

EMERGENCY LIGHTING INVERTER LELY

Emergency lighting inverter for the conversion of LED luminaires



Scope

The LELY emergency lighting inverter adds emergency lighting and selftest functionality to regular LED luminaires. The space-saving polycarbonate housing fits into a wide range of protection class II luminaires along with the equally compact LFP batteries. 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.

Technical data

| | |
|-------------------------------------|-----------------------------|
| Mains voltage range | 220...240 V |
| Mains frequency | 50 / 60 Hz |
| Output voltage range | 10...220 V |
| Max. output voltage [55 V variant] | 60 V |
| Max. output voltage [105 V variant] | 120 V |
| Max. output voltage [220 V variant] | 300 V |
| Emergency output power | 4 W [3h], 6 W [1h] |
| Power consumption | max. 5 W / 7 VA |
| Mains to emergency switchover | < 0,5 s |
| Max. housing temperature t_c | 65 °C |
| Ambient temperature t_a | 5...50 °C |
| Functional test | Random each 8 to 8.25 days |
| Duration test | 4 annual battery discharges |
| Battery charging time | 24h |
| Protection class | II |
| Protection type | IP20 |
| Weight | 360 g incl. battery |
| Dimensions inverter (LxBxH) | 205x37x21.8 mm |
| Dimensions battery (LxBxH) | 172x32.8x32.8 mm |

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

Characteristics

- Self-contained emergency lighting inverter for LED luminaires
- LED forward voltages ranging from 10 to 220V
- 1 h or 3 h emergency durations, others upon request
- approx. 4 W (3h) i.e. 6 W (1h) of constant emergency output power, others upon request
- Automatic battery regeneration
- Deep discharge protection
- Selftest conforming to IEC 62034
- Bi-colour LED status indicator
- Compatible with all dimmable and non-dimmable LED drivers
- 3-pin technology: LED module changeover switching and delayed LED driver power switching
- Optional bus monitoring (DALI, M-Bus or Wireless)
- Polycarbonate housing
- Suitable for protection class II luminaires
- 60 months warranty (inverter only, without battery)

Selftest

- Selftest conforming to IEC 62034
- Bi-colour LED status indicator

Batteries

- High-temperature LiFePO₄ battery cells 5 to 60 °C
- Cell size 26650
- Charging time 24 h
- Automatic battery regeneration for capacity optimisation
- EN 62620 (Performance) and EN 62133 (Safety) certification
- Battery temperature monitoring (charging interruption at if temperature < 0 °C or > 60 °C)

Safety

- Protection class II
- Protection type IP20
- SELV (55 V and 105 V variants)

Standards

- EN 60598-2-22
- EN 61347-2-7
- EN 61347-2-13
- EN 62384
- EN 62034
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- EN 50172 (VDE 0108-100)



