evio™ LED LIGHTING

EMD20-V50-UNV-H	
Driver Type	Constant Power
No. of Output Power	4
Input Voltage	120V-277V
Input Frequency	50/60 Hz

Features

- Universal Voltage (120V-277V)
- Multi-Level Power Output
- Constant Power Control
- Slim profile / form factor
- Open Circuit Protection
- Short Circuit Protection
- Sound Rated A
- UL/cUL, Class 2
- FCC Part 15 Class A
- 5-year Limited Warranty

PRODUCT SPECIFICATIONS

EMD20 — EMERGENCY LED DRIVER

System Application:	LED Emergency	Emergency LED Driver for backup lighting, used for LED arrays

INPUT	
Frequency	50/60 Hz
Input Voltage (range)	120-277VAC
Power Factor (min.)	> 0.6 @ full load
THD (max.)	20% @ full load 110VAC
Input AC Current (max. @ VAC)	0.10A
Standby Power (max.)	0.5W
Stranded White/Black Lead	100W Max.

OUTPUT	
Output Voltage (Range)	12-50Vdc
Output Current Range	100-1600mA
Output Power (max.)	20W
Output Short Protection	Yes
Output Open Protection	Yes
Output Power Config.	Dip Switch
Output Classification	Class 2

ELECTRICAL DATA	
Recharge Time Req.	24-48 hours (refer to chart)
Battery Type	LiFePO4
Illumination Time	90 minutes min.
Total Max. LED Powered	20W
Ambient Temperature	10°C-50°C

ORDERING INFORMATION:

EXAMPLE: **EMD20-V50-UNV-H**

EMD	20	V50	UNV	H
Emergency Driver	**Max. Wattage** **20** = 20W		**Input Voltage** **UNV** 120-277V	**Dimmability** **D** = Dimming

LiFePO4

RoHS COMPLIANT

Specification data is based on tests performed in a controlled environment and represents relative performance. Actual performance can vary depending on operating conditions. Application and performance data subject to change without notice. All specifications are nominal unless noted otherwise.

General Specifications

General	
Max. Case Temp. (Tc)	90°C
MTBF	1,000,000 hours
Life Rating	50,000 hours, 55°C case temp.
Warranty	5-years Limited Warranty

Protection, Safety, EMC	
Over Current Protection	Fuse
Application	Suitable for Dry and Damp Location
Safety Standards	UL, cUL, UL8750 Class 2
EMI/EMC Standards	FCC Part 15 Class A

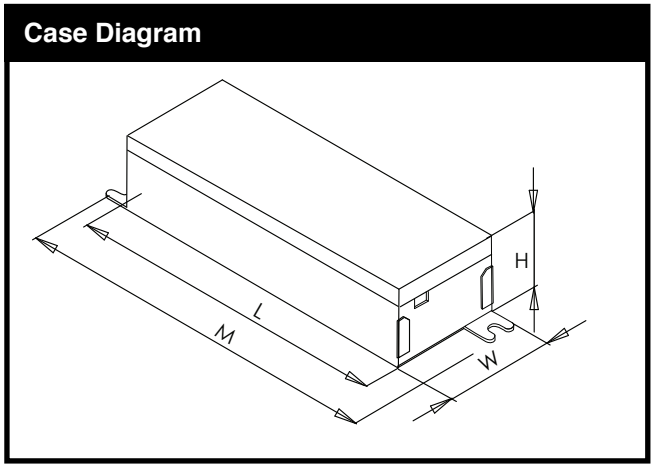
Environmental	
Operating Temperature (min. ~ max.)	0°C ~ 55°C
Storage Temperature (min. ~ max.)	-40°C ~ +80°C
Operating Humidity	20 ~ 85% RH
Storage Humidity	10 ~ 85% RH
IP Rating	IP20

Battery Chart

Chemistry	Compliance	Pack Capacity	Max. Load (90 min.)	Battery Voltage	Recharge Time
LiFePO4	RoHS	3000mAH	5W	9.6V	24 hrs.
LiFePO4	RoHS	3000mAH	10W	9.6V	24 hrs.
LiFePO4	RoHS	3000mAH	15W	9.6V	32 hrs.
LiFePO4	RoHS	3000mAH	20W	9.6V	48 hrs.

