Installation And Operation Instructions

For E-TFP-D Series Emergency LED Drivers

(20 Vdc - 50 Vdc Models)

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS:

1) *The Emergency driver is designed for both factory or field installation only when determined to meet the as installed egress requirements as outlined on page 4 of these instructions.*
2) ***Installation should be performed by qualified personnel only.***
3) ***Install in accordance with the National Electric Code and applicable local codes.***
4) *The Emergnecy driver requires an unswitched AC power source of 120 to 277 colts, 50/60HZ.*
5) *The Emergnecy driver is suitable for use in dry and damp location where ambient temperature is 10 to 55°C.*
6) *The Emergnecy driver should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.*
7) *The Emergnecy driver is suiatble for use only with LED lamps having an operating voltage of 20 Vdc minimum, 50 Vdc maximum and will provide 90 minutes of emergency operation.*
8) ***To reduce the risk of electrical shock, do not connect BLEM series driver's converter connector until installation is complete and AC power is applied to the luminaire.***
9) *The Emergnecy driver has more than one power source. To reduce the risk of electrical shock, remove the normal AC power source(s) to the luminaire and disconnect the Emergency driver's converter connector before servicing.*
10) ***The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition and will void warranty.***
11) ***Do not use this equipment for other than intended use.***
12) ***Do not mount near gas or electric heaters.***
13) ***Servicing of this equipment should be performed by qualified personnel only***
14) *The Emergnecy driver is a sealed unit. Components are not replaceable. Replace entire unit when necessary.*
15) *The Emergnecy driver comes with a sealed rechargeable NiCad battery that must be recycled properly. Do not attempt to service the battery.*

SAVE THESE IMPORTANT SAFETY INSTRUCTIONS

The installation and use of this product must comply with all national, federal, state, municipal, or local codes that apply. Please read this manual thoroughly before installing or operating BLEM series Emergency LED Drivers.

4. WIRING THE AC INPUT

A) The Emergency driver and AC LED Driver must be on the same branch circuit.
B) The Emergency driver requires an unswitched AC power source of 120 to 277 volts.
C) When the Emergency driver is used in a switched luminaire, the AC input to the BLEM series driver must be connected to ahead of the luminaire switch (line side of luminaire switch).

Refer to Figure 3.

5. COMPLETING INSTALLATION

When the installation is complete, switch the AC power ON and join the Emergency driver's converter connector.
Refer to Figure 3.

OPERATION

Normal Mode – AC power is present. The AC LED Driver operates the LED lamp(s) as intended. The LCTS will be illuminated indicating that the Emergency driver is in the standby charging mode.

Emergency Mode – AC power fails. The Emergency driver senses the AC power failure and automatically switches to Emergency Mode. One or multiple LED lamps will be illuminated for a minimum of 90 minutes. When AC power is restored, the Emergency driver switches the system back to the Normal Mode and resumes battery charging.

TESTING AND MAINENANCE

Pressing the LCTS simulates an AC power failure and forces the system into the Emergency Mode. Only the emergency LED lamp (s) will be illuminated. Testing may also be performed by opening circuit breaker powering the system.

Initial Testing – Allow the unit to charge for approximately 1 hour, then press the LCTS to conduct a short test. Allow a 24 hour charge before conducting a 1 ½ hour test.

Monthly – Ensure that the LCTS is illuminated. Conduct a 30 second test by depressing the LCTS

Annually – Ensure that the LCTS is illuminated. Conduct a 1 ½ hour test by opening circuit breaker controlling the BLEM series driver(s) to be tested.

Written records of testing shall be kept on file for inspection by the authority having jurisdiction.

System Coordination Guidelines

These guidelines were developed to allow the lighting system Designer/Specifier to predict the operating performance levels of LED luminaires when powered by an electrically compatible Emergency model. It is ultimately the responsibility of the Designer/Specifier to ensure that the as installed system delivers code-compliant path of egress illumination.

1) Determine Electrical Compatibility

A) Verify that the Luminaire LED Driver, where applicable, is Class 2 compliant.
B) Verify that the Luminaire LED Lamp(s) have an operating voltage between 20Vdc and 50Vdc.
C) Verify that the Luminaire LED Lamp(s) have a power rating equal to, or greater than, the emergency power rating of the Emergency driver model under consideration.
Refer to Table 1 below.

TABLE 1

MODEL	EMERGENCY OUTPUT (CONSTANT)
Emergency driver	5.0 WATTS or 10.0 WATTS or 13.0 WATTS

2) Calculate Lumen Output During Emergency Operation

Emergency Driver Part Number	EM10	
Model	**Watts**	**EM Lumens**
E-TFPS42D-14USCCTW-EB	10	1300
E-TFPS42D-22USCCTW-EB	10	1300
E-TFPS52D-24USCCTW-EB	10	1300

3) Determine Suitability of Means of Egress Lighting Levels

A) Using industry standard lighting design software, along with IES files for the luminaire under consideration, verify that the as installed available Lumens (as calculated in 2F above) are sufficient to meet Code-compliant path of egress illumination levels.

While the Emergency driver has been found compliant with the requirements of UL Standard 924, it is ultimately the responsibility of the Designer/Specifier to assure the as-installed system delivers code-compliant path of egress illumination in accordance with Federal, State or local municipal requirements.