Product variants

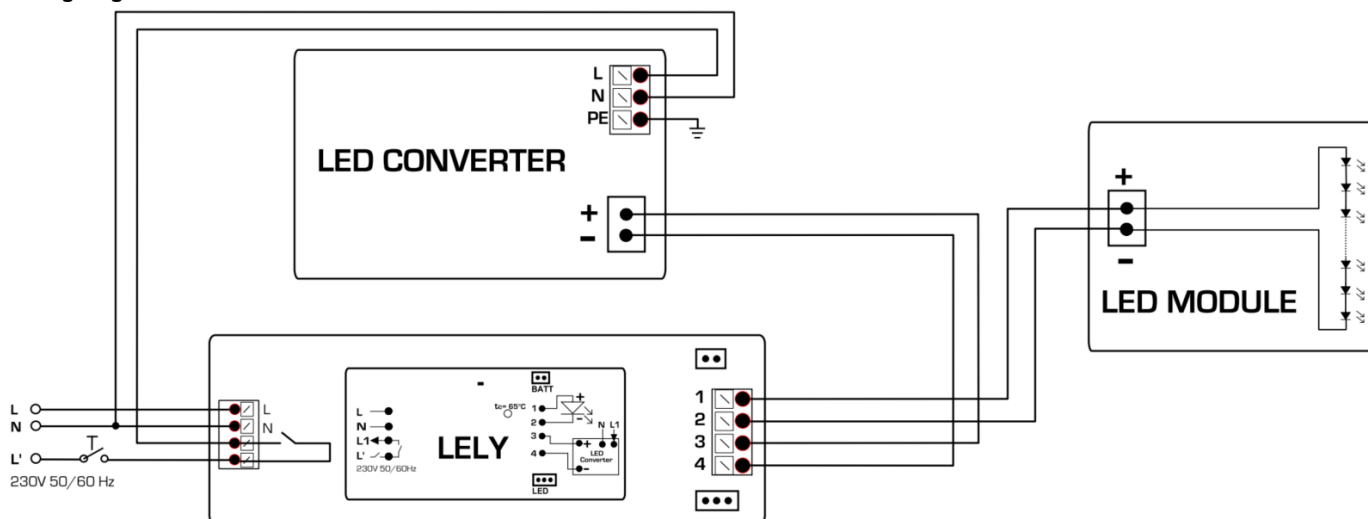
| Specifications | Types | | |
|-------------------------------|--|---|---|
| | LELY product variants | | |
| LED forward voltage | min. 10 V max. 55 V | min. 20 V max. 105 V | min. 100 V max. 220 V |
| Maximum output voltage | 60 V | 120 V | 300 V |
| SELV | touchable LEDs | isolated LEDs | non-SELV |
| Basic variants | LELY 55V | LELY 105V | LELY 220V |
| Selftesting variants | LELY-S 55V | LELY-S 105V | LELY-S 220V |
| DALI variants | LELY-MIRO 55V | LELY-MIRO 105V | LELY-MIRO 220V |
| M-Bus variants | LELY-SRM 55V | LELY-SRM 105V | LELY-SRM 220V |
| Wireless variants | LELY-W 55V | LELY-W 105V | LELY-W 220V |
| Batteries | 26650 LiFePO ₄ -Zellen | | |
| Battery regeneration | LELY-S 55V LELY-SRM 55V LELY-W 55V | LELY-S 105V LELY-SRM 105V LELY-W 105V | LELY-S 220V LELY-SRM 220V LELY-W 220V |

Variant list and detailed technical data: see file LELY-Certified Variants.

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 variants respectively. The requirement of the EN 60598-1 standard concerning security must be fulfilled after the integration of the emergency lighting inverter in the LED luminaire. It is the emergency lighting inverter's user's full responsibility to comply with the EN 60598-1 standard. Any liability concerning standards compliance and correct product variant selection will be denied by the manufacturer.

Wiring diagram



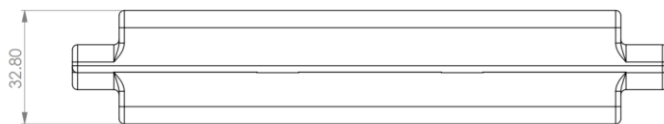
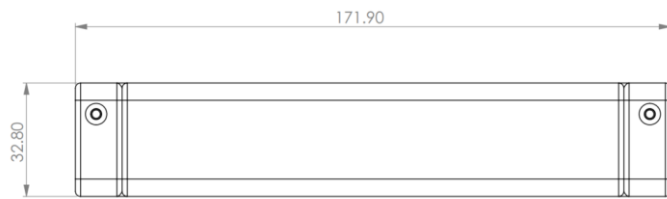
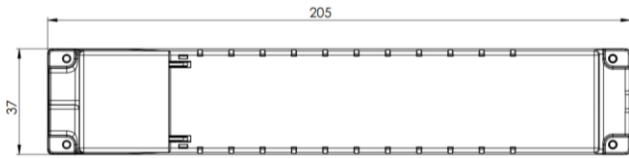
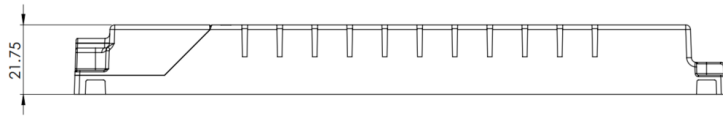
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Housing dimensions



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