

EM converterLED PRO MH/LiFePO4 250 V

PRO version

**Product description**

- _ Emergency lighting LED driver with DALI-2 interface and automatic test function
- _ For self-contained emergency lighting
- _ For LED modules with a forward voltage of 50 – 250 V
- _ Low profile casing (21 x 30 mm cross-section)
- _ For luminaire installation
- _ EM = Emergency
- _ Nominal lifetime up to 100,000 h
- _ 5 years guarantee

Properties

- _ Non maintained operation
- _ DALI-2 interface for controlled testing and monitoring
- _ 1, 2 or 3 h rated duration
- _ Operating time selectable with plug (duration link)
- _ Compatible with most constant current LED drivers (see data sheet, LED driver compatibility)
- _ 3-pole technology: 2-pole LED module changeover and delayed power switching for the LED driver
- _ Automatic shutdown of output if LED load is out of range
- _ Constant power output
- _ Two-colour status display LED
- _ Electronic charge system
- _ Deep discharge protection
- _ Short-circuit-proof battery connection
- _ Polarity reversal protection for battery provided by 3-pole connector
- _ Automatic detection of the connected battery technology (NiMH or LiFePO4 batteries)
- Self-test:
 - _ Status of the battery
 - _ Status of the LED
 - _ Function test
 - _ Duration test

Batteries

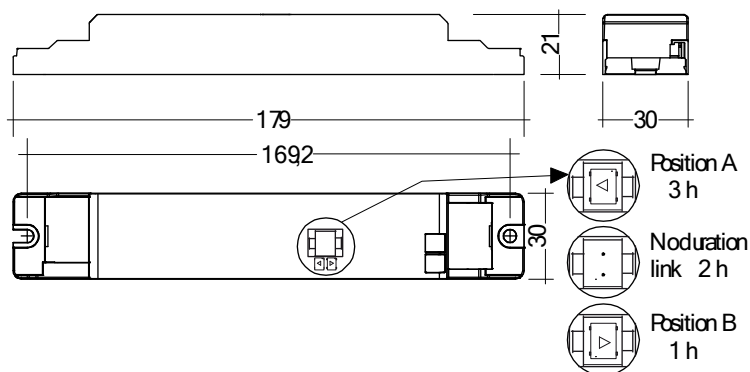
- _ High-temperature cells
- _ NiMH or LiFePO4 batteries
- _ LA or 18650 cells
- _ 4-year design life for NiMH batteries
- _ 1 years guarantee for NiMH batteries
- _ 4 – 8 years design life for LiFePO4 batteries
- _ 4 years guarantee for LiFePO4 batteries
- _ LiFePO4 batteries with Tridonic LiFeGuard
- _ For battery compatibility refer to data sheet, battery selection

Website
<http://www.tridonic.com/89800638>


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The complete data sheet for this product is available in the Downloads section.



Note: LED driver supplied with duration link in 3 hours position. Duration link must be set before battery and mains connection.

Ordering data

Type	Article number	Rated duration	Packaging, carton	Packaging, pallet	Weight per pc.	Dimensions L x W x H
EM converterLED PRO 204 MH/LiFePO4 250V	89800638	1/2/3 h	10 pc(s).	1,600 pc(s).	0.07 kg	179 x 30 x 21 mm

Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
Mains frequency	50 / 60 Hz
Forward voltage range LED module	50 – 250 V
Output current	Refer to data sheet
Starting time	< 0.5 s from detection of emergency event
Overvoltage protection	320 V (for 48 h)
U-OUT (including open- / short-circuit and double load)	300 V
Max. open circuit voltage	300 V
Ambient temperature t_a	-25 ... +55 °C
Max. casing temperature t_c	80 °C
Mains voltage changeover threshold	According to EN 60598-2-22
Mains surge capability (between L - N)	1 kV
Mains surge capability (between L/N - PE)	2 kV
Type of protection	IP20
Rest mode max. number of emergency units	100
Rest mode max. wiring distance	1,000 m
Functional test	Weekly 5s test
Duration test	Yearly 1 h / 2 h / 3 h test
Lifetime	up to 100,000 h
Guarantee	5 Year(s)
Dimensions L x W x H	179 x 30 x 21 mm

Approval marks**Standards**

EN 61347-1, EN 61347-2-13, EN 61347-2-7, EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547, EN 60068-2-64, EN 60068-2-29, EN 60068-2-30, EN 62384, DALI standard EN 62386-202, according to EN 50172, according to EN 60598-2-22, acc. to EN 62034

Specific technical data

Type	Battery technology	Rated duration	Typ. λ (at 230 V, 50 Hz)	Typ. output power P emergency	Mains current in charging operation			Mains power in charging operation		
					Initial charge	Fast recharge	Trickle charge ^①	Initial charge	Fast recharge	Trickle charge ^②
EM converterLED PRO 204 MH/LiFePO4 250V	NiMH	1 / -1 h	0.70C	3.5 W	17 mA	20 mA	17 / 11 mA	2.3 W	2.9 W	2.3 / 1.4 W
EM converterLED PRO 204 MH/LiFePO4 250V	NiMH	2 / -1 h	0.70C	3.5 W	23 mA	24 mA	23 / 11 mA	3.6 W	3.6 W	3.6 / 1.4 W
EM converterLED PRO 204 MH/LiFePO4 250V	NiMH	3 / -1 h	0.70C	3.5 W	23 mA	24 mA	23 / 11 mA	3.6 W	3.6 W	3.6 / 1.4 W
EM converterLED PRO 204 MH/LiFePO4 250V	LiFePO4	1 / -1 h	0.70C	3.5 W	19 mA	19 mA	19 / 11 mA	2.8 W	2.8 W	2.8 / 1.4 W
EM converterLED PRO 204 MH/LiFePO4 250V	LiFePO4	2 / -1 h	0.70C	3.5 W	24 mA	24 mA	24 / 11 mA	3.8 W	3.8 W	3.8 / 1.4 W
EM converterLED PRO 204 MH/LiFePO4 250V	LiFePO4	3 / -1 h	0.70C	3.5 W	24 mA	24 mA	24 / 11 mA	3.8 W	3.8 W	3.8 / 1.4 W

① 12 h battery charging time for 2 h emergency lighting function when used with LiFePO4 batteries.

② In case of NiMH batteries: Intermittent charge is used. Value 1 is for 4 min. charge on / Value 2 is for 16 min. charge off. In case of LiFePO4 batteries voltage dependent constant current charging is used.