

# bodine

## Emergency Backup

Inverter

ELI-S-250



Project: \_\_\_\_\_  
Location: \_\_\_\_\_  
Cat.No: \_\_\_\_\_  
Type: \_\_\_\_\_  
Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
Notes: \_\_\_\_\_

Sinusoidal (Sine Wave) Output  
250 Watts Power Maximum  
Automatic Output Voltage Select  
Automatic Dimming (0 to 10V) of  
Connected Load

### Specifications

#### UL Listed for US and Canada

Listed to UL924 and tested to CSA 22.2, No. 141  
For Field Installation (Indoor and Damp)

#### Maximum Output Power

250 W into load PF +/- 0.90 (280 VA)

#### Maximum Connected Load Power

800 W\*

#### Illumination Time

90 Minutes

#### AC Input Voltage

120 VAC, 60 Hz or 277 VAC, 60 Hz

#### AC Input Current, (battery charging)

1000 mA Max, 120Vac or  
360 mA Max, 277Vac,

#### Battery: 2 ea. required

12V (nominal), 35Ah  
Maintenance-Free Sealed Lead Acid Battery

#### Recharge Time

24 Hours

#### Charging Indicator Light / Test Switch

Integrated LED Test Switch

#### Output Voltage, Automatically Selected

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

#### Output Frequency

60 Hz, ± 5%

#### Transfer Time

2 to 5 seconds

#### Temperature Rating (Ambient)

68° F to 86° F (20° C to 30° C)

#### Dimensions

12.0" H x 12.5" W x 10.0" D  
(317mm x 305mm x 254mm)

#### Weight

Enclosure and Electronics only: 16 lbs. (7.26 Kg)  
Batteries, 25 lbs. ea., Batteries total: 50 lbs. (22.6 Kg)

#### Warranty

5 Years (not including batteries)  
3 Year Battery warranty, plus 7 years additional  
pro-rating

Product order number:

12 NC number:

ELIS250

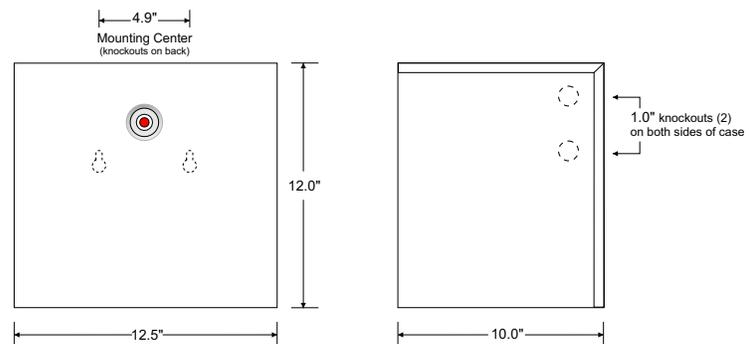
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(Batteries shipped separately)

### Benefits:

- Automatic output voltage select
- Automatic dimming (0 to 10V) of connected load
- Removable/Replaceable electronics module
- Works with LED and fluorescent fixtures
- Ideal for (but not limited to) screw-base LED lamps
- Compatible with AC (line voltage) driven TLED lamps
- Remote-mounting up to 1,000 feet maximum

### Dimensions



\* Note: A total connected load of 800W is only possible with very specific loads that have been tested at the factory. Other loads rated at this maximum power level may be possible, but they should be pre-tested at the factory or in the shop before specification or field installation.



# ELI-S-250 Sinusoidal dimmable emergency backup inverter

## Application

The Bodine ELI-S-250 Emergency Lighting Inverter works in conjunction with fluorescent, LED, or incandescent fixtures to create an emergency lighting system. The ELI-S-250 operates a maximum load of 250 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 two sealed lead acid batteries, charger and electronic circuitry in one steel case. The ELI-S-250 provides power to the input side of the fixture, including the AC ballast/driver, and can be used with indoor or outdoor emergency fixture applications. The ELI-S-250 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-250 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-250 automatically returns to charge mode. The battery capacity is fully restored in 24 hours.

## Dimming

The ELI-S-250 features a dimming control output of 0-10 volts. This dimming capability allows a string of multiple fixtures to be driven in emergency mode at a combined 250 W maximum. For example, fifteen 40W (input) LED fixtures may be connected to one ELI-S-250 and automatically dimmed for emergency operation to 40% of normal power input, with each LED fixture supplying approximately 16W of output power.\* The emergency mode output dimming voltage is automatically controlled by the ELI-S-250 electronic circuitry to maintain 250W output throughout the Emergency Event. The ELI-S-250 passes the normal room dimming control

voltage (0-to-10V) where used, in the Normal (non-Emergency) mode so normal dimming operation of the connected fixtures is not affected.

## Installation

The ELI-S-250 does not affect normal fixture operation and may be used with a switched or unswitched fixture. It can be installed in close proximity to the fixture or remote from the fixture (using suitable wiring).

## Code Compliance

The ELI-S-250 has been tested by Underwriters Laboratories in accordance with the standards set forth in UL 924, "Emergency Lighting and Power Equipment". The ELI-S-250 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 (NFC) and UL 90-minute requirements.

## Emergency Illumination

The ELI-S-250 supports 250W / 280 VA 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-250. Each ELI-S-250 unit consists of two maintenance-free Sealed-Lead-Acid batteries, and electronic battery charging and output generation circuitry contained in one 12.0"H x 12.5"W x 10.0"D metal case. The ELI-S-250 unit shall be capable of powering any combination of dimmable fluorescent and/or LED lighting fixtures rated at a total of 800W input power at 20°C to 30°C for a minimum of 90 minutes by the use of 0-to-10v dimming control, utilized to reduce the input of said luminaires to a total of 250W input power during Emergency operation, regardless

of local switch position. The ELI-S-250 shall allow the connected fixture(s) to be on, off, switched or dimmed without affecting emergency operation. The ELI-S-250 unit shall exceed emergency standards set forth by the current NEC and CEC. It shall be UL Listed for the US and Canada, suitable for damp locations, and warranted for a full five years from date of manufacturing. The ELI-S-250 shall have a removable/replaceable electronics module to facilitate repair and eliminate the need for removal of the enclosure and associated wiring from the site installation.

## Warranty

The ELI-S-250 is warranted for five (5) years from the date of manufacture. This warranty excludes the batteries, which have a warranty of three (3) years with an additional seven (7) year pro-rated warranty. This warranty covers only properly installed Bodine ELI-S-250 emergency units used under normal conditions. For the warranty period, Bodine Emergency Lighting will, at its option, repair or replace without charge a defective inverter provided it is returned to the factory transportation prepaid on 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.

