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Designed for the perfect fit

Emergency Drivers

Selection Guide

Start

with these easy steps to select the proper emergency LED driver for your fixture.

Specification Guide

Identify the fixture being utilized and record the specification data:

1. Make and model
2. Load voltage of LED array(s) _____ Vf
3. LED load rated power _____ Watts
4. Output current of the AC LED driver into LED load as applied _____ Amps

Load Voltage

Identify the LED's load voltage (Vf)

This is the total forward voltage (Vf or stacked voltage) of the luminaire's LED array(s). This information can be found on the product spec sheet, labeling, or on the LED array(s).

Locate your fixture's (LED array) total load voltage at the top of the chart - **Approximate Load Voltage** - and find the available EM LED drivers for this voltage in the selected column. The type of luminaire and application/location will help determine which EM driver to use.

Wattage (W)

Verify maximum power of LED load

The LED load's rated power must be greater than or equal to the output of the selected EM LED driver.

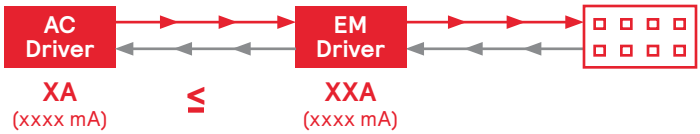
LED load (W) ≥ to EM driver power output (W)

Designated as **Power (W)** for eachv EM LED driver on the chart. Use the chart to ensure the LED load's rated power (W) is greater than or equal to the EM Driver power output (W).

Current (from AC driver)

Maximum current into EM driver

See the emergency LED current limit in the column Max. AC Driver Output on the chart.



The maximum current from the AC driver must be less than or equal to the current the EM driver can accept.*

Lumens

Verify emergency lumen output

Find the approximate emergency lumen output for each EM driver on the chart or calculate.

Lumens = lm/w _____ X _____ (W)

Emergency illumination (lumens) can be calculated by multiplying the efficacy of the LED load (measured in lm/w) by the output power of the emergency driver (W).

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Easy Design-in Tool
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* Use the chart to find the maximum **AC Driver Output** to confirm the maximum acceptable current for each EM driver.

LED Emergency Lighting for field installation

LED lighting as a general lighting source is becoming commonplace.

Not surprisingly, it's role in emergency lighting has also expanded. As with other types of lighting, LED lighting must meet the life safety code requirement for emergency illumination. LED fixtures serving as emergency units must, therefore, meet UL 924 emergency lighting requirements and provide at least 90 minutes of emergency lighting. Bodine LED drivers allow these fixtures to meet or exceed code.

Until recently, most emergency LED drivers were UL Component Recognized for factory installation only or were UL Classified. A Classified listing requires both operating compatibility and verification of the fixture with the Design Lights Consortium (DLC) database before the emergency driver can be field installed in the fixture. The restrictions associated with these listings make it more difficult – and in the case of UL Component Recognized drivers, not possible – for contractors or electricians to install an emergency LED driver in the field for new or retrofit applications.

Bodine offers UL Listed, field-installable, emergency LED drivers. Most of the Bodine LED driver portfolio is UL listed for installation in the field, and Bodine was the first to offer field-installable emergency LED drivers for the U.S.

UL Listed, field-installable emergency LED drivers:

1. Eliminate factory installed up charges.
2. Eliminate the legwork involved in the field-install process associated with UL Classified emergency LED drivers.

To use a UL Classified emergency LED driver, one must ensure that:

1. The luminaire that will receive the emergency LED driver is in the DLC database. If it is not included in the database, the emergency driver cannot be installed in the field.
2. The luminaire must be compatible with the emergency LED driver. Even though the luminaire is listed in the database, compatibility is not guaranteed.

Some UL Classified emergency drivers simplifies the process for field installation by eliminating the time consuming measures required by a Classified listing.

Bodine continues to lead the **industry** by providing the **solutions** required by **lighting professionals**

