



Antron Electronics Co.,LTD
安雄電子股份有限公司

Front-End Emergency LED Driver



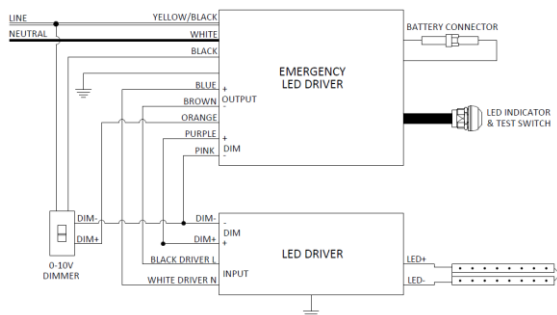
Model Name	FEMAP20-180
Output Mode	Constant Power
Input Voltage	120-277 Vac
Input Frequency	50/60 Hz
Surge Rating	3KV
Warranty	5 Years TC $\leq 60^{\circ}\text{C}$ 3 Years TC $\leq 70^{\circ}\text{C}$

Product Specification

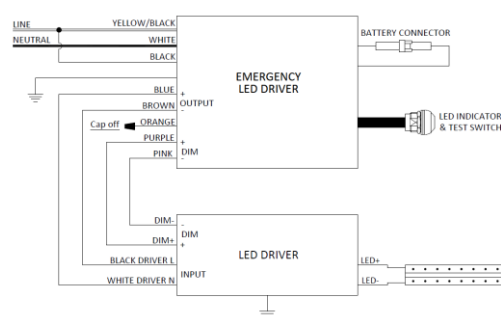


Output Voltage (V)	Output Current (mA)	Light Engine Power (W)	Operating Duration Time	Operating Temp. ($^{\circ}\text{C}$)	Battery Voltage (V)	Battery Charge Current (mA)	Battery Recharge Time	Input Power (W)	Input Current (mA)
120-180	120	20	Min. 90min	0-50	12.8	200	Max. 24Hrs	Max. 9	Max. 140

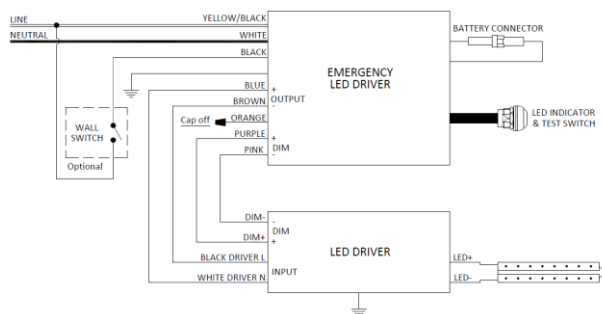
Wire Diagram



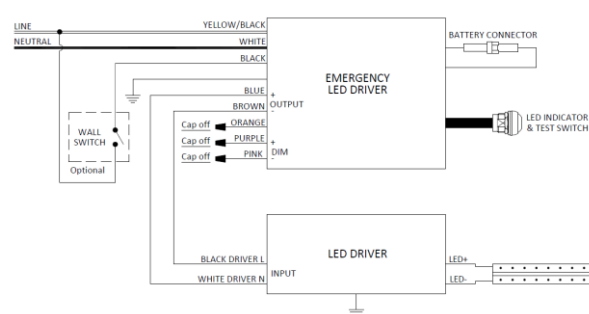
With dimmable LED driver
(W/ dimmer, W/O wall switch)



With dimmable LED driver
(W/O dimmer, W/O wall switch)



With dimmable LED driver
(W/O dimmer, W/ wall switch)



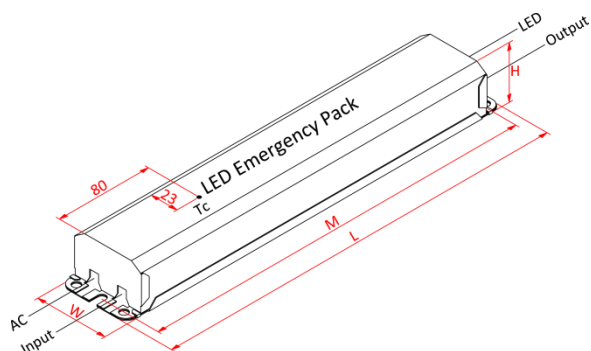
With Non-dimmable LED driver
(W/O wall switch)



