

LED EMERGENCY EXIT SIGN

LUMICON-30M-DALI2



Features

- Economical escape sign products
- Emergency lighting LED escape sign with DALI-2 interface and automatic testing function
- Various legends in compliance with ISO3864-Parts 1&3&4
- PET directional film can be replaced as required
- Visual Distance 30M
- LiFePO4 batteries are designed to be replaceable
- Very low stand-by power loss
- 6 in 1 installation mode
- Polycarbonate white RAL9016
- Colour temperature : 5700-6500K
- 5 years guarantee electronic

Functions

- Emergency state, with the function of switching test line
- Maintained and Non-maintained mode
- DALI-2 automatic testing function
- Electronic charge system
- Deep discharge protection
- Polarity reversal protection for battery
- After the battery is fully charged,in order for the luminaire to provide at least 50%of its rated duration of emergency operation, when in rest mode,it can hold for three day

220-240V
AC
50/60Hz

LED

IP20



LiFePO4

d=30m

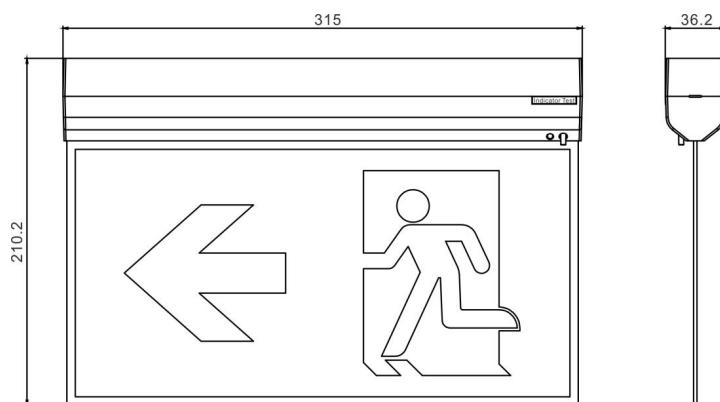
CE



DALI2

Dimensions

Unit: mm



Item Code	Carton size	QTY	Weight per pc.
LMCN-30M	680*369*250	20PCS	408g

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Technical Data

Rated supply voltage	220-240VAC
AC voltage range	145-185VAC
Mains frequency	50/60Hz
Power factor	≥0.4
Starting time	1s
Ambient temperature ta	5-45°C
IP rating	IP20
In-rush current	2A
In-rush current duration	<1ms
Mains surge capability (between L – N)	1KV

Item Code	Typical output emergency power	Mains input current, min	Mains input current, max	Input power in mains operation, min	Input power in mains operation, max
LMCN-30M-M1N1WDL (Maintained)	0.3W	10mA	30mA	1.5W	2.5W
LMCN-M1N1WDL (Non-maintained)		5mA	16mA	0.5W	1.8W

Item Code	LED module forward voltage range Min-Max	LED module forward current range Min-Typ-Max	LED module forward power range Min-Typ-Max	Visual Distance
LMCN-30M-M1N1WDL-3H-LI	9-12V	15-26-35mA	0.13-0.25-0.45W	30m

Note:

1. All specifications are typical at 25°C unless otherwise stated.

2. All specifications are typical on the 230VAC unless otherwise stated.

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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 LMCN-30M 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 LMCN-30M does not revert to self-testing mode.

Addressing:

For single handed addressing using this method it is necessary to send a broadcast ident command every 3 to 9 seconds. During this command the LEDs will be switched off and the indication LED will flash the 6 bit binary address preceded by a 3 second start indication period.

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 LMCN-30M is in emergency operation. The inhibit command has to be sent while the LMCN-30M is supplied by mains. After a mains reset the LMCN-30M exits the Rest Mode. Rest Mode and Inhibit Mode can both be disabled by sending the RE-LIGHT/RESET inhibit command.