Emergency LED Driver	Class Rating	Max. AC Driver Output (A)	Specs	Approximate Load Voltage (LED Array Vf) 12V	15V	18V	20V	24V	28V	30V	33V	36V	39V	42V	45V	48V	50V	52V	54V	60V	Listing* UL	BC		Typical Fixture Type	Location/Application
BSL6LST Self-testing	Class 2	5.0 A	Power (W) ~ Lumens		6.4 780	6.4 780	6.4 780	6.4 780	6.4 780	6.4 780	6.4 780	6.4 780	6.4 780	6.4 780	6.4 780	6.4 780	6.4 780	6.4 780			●	●		Linear strip, Slim/Low-profile, Recessed, Surface, Pendant	Indoor, Damp
BSL10LST Self-testing	Class 2	5.0 A	Power (W) ~ Lumens		10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300	10.5 1300			●	●		Linear strip, Slim/Low-profile, Recessed, Surface, Pendant	Indoor, Damp
BSL17C-C2 BSL17-C2	Class 2	3.0 A	Power (W) ~ Lumens		7.5 940	7.5 940	7.5 950	7.5 950	7.5 950	7.5 950	7.5 950	7.5 940	7.5 940	7.5 920	7.5 940	7.5 920	7.5 920				●	●		Recessed downlight, Surface, Pendant	Indoor, Damp
BSL17C-C2ST Self-testing	Class 2	3.0 A	Power (W) ~ Lumens		7.5 940	7.5 940	7.5 950	7.5 950	7.5 950	7.5 950	7.5 950	7.5 940	7.5 940	7.5 920	7.5 940	7.5 920	7.5 920				●	●		Recessed downlight, Surface, Pendant	Indoor, Damp
BSL310 Red poly case	Class 2	3.0 A	Power (W) ~ Lumens		10.5 1290	10.5 1340	10.5 1370	10.5 1350	10.5 1350	10.5 1340	10.5 1340	10.5 1330	10.5 1370	10.5 1350	10.5 1350	10.5 1330	10.5 1330				●	●		Linear strip, Recessed, Surface, Pendant	Indoor, Damp
BSL310M (C or C-DF)	Class 2	3.0 A	Power (W) ~ Lumens		10.5 1290	10.5 1340	10.5 1370	10.5 1350	10.5 1350	10.5 1340	10.5 1340	10.5 1330	10.5 1370	10.5 1350	10.5 1350	10.5 1330	10.5 1330				●	●		Linear strip, Recessed, Surface, Pendant	Indoor, Damp
BSL310LP BSL310LPST	Class 2	2.5 A	Power (W) ~ Lumens		10.5 1290	10.5 1340	10.5 1370	10.5 1350	10.5 1350	10.5 1340	10.5 1340	10.5 1330	10.5 1370	10.5 1350	10.5 1350	10.5 1330	10.5 1330	10.5 1310			●	●		Linear strip, Slim/Low-profile, Recessed, Surface, Pendant	Indoor, Damp
BSL310SB Small case, Separate battery	Class 2	3.0 A	Power (W) ~ Lumens		10.5 1290	10.5 1340	10.5 1370	10.5 1350	10.5 1350	10.5 1340	10.5 1340	10.5 1330	10.5 1370	10.5 1350	10.5 1350	10.5 1330	10.5 1330				●	●		Linear strip, Slim/Low-profile, Recessed, Surface, Pendant	Indoor, Damp
BSL20LV	Class 2	5.0 A	Power (W) ~ Lumens				21 2770	21 2780	21 2800	21 2800	21 2810	21 2800	21 2800	21 2780	21 2780	21 2780	21 2770				●	●		High output / High bay, Linear, Surface	Indoor, Damp
BSL36 Cold-Pak -20°C to 55°C	Class 2	2.5 A	Power (W) ~ Lumens		6.0 780	6.0 780	6.0 780	6.0 780	6.0 780	6.0 780	6.0 780	6.0 780	6.0 780	6.0 780	6.0 780	6.0 780	6.0 780	6.0 780			●			Recessed downlight, Surface, Bollards	Indoor, Damp, Covered exteriors, Extreme temperatures
BSL10 Cold-Pak -20°C to 55°C	Class 2	1.25 A	Power (W) ~ Lumens					15 1900	15 1900	15 1900	15 1900	15 1890	15 1890	15 1860	15 1910	15 1900	15 1890	15 1870			●			Recessed downlight, Surface, Bollards	Indoor, Damp, Covered exteriors, Extreme temperatures
BSL4L	Class 2	3.0 A	Power (W) ~ Lumens		4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520		●	●		Linear strip, Slim/Low-profile, Recessed, Surface, Pendant	Indoor, Damp
BSL722+ BSL722 Cold-Pak+	Class 2	NA	Power (W) ~ Lumens						20.2 2630	22.2 2890	23.1 3000												●	Recessed downlight, Surface, Bollards	Indoor, Damp, Covered exteriors, Extreme temperatures
BSL718 (Ext. Temps) -20°C to 60°C	Class 2	5.0 A	Power (W) ~ Lumens				18.0 2340	18.0 2340	18.0 2340	18.0 2340	18.0 2340	18.0 2340	18.0 2340	18.0 2340	18.0 2340	18.0 2340	18.0 2340				●	●		Recessed downlight, Surface, Bollards	Indoor, Damp, Covered exteriors, Extreme temperatures
BSL4SB Small case, Separate battery	Class 2	3.0 A	Power (W) ~ Lumens		4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520	4.0 520				●	●		Recessed downlight, Surface, Bollards	Indoor, Damp, Covered exteriors, Extreme temperatures
BSL8SB Small case, Separate battery	Class 2	3.0 A	Power (W) ~ Lumens		8.0 1040	8.0 1040	8.0 1040	8.0 1040	8.0 1040	8.0 1040	8.0 1040	8.0 1040	8.0 1040	8.0 1040	8.0 1040	8.0 1040	8.0 1040				●	●		Recessed downlight, Surface, Bollards	Indoor, Damp, Covered exteriors, Extreme temperatures
BSL310HAZ+ Suitable for Class I, Div. 2 fixtures	Class 2	3.0 A	Power (W) ~ Lumens		9.9 1290	10.3 1340	10.5 1370	10.4 1350	10.4 1350	10.3 1340	10.3 1340	10.2 1330	10.5 1370	10.4 1350	10.4 1350	10.2 1330	10.2 1330					●	●	Hazardous location	Indoor, Damp, Hazardous location
BSL310HAZSB Suitable for Class I, Div. 2 fixtures Separate battery design	Class 2	3.0 A	Power (W) ~ Lumens		9.9 1290	10.3 1340	10.5 1370	10.4 1350	10.4 1350	10.3 1340	10.3 1340	10.2 1330	10.5 1370	10.4 1350	10.4 1350	10.2 1330	10.2 1330					●	●	Hazardous location	Indoor, Damp, Hazardous location