Physical Parameters

Case Diagram



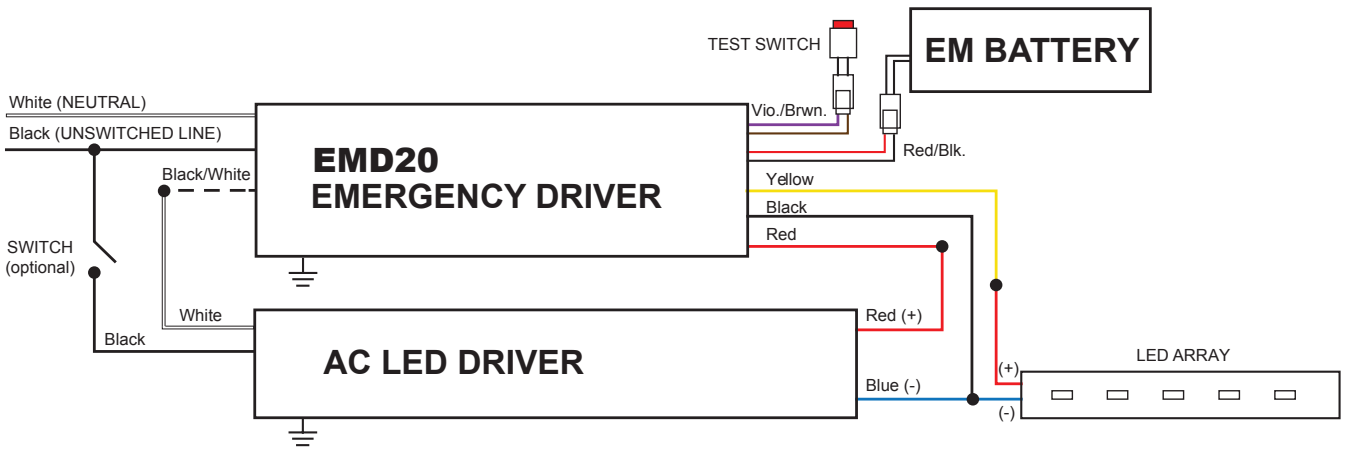
Enclosure (in. ±1)	EM Driver (in.)	Battery (in.)
Length (L)	4.65	8.27
Mounting (M)	5.24	9.00
Width (W)	1.65	1.3
Height (H)	1.00	1.3
Full Length (inc. mounting feet)	5.5	9.5

	Length (in)	Lead Information
Input Black (Line 1)	15	18AWG, Solid, 600V
Striped Black/White	15	18AWG, Solid, 600V
Input White (Neutral)	15	18AWG, Solid, 600V
Red	20	18AWG, Solid, 300V
Black	20	18AWG, Solid, 300V
Yellow	20	18AWG, Solid, 300V
Violet/Brown (Battery)	20	18AWG, Solid, 300V
Red/Black (Test Button)	20	18AWG, Solid, 300V

