



Emergency Drivers

LED

BSL718



Emergency LED Driver Normal or Extreme Temps 18 Watts output power

Product order number: BSL718 (single battery)
BSL718 (dual battery)



Project:

Type:

Model No:

Qty:

Date:

Notes:

Specifications

UL Classified/CSA Certified

Field or Factory Installation
(Indoor and Damp locations including Sealed and Gasketed fixtures)

Illumination Time

90 Minutes

Full Warranty

3 Years (NOT pro-rata)

Universal Input Voltage

120 through 277 VAC, 50/60 Hz

AC Input Current

65 mA (Maximum)

AC Input Power Rating

5 W (Maximum)
1.0 W (Standby)

Output Voltage

20.0 to 50.0 VDC

Output Current

0.3 - 0.9 ADC

Output Power

18.0 W (Maximum)

Allowable AC Driver Output Current (blue wire)

2.0A (Maximum)

Test Switch

Low Voltage, IP67 rated test switch
(IPTS) with integral LED indicator

Battery

High-Temperature, Maintenance-Free
Sealed lead acid batteries

Recharge Time

24 Hours

Charging Indicator Light

LED (Optionally Provided)

Temperature Rating (Ambient)

-20°C to +60°C (-4°F to 140°F)
Case: Tc (max) 80°C

Dimensions

9.4" x 2.2" x 1.05"
(238 mm x 55.9 mm x 26.7 mm)
Mounting Center 8.9" (226 mm)

Weight

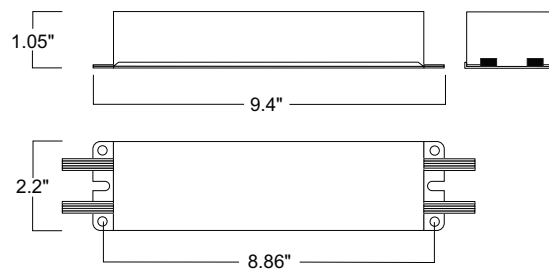
6.0 lbs. (2.72 kg)

Benefits:

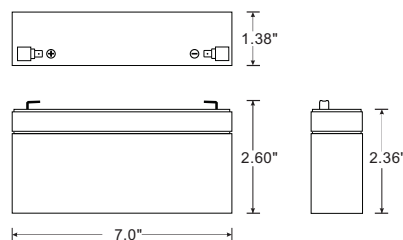
- Operates in normal and extreme temperature environments
- Energy saving intelligent battery charger
- For use in damp locations as well as sealed and gasketed fixtures
- Universal input (120 through 277 VAC, 50/60 Hz)

Dimensions

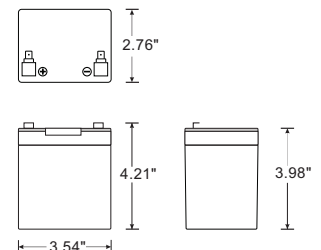
9.4" x 2.2" x 1.05" (mounting center - 8.86")



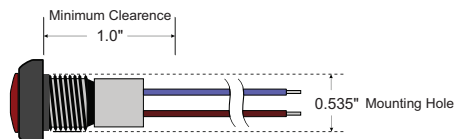
Dual Battery Option (2 required)



Single Battery Option (one only)



Low Voltage, IP67 rated test switch (IPTS)



BSL718

Emergency LED Driver, 18 Watts output power

Application

The BSL718 emergency LED driver works in conjunction with an AC LED driver that has an output current not to exceed 2.0A. The emergency driver unit consists of a battery charger and electronic circuitry in one compact case. The batteries are separate from the driver. The BSL718 can be used with an LED lighting load configuration resulting in an output voltage in the 20-50V range, delivering an initial minimum power of 18 Watts for 90 minutes. If used in an emergency-only fixture, no AC driver is necessary. The BSL718 is suitable for damp locations as well as sealed and gasketed fixtures. The BSL718 is not suitable for air handling heated air outlets or wet or hazardous locations. For more information about specific LED and AC driver compatibility, please call the factory.

Operation

When AC power fails, the BSL718 immediately switches to the emergency mode, operating the LEDs for a minimum of 90 minutes. When AC power is restored, the emergency driver automatically returns to the charging mode.

Installation

The BSL718 does not affect normal fixture operation and may be used with either a switched or unswitched fixture. If a switched fixture is used, an unswitched hot lead must be connected to the emergency driver. The emergency driver must be fed from the same branch circuit as the AC driver. Installation is not recommended with fixtures where the ambient temperature may fall below -20° C.

Emergency Illumination

The BSL718 operates an LED load, delivering an initial minimum 18 W of power for a minimum of 90 minutes.

Specification

Emergency lighting shall be provided by using a standard LED fixture equipped with a Philips Bodine BSL718 emergency driver. This emergency driver shall consist of either one or two (depending on model) sealed lead acid batteries with a separate battery charger and electronic circuitry contained in one 9.4" x 2.2" x 1.05" metal case. Battery and installation hardware shall be provided and a low voltage, normally

open, IP67 rated test switch (IP67). The emergency driver shall be capable of operating an LED load for a minimum of 90 minutes and of delivering an initial minimum output power of 18 W, following a battery charging period of at least 24 hours. It is suitable for damp locations as well as sealed and gasketed fixtures. The unit contains a smart charger system that initially charges the battery in the rated time then reduces power consumption to a lower standby power mode. The unit shall comply with emergency standards set forth by the current NEC. The emergency driver shall be UL Classified for field or factory installation.

Warranty

Model BSL718 is warranted for three (3) full years from date of purchase. Please see detailed warranty information on our web site.

This product is suitable for field installation with suitable LED loads including LED luminaires, DC voltage driven LED replacements for fluorescent lamps and others. There are 3 checks to determine if your luminaire is eligible for field installation.

1. Ensure the LED load's rated power is greater than or equal to the power output of this emergency LED driver. This is to ensure that this emergency product will not produce more power than the LED load can handle, thus ensuring that the LED load will not be damaged when the system is in the emergency mode.
2. Verify that the forward voltage of the luminaire's LED array is within the limits of this emergency LED driver. The forward voltage of the LED array is commonly designated as Vf and should be found on the luminaire markings, in the luminaire specifications, or imprinted directly on the LED arrays. If multiple LED arrays are to be driven, verify that the total forward voltage is within the limits of this product. Using a voltage meter, it may be possible to directly measure the voltage across the LED arrays when operating from the AC driver.
3. UL Classified emergency products can be paired with LED luminaires or retrofit kits if found in the Design Lights Consortium database. Go to the Design Lights Consortium website (<http://www.designlights.org>) and search for your LED or luminaire system by model name or model number. If found in the database, these products are preapproved by UL to be installed together in the field or at a luminaire manufacturer, provided steps are taken to ensure there will be sufficient light output in the end application.

Estimate the egress lighting illumination levels by doing the following:

- a. Find the efficacy of the LED load, which will be found in the Design Lights Consortium database. This number will be given in lumens per watt (lm/w).
- b. Lumens can be calculated by multiplying the output power of the emergency LED driver by the efficacy of the LED load. In many cases the actual lumen output in emergency mode will be greater than this calculation gives, however it will provide a good estimate for beginning the lighting design of the system.

(Lumens In Emergency Mode = Lumens per Watt of Fixture X Output Power of Chosen Product)

$$\text{_____ (Lumens)} = \text{_____ (lm/W)} \times \text{18 (W)}$$

After installation, it will be necessary to measure light output to ensure it complies with national, state, and local code requirements.

- c. Using the results of this calculation and industry standard lighting design tools, calculate the anticipated illumination levels in the path of egress.

NOTE: This product has been designed to reliably interface with a wide selection of LED loads and is electrically compatible with every simple LED array that meets criteria 1 and 2 above. However, compatibility cannot be guaranteed with all current and future LED systems. Compatibility testing of the end-use system is suggested. Please contact the factory with any questions.

