# bodine

# **Emergency Inverter**

Micro Inverter

ELI-S-10



10 VA Pure Sine Wave Output Micro Inverter Automatic Output Voltage Select Regulates AC Dimming Drivers to 10 VA

Product order number:12NC number:ELIS10913702471101ELIS10C (for model with conduit)913702471301ELIS10CDF (separate 2W-ITS with conduit and 90° adapter)913702471401

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

#### **Specifications**

#### **Regulatory Certifications**

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

#### **Maximum Output Power**

10 VA into load

#### **Total Connected Output Load**

Dimmable lighting loads

Throughput power 50 W maximum with most LED drivers and fluorescent ballasts (contact Technical Support for driver compatibility) Non-dimmable lighting loads
Throughput power 10 VA maximum

#### Illumination Time

90 Minutes

#### AC Input Voltage and Current (charging only)

120-277VAC, 50/60 Hz, 80 mA

#### Recharge Time

24 Hours

#### Test Switch/Charging Indicator Light

Two-Wire Illuminated Test Switch (2W-ITS, a Class 2 device)

#### Battery

Maintenance-Free Li-ion Battery

## Output Voltage, Automatically Selected

120 VAC +/- 10%, or 277 VAC +/- 10%

#### **Output Frequency**

60 Hz, ± 5%

#### Transfer Time

2-5 seconds

#### Temperature Rating (Ambient)

0-50°F (32-122°C)

#### **Dimensions**

15.34" x 2.25" x 1.16" (390 mm x 58 mm x 30 mm) Mounting Center – 15.0" (381 mm)

#### Weight

3.45 lbs (1.56 kg)

#### Warranty

5 years (NOT pro-rata)

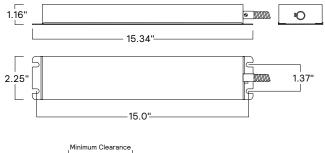
### Benefits:

#### · Constant 10 VA output power

- · Automatic output voltage select
- · Works with LED and fluorescent luminaires
- Compatible with Type B TLED and screw based lamps (up to 10 VA)
- Ideally compatible with single and multichannel LED dimming drivers
- Complies with Part 15 of the FCC (Federal Communications Commission) Rules
- Meets California Energy Commission Title 20 efficiency requirements
- Remote-mounting up to 250 feet maximum

#### **Dimensions**

15.34" x 2.25" x 1.16" Mounting Center - 15.0"









# **ELI-S-10**

## 10 VA Pure Sine Wave Micro Inverter

#### **Application**

The Bodine ELI-S-10 Emergency Lighting Inverter works in conjunction with fluorescent or LED fixtures to create an emergency lighting system. The ELI-S-10 operates a maximum load of 10 Watts at unity power factor. It allows the connected fixture(s) to be on, off, switched or dimmed without affecting emergency operation. Each unit consists of batteries, charger and electronic circuitry in one steel case. The ELI-S-10 provides power to the input side of the fixture, including the AC ballast/driver. The ELI-S-10 is NOT suitable for use with HID lighting nor is it rated for outdoor mounting location.

#### Operation

Upon failure of normal power, the ELI-S-10 begins providing emergency power to the connected lighting load for a minimum of 90 minutes. A low voltage disconnect circuit protects the inverter batteries from damage by deep discharge during prolonged power failures. When normal power is restored, the ELI-S-10 automatically returns to charge mode. The battery capacity is fully restored in 24 hours.

#### **Dimming**

The ELI-S-10 features a dimming control output of 0-10 volts. This dimming capability allows a lighting load with up to a 50 W maximum input power to be dimmed to a 10 VA maximum emergency output power.\* The emergency mode output dimming voltage is automatically controlled by the ELI-S-10 electronic circuitry to maintain up to 10 VA output throughout the loss of AC power. The ELI-S-10 passes the normal room dimming control signal (0-10 V) during normal operation (AC mains on) so normal dimming operation of the luminaire is not affected.

#### Installation

The ELI-S-10 does not affect normal fixture operation and may be used with a switched or unswitched fixture. It can be installed on top of or close proximity to the fixture.

#### **Code Compliance**

The ELI-S-10 has been tested by Underwriters Laboratories in accordance with the standards set forth in UL 924, "Emergency Lighting and Power Equipment". The ELI-S-10 is UL Listed for field installation. Emergency illumination time exceeds the National Electrical Code (NEC), Life Safety Code (NFPA-LSC), National Building Code of Canada (NBC), National Fire Code of Canada (NBC) and UL 90-minute requirements.

#### **Emergency Illumination**

The ELI-S-10 supports 10VA of emergency power for a minimum of 90 minutes.

#### Specification

Emergency lighting shall be provided by using a standard fixture or group of fixtures powered with a Bodine ELI-S-10 inverter. The ELI-S-10 unit consists of batteries, and electronic battery charging and output circuitry contained in one metal case. The ELI-S-10 unit shall be capable of powering dimmable fluorescent and/or LED lighting fixtures rated at up to 50 W of input power at 0-50°C for a minimum of 90 minutes by the use of 0-10 V dimming control. The ELI-S-10 shall allow the emergency fixture to be on, off. switched or dimmed without affecting emergency operation. The ELI-S-10 unit shall exceed emergency standards set forth by the current NEC and the Canadian Electrical Code. This device complies with Part 15 of the FCC Rules and meets California Energy Commission Title 20 efficiency

requirements. It shall be UL Listed for the US and Canada, suitable for damp locations, and warranted for a full five years from date of manufacture.

#### Warranty

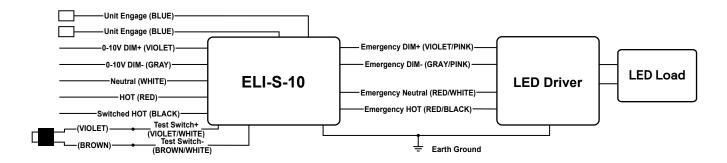
The ELI-S-10 is warranted for five (5) years from the date of manufacture. This warranty covers only properly installed Bodine ELI-S-10 emergency units used under normal conditions. For the warranty period, Signify will, at its option, repair or replace without charge a defective inverter provided it is returned to the factory transportation prepaid whereas an inspection will be conducted to determine if the unit is defective under the terms of the warranty. Repair or replacement, as stated above, shall constitute the purchaser's exclusive warranty, which does not extend to transportation, installation, labor or any other charges; nor does it apply to any equipment of another manufacturer used in conjunction with the inverter.

\* Note. AC input power to an LED or Fluorescent Driver/Ballast is always more than the output power. Furthermore, dimming drivers are less efficient at reduced power. This inefficiency must be accounted for in the design.

# **ELI-S-10**

## 10 VA Pure Sine Wave Micro Inverter

#### **Schematic**



#### **Lithium Battery Shipping Regulations**

To comply with IATA provisions for air transporting lithium batteries, and for a step by step guidance through the shipping process, please visit <a href="https://www.iata.org/en/publications/store/lithium-battery-shipping-regulations/">https://www.iata.org/en/publications/store/lithium-battery-shipping-regulations/</a>.

To view a Classification Flowchart for package marking requirements, please visit <a href="http://www.iata.org/whatwedo/cargo/dgr/Pages/lithium-batteries.aspx">http://www.iata.org/whatwedo/cargo/dgr/Pages/lithium-batteries.aspx</a>. Scroll to the "Guidance Material" section and click on the provided "Guidance Document" PDF link. The Classification Flowchart will be found on page 5. The BTB15D battery cell capacity is less than 20Wh, and the battery pack capacity is less than 100 Wh.

