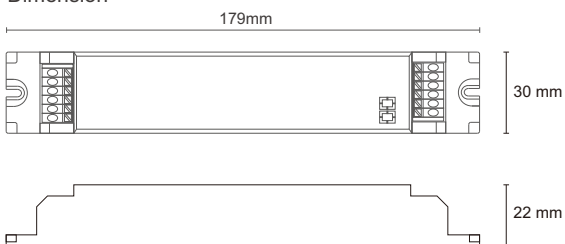


LED Emergency converter

Basic self-test



Dimension



Relevant standard

IEC 61347-1
IEC 61347-2-7
EN 62034
EN 55015
AS/NZS 60598-2-22
AS2293.3



LED Emergency converter

Product description

- Self-test function.
- LED emergency converter that can transfer standard LED fitting into emergency LED fitting.
- Used with Lithium iron phosphate battery.
- Suits for LED fitting with external led driver.
- Accessory: test switch and charge indicator.

Applications

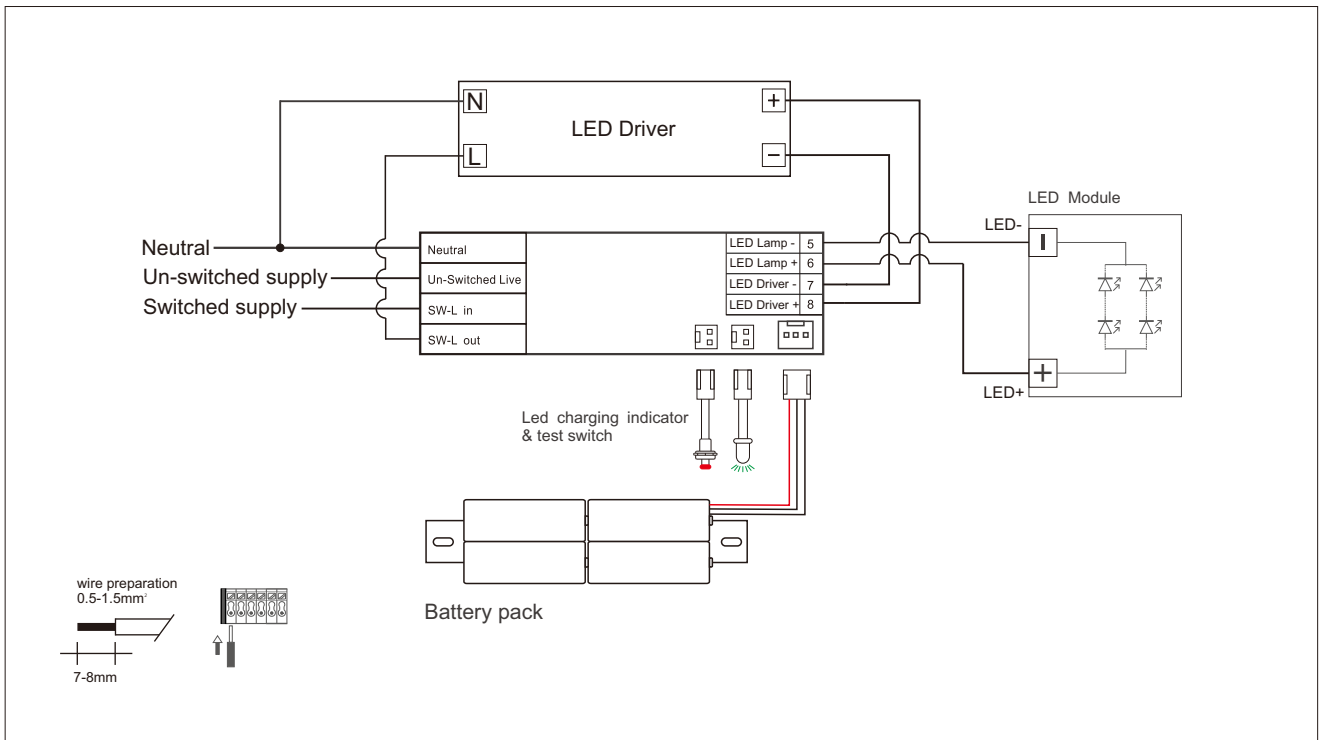
- Use in damp and dry environment.
- For use on a wide range of LED fittings to convert them from standard to emergency fitting.
- LED fitting would be maintained emergency LED fitting if standard (main powered) driver, emergency lighting kit and battery are all retained in the circuit. LED fitting would be non-maintained emergency LED fitting if only emergency lighting kit. and battery are retained in the circuit.
- Additional Relay that can control standard LED driver.
- Deep discharge protection.
- Connector between emergency kit and battery has the function of polarity reversal protection.
- Ambient range t_a 0....50°C
- IP20 protection, relies on end-product enclosure for protection against accidental contact live parts.
- Not intended for use in luminaries for high-risk task area lighting.
- Full warranty 3 years.

