EnVisionLED™

Installation Instruction

LED-EMB-40W-HV-0/10V

IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

ASSEMBLY and FIELD INSTALLATION WIRING:
WARNING: AC power must be off before proceeding with assembly or installation of emergency driver.
CAUTION: This equipment has more than one power supply connection point. To reduce the risk of electric shock disconnect both the branch circuit-breakers or fuses and emergency power supplies before servicing..
CAUTION: RISK OF SHOCK — DISCONNECT EMERGENCY AND NORMAL INPUT POWER SOURCES BEFORE SERVICING.
CAUTION: SERVICING OF THIS EQUIPMENT SHOULD BE PERFORMED BY QUALIFIED PERSONNEL ONLY.
CAUTION: The electrical rating of this product is 100-347V AC. Installer must confirm that there is 100-347Vac to the fixture before installation.
CAUTION: An un-switched AC power source of 100-347VAC is required.
CAUTION: Make sure all electrical connections conform to the National Electrical Code and all applicable local regulations. Proper grounding is required for safety.
CAUTION: To avoid electrical overload, total connected lamp load (factory and field installed) should not exceed output rating.
CAUTION: Risk of fire or electric shock. Luminaire wiring and electrical parts may be damaged when drilling for installation of LED Emergency Backup. Check for enclosed wiring and components.
CAUTION: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
CAUTION: Do not handle energized fixture when hands are wet, when standing on wet or damp surfaces, or in water.
CAUTION: This is a sealed unit. Battery is not replaceable. Replace entire unit when necessary.
CAUTION: Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
CAUTION: For use in 41˚ F minimum, 122˚ F maximum ambient temperatures.
CAUTION: Not for use in heated air outlets or hazardous locations.
CAUTION: Do not use outdoors.
CAUTION: Do not let power supply cords touch hot surfaces.
CAUTION: Do not mount near gas or electric heaters.
CAUTION: Do not use this equipment for other than its intended use.
CAUTION: The use of accessory equipment is not recommended by the manufacturer and may cause an unsafe condition,void warranty, and result in non-compliance with UL specifications.
CAUTION: Use with grounded, UL Listed, dry or damp location rated fixtures and case should be grounded.
CAUTION: The equipment is intended for ordinary locations and for permanent installation into one or more listed emergency luminaires.

IMPORTANT: Indicator (LED light) illuminated indicates battery in charge mode when AC power is applied.
It is recommended and required by applicable code to test emergency function to ensure proper operation of the system; press the test switch for thirty (30) seconds every 30 days to ensure the emergency driver is functioning as LED light source illuminated. Conduct a ninety minute (90) discharge test one time (1) per year; LED light source should be illuminated for a minimum of ninety minutes (90).
TESTING SYSTEM: The emergency battery requires a charge minimum of one (1) hour before testing the circuit.
A full charge requires twenty four(24) hours.
IMPORTANT: Please charge the battery consistently for >24 hours for the first time usage so as to activate the whole battery cells of discharging/charging duration.
IMPORTANT: To maintain good battery lifespan during storage and warranty coverage, recharge emergency LED driver every 6 months. Storage shelf time is 12 months(max). If customers don't install and recharge for more than 12 months, the batteries may be damaged. This is not covered in the warranty, and we would charge for replacement.
IMPORTANT: Lighting fixture manufacturers, electricians, and end-users need to ensure product system compatibility before final installation.

UL LISTED E501344

Li-ion

THIS PRODUCT CONTAINS A RECHARGEABLE LITHIUM BATTERY.
THE BATTERY MUST BE RECYCLED OR DISPOSED OFF PROPERLY.

Operation

Normal Mode: AC power is present. The AC driver operates the LED load as designed. The emergency driver is charging in a standby mode. The charging indicator will be lit,showing that the battery is charging.

Emergency Mode: When AC power fails, the emergency driver automatically switches to emergency mode, operating the LEDs for a minimum of 90 minutes. When AC power is restored, the emergency driver switches the system back to the normal mode and restores to the battery charging state.

SELF-TEST

This unit contains a control/monitor circuit that if enabled automatically performs a 30-second discharge test once a month and a full 90-minute discharge test once a year. During routine testing, the self-testing emergency driver simulates an AC power failure causing the unit to automatically switch to emergency mode. The unit will monitor the operation of the LED load, battery voltage, and emergency duration. If the emergency system functions properly, then the unit will return to normal mode. Should the unit detect any problems, the indicator light will flash **RED**.

TEST SWITCH INDICATOR STATUS & TROUBLE SHOOTING GUIDE

The charge indicator will be lit Solid Red when charging, and will be lit Solid Green when fully charged and in the standby mode. The indicator will flashing Green when self-testing.

Mode	LED Indicators Status	Error	EM Driver Status / Mode	Corrective Action
Normal Mode	Solid Green	None	Battery fully charged/System OK	/
	Solid Red	None	Battery is charging	/
	Both LEDs OFF	None	In EM mode or emergency run-time is ended	/
	Flashing Green	None	Self-Diagnostic test underway	/
Fault Mode	Flashing Red	Overload protection		1. Check load power and connect 2. Check input and dimming line 3. Powered on again 3. Contact after-sales

MANUAL TEST

Test Mode	Description	Action	Status
Quick Test	Quick discharge test	Press the test button 1 time	LED load will light up for 5 seconds
Monthly Test*	30-Second Test	Press the test button 3s continuously	LED load will light up for 30 seconds
Annual Test*	90-Minute Test	Press the test button 6s continuously	LED load will light up for 90 minutes
Sleep Mode**	In emergency mode, press test button twice to cut off the emergency output and enter shipping mode		

* Press the test button 1 time, can quite 30-second test and 90-minute test.

** Sleep Mode deactivates the unit and internally disconnects the battery to prepare the unit for storage prior to installation. The Automatic Power Activate feature will reactivate the unit upon installation and first power-up.

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IMPORTANT:
Emergency LED Driver must connect to 0-10V dimming wires(DIM+,DIM-) of the luminaire if the LED luminaire power is exceed emergency LED driver output power.

Model: LED-EMB-40W-HV-0/10V

Input Voltage: 100-347Vac, 50/60Hz	**Emergency Time:** ≥ 90 minutes
Input Current: ≤ 200mA	**Ambient Temperature:** 41°F ~ 122°F
Input Power: 15W Max.	**Application:** (1) 40W <0-10V dimming luminaires ≤300W (2) non-dimming luminaire ≤40W
Output Voltage: 120-190V DC	
Output Power: 40W	**Max. Mounting Height:** 48.65ft

Product includes the following components:

PARTS	QUANTITY
LED Emergency Driver	1
Charging Indicator/Testing Button	1
Charging Indicator/Testing Button Wall Cover	1
Instruction Sheet	1

Wiring Diagram

Refer to the diagram below for the appropriate wiring of the LED load and driver. Install in accordance with the National Electrical Code and local regulations.
For additional wiring diagrams consult Customer Service.

***Note: This product is not compatible with all luminaires, please conduct a compatibility test before use.**

1 With 0-10V Dimmer
For luminaire with 0-10V LED driver and using 0-10V Dimmer (* 40W <Luminaire Power ≤300W)
Emergency Driver Dim+ (Blue), Dim- (Yellow) has to connect with LED driver DIM+ and DIM- respectively, as shown.

❷ With Wall Switch

For luminaire with 0-10V LED driver, without using 0-10V dimmer (*40W<Luminaire Power≤300W)

Emergency Driver Dim+ (Blue), Dim- (Yellow) has to connect with LED driver DIM+ and DIM- respectively, as shown.

❸ With low voltage 12VDC sensor

For luminaire with 0-10V LED driver, without using 0-10V dimmer (*40W<Luminaire Power≤300W)

Emergency Driver Dim+ (Blue), Dim- (Yellow) has to connect with LED driver DIM+ and DIM- respectively, as shown.

4 With High Voltage Sensor (100-277/347Vac)

For luminaire with 0-10V LED driver and using 0-10V Dimmer (* 40W <Luminaire Power ≤300W)

Emergency Driver Dim+ (Blue), Dim- (Yellow) has to connect with LED driver DIM+ and DIM- respectively, as shown.

5 With Triac Dimmer

For Triac dimmable LED luminaire with external LED driver (* Luminaire Power <40W)

Note: verify compatibility before installation

6 For LED Luminaire <40W