Installation & Wiring Instructions BNM/1

Non- Maintained Emergency Driver



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

Description:

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

The batteries used with this kit are lithium iron phosphate (LiFePO4) 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.

The product features battery temperature protection in accordance with IEC 61347-2-7: 2012+A12:2022.

21mm 135mm Te • 30mm

Fixing Centres 129mm

Specification:

Input Voltage	230-240 Volts AC 50/60 Hz			
Input Current & PF - standby	$0.2W 8mA - \lambda = 0.11$			
Input Current & PF - chargin	$1.7W\ 14mA - \lambda = 0.5$			
Insulation between supply & battery	Double Reinforced			
Duration	3-hours			
Maximum Module Tc	70°C			
Minimum Battery Tc	0°C			
Maximum Battery Tc	55°C			
Terminal Blocks	0.5-1.5mm² Push Wire			
Battery Fuse	Internal			
Battery Discharge Current	900mA Nominal			
Discharge Voltage Limit	2.5V			
Ingress Protection	IP20			
Battery Pack	3.2V 3.8Ah LiFePO4			
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			

BNM/1 700mA Maintained Emergency
Driver for Single LED Loads

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.

Open Circuit Voltage (U-OUT) = 4 Volts

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.
- 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.
- 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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Typical Conversion Wiring Diagram

	BNM WIRING USING 4 WAY TERM	/INAL BLOCK TO SE	PERATE LED /CHARGE I	LED [
	Liteplan	BNM SUPPLY 230-240V AC 50/60HZ, STANDBY 0.2W 8mA A=0.11	BATTERY (PLUG IN) RED + VE BLACK - VE BLK YEL RED		BATTERY
240V UNSWITCHED L1 SUPPLY	BLACK BLUE N ANY SHOPE OUR STATE OF SHAPE OUR STATE OF SHAPE STATE	BATTERY 3.2V LIFePO4 SEE SIDE LABEL FOR DETAILS CHARGE RATE 0-225mA	CHARGE OREEN (NWI) LED WHITE (RED HE LED HE		
	3V 700mA LED Emitter e.g. MinEM	<u> </u>		BICOLOUR CHARGE LED	

Luminaire Ref/Location		In Case	In Case of difficulty, contact the Installation Engineers:- Tel:								
Full Recharge Time 24 Hours				Duration 3 Hours			Lamp Type - LED				
			•	ROUTINE	TEST RECOR	lD	•				
	Year	1	Year	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											
Functional											
Three Hour											