LED Emergency converter

Technical data

- Input rated voltage: 220-240V AC 50-60Hz
- AC input current 50mA
- AC Input power rated 4 W max
- Power factor: >0.5
- Charge time ≥ 16 hours
- Charge mode: trickle re-charging on battery.
- Output emergency power 4 wattage DC10...50V (3-15 LEDs) DC50...200V(15-60 LEDs) constant power output.
- Output voltage DC10...50V, DC55V max(SELV) DC50...200V,DC250V max.
- Battery capacity (LiFePo4) 1500mAh, 2200mAh, 3000mAh
- Battery Charging Current: 0-250mA
- 3 hours rated duration
- Charging indicator light
 - Red light on--Battery is charging
 - Green light on--Battery is fully charged
 - Green flashing-- self-test underway
 - Red flashing:--failure as below
 - Indicator off--The device is something wrong and is malfunction.
- Max. casing temperature t_c 70°C
- Lumen Factor: 120lm/Wattage
- Reinforced insulation between the supply and the battery circuit.
- This unit can recharge the battery normally after reconnecting of battery.

Wiring diagram(Maintained)



LED Emergency converter

Self-test:

- Status of the battery.
- Status of the LED.
- Charge condition.
- Duration test

Functional test

Connecting battery firstly, connecting mains supply then, this emergency conversion module will automatically go into self-test on charge circuit and discharge function as well as installation of led lamp within 3 seconds.

Timer starts to calculate based on led indicator turning into green when battery is fully charged for the very first time. The emergency conversion module will automatically discharge 10 seconds every 30 days as a short time functional test.

Duration test

Emergency conversion module will automatically discharge 90 minutes every 180 days to check percentage between discharge time and battery voltage and then evaluate battery capacity normal or not. If it's normal, emergency module will automatically go into next working cycle, otherwise led indicator would turn into red flashing.

This emergency pack should discharge over 180 minutes after fully charged during emergency mode, but it is set to discharge 90 minutes during duration self-test, after 90 minutes duration self-test, it will go into charging mode again.

If a mains supply failure occurs at any time, before or during functional test and duration test period, emergency conversion module will go into emergency mode immediately. Timer would not re-calculate if battery is not disconnected after emergency mode. If battery is disconnected, whole emergency conversion module will recover to initial status.

Sample test mode

This emergency conversion module is also set a sample test mode for client to imitate self-test function within 120 minutes.

Initiate self-test:

Press test switch for at least 15 seconds after battery fully charged, led indicator would be green flashing, this means emergency module goes into sample self-test mode.

Timing of sample test mode:

Timer starts to calculate at the time of led indicator green flashing, emergency module will discharge for 10 seconds every 30 seconds, and will discharge 90 minutes during the 6th discharging time.

LED indicator



Green stable: charging mode



Red flashing: failure as below

Battery is not connected

Battery is defective

Load failure during emergency mode, open circuit/short circuit

Battery capacity abnormal



Green stable: battery fully charged



Green flashing: self-test underway



Red and Green off: discharging mode or mains supply disconnected