

EMERGENCY LIGHTING INVERTER LCLI/LCMI/LCDI

LED emergency inverter with in-built battery for mains lighting conversion



Scope

The LCLI/LCMI/LCDI inverter adds emergency lighting and self-testing functionality to mains luminaires. The space-saving polycarbonate case houses an LFP battery and is suitable for a wide range of protection class II lighting applications. An optional strain relief allows for convenient ceiling installation.

Technical data

Mains voltage range	220...240 V
Mains frequency	50 / 60 Hz
Output voltage 55V variant	12...55 V, max. 60 V
Output voltage range 105V variant	40...105 V, max. 120 V
Output voltage range 220V variant	100...220 V, max. 350 V
Emergency output power	see page 2
Power consumption	max. 5 W / 7 VA
Mains to emergency switchover	< 0,5 s
Max. housing temperature tc	65 °C
Ambient temperature ta	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	180 g
Dimensions (LxWxH)	200x42x26 mm
Hole spacing	190.2 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 12 to 220V
- 1 h and 3 h emergency durations, others upon request
- Constant emergency output power 0.8...2.5 W
- Deep discharge protection
- Compatible with all dimmable and non-dimmable LED drivers
- 3-pin technology: LED module changeover switching and delayed LED driver power switching
- Optional DALI2 monitoring
- Polycarbonate housing
- Suitable for protection class II luminaires
- Optional strain relief for ceiling mounting
- 60 months warranty

Selftest

- Selftest as per IEC 62034
- Bi-colour battery and LED module status indicator

Batteries

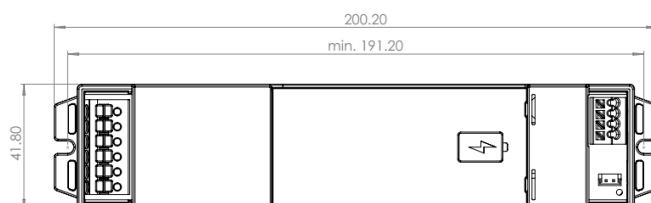
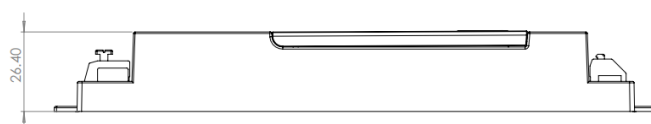
- High-temperature LiFePO4 battery cells 5 to 60 °C
- Cell size 18650
- Charging time 24 h
- Automatic battery regeneration for capacity optimisation
- EN 62620 (Performance), EN 62133 (Safety)

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)



Basic product variants (LCLI, without selftest)

specification	emergency duration	emergency output power	LFP battery type
LCLI 55V/2W.180/Li2-B	3 h	ca. 1.4 W	2x18650 3.2V-3Ah
LCLI 55V/3W.180/XL2-B	3 h	ca. 2 W	2x18650 3.2V-4.4Ah
LCLI 55V/3W.60/Li2-B	1 h	ca. 2.5 W	2x18650 3.2V-3Ah
LCLI 105V/2W.180/Li2-B	3 h	ca. 1.4 W	2x18650 3.2V-3Ah
LCLI 105V/3W.180/XL2-B	3 h	ca. 2 W	2x18650 3.2V-4.4Ah
LCLI 105V/3W.60/Li2-B	1 h	ca. 2.5 W	2x18650 3.2V-3Ah
LCLI 220V/2W.180/Li2-B	3 h	ca. 1.4 W	2x18650 3.2V-3Ah
LCLI 220V/3W.180/XL2-B	3 h	ca. 2 W	2x18650 3.2V-4.4Ah
LCLI 220V/3W.60/Li2-B	1 h	ca. 2.5 W	2x18650 3.2V-3Ah

Selftesting product variants (LCMI)

specification	emergency duration	emergency output power	LFP battery type
LCMI 55V/2W.180/Li2-B	3 h	ca. 1.4 W	2x18650 3.2V-3Ah
LCMI 55V/3W.180/XL2-B	3 h	ca. 2 W	2x18650 3.2V-4.4Ah
LCMI 55V/3W.60/Li2-B	1 h	ca. 2.5 W	2x18650 3.2V-3Ah
LCMI 105V/2W.180/Li2-B	3 h	ca. 1.4 W	2x18650 3.2V-3Ah
LCMI 105V/3W.180/XL2-B	3 h	ca. 2 W	2x18650 3.2V-4.4Ah
LCMI 105V/3W.60/Li2-B	1 h	ca. 2.5 W	2x18650 3.2V-3Ah
LCMI 220V/2W.180/Li2-B	3 h	ca. 1.4 W	2x18650 3.2V-3Ah
LCMI 220V/3W.180/XL2-B	3 h	ca. 2 W	2x18650 3.2V-4.4Ah
LCMI 220V/3W.60/Li2-B	1 h	ca. 2.5 W	2x18650 3.2V-3Ah

