EMBI4 (High Voltage)

Emergency Battery Backup

ALL-IN-ONE EMERGENCY LIGHTING SOLUTIONS

Luminoso's advanced emergency LED drivers deliver dependable power for any LED fixture, with 16W or 25W options providing up to 90 minutes of backup. Compact yet feature-rich, they offer one of the most versatile solutions available.

AC Wiring
Fully enclosed systems combine the battery and emergency driver in a single unit for easy installation without compromising a sleek design. The backup powers the driver—not the LEDs directly—ensuring optimal performance and broad compatibility across lighting applications.

FEATURES

- Supports most LED luminaires (Up to 200W)
- Universal input voltage (100–277V AC)
- Pre-installation service available for hassle-free install
- Field-installable UL Listed.
- Energy-efficient charger (CEC Title 20 compliant)
- Premium battery backup – 90+ minutes runtime during outages
- 5-Year Limited Warranty

SMART FEATURES

Automatic self-diagnostic testing with monthly, semi-annual, and annual checkups.

ENHANCED USABILITY

Upgraded indicators provide real-time status and alerts, making performance monitoring quick and effortless.

STANDARD

Secure the indicator light to the ceiling with a nut—compatible with all mounting configurations. Can be remotely installed up to 50 ft from the EM-H emergency driver.

CEC Compliance
California Energy Commission
Title 20 efficiency standards

CERTIFIED

Series	Mount	Voltage	Flex Whip
EMBI4 UL listed LED Emergency Driver	**16** 16W	**Y** Y = 120-277V	**Leave Blank** Dual Flex Whip
	25 25W		**SF** Single Flex Whip

Enter configuration: _____

** Special Order

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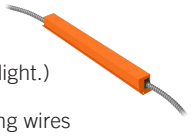
SPECIFICATION

Scenario 1)
To <16W LED luminaire without 0-10V dimming wires
(Such as LED Tube, LED Bulb, Triac Dimming LED Downlight.)
Scenario 2)
To >16W LED luminaire (Up to 160W) with 0-10V dimming wires
Minimum Dim-down Power ≤ Output Power of LED emergency driver.
(Such as LED Panel, LED Linear Highbay, LED Downlight, LED Linear Light.)



Scenario 1)
To <25W LED luminaire without 0-10V dimming wires
(Such as LED Tube, LED Bulb, Triac Dimming LED Downlight.)
Scenario 2)
To >25W LED luminaire (Up to 200W) with 0-10V dimming wires
Minimum Dim-down Power ≤ Output Power of LED emergency driver.
(Such as LED Panel, LED Linear Highbay, LED Downlight, LED Linear Light.)

EMBI4-16W

Output Power
16 Watts

Output Voltage
170V DC

Input Current
70mA Max (120V)

Input Power
4.5 Watts Max (120V)

Input Voltage
100-277VAC, 50-60Hz

Emergency Operation
>90 Minutes

Standby Power
<0.24W (120V)

Operating Temp.
32ºF to 122ºF

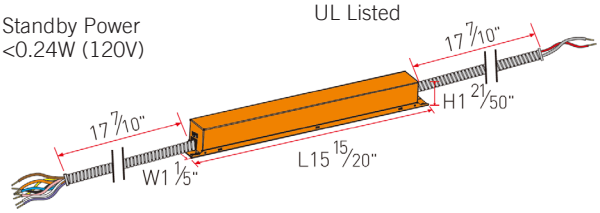
Battery
LiFe P04

Recharge
24 Hrs

Luminaire Load Power
160W (MAX)
If Wiring the 0-10V dimming wires
Minimum dim-down power≤ EM power.

18W (MAX)
If NO Wiring, the 0-10V dimming wires.

Certificate
UL Listed



EMBI4-25W

Output Power
25 Watts

Output Voltage
170V DC

Input Current
80mA Max (120V)

Input Power
6 Watts Max (120V)

Input Voltage
100-277VAC, 50-60Hz

Emergency Operation
>90 Minutes

Standby Power
<0.24W (120V)

Operating Temp.
32ºF to 122ºF

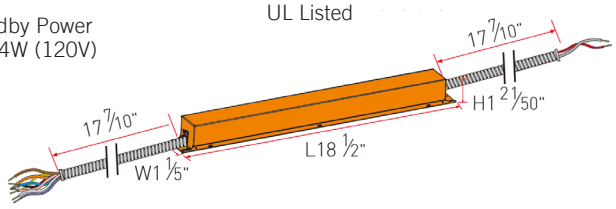
Battery
LiFe P04

Recharge
36 Hrs

Luminaire Load Power
200W (MAX)
If Wiring the 0-10V dimming wires
Minimum dim-down power≤ EM power.

25W (MAX)
If NO Wiring, the 0-10V dimming wires.

Certificate
UL Listed



APPLICATION

EMBI4 Series Emergency LED Driver UL Listed for factory or field installation, the EM-H series enables the same LED luminaire to operate in both normal and emergency modes. Designed to work with AC LED drivers up to 5.0A, it converts new or existing fixtures into reliable emergency lighting. This all-in-one solution integrates a maintenance-free LiFePO4 battery, charger, and circuitry within a rugged metal enclosure. Suitable for indoor and damp locations.

OPERATION

When AC power is lost, the EMBI4 instantly switches to emergency mode, running the LEDs at reduced brightness for at least 90 minutes. Once AC power is restored, it automatically returns to charging mode.