Indicator LED System status is locally by a bi-color indicator LED		
LED Indication	Status	Description
Permanent Green	Standby ,System OK	Mains Operation ,battery is charged
Fast flashing Green (0.25s on 0.25s off)	Function test underway	Function test underway
Slow flashing Green (1s on 1s off)	Duration test underway	Duration test underway
Permanent Red	Lamp failure	Open Circuit or Short circuit or LED failure
Fast flashing Red (0.25s on 0.25s off)	Battery capacity failure	Battery failed duration test
Slow flashing Red (1s on 1s off)	Battery fault	Incorrect battery voltage or Short circuit or Open Circuit
Green and Red off	Battery Operation	Emergency mode:Mains disconnected or Mains failure
Slow flashing Red (1s on 3s off)	Battery temperature error	When power on and battery temperature is above 55(+2)°C or below 0(+2)°C

Notice

If an error is detected, the indicator LED switches to RED. If the error has been corrected please re-connecting the battery after the mains power off, the indicator LED immediately switches back to GREEN when mains power on.

Notice

If the battery voltage is below 2.8V, the moment you start function test, may show battery error(red indicator flashes 0.5s on,0.5s off), to clear this error, you need to remove and reconnect the battery or, charge the battery at least 3min, then start the function test, once the test finish, the error will be clear. So, in order to

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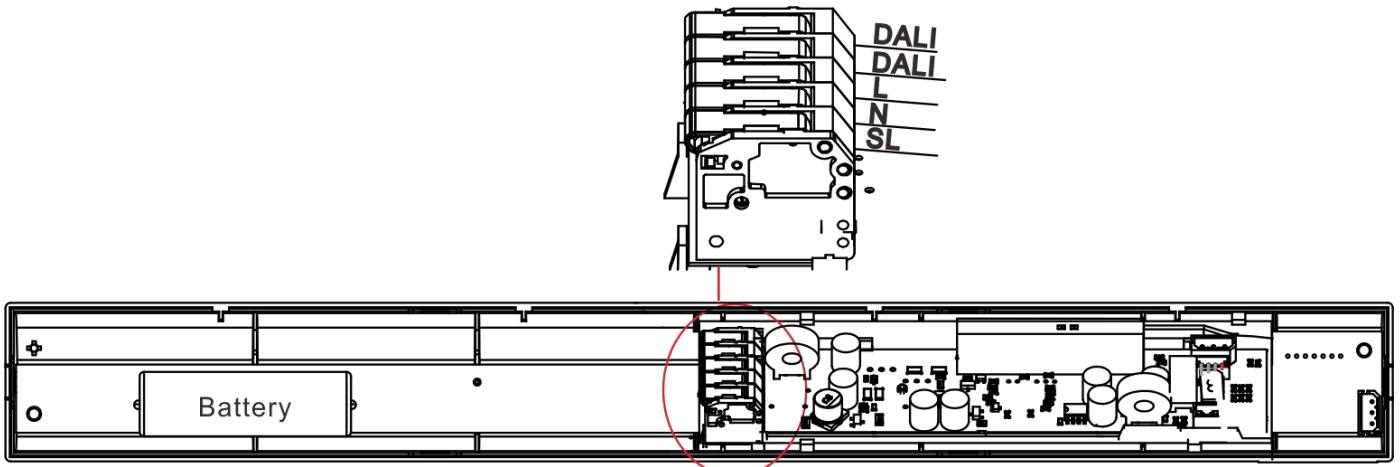
Mounting Options

• Ceiling mounted	• Wall mounted
	
• Recessed mounted	• Suspended mounted
	
• Perpendicular mounted	• Parallel mounted
	

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Wiring Diagram



Note:

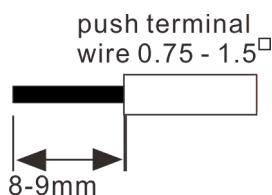
Lead the AC and DALI cables from the waterproof connector, connect the SL, L, N, DALI cables to the terminal respectively to complete the wiring, and turn on the maintain mode.

