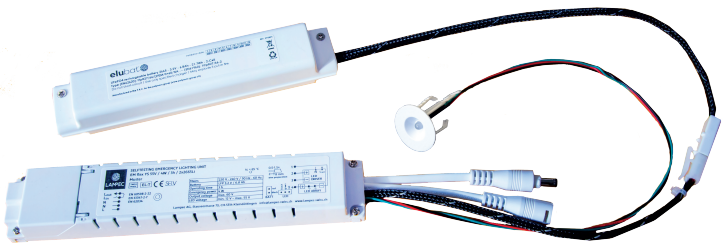
EMERGENCY LIGHTING UNIT

EM flex Y

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 (depending on type)
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	4 W (3 h), 6 W (1 h)*
Power consumption	average throughout 12 months approx. 0,15 W / 0,3 VA
Mains input current	max. 35 mA
Switchover time mains to emergency	< 0,5 s
Max. housing temperature tc	65 °C
Ambient temperature range ta	5...50 °C
Functionality test	randomised every 8 to 8,25 days throughout 2 min.
Duration test	four full battery discharges annually
Battery charging time	24 h
Protection type	II
Protection class	IP20
Weight including battery	360 g
Dimensions Y housing (device)	L 205 x B 37 x H 21,75 mm
Dimensions B housing (battery)	L 171,9 x B 32,8 x H 32,8 mm

* ±15 %

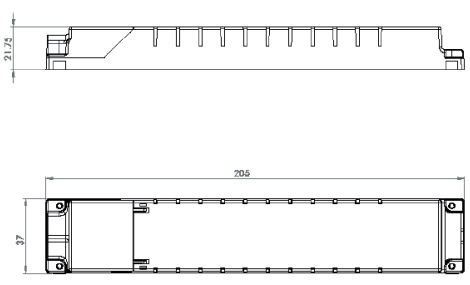
Product description

The emergency lighting unit EM flex Y with integrated LFP battery serves the extension of existing LED luminaires with emergency lighting and self-testing functionality conforming to the IEC 61347-2-7 and IEC 62034 standards. Both the emergency lighting unit and the LFP battery are mounted in two separate polycarbonate housings connected with each other with strain relief. The combination of emergency lighting unit and battery reduces the installer's workload and is suitable for LED panels, downlights and other luminaires without their own housing. A battery regeneration process for capacity optimisation is initiated automatically after commissioning as well as after each battery exchange to allow for the maximum battery lifetime.

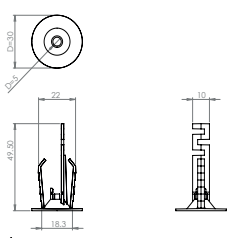
- self-contained emergency lighting unit with integrated LFP battery for LED luminaires
- forward voltage ranging from 10 to 220V (depending on product type)
- 1 and 3 h emergency durations, others upon request
- 4 W (3 h) and 6 W (1 h) respectively of constant emergency output power, others upon request
- automatic battery regeneration
- deep discharge protection
- selftest conforming to IEC 62034
- 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
- very low power consumption due to LFP battery technology
- optional bus communication (DALI or M-Bus)
- polycarbonate housing L 177 x W 30 x H 21,5 mm
- suitable for protection class II luminaires
- 60 months warranty (device only, excluding battery)

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

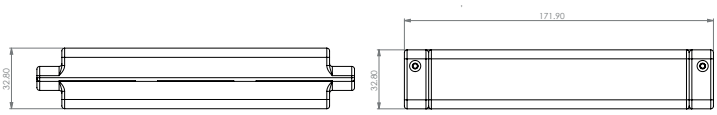
Y housing (for device)



LED bezel



B housing (for battery)



Technical specification of different executions

specification / device type	EM flex Y emergency lighting units for the conversion of existing LED luminaires		
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	mit berührbaren LEDs	mit isolierten LEDs	non-SELV
Device types with plastic housings for class I or II luminaires	EM flex YS 55V	EM flex YS 105V	EM flex YS 220V
Device types for DALI (YDS) and Meterbus (YBS) communication	EM flex YDS 55V EM flex YBS 55V	EM flex YDS 105V EM flex YBS 105V	EM flex YDS 220V EM flex YBS 220V
Device types for wireless communication	EM flex YW 55V	EM flex YW 105V	EM flex YW 220V
Batteries	LFP (26650 cells)		
Battery regeneration	EM flex YS 55V EM flex YBS 55V	EM flex YS 105V EM flex YBS 105V	EM flex YS 220V EM flex YBS 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 with the use 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 cellls 5 to 50 °C
- LFP batteries 3.2V/6.8Ah
- 26650 cells
- Charging time 24 h
- Battery regeneration for capacity optimisation
- See battery data sheets for details

Certification mark

- CE

Safety

- Protection classes I and II
- Protection type IP20
- SELV (55V 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 oder EN 50172