BSL310 (polycarbonate case)
BSL310C (metal case with conduit)
BSL310M (metal case without conduit)
BSL310C-DF (metal case with dual conduit)

Emergency Driver for Linear LED Strips
Class 2 Output

PHILIPS
bodine

A Division Of Philips Electronics North America Corporation

Product Summary

UL RECOGNIZED
Factory Installation *
(Indoor and Damp)
Output Class 2 Compliant
*BSL310 is field installable when used with the Philips EvoKit G2 LED Retrofit luminaire.

Illumination Time
90 Minutes

Full Warranty
5 Years (NOT pro-rata)

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

AC Input Current
60 mA Maximum

AC Input Power Rating
4.0 W Maximum

Output Current and Voltage
Selectable (See Table 1)
Without Selector: minimum 200 mA, 35-50 VDC, minimum 300 mA over optimized range (30-34 VDC)
With Selector: minimum 400 mA, 10-29 VDC

Output Power
10.0 W (Maximum)

Test Switch/Charging Indicator Light
Illuminated Test Switch

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

Battery Charging Current
180 mA

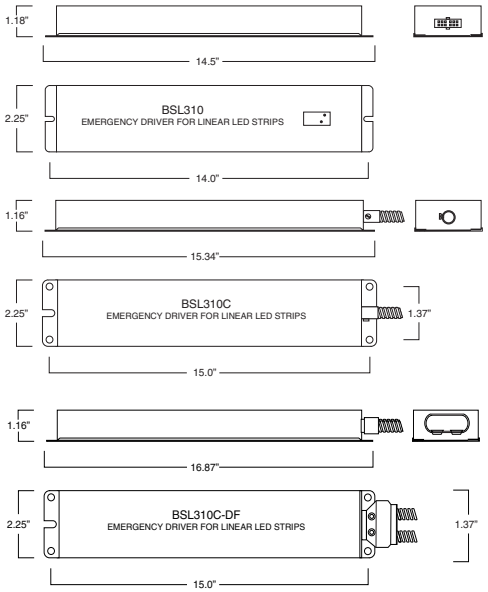
Recharge Time
24 Hours

Temperature Rating (Ambient)
0°C to +55°C
(32°F to 131°F)

Dimensions (BSL310)
14.5" x 2.25" x 1.18"
(369 mm x 58 mm x 30 mm)
Mounting Center 14.0" (356 mm)

Dimensions (BSL310C/M)
15.34" x 2.25" x 1.16"
(390 mm x 58 mm x 29 mm)
Mounting Center 15.0" (381 mm) x 1.37" (34.8mm)

Weight
2.25 lbs. (1.0 kg) - polycarbonate
3.15 lbs. (1.43kg)- metal w/o conduit
3.45 lbs. (1.56kg)- metal w/conduit
3.80 lbs. (1.73kg)- metal w/dual conduit



Application

The BSL310 universal input (120-277 V) emergency LED driver works in conjunction with an AC LED driver that has an output current not to exceed 3.0 A. The emergency driver consists of a high-temperature nickel-cadmium battery, charger and electronic circuitry in one case. The BSL310 can deliver up to 10 watts to an LED load (measured at nominal battery voltage) for 90 minutes. If used in an emergency-only fixture, no AC driver is necessary. The BSL310 is suitable for indoor and damp locations. For more information about specific LED and AC driver compatibility, please call the factory.

Operation

When AC power fails, the BSL310 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. A patented circuit delays AC LED driver operation for up to 5 seconds to prevent over current of LED's that would occur if both drivers supply the load at the same time.

Installation

The BSL310 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. Per UL requirements, the polycarbonate BSL310 must be enclosed if remote mounted outside of the fixture. Installation is not recommended with fixtures where the ambient temperature may fall below 0° C. The product is suitable for installation in sealed and gasketed fixtures. For LED loads rated less than 30V, connect the load select per Table 1 for proper operation and optimum performance. The BSL310C-DF is offered in two options. Both are equipped with two flexible metal conduits. For option A, the illuminated test switch is located in one conduit and product wiring in the other. *BSL310 is field installable when used with the Philips EvoKit G2 LED Retrofit luminaire. Option B contains the illuminated test switch wiring in its own conduit, with the test switch and a wall plate included in a separate parts kit.

UL and Code Compliance

The BSL310 has been tested by Underwriters Laboratories in accordance with the standards set forth in UL UL 924, "Emergency Lighting and Power Equipment," and by the Canadian Standards Association (CSA) in accordance with the standards set forth in C22.2 No. 141, "Unit Equipment for Emergency Lighting." The BSL310 is UL Listed and CSA Certified for factory or 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.

