

EPE-EM11

LED Emergency Track Light

INTRODUCTION

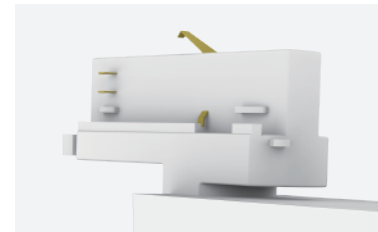
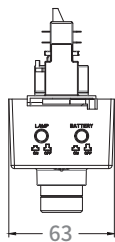
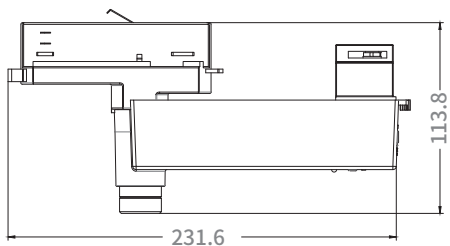
Smart IC control emergency track light offers a simple method of providing discreet emergency lighting in areas that require a self-contained solution powered by the existing track system. Provide a high-quality lithium battery with a long lifetime.

FEATURES

- Suitable for track mounting.
- Intelligent IC control appliance.
- Convenient switch to control Maintained or Non-maintained
- White / Black finishing optional.
- Push-to-test switch.
- Battery on/off switch can easy connect the battery, no need to tear down the frame
- DALI Test

Dimensions

unit:mm



Model List

Model	EPE-EM11-1H	EPE-EM11-2H	EPE-EM11-3H
Input Voltage	220-240V	220-240V	220-240V
Lumen Output	220lm	220lm	220lm
Charge Duration	24H	24H	24H
Discharge Duration	1H	2H	3H
Battery	LiFePO4 6.4V600mAh	LiFePO4 6.4V1500mAh	LiFePO4 6.4V1500mAh
Test Mode	DALI Test	DALI Test	DALI Test

Driver Datasheet

Model	EPE-EM11-1H	EPE-EM11-2H	EPE-EM11-3H
Maintained Power	6W Max	6W Max	6W Max
Non-Maintained Power	3.5W Max	3.5W Max	3.5W Max
Frequency	50/60Hz	50/60Hz	50/60Hz
Input Voltage	220-240V	220-240V	220-240V
Discharge Efficiency	≥80%	≥80%	≥80%
Emergency Power	2W Max	2W Max	2W Max
Power Factor	≥0.3	≥0.3	≥0.3
Rated Input Current	≤0.02A	≤0.035A	≤0.035A
Full load output voltage	DC2.8-3.2V	DC2.8-3.2V	DC2.8-3.2V
Output current range	575mA±10%	575mA±10%	575mA±10%
Short circuit protection	PASS	PASS	PASS
Over voltage protection	PASS	PASS	PASS
Surge	0.5KV	0.5KV	0.5KV
Withstand voltage	AC3750V	AC3750V	AC3750V

Technical Data Sheet

Model	EPE-EM11-1H	EPE-EM11-2H	EPE-EM11-3H
LED	SAMSUNG 3535	SAMSUNG 3535	SAMSUNG 3535
CCT(K)±10%	5000K	5000K	5000K
"Luminous Flux(lm) ±10%"	220lm	220lm	220lm
CRI	>70	>70	>70
LED Driver	Built-in	Built-in	Built-in
Protection Class	Class II	Class II	Class II
IP Rating	IP20	IP20	IP20
Finishing color	White/Black	White/Black	White/Black
Material	PC	PC	PC
Operating Temp (°C)	0 C ~45 C	0 C ~45	0 C ~45 C
Storage Temp (°C)	0 C ~60 C	0 C ~60	0 C ~60 C

Testing

DALI Control

A DALI command from a suitable control unit can be used to initiate function and duration tests at individually selected times. Status flags are set for report back and data logging of results.

