

**APPLICATION GUIDE** 

# BATTERY PACKS FOR LED EMERGENCY LIGHTING

Compatibility

**Special Cases** 

There are several important design considerations when selecting an LED Battery Pack for your emergency lighting applications:



Performance / Light Output

UL Approval Type

5 Monthly Testing

## **PERFORMANCE / LIGHT OUTPUT**

LED battery pack light output is calculated as follows: Emergency Lumen Output =

(Battery Pack Wattage) X (Luminaire Efficancy)

For example, consider the 1 x 4 fixture shown to the right is used with a 18W LED battery pack such as LVS LED-BP-SLIM-18W.

#### Emergency Lumen Output =

<u>18W X (125 Lumen Per Watt)</u> = **2250 Lumens** 

## **UL APPROVAL TYPE**



A battery pack must be installed according to its UL approval type. There are three UL924 marks for LED battery packs:



<u>UL Recognized</u> battery packs are approved only for factory installation. They are **NOT** approved for field installation.



<u>UL Classified</u> battery packs are approved for factory or field installation with the specific luminaires that UL has tested and approved them with.

<u>UL Listed</u> battery packs can be factory or field installed with any LED luminaire, provided they conform to the parameters set forth in the installation instructions. Myers EPS battery packs are UL LISTED, ensuring they are ready for use in all your projects

All products in Myers EPS' LED-BP series are UL Listed for factory or field installation, allowing for the greatest flexibility in the installation and specification process.



### **MONTHLY TESTING**



NFPA101 requires monthly testing of emergency lighting equipment. Many LED battery packs accomplish this by providing a small remote test button. However, in larger facilities with dozens or hundreds of battery packs, the time spent installing and testing via a remote test button can be cost prohibitive. As a result, the battery packs are not regularly tested. Consider selecting a battery pack with automatic diagnostics capability to ensure your emergency lighting system is tested regularly.

Automatic Diagnostics come standard with the LVS LED-BP series. A remote test button with indicator light is provided to alert occupants if the automatic testing routine detects a problem.



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When selecting an LED battery pack, it is critical to ensure compatibility:

- 1. Confirm that the LED luminaire has an accessible driver to connect with the battery pack. While virtually all troffers, linears and highbays have accessible drivers, there are certain downlights that do not have accessible drivers. Screw-in LED lamps, and LED tubes do not have accessible drivers.
- 2. Confirm that the output voltage of the battery pack matches that of the luminaire/driver it is being paired with. This information is sometimes found on the luminaire datasheet, but it can always be found on the LED driver itself or by contacting the manufacturer of the luminaire.

Driver Example 20-52V



**3.** In order to prevent overdriving the LED luminaire, ensure that the wattage of the battery pack is lower than the wattage of the luminaire.

The LED-BP-Slim Series Battery Packs automatically detect and provide 5-300VDC output (depending on model). This covers the most popular commercial, indoor LED luminaires, including any luminaire with a Class 2 Listed LED driver.



In some cases, such as screw in replacement LED lamps, which do not have an accessible driver, it can be difficult or impossible to find a compatible battery pack. The best option is to use a UL924 listed inverter. Myers EPS Inverters provide pure sine-wave line voltage (120 or 277V) output and are compatible with virtually any LED luminaire.

One of our most popular choices in lieu of a battery pack are the Illuminator LVU-2 or LVU-5. These 25W and 50W micro inverters feature 0-10V dimming capability, which allows the units to provide backup power to any 0-10V dimmable LED luminaires up to 5X its output rating. The Illuminator LVU micro inverters can also back up non-dimmable lighting loads.

For more information about Myers EPS slim battery packs or any other product, please contact us at (800) 526-5088.