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

## Description:

The Liteplan range of NLP/2/SP85 modules are designed to convert a wide range of LED types with two versions. The NLP/2/SP85 is the popular choice for converting most standard LED luminaires and arrays between 10 and 60 Volts, whilst the NLP/2/80/SP85 extends the range by converting from 10 to 80 Volts.
The modules are designed to be installed by breaking into the low voltage connection between the mains driver and the LEDs and allows the LEDs to be operated as normal under mains healthy conditions and operated at reduced light output in an emergency.
The modules automatically adjusts the output LED current to provide the best match between the battery and the load, providing maximum illumination whilst ensuring full battery duration and are compatible with a wide range of lighting.
The unit will recharge the batteries after the test of clause 22.3 of BS EN 61347-2-7:2012.
The battery is fitted with a PCM to protect the supply voltage against reverse polarity.

## Specification:

| Input Voltage | 230-240 Volts AC 50/60 Hz |
| :---: | :---: |
| Power Rating (Charging) * | $3.8 \mathrm{~W}-23 \mathrm{~mA}-\lambda=0.69$ |
| Power Rating (Standby) * | $1.3 \mathrm{~W}-13 \mathrm{~mA}-\lambda=0.43$ |
| Insulation between supply \& battery | Double Reinforced |
| Duration | 3-hours |
| Ambient Temp. Ta | $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$ |
| Max Case Temp. Tc | $70^{\circ} \mathrm{C}$ |
| Max Battery Temperature | $55^{\circ} \mathrm{C}$ |
| Recharge Period | 24-Hours |
| Battery Type | 6.4V 3.8Ah LiFePO4 |
| Charge Current | 225 mA Nominal |
| Discharge Current | 900 mA nominal |
| Charge Voltage Limit | 7.0 Volts |
| Discharge Voltage Limit | 5.0 Volts |
| Ingress Protection | IP20 |
| Recharge Period | 24-Hours |
| Module Size (L×W x H) | $320 \mathrm{~mm} \times 75 \mathrm{~mm} \times 31 \mathrm{~mm}$ |
| Module Fixing Centers | 305 mm |
| Remote Weight | 0.9 Kg |
| * Following its initial charge, the NLP/2/SP85 will spend $90 \%$ of its operational life in standby mode |  |



Fixing Centres 305 mm


NLP/2/SP85
Prated - 4.8 W
/rated - $420-86 \mathrm{~mA}$
Voltage Range 10-55 Volts
Open Circuit Voltage (U-OUT) $=60$ Volts
NLP/2/80/SP85 Prated-4.8W
lrated - 420-58mA
Voltage Range 10-80 Volts
Warning Open Circuit Voltage (U-OUT) $=90$ Volts
Avoid running the LED mains driver and emergency pack without the load connected. Failure to do so may result in damage to the LED array

## 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. Ensure that the module and battery pack will operate within their temperature ratings at their chosen loaction.
2. Ensure that the interconnecting loom is kept as short as possible.
3. Ensure that the Permanent Live \& Switched Live feeds are connected correctly.
4. Arrange the wiring to avoid running the 240 Volt cables next to the modules output to the LED to obtain the best EMC results.
5. Requirements for ' F ' markings must be observed.
6. Identify clearly the NEW Un-switched supply.
7. Ensure the LED Charge Indicator is clearly visible in every day use.
8. Connect the battery connector that can be found under the inspection cover.
9. This module is not intended for use in luminaires for high-risk task area lighting.
10. This module is protected against battery polarity reversal.

Conversion
Wiring Diagram


Switched Mains Supply to LED Driver

## Testing/Commisioning:

- Ensure the load is connected.
- Connect the battery.
- Switch on the Unswitched Supply - Check the Charge LED illuminates.
- Switch on the Maintained Supply - Check the LED illuminates as normal.
- Switch off the Maintained Supply.
- Switch off the Unswitched Supply - Check the Charge LED extinguishes and the load LED illuminates at a reduced output.
- Enter the commissioning date on the Battery Pack. Switch on the Unswitched Supply

| Luminaire Ref/Location |  |  | In Case of difficulty, contact the Installation Engineers:- <br> 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 |  |  |  |  |  |  |  |  |  |  |
| Functional |  |  |  |  |  |  |  |  |  |  |
| Three Hour |  |  |  |  |  |  |  |  |  |  |

Tel +44(0)1708372223 | www.liteplan.com | customerservice@liteplan.com | RM3 OAP. UK Liteplan reserve the right to change colour, price or specification without prior notice

Precisely Right.
(9) Lifepo