When a DALI bus has not been connected or when a DALI bus is connected but the DALI default DELAY and INTERVAL times have not been re-set by sending appropriate DALI commands, then the EPE-EM11 will conduct self-tests in accordance with the default times set within the EEPROM. These default times are factory pre-set, in accordance with the DALI standard EN 62386-202, to conduct an automatic function test every 7 days and a duration test every 52 weeks. Since the DELAY time is factory pre-set to Zero, all units are tested at the same time. Test times can be changed with a command over the DALI bus.

The DELAY and INTERVAL time values must be re-set when the emergency system test times are to be scheduled by a DALI control and monitoring system.

Note that once the default values have been set to Zero, tests will only be conducted following a command from the control system. If the DALI bus is disconnected the EPE-EM11 does not revert to self-testing mode.

Addressing

The EPE-EM3 includes the new EZ easy addressing system which allows addressing and identification by using the bi-colour LED. Binary address codes given by the LED can be simply converted to the DALI addresses 0 to 63. For single handed addressing using this method it is necessary to send a broadcast identify command every 3 to 9 seconds. During this command the main fluorescent lamp will be switched off and the LED will flash the 6 bit binary address preceded by a 3 second start indication period.

Commissioning

After installation of the luminaire and initial connection of the mains supply and battery supply to the EPE-EM11 the unit will commence charging the batteries for 20 hours (initial charge). Afterwards the module will conduct a commissioning test for the full duration. The 20 hours recharge occurs also if a new battery is connected or the module exits the rest mode condition. The following connected or the module

exits the rest mode condition. The following automatic commissioning duration test is only performed when a battery is replaced and fully charged (after 20 hrs) and the interval time is not set to zero, otherwise the system is expected to perform the testing.

Functional Test

The time of day and frequency of the 5 seconds function test can be set by the DALI controller. The default setting is a 5 seconds test on a weekly basis.

Duration Test

The time of day and frequency of the duration test can be set by the DALI controller. The default setting is a duration test conducted every 52 weeks.

Prolong Time

Prolong time can be set by the DALI controller. This is the delay time between return of the mains supply and the end of the emergency operation. The default prolong time is set as 0 minutes as specified within the DALI standard.

Indicator LED will stay off for the duration of the prolong time.

Rest Mode / Inhibit Mode

Emergency operation is automatically started when the mains supply is switched off. If the Rest Mode is activated, the discharging of the battery will be minimized by switching off the LED output. If the Inhibit Mode has been activated before the mains supply is switched off, Rest Mode will be automatically switched on if the mains supply is switched off within 15 minutes. Rest Mode and Inhibit Mode can be initiated by the DALI controller. The REST command has to be sent after the mains supply has been disconnected and whilst the EPE-EM11 is in emergency operation. The INHIBIT command has to be sent while the EPE-EM11 is supplied by mains.

Test Switch

An optional test switch can be wired to each EPE-EM3. This can be used to initiate a 5 seconds function test by a short press < 1 second.

DALI Controller

Average life-time 50,000 hours under rated conditions with a failure rate of less than 10 Average failure rate of 0.2

Life-time

Average life-time 50,000 hours under rated conditions with a failure rate of less than 10 Average failure rate of 0.2

Status indication

System status is indicated by a bi-colour LED and by a DALI status flag.

LED indication	Status	Commentary
Permanent green	System OK	
Fast flashing green (0.1sec on-0.1 sec off)	Function test underway	
Slow flashing green (1sec on-1 sec off)	Duration test underway	
Red LED on	Load failure	Open circuit / Short circuit / LED failure 1
Slow flashing red (1sec on-1 sec off)	Battery failure	Battery failed the duration test or function / Battery is defect / Incorrect battery voltage
Fast flashing red (0.1sec on-0.1 sec off)	Charging failure	Incorrect charging current
Double pulsing green	Inhibit mode	Switching into inhibit mode via controller
Binary transmission of address via green/red LED	Address identification	During address identification mode
Green and red off	DC mode	Battery operation (emergency mode)

If the EPE-EM11 is operated in non-maintained mode and an LED fault is detected, the red indicator LED will be illuminated and the output will be stopped. The unswitched mains supply must be switched off before the LED is changed in order that the new LED can be detected. A function or duration test will not reset the fault indication.



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