

Emergency LED Driver

High Voltage | AC Wiring | Gen 4



All-in-One Emergency Lighting Solutions

OKT's innovative emergency LED driver provides reliable power for any LED fixture in emergency mode, offering 16W or 25W options for up to 90 minutes. With its compact size and robust feature set, these drivers stand out as some of the most capable and versatile solutions on the market.

AC Wiring

OKT's fully enclosed systems integrate the battery and emergency driver into a single unit, simplifying installation while maintaining a sleek, compact design. The emergency backup powers the driver, not the LEDs directly, ensuring optimal performance and compatibility with a wider range of lighting applications.



Feature

✓ Built for Reliability

- Field-installable (UL Listed for US & Canada)
- *Energy-efficient charger (CEC Title 20 compliant) *
- *Premium battery backup – 90+ minutes runtime during outages*
- *Backed by a 5-Year Limited Warranty*

✓ Seamless Compatibility

- Supports most LED luminaires (Up to 200W)
- Universal input voltage (100–277V AC)
- Pre-installation service available for hassle-free install

✓ Smarter Features

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

✓ More Intuitive

Enhanced indicators for real-time working status and issue notifications, making it easier to monitor performance.

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PRODUCT ORDERING GUIDE

Example: EM-H16170-RBF

EM	-	H		170	-	RBF
Product Series		Type	Output Power	Output Voltage		Flexible Conduit
EM QuickShip Emergency LED Driver		H QuickShip High Voltage-AC Wiring Version Individual Pack	16 QuickShip 16W 25 QuickShip 25W	170 QuickShip 170V DC		RBF QuickShip Dual Flex

OPTIONAL ACCESSORY

2-in-1 LED Test Switch And Indicator Light Included			Optional Mounting Kit	
Standard QuickShip		Fix the indicator light on to the ceiling with nut, suitable for all mounting configurations. It may be remotely mounted up to 80ft 18#AWG from the emergency driver.	Optional Recessed Make to Order	
			T-Grid Mounting Kit QuickShip	
			It is safer to mount the LED emergency driver on the T-grid ceiling.	

SPECIFICATION

Situation 1)

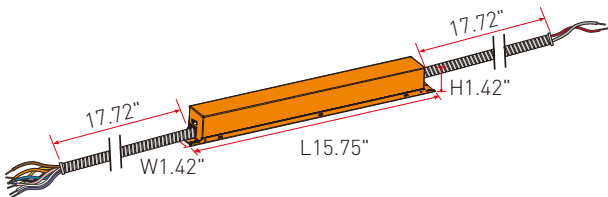
To ≤18W LED luminaire without 0-10V dimming wires
(Such as LED Tube, LED Downlight.)
Note: Not compatible with driver-on-board LED luminaires.

Situation 2)

To >18W 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.)

EM-H16170-RBF

Output Power	Operating Temp
16 Watts	0°C to 50°C
Output Voltage	Battery
170V DC	LiFePo4
Input Current	Recharge
70 mA Max (120V)	24 Hrs
Input Power	Luminaire Load Power
4.5 Watts Max (120V)	160W (Max) If Wiring the 0-10V dimming wires Minimum dim-down power≤ EM power
Input Voltage	18W (Max) If NO wiring the 0-10V dimming wires
100-277VAC, 50-60Hz	Certificate
Emergency Operation	UL , CEC
≥90 Minutes	Dimensions
Standby Power	L15.75"xW1.42"xH1.42"
<0.24W(120V)	



Situation 1)

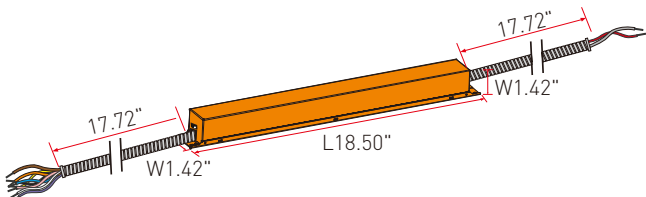
To ≤25W LED luminaire without 0-10V dimming wires
(Such as LED Tube, LED Downlight.)
Note: Not compatible with driver-on-board LED luminaires.

Situation 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.)

EM-H25170-RBF

Output Power	Operating Temp
25 Watts	0°C to 50°C
Output Voltage	Battery
170V DC	LiFePo4
Input Current	Recharge
80 mA Max (120V)	36 Hrs
Input Power	Luminaire Load Power
6 Watts Max (120V)	200W (Max) If Wiring the 0-10V dimming wires Minimum dim-down power≤ EM power
Input Voltage	25W (Max) If NO wiring the 0-10V dimming wires
100-277VAC, 50-60Hz	Certificate
Emergency Operation	UL , CEC
≥90 Minutes	Dimensions
Standby Power	L18.50"xW1.42"xH1.42"
<0.24W(120V)	



APPLICATION

The EM-H series is UL Listed for factory or field installation and allows the same LED luminaire to be used for normal and emergency operations. The emergency LED driver works in conjunction with an AC LED driver that has an output current not to exceed 5.0A to convert new or existing LED fixtures into emergency lighting. All-in-one solution combines a maintenance-free LiFePo4 battery, charger and circuitry in a rugged metal enclosure. The EM-H is suitable for indoor and damp locations.

OPERATION

When AC power fails, the EM-H 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.

INSTALLATION

The EM-H does not affect normal fixture operation. It must be fed from the same branch circuit as the AC driver. Installation is not recommended with fixtures where the ambient temperature may fall below 0°C. The LED emergency driver may be installed near the fixture or remote from the fixture. The maximum remote distance using 16AWG wire is 200ft.

MOUNTING CONFIGURATIONS:

Each unit is available in 4 different mounting configurations to accommodate various performance requirement and fixtures types.

- Dual Flex (Standard)

Provides dual flex for wiring to both the fixture or driver compartment and test accessories.
- QuickShip



- 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.
- Make to Order



- Single Flex (Optional)

Mounts to the junction box and provides flexible conduit for remote mounting of the test accessories.
- Make to Order



- Top-Mount Non-Flex (Optional)

Top-mounting option for running wires directly into the driver compartment. Test accessories are then installed within the fixture.
- Make to Order



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

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

Manual Button Test Operations	
Single Press (1x)	Action: Initiates 35-second self-test
Double Press (2x)	Action: Initiates 30-minute self-test
Triple Press (3x)	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

Safety Notice:

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

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WIRING DIAGRAM