INSTALLATION

The EMBI4 does not interfere with normal fixture operation and must be powered from the same branch circuit as the AC driver. Installation is not recommended in environments below 0 °C. The LED emergency driver can be installed either near the fixture or remotely, with a maximum distance of 15 ft when using 16 AWG wire.

MOUNTING CONFIGURATIONS:

Each unit offers 4 mounting configurations to suit different fixture types and performance requirements.

- Dual Flex (Standard)
  Provides dual flex for wiring to both the fixture or driver compartment and test accessories.

- Integral Non-Flex (Optional)
  Allows for integral installation within the driver compartment. May also be mounted atop the fixture when used with a TMK cover accessory.

- Single Flex (Optional)
  Mounts to the junction box and provides flexible conduit for remote mounting of the test accessories.

- Top-Mount Non-Flex (Optional)
  Top-mounting option for running wires directly into the driver compartment. Test accessories are then installed within the fixture.

CODE-REQUIRED TESTING

More secure, more rigorous than standard requirements.

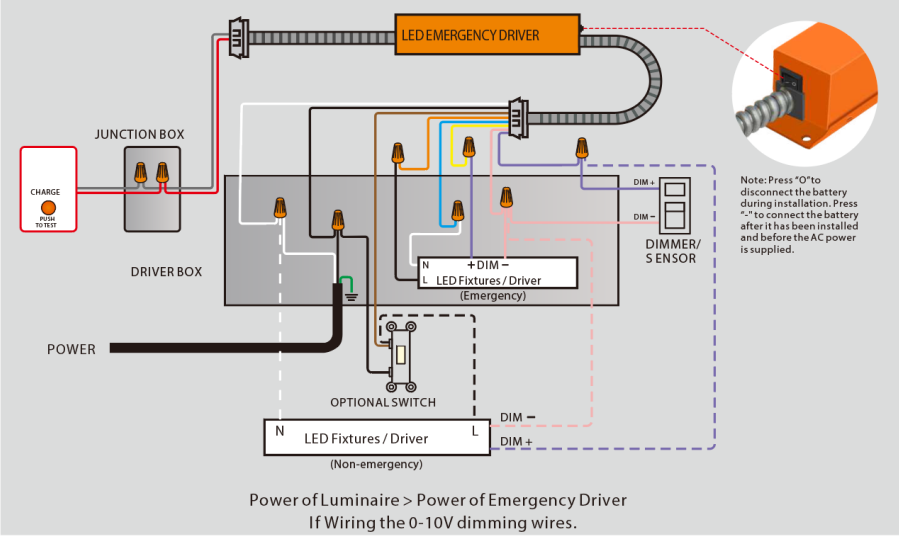
Automatic Detection Modes	
Power-On Self-Test:	Trigger: Upon power connection
	Duration: Max. 2 minutes
Monthly Auto-Test:	Trigger: Day 30 (after light OFF + 6-hour delay)
	Duration: 35 seconds
Semi-Annual Auto-Test:	Trigger: Day 180 (after light OFF + 6-hour delay)
	Duration: 30 minutes
Annual Auto-Test:	Trigger: Day 365 (after light OFF + 6-hour delay)
	Duration: 90 minutes

Manual Button Test Operations
Single Press (1×) Action: Initiates 35-second self-test
Double Press (2×) Action: Initiates 30-minute self-test
Triple Press (3×) Action: Initiates 90-minute self-test
Long Press for 3 seconds Action: Cancels ongoing self-test
Long Press for 10 seconds Action: Forces system reset & reboot

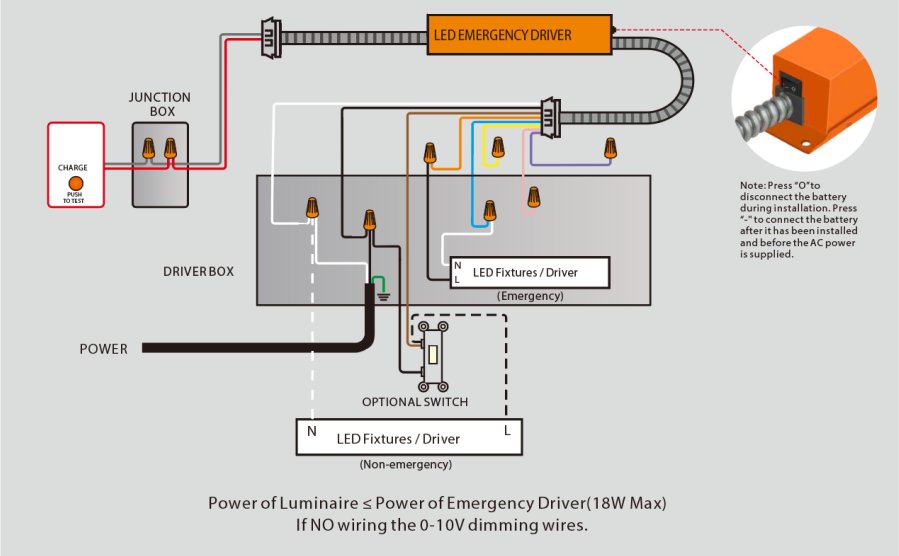
Key Notes:
All time-based tests initiate 6 hours after the fixture is turned OFF
Test cycles are calculated from the last power-on date
"Day 30/180/365" refers to cumulative operational days

Safety Notice:
» Interrupting tests may require manual restart of the detection cycle.

WIRING DIAGRAM



Power of Luminaire > Power of Emergency Driver
If Wiring the 0-10V dimming wires.



Power of Luminaire ≤ Power of Emergency Driver(18W Max)
If NO wiring the 0-10V dimming wires.