# **Emergency LED Driver**







# **MODEL: EMAXXYY-ZZZ**



## **FEATURES**

- UL Listed for US and CANADA
- Listed to UL924 and tested to CSA C22.2 NO.141 Field or factory installation
- Low energy consumption CEC Title20 compliance
- High output voltage
- Constant output power
- Self-testing
- Battery:Over Temperature Protection
   Over Charge Protection
   Over Discharge Protection
- For wiring to the led driver's DC output

## **SPECIFICATIONS**

- Input Voltage:100~277Vac,50/60Hz 100~347Vac,50/60Hz
- Input Current: 100mA max.
- Recharge Power: 7W max.
- Output Voltage:25V~230Vdc
- Emergency Power:30W max.
- Recharge Time: 24Hrs
- Discharge Time:≥1.5H
- Warranty:5 Years
- Battery:Li-ion
- Ambient Temp:32~122°F(0~50°C)
- Weight: 2.36 lbs(1.07kg) max.
- Surge Protection:Line-Neutral 3KV

#### **SPECIFICATION CHART**

Models	Emergency Power	Part Number Matrix
EMA08YY-050, EMA08YY-080, EMA08YY-155, EMA08YY-230	8 Watts (Constant)	EMAXXYY-ZZZ
EMA15YY-050, EMA15YY-080, EMA15YY-155, EMA15YY-230	15 Watts (Constant)	<ul><li>XX = output power; 8Watts, 15Watts, 30Watts;</li><li>YY = sales code</li></ul>
EMA30YY-050, EMA30YY-080, EMA30YY-155, EMA30YY-230	30 Watts (Constant)	<ul> <li>ZZZ = output voltage;</li> <li>25-50Vdc (Standard), 51-80Vdc, 81-155Vdc, 156-230Vdc</li> </ul>

NOTE— Power of the EMAXXYY selected must not exceed the power of the A.C. driver from led fixture.

The EMAXXYY-050 can be used with most led loads that operate at 25-50VDC

The EMAXXYY-080 can be used with most led loads that operate at 51-80VDC

The EMAXXYY-155 can be used with most led loads that operate at 81-155VDC

The EMAXXYY-230 can be used with most led loads that operate at 156-230VDC

# **SELF-TESTING**

The integrated Self- Diagnostic circuitry will automatically conduct monthly 30-second and annual 90-minute tests to verify proper emergency capability per Life Safety Code requirements. NFPA 101, Life Safety Code Outlines the following schedule:

- *Monthly* During AC mode, the system conducts a (30)seconds self-discharge test of the emergency led driver every 30 days. And automatically restore to normal charging after (30)seconds dis-charged.
- **Annually** During AC mode, the system conducts a (90)minutes self-discharge test of the emergency led driver every 365 days. And automatically restore to normal charging after fully dis-charged.

# EMAXXYY-ZZZ INSTALLATION MANUAL

## !!! IMPORTANT SAFEGUARDS !!!

WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTION SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING

#### **READ AND FOLLOW ALL SAFETY INSTRUCTION**

- 1. **CAUTION-** This emergency driver provides more than one power supply output source. To reduce the risk of electrical shock, disconnect both normal and emergency source by turning off the A.C. branch circuit and by disconnecting the battery on/off connector.
- 2. CAUTION- Servicing of this equipment should be performed by qualified personnel only.
- 3. **CAUTION-** Do not attempt to service the battery. A sealed, no-maitenence battery is used that is not field replaceable. Replace the entire unit when necessary.
- 4. **CAUTION-** The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition, void warranty, and result in non-compliance with UL specifications.
- 5. CAUTION- Connnect the emergency driver battery pack to the unit before applying A.C. Power.
- 6. CAUTION- The emergency driver requires an un-switched AC power source of 100-277VAC, 50/60Hz or 100-347VAC, 50/60Hz. Verify the correspondent electrical rating at the LED fixture before servicing. Both of the electrical rating will supply power under an output voltage of 25~230VDC in emergency mode for at least 90 minutes.
- 7. CAUTION- Battery pack should be charged for 24 hours every 6 months during storage.
- 8. CAUTION- Press test switch again to turn off emergency before shipping.
- 9. Battery in this unit may not be fully charged. After electricity is connected to the unit for at least 24 hours, then normal operation of this unit should take effect.
- 10. For use in 0°C minimum, 50°C maximum ambient temperatures. Suitable for use in damp locations and plenum spaces.
- 11. Flexible mental conduit is optional, depend on installation environment.
- 12. The emergency driver should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- 13. For led fixture power higher than or equal to rating of the emergency driver emergency battery pack.
- 14. Do not use this equipment for anything other than its intended use. Equipment only use for LED Lighting emergency backup.
- 15. Do not mount near gas or electric heaters. Do not let power supply cords touch hot surfaces.
- 16. Do not make or leave any other open holes in the wiring enclosure or electrical component enclosure during installation.
- 17. This fixture is for use with grounded, UL Listed, damp location rated, indoor fixture. Not for use in heated air outlets or hazardous locations.
- 18. Maximum installation height: 13.9 feet.
- 19. Do not use outdoor.

