

# Installation & Wiring Instructions

BMM/1

Maintained Emergency Driver



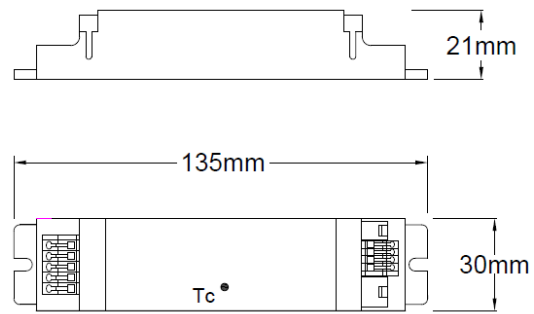
**PLEASE READ** THESE INSTRUCTIONS BEFORE COMMENCING INSTALLATION & LEAVE WITH END USER

## Description:

The BMM/1 is a standalone 3 hour maintained/non-maintained emergency driver. The LED load is driven at 700mA.

The batteries used with this kit are lithium iron phosphate (LiFePO<sub>4</sub>) which not only last double the life of traditional emergency lighting batteries, but consume far less power.

The battery is fitted with a PCM to protect the supply voltage against reverse polarity.



Fixing Centres 129mm

## Specification:

|                                     |                                  |
|-------------------------------------|----------------------------------|
| Input Voltage                       | 230-240 Volts AC 50/60 Hz        |
| Input Current & PF (standby)        | 0.2W 8mA - $\lambda = 0.1$       |
| Input Current & PF (charging)       | 5.7W 31mA - $\lambda = 0.75$     |
| Insulation between supply & battery | Double Reinforced                |
| Duration                            | 3-hours                          |
| Ambient Temp.                       | 0°C to + 50°C                    |
| Max Case Temperature                | 70°C                             |
| Max Battery Temperature             | 55°C                             |
| Terminal Blocks                     | 0.5-1.5mm <sup>2</sup> Push Wire |
| Battery Fuse                        | Internal                         |
| Battery Discharge Current           | 900mA Nominal                    |
| Discharge Voltage Limit             | 2.5V                             |
| Ingress Protection                  | IP20                             |
| Battery Pack                        | 3.2V 3.8Ah LiFePO <sub>4</sub>   |
| Charge Current                      | 225mA Nominal                    |
| Recharge Period                     | 24-Hours                         |
| Module Size (L x W x H)             | 135mm x 30mm x 21mm              |
| Module Fixing Centers               | 129mm                            |
| Module Weight                       | 0.10Kg                           |
| Battery Details (mm)                | Stick 90mm x 28mm x 26.5mm       |
| Battery Fixing Centres              | 80mm                             |
| Battery Weight                      | 0.11Kg                           |

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700mA Maintained Emergency Driver for Single LED Loads  
Open Circuit Voltage (U-OUT) = 4 Volts

## Important

It is recommended that the module is installed by a competent person ensuring the installation complies with the necessary standards. Liteplan accept no responsibility for injury, damage or loss, which may arise as a result of incorrect installation, operation or maintenance.

The conversion requires an unswitched supply for charging the battery and a switched supply if the unit is being used for maintained operation.

**ISOLATE BOTH MAINS SUPPLIES AND DISCONNECT THE BATTERY BEFORE INSTALLATION OR MAINTENANCE.**

## Installation

When converting a luminaire observe the following points:-

1. Fit the module & battery pack into the existing luminaire ensuring that they will operate within their temperature ratings.
2. If the module & battery pack do not fit integrally, then a remote conversion can be used. Ensure that the interconnecting loom is kept as short as possible.
3. Wire the module & battery to the dedicated emergency load as per wiring diagram on Pg2.
4. Ensure that the Permanent Live & Switched Live feeds are connected correctly.
5. Arrange the wiring to avoid running the 240 Volt cables next to the modules output to the LED to obtain the best EMC results.
6. Requirements for 'F' markings must be observed.
7. Identify clearly the NEW Un-switched supply.
8. Ensure the LED Charge Indicator is clearly visible.
9. If fitted within a metal enclosure, connect earth terminal to metal gear tray for improved EMC.
10. This module is not intended for use in luminaires for high-risk task area lighting.
11. This module is protected against battery polarity reversal.

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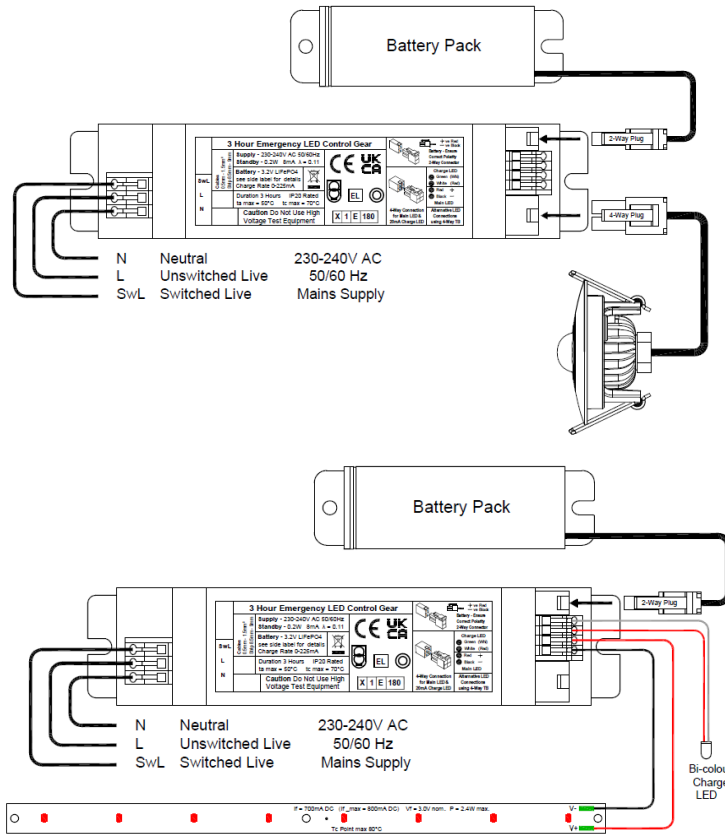
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Typical  
Conversion  
Wiring Diagram



Typical wiring diagram using 4-way terminal block to separate LED/Charge LED

|                             |        |      |   |      |        |      |                 |      |        |      |
|-----------------------------|--------|------|---|------|--------|------|-----------------|------|--------|------|
| Luminaire Ref/Location      |        |      | In Case of difficulty, contact the Installation Engineers:- |      |        |      |                 |      |        |      |
| .....                       |        |      | Tel:.....   |      |        |      |                 |      |        |      |
| Full Recharge Time 24 Hours |        |      | Duration 3 Hours  |      |        |      | Lamp Type - LED |      |        |      |
| ROUTINE TEST RECORD         |        |      |   |      |        |      |                 |      |        |      |
|                             | Year 1 |      | Year 2  |      | Year 3 |      | Year 4          |      | Year 5 |      |
| Monthly Test                | Signed | Date | Signed  | Date | Signed | Date | Signed          | Date | Signed | Date |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Functional                  |        |      |   |      |        |      |                 |      |        |      |
| Three Hour                  |        |      |   |      |        |      |                 |      |        |      |

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