L2300211

Specifiers Reference

Project _____ Type _____ Model No. _____

Comments _____

P.O. Box 460 Collierville, TN USA 38027-0460
Sales 800-223-5728 FAX 901-853-5009
Tech. Support 888-263-4638
www.philips.com/bodine

(polycarbonate case) **BSL310**

(metal case with conduit) **BSL310C**

(metal case without conduit) **BSL310M**

(metal case with dual conduit) **BSL310C-DF**

Emergency Driver for Linear LED Strips
Class 2 Output

Emergency Illumination

The BSL310 operates an LED load of up to 10.0 W at nominal battery voltage for a minimum of 90 minutes.

Specification

Emergency lighting shall be provided by using a LED fixture equipped with a Philips Bodine BSL310 universal input (120-277 V) emergency driver. A patented circuit delays AC LED driver operation for up to 5 seconds to prevent over current of LED's that would occur if both drivers supply the load at the same time. This emergency driver shall consist of a high-temperature, maintenance-free nickel-cadmium battery, charger and electronic circuitry contained in one case. An illuminated test switch (ITS) to monitor charger and battery and installation hardware shall be provided. The emergency driver shall be capable of delivering up to 10 watts to an LED load for a minimum of 90 minutes. The BSL310 is suitable for indoor and damp locations. The BSL310 shall have a maximum of 4.0 watts of input power and a 24.0 Watt-hour battery capacity and shall comply with emergency standards set forth by the current NEC. The emergency driver shall be UL Recognized for factory installation only and shall be warranted for a full five years from date of purchase.

Warranty

Model BSL310 is warranted for five (5) full years from date of purchase. This warranty covers only properly installed Philips Bodine emergency LED drivers used under normal conditions. For the warranty period, Philips Emergency Lighting will, at its option, repair or replace without charge a defective emergency LED driver, provided it is returned to the factory transportation prepaid and our inspection determines it to be defective under 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 emergency driver.

IMPORTANT TEXT: REFER TO TABLE 1 REGARDING LOAD SELECT

Table 1 LOAD SELECT OPTIONS

MAXIMUM LOAD VOLTAGE	LOAD SELECT
10V - 29V	CONNECTED
30V - 50V	NOT CONNECTED

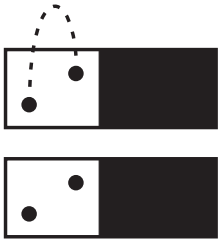


TABLE 2a. UL CLASSIFIED LOADS

Manufacturer	Series Reference	Manufacturer's Part Number
Philips	Fortimo LED Line	1ft 1100lm 830 3R HV1
Philips	Fortimo LED Line	1ft 1100lm 835 3R HV1
Philips	Fortimo LED Line	1ft 1100lm 840 3R HV1
Philips	Fortimo LED Line	1ft 1100lm 850 3R HV1
Philips	Fortimo LED Line	1ft 1100lm 865 3R HV1
Philips	Fortimo LED Line	L2EVO1.5 ft 1250lm 830-1
Philips	Fortimo LED Line	L2EVO1.5 ft 1250lm 835-1
Philips	Fortimo LED Line	L2EVO1.5 ft 1250lm 830-1

TABLE 2b. Listed Luminaires

Manufacturer	Model Number
Philips	EvoKit LED Retrofit Luminaire

Benefits:

- Enables LED Linear strip fixtures to meet Emergency Code requirements
- Emergency mode lumen output of up to 1300 lumens
- Universal input (120-277 VAC)
- 2 wire input reduces wiring errors
- Compatible with a variety of LED strip manufacturers
- Compatible with AC drivers and LED loads rated for Class 2
- Selectable Output

Compatible With*

Philips Xitanium 40 W SR Driver
Philips LEDline
Samsung U990048
LG Lightbox

*Contact Factory for compatibility with other LED applications

Philips LEDline

Table 3 REMOTE DISTANCES

Wire Gauge (AWG)	Maximum Remote Mounting Distance* (ft)	Maximum Wire Length** (ft)
10	500	1000
12	300	600
14	200	400
16	125	250
18	75	150
20	50	100
22	30	60
24	20	40
26	13	26

* Total wire length can NOT exceed that given in Maximum Wire Length column.
** Distance is round trip wire length.
Distances are for Emergency Driver only. Consult AC Driver specification for remote mounting distances when using AC Driver.

L2300211

P.O. Box 460 Collierville, TN USA 38027-0460
Sales 800-223-5728 FAX 901-853-5009
Tech. Support 888-263-4638
www.philips.com/bodine

For the most current technical information and notices, please visit TechNotes on our website.