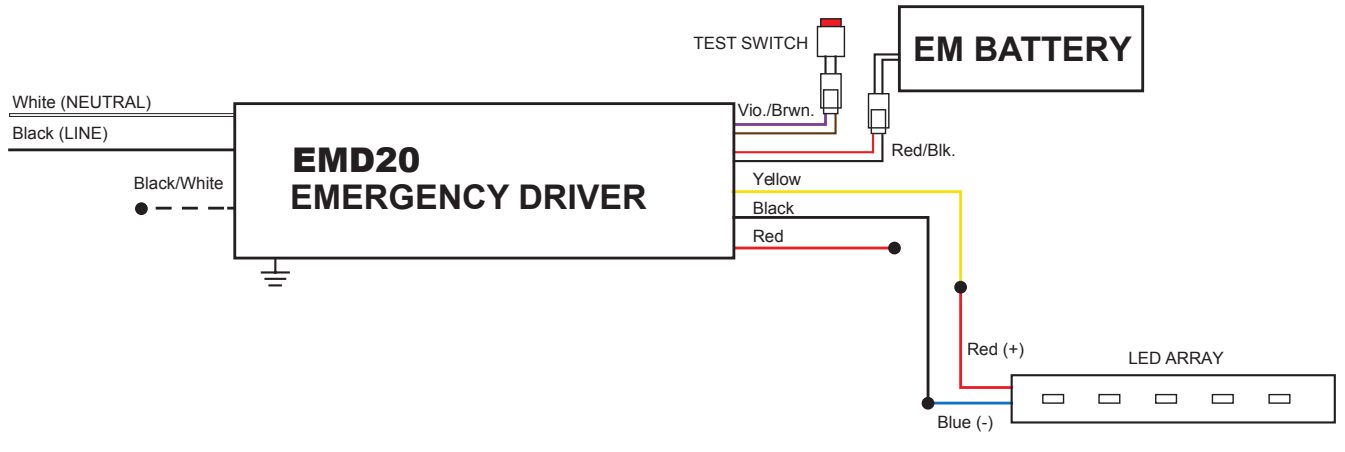
Lumen Tuning - Output Power Setting

Dip Switch Setting	Current (mA)	Output Power (W)	EM Mode Time (min.)
	RoHS	3000mAH	5W
	RoHS	3000mAH	10W
	RoHS	3000mAH	15W
	RoHS	3000mAH	20W

Wiring Diagram



Wiring Diagram for Emergency Only



EMD Series
LED EMERGENCY DRIVER

SERIES MODEL: EMD20

INSTALLATION INSTRUCTIONS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

WARNING

FAILURE TO FOLLOW THESE INSTRUCTIONS AND WARNINGS MAY RESULT IN SERIOUS INJURY OR DAMAGE TO PROPERTY

For your safety, thoroughly read these instructions and warnings in its entirety prior to installing or servicing this product. These instructions do not attempt to cover all installation and maintenance circumstances. If you do not understand these instructions or if additional information is needed, please contact Evio Lighting customer service.

WARNING

RISK OF FIRE OR ELECTRIC SHOCK

This product must be installed and serviced by a professional electrician in accordance with applicable federal, state, and local laws, regulations, and electrical code. If not qualified, do not attempt installation of this product. Contact a qualified electrician.

WARNING

RISK OF FIRE, ELECTRIC SHOCK, or PERSONAL INJURY
To avoid risk of electrical shock, AC Power must be off before installing or servicing of emergency driver.
Verify that supply voltage is correct by comparing with the input voltage on the driver label
Make all electrical and ground connections in accordance with NEC and any applicable code requirements

CAUTION

RISK OF PERSONAL INJURY
To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects
Do not let power supply wires touch hot surfaces
Luminaire wiring and electrical parts may be damaged when drilling for installation of LED Emergency Backup. Check for enclosed wiring and components

CAUTION

Battery is rechargeable NiCd or LiFePO4 and must be recycled or disposed of properly. DO NOT use this emergency driver with any accessory equipment other than recommended by manufacturer; failure to follow this may cause an unsafe condition.

Use caution when servicing batteries. Battery acid can cause burns to skin and eyes. If acid is spilled on skin or in eyes, flush acid with fresh water and contact a physician immediately.
Do not use this equipment for other than intended use.

IMPORTANT

LED Indicator light illuminated indicates battery is in charge mode when AC power is applied. It is recommended and required by applicable code to test the emergency driver to ensure proper function of the system; push the test switch for thirty (30) seconds every 30 days to ensure the emergency driver is functioning as LED light source is illuminated. Conduct a ninety (90) minute discharge test one (1) time per year; LED light source should be illuminated for a minimum of ninety (90) minutes

Device designed for use in luminaires listed for Dry or Damp Location
Do not use outdoors

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE