bodine

Emergency Driver

LED

BSL310LPST

Low-Profile Emergency LED Driver
10 Watts Output Power
Self-Testing
Class 2 Output

Project:
Location:
Cat.No:
Type:
Qty:
Notes:

Product order number:
BSL310LPSTM

12NC number:
913702478901

Specifications

Regulatory Certifications
UL Listed to UL 924 and tested to CSA 22.2, No. 141
Factory or Field Installation (Indoor and Damp)
Output Class 2 Compliant
Input Title 20 CEC Compliant

Illumination Time
90 Minutes

Full Warranty
5 Years (NOT pro-rata)

Universal Input Voltage
120-277 VAC, 50/60 Hz

AC Input Power Rating
4 W (Maximum)

Output Voltage
15-52 VDC

Output Power
10.0 W initial (regulated)

Test Switch / Charging Indicator Light
Two-Wire Illuminated Test Switch
(2W-ITS, a Class 2 device)

Battery
High-Temperature, Maintenance-Free
Nickel-Cadmium Battery
7- to 10-Year Life Expectancy

Recharge Time
24 Hours

Temperature Rating (Ambient)
Ambient : 0-55°C (32-131°F)
Case Tc (max): 65°C

Dimensions
22.5" x 1.18" x 1.18" (572 mm x 30 mm x 30 mm)
Mounting Center 22.1" (561 mm)

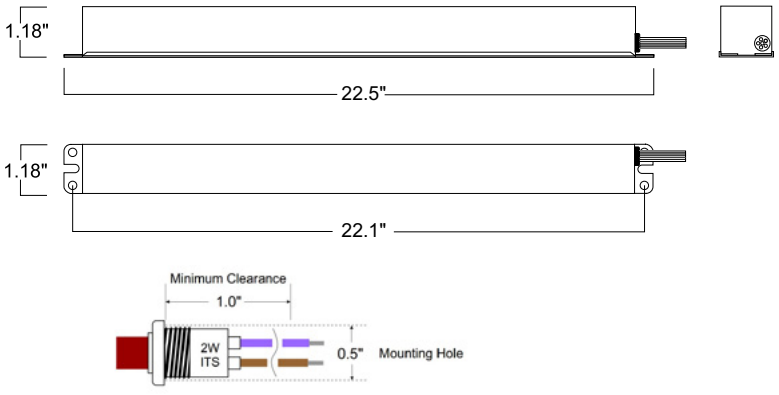
Weight
2.5 lbs (1.12 kg)

Benefits:

- Automatic code-compliant testing
- Compact design for low-profile fixtures
- Controlled power for predictable discharge
- Smart Charger Technology for low energy consumption
- Meets Title 20 CEC (California Energy Commission) efficiency standards
- Class 2 Output - UL 1310 Certified, CSA 22.2 No. 223-M91 compliant
- Emergency mode initial lumen output of up to 1300 lumens
- Compatible with AC drivers and LED loads rated for Class 2
- RoHS Compliant

Dimensions

22.5" x 1.18" x 1.18" (mounting center - 22.1")



An illuminated test switch/charging indicator light is provided.

BSL310LPST

Emergency LED Driver, Low-Profile, Self-Testing

Application

The BSL310LPST emergency LED driver works in conjunction with an AC LED driver that has an output current not to exceed 2.5 A. The emergency driver consists of a high-temperature nickel-cadmium battery, charger, and electronic circuitry contained in one metal enclosure. The BSL310LPST can be used with an LED lighting load configuration resulting in an output voltage in the 15-52V range, delivering an initial minimum power of 10.0 Watts for 90 minutes. If used in an emergency-only fixture, no AC driver is necessary. The BSL310LPST is suitable for indoor and damp locations, and for installation in sealed and gasketed fixtures, including fixtures rated for wet locations. For more information about specific LED and AC driver compatibility, please contact Technical Support.

Operation

During normal operation, the BSL310LPST constantly monitors battery voltage. When AC power fails, the BSL310LPST immediately switches to the emergency mode, operating the LEDs at a reduced lumen output for a minimum of 90 minutes. When AC power is restored, the emergency driver automatically returns to the charging mode. During automated testing, the BSL310LPST simulates an AC power failure, causing the emergency driver to switch to emergency mode and conduct a discharge test to monitor battery voltage and LED's operation. If the BSL310LPST detects a problem, the status indicator light flashes. When testing is complete, the BSL310LPST returns to the charging mode. The BSL310LPST automatically tests emergency lighting for 30 seconds once a month and 90 minutes once a year.

Installation

The BSL310LPST 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 0°C. The 2W-ITS is a Class 2 device. It may be remotely mounted up to 100 ft. from the BSL310LPST emergency driver.

Specification

Emergency lighting shall be provided by using an LED fixture equipped with a Bodine BSL310LPST self-testing/self-diagnostic emergency driver. Electronic circuitry shall be self-testing in design and automatically test emergency lighting for a minimum of 30 seconds every 28 days and 90 minutes once a year. This emergency driver shall consist of a high-temperature maintenance-free nickel-cadmium battery, charger, and other electronic circuitry contained in one metal enclosure. A 2-wire illuminated test switch (2W-ITS) shall be supplied with the installation hardware. The 2W-ITS combines a single pole test switch that provides a test function with a solid-state charging indicator light that monitors the battery and its charger. 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 10.0 W, following a battery charging period of at least 24 hours. The BSL310LPST is suitable for indoor and damp locations, and for installation in sealed and gasketed fixtures, including fixtures rated for wet locations. The BSL310LPST shall have a 21.6 Watt-hour battery capacity, a maximum of 4.0 Watts of input power, and shall comply with emergency standards set forth by the current NEC. This device complies with Part 15 of the FCC Rules and meets Title 20 CEC (California Energy Commission) efficiency standards. The emergency driver shall be UL Listed for factory or field installation.

Warranty

Model BSL310LPST is warranted for five (5) full years from date of manufacture. Please see detailed warranty information on our website.

Bodine Product Storage Guidance

1. All batteries require periodic charging and discharging cycles. In general, here are the relevant battery chemistry industry standard guidelines to maintain optimal battery capacity for each battery type used by Bodine:

a. Nickel-based battery chemistries (Ni-Cd/Ni-MH) should be charged and discharged within 6 months. At a minimum, the battery should be recharged within this time.

b. Lead-Acid battery chemistries, such as the Sealed Lead-Acid (SLA) batteries used in some Bodine products, should be fully recharged every 8 months.

c. Lithium chemistries should be fully recharged every 6 months. Though they can be stored for longer periods and still maintain their full effectiveness, they will not be able to provide the product with emergency power until they are recharged.

2. Any battery stored for the time period mentioned above requires a full charge or for the product to be energized for its rated charge time in order to meet the full rated emergency run-time.

3. Batteries must be stored at temperatures between 0-40°C. However, optimal storage is 0-25°C. Storage at extreme temperatures will reduce the storage time possible and may permanently damage the battery.

Never store the product with the inverter connector (sometimes also called the "converter" or "unit enable" connector) closed. This enables the output and the control circuitry and will drain the battery in storage at a faster rate.

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