Note:

1. Maintained mode: Wiring both L, N and SL.
2. Non-maintained mode: Wiring only L and N.

Requirements for wiring wires:

1. Wire diameter range: 0.75-1.5 square millimeters;



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Battery Data

Emergency power	Batteries	Battery fully charged time	Charge Current	Battery discharge voltage Min-Typ-Max	Battery discharge current Min-Typ-Max	Battery output power Min-Typ-Max	Emergency Duration
1W	3.2V 600mAh LiFePO4	24h	150mA	2.5-3.2-3.65V	100-130-160mA	0.25-0.35-0.6W	3h

Note.

Automatically charge when the voltage of a single battery drops below 3.4V. When the voltage of a single battery exceeds 3.6 V, the charger turns off (0mA).

The emergency lighting LED driver will recharge the battery normally after running the test of 61347-2-7 CL22.3 (abnormal operating conditions).

When the voltage of a single battery is below min 2.0 V, the battery will not enter an emergency state.

The minimum charging environment temperature of the battery is 5°C , to ensure that the battery can be charged

Capacity	0.6 Ah
International designation	IFpR 14/50
Battery voltage/cell	3.2V
Cell type	14500
Case temperature range to ensure	
4 years design life	+5°C to +55°C
5 years design life	+5°C to +45°C
6 years design life	+5°C to +35°C
Max. short term battery case temperature (shorter than 1 month over the battery lifetime)	70°C
Max. number discharge cycles	50 cycles total
Max. storage time	6 months

Notice: Storage condition

Batteries should be stored within the specified temperature range in low humidity conditions.

Optimal storage conditions are

- Temperature:-20°C to +40°C

- Humidity: 45%- 85%

Avoid atmosphere with corrosive gas

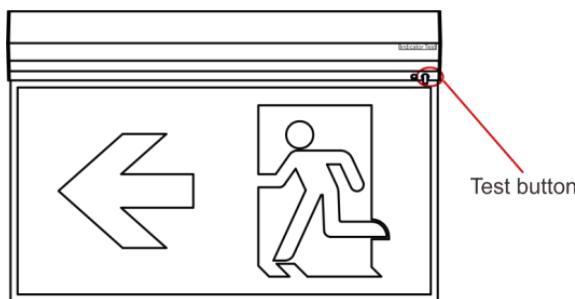
It is recommended to disconnect the battery before storage or delivery

Battery should be charged every three months in order to keep it's initial performance.

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Test Button



Test button:

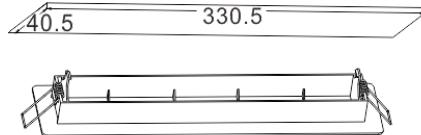
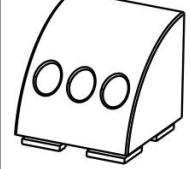
When 220VAC is powered on, press this button, the standard product will enter an emergency state, the self test product will enter a functional test for 5 seconds, and the self test product will reset after holding for 10 seconds.

Standard

This product meets the following standards:

- EN IEC60598-1
- EN IEC60598-2-1
- EN IEC60598-2-22
- ISO3864-Parts 1&3&4
- EN IEC61347-1
- EN IEC61347-2-7
- EN IEC61347-2-13
- EN 61000-3-3
- EN 61547
- EN 62034
- EN 55015
- ROHS 2.0
- DALI standard EN 62386-202

Mounting Accessories

Item Code	Evacuation direction sign	Embedded	Sling	Wall mounted
Accessories' Images		 Opening size:330.5*40.5mm	 Length:1.5m	

Note:

1. Before using PET directional film, tear off the protective film and use it.
2. The product can be installed in a variety of ways through the installation of accessories.

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Service Life

Average life-time 50,000 hours under rated conditions with a failure rate of less than 10% for the emergency converter as rated power. Average failure rate of 0.2% per 1000 operating hours.

Important

It is recommended that qualified electrician install and maintain the device to ensure that it meets the necessary standards.

The company accept no responsibility for incorrect installation, incorrect operation or improper maintenance.

After installation of the fitting, the battery must be charged for 24 hours for duration test.

The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

Replace the battery by referring to the battery model in the product model list.

That the replacement of the battery or of the whole luminaire (if equipped with a non-replaceable battery) is needed when they no longer meet their rated duration of operation after the corresponding recharge period.