DALI2 product variants (LCDI)

specification	emergency duration	emergency output power	LFP battery type
LCDI 55V/2W.180/Li2-B	3 h	ca. 1.4 W	2x18650 3.2V-3Ah
LCDI 55V/3W.180/XL2-B	3 h	ca. 2 W	2x18650 3.2V-4.4Ah
LCDI 55V/3W.60/Li2-B	1 h	ca. 2.5 W	2x18650 3.2V-3Ah
LCDI 105V/2W.180/Li2-B	3 h	ca. 1.4 W	2x18650 3.2V-3Ah
LCDI 105V/3W.180/XL2-B	3 h	ca. 2 W	2x18650 3.2V-4.4Ah
LCDI 105V/3W.60/Li2-B	1 h	ca. 2.5 W	2x18650 3.2V-3Ah
LCDI 220V/2W.180/Li2-B	3 h	ca. 1.4 W	2x18650 3.2V-3Ah
LCDI 220V/3W.180/XL2-B	3 h	ca. 2 W	2x18650 3.2V-4.4Ah
LCDI 220V/3W.60/Li2-B	1 h	ca. 2.5 W	2x18650 3.2V-3Ah

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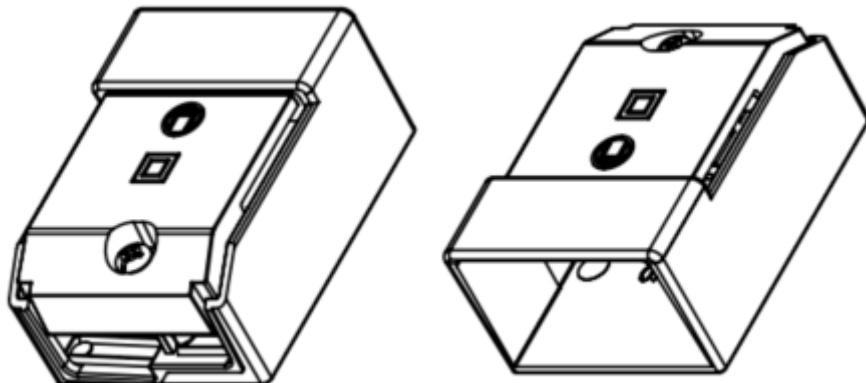
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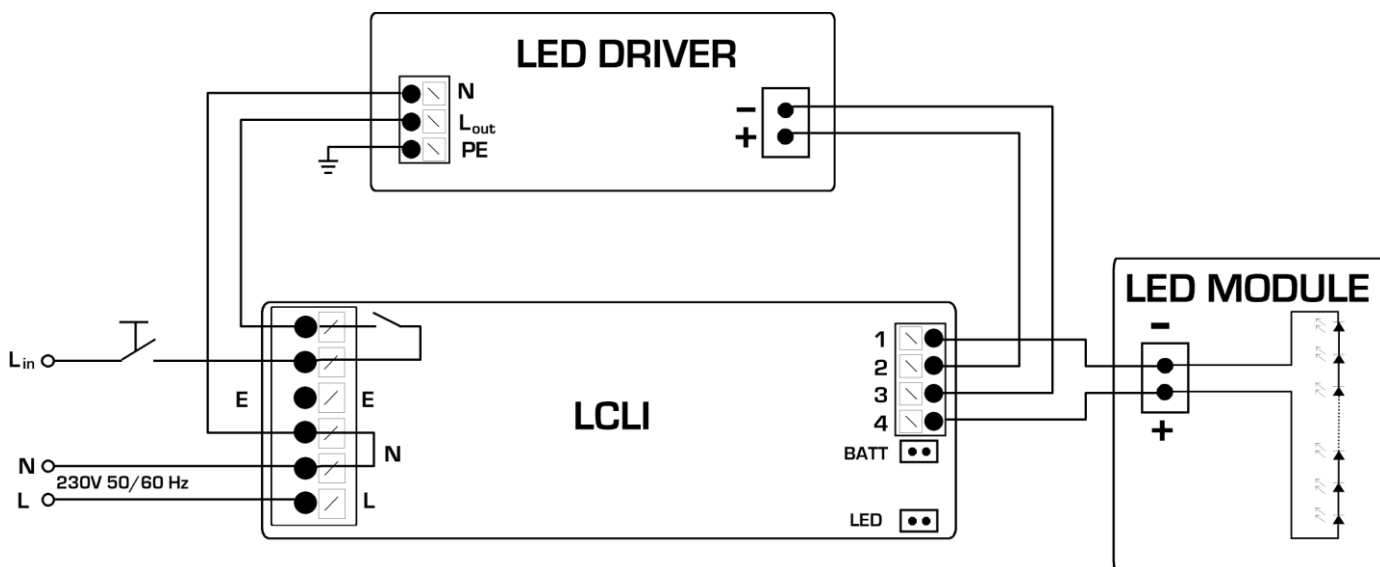
Product liability

Please note that the maximum voltage in case of LED module failure may reach 60 V, 120 V or 350 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.

Strain relief



Wiring diagram



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