+ UL Recognized products are for factory installation only.

Emergency LED Driver	Class Rating	Max. AC Driver Output (A)	Specs	Approximate Load Voltage (LED Array Vf) 45V	48V	50V	54V	60V	66V	72V	78V	84V	90V	96V	102V	108V	114V	120V	126V	130V	Listing* UL	BC		Typical Fixture Type	Location/Application
BSL17 BSL17C	non Class 2	3.0 A	Power (W) ~ Lumens	7.3 950	7.3 950	7.4 960	7.4 960	7.4 960	7.4 960	7.4 960	7.4 960	7.4 960	7.4 960	7.4 960	7.4 960	7.4 960	7.4 960	7.4 960	7.3 950	7.3 950	●	●		Recessed downlight, Surface, Pendant	Indoor, Damp
BSL20MV	non Class 2	2.0 A	Power (W) ~ Lumens			21.1 2740	21.2 2760	21.2 2760	21.3 2770	21.4 2780	21.4 2780	21.4 2780	21.5 2800	21.5 2800	21.4 2780	21.5 2800	21.5 2800	21.4 2780	21.5 2800	21.5 2800	●	●		High output / High bay, Linear, Surface	Indoor, Damp

Emergency LED Driver	Class Rating	Max. AC Driver Output (A)	Specs	Approximate Load Voltage (LED Array Vf) 125V	129V	132V	138V	144V	150V	156V	162V	168V	174V	180V	186V	192V	198V	200V	205V	210V	Listing* UL	BC		Typical Fixture Type	Location/Application
BSL20HV	non Class 2	2.0 A	Power (W) ~ Lumens	21.7 2820	21.7 2820	21.8 2830	21.8 2830	21.7 2820	21.8 2830	21.7 2820	21.8 2830	21.9 2850	21.9 2850	21.9 2850	21.9 2850	21.9 2850	21.9 2850	21.9 2850			●	●		High output / High bay, Linear, Surface	Indoor, Damp

Lumens in emergency mode = Lumens per watt of fixture x Output power of chosen EM driver

_____ = _____ (Lm/W) x _____ (W)

Note: Lumens indicated on this chart are calculated based on a typical LED fixture lumen output of **130 lumens per Watt load**. In many cases the lumen output in emergency mode can be greater or less due to the actual efficacy of the LED load being utilized. Use the formula above to calculate actual lumens in emergency mode.

For more information, contact Bodine at: <email> or 1-800-223-5728.

c UL us LISTED — UL Listed for factory or field installation.

BC — Compliant with California Energy Commission (CEC) Title 20 requirements for battery chargers.

UL Component Recognized for factory installation only.

* Check individual product specification sheets for Listing details regarding the U.S. and Canada and for other product information.

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