Lead Length	Inch	Cm
Black	6	15.2
White	6	15.2
Yellow/Black	6	15.2
Blue	6	15.2
Brown	6	15.2
Orange	6	15.2
Purple	6	15.2
Pink	6	15.2
Battery Connector	33.07	84
Test Switch	25	63.5
LED Indicator	6	15.24

Maximum Wiring Distance (at full load) is 18AWG/18Feet

Enclosure



AM60

Enclosure	Inch	Cm
Length(L)	13.3	33.8
Width(W)	2.44	6.2
Height(H)	1.49	3.8
Mounting(M)	12.68	32.2



Input Wiring

Standard

Isolated Pass Relay

Others

☐☐

Power Activate

Yes ☐

No ☐

Output Lead Type

Standard

Single Conduit

Dual Conduits

Others

☐☐☐

Test Switch

Type

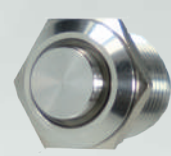
Black & Red

White & Red

White & Translucent

Metal

Image



☐
Red Light

☐
Red Light

☐
Red Light

☐
Red Light

Type

PVC Wire

Fire-Resistant Wire

R-Mount

Customization

Image

☐☐☐☐

Panel

Type

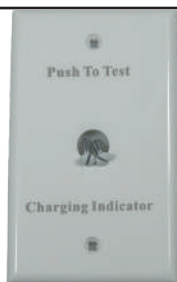
White

Metal

No Need

Others

Image

☐☐☐



Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	108V	120/277V	305V	
Input Current	-	-	140mA	@120Vac input with full load
Input Frequency	47Hz	60Hz	63Hz	
Leakage Current	-	-	0.7mA	@277Vac input
Turn On Time	-	-	1.0s	@120Vac input at full load
Hold Up Time	-	-	0.1s	@Nominal input and full load
Efficiency	%	%	%	@170Vdc output at full load
Standby Power	-	-	9W	

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Voltage	120VDC	170VDC	180VDC	@Full Load
Output Current		120mA		@Full Load
Battery Charge Current	20mA	200mA	220mA	LiFePO4, 12.8V, 3600mAh
Battery Voltage	-	12.8V	-	
Battery Charge Time	-	-	24Hrs	
Emergency Operation	90min	-	-	
No-Load Output Voltage	-	-	180VDC	@120-277Vac input
Transfer time	-	-	2.0s	
Output Power	-	20W	-	Constant power output on emergency mode

General Specifications

Parameter	Min.	Typ.	Max.	Notes
MTBF	-	100,000 Hours	-	@25°C ambient temperature
Lifespan Time	75,000 Hours	-	-	In the range of specification required by normal use of the power supply at ambient temperature 55°C
Cold Start	-	-	2.0s	@0°C



Test Switch

Test Switch Operation

With AC power source alive

1. Push and Hold, the unit will transfer from charge mode to discharge mode, the indicator is OFF.
2. Release the test switch, the unit will back to charge mode automatically, the indicator is ON.

Protection

Parameter	Description
Over Load	Latch
Short Circuit	Latch

Environmental Specifications

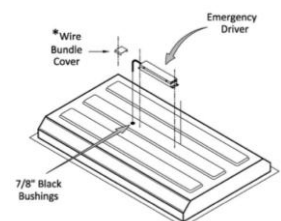
Parameter	Min.	Typ.	Max.	Notes
Operation Temperature	0°C	-	50°C	
Storage Temperature	-20°C	-	55°C	
Humidity	10%	-	90%	
T-Case Temperature	-	-	70°C	

Safety and EMC Compliance

Safety Standards	Withstand Voltage	Isolation Resistance	EMC Standards	
UL 924 CSA C22.2 NO.141-15	I/P-O/P: 2.0K Vac I/P-FG: 2.0K Vac O/P-FG: 0.5K Vac	I/P-O/P: I/P-FG: O/P-FG: 100Mohm/500VDC	EMI	EMS
			FCC Part 15 class A	FCC Part 15 class A

Note

- The product is able to working with AC driver @5A maximum current.
- The emergency backup driver shall be installed inside an electrical enclosure. If the application requires the emergency pack to be mounted on top of the luminaire please use Model which provides a metal flexible conduit instead of bare wires.
- Please note that the input voltage of LED driver must be 120-277VAC.





Revision History

Change date	Description of Change		
	Item	From	To
2024/01/04	Lead Length	/	Add orange wire
2024/04/16	Wire Diagram	/	Remove green wire
2025/12/04	Model Name	EMLEDS20-170-14.4-FCP 12.8	FEMAP20-180