#### **LUMEN OUTPUT DURING EMERGENCY OPERATION**

The luminaire rated data and maximum mounting height can be found as follows:

- 1. Determine the fixture efficacy under normal AC operation, based on fixture manufacturer published data in lumens per watt(LM/W).
- 2. Reference DLC QPL (www.designlights.org) and Energy Star QPL (www.energystar.gov) for rated data on fixture efficacy. If fixture is not found on DLC or Energy Star Qualified Product List, contact fixture manufacturer.
- 3. Multiply fixture LM/W by rated output power of emergency pack Example 'model EMA15YY-050' is  $15 \text{ W} \times 100 \text{ LM/W} = 1500 \text{ Lumens}$



# Caution: Before Installation, Make Certain The A.C. Power is Off!

#### STEP1: INSTALLING THE EMERGENCY LED DRIVER

- > Turn off the AC power before installing.
- > Test switch and indicator light shall be installed where can be seen depending on the application.
- > Determine appropriate location for emergency driver on the fixture or using brackets to fix emergency driver on the fixture. The installation instruction of LED luminaire may provide guidance on mounting location.

#### STEP2: WIRING THE EMERGENCY DRIVER

- > Select the appropriate wiring diagram to connect the emergency driver to the AC driver. For other diagrams, consult the manufacturer.
- > Using wire nuts to cover unused wires and make sure all connections are in accordance with the NEC and any local regulations.
- > Do not join the unit connector of the battery until all the wiring are completed.

#### STEP3: TESTING

- > After wiring is complete, check if the indicator light lights or not, which will indicate the battery's charging situation.
- > The battery in this unit may not be fully charged. A short-term discharge test may be conducted after the emergency driver has been charging for 1 hour. Charge for 24 hours before conducting a long-term discharge test.

# SAVE THESE INSTRUCTIONS







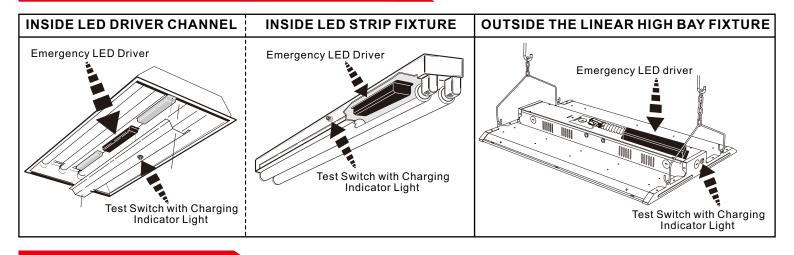
THIS PRODUCT CONTAINS A RECHARGEABLE LITHIUM-ION BATTERY.

THE BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY TO PREVENT FIRE.

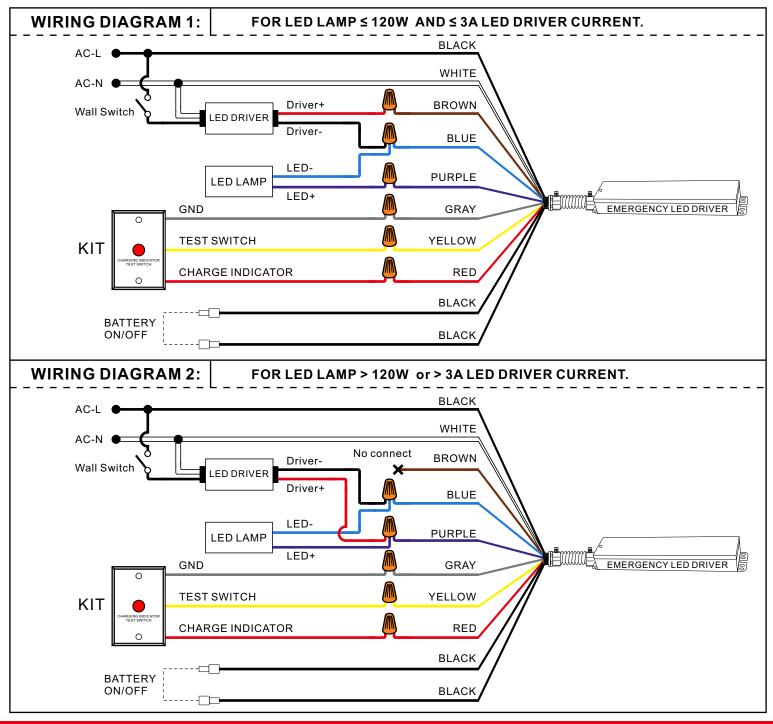
# **Emergency LED Driver**

# **EMA SERIES**

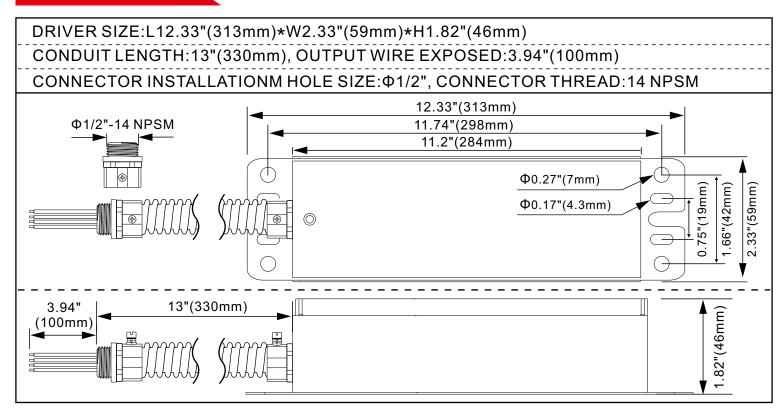
#### **INSTALLING THE EMERGENCY LED DRIVER**



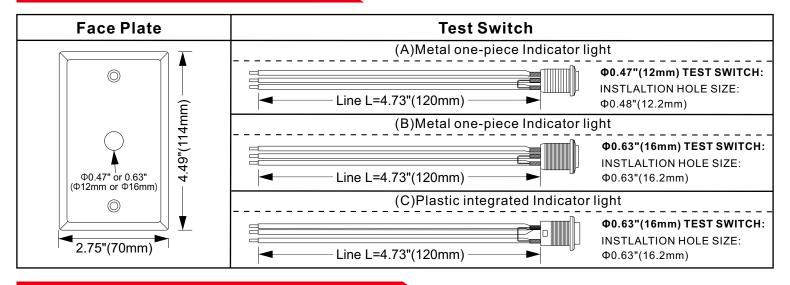
## **WIRING DIAGRAM**



# **DIMENSIONS**



## **OPTIONAL ACCESSORIES**



# **OPERATION(INDICATOR STATUS)**

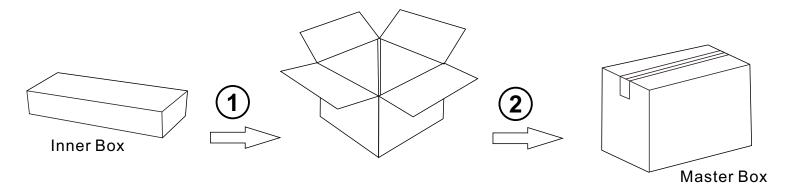
Mode	Test Switch Operation	Indicator Status	Comment & Solutions		
AC MODE (1)	NO Press	ON(no flashing)	Emergency led driver is charging		
AC MODE (2)	Press and Hold	2s ON and 2s OFF (slow flashing)	Emergency led driver is conducting an emergency test; release the test switch, the Emergency led driver returns to the charging state		
EMERGENCY MODE	NO Press	2s ON and 2s OFF (slow flashing)	Emergency led driver is conducting a long-term emergency test until battery is no power		
ABNORMAL	When flashes (50ms) ON and (50ms) OFF fast, the emergency backup pack is abnormal. Contact the manufacturer.				

WARNING Risk of Electric Shock



Note: Please unplug the unit connector of the battery to make sure the emergence led driver is turned off, before installation, maintenance, storage or shipping.

# **PACKAGE**



# PACKAGE INFORMATION

Power	Length	Width	Height	G.W(kg)	N.W(kg)	QTY(pcs)
8W	16.23"(412mm)	11.26"(286mm)	10.24"(260mm)	10.15	8	10
15W	16.23"(412mm)	11.26"(286mm)	10.24"(260mm)	11.5	9	10
30W	16.23"(412mm)	11.26"(286mm)	10.24"(260mm)	13.3	10.7	10