



# Type B LED Tube Emergency LED Driver



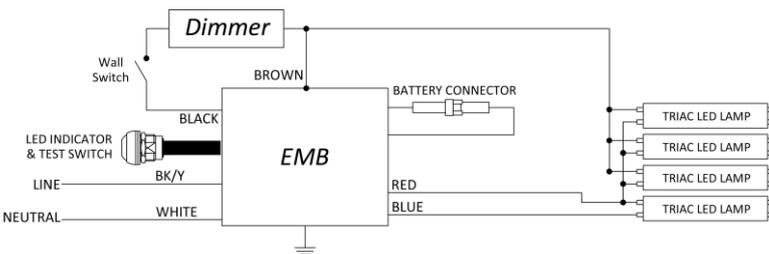
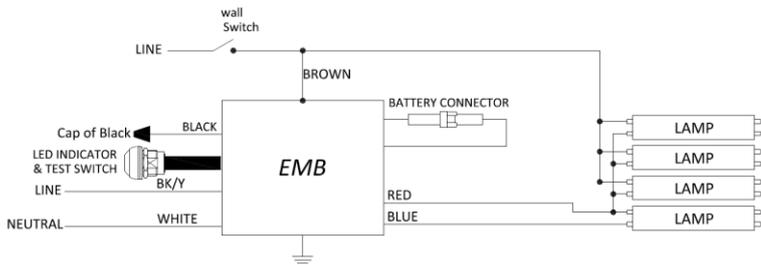
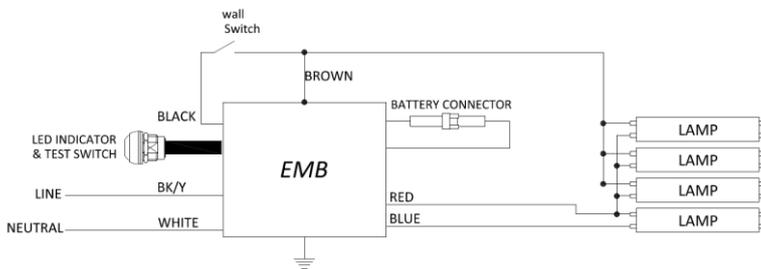
<b>Model Name</b>	EMLEDS10-170-14.4-FCPB 12.8
<b>Output Mode</b>	Constant Power
<b>Input Voltage</b>	120-277 Vac
<b>Input Frequency</b>	50/60 Hz
<b>Dimming</b>	N/A
<b>Surge Rating</b>	3KV
<b>Warranty</b>	5 Years TC $\leq 60^{\circ}\text{C}$ 3 Years TC $\leq 66^{\circ}\text{C}$

## Product Specification



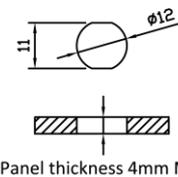
Output Voltage (V)	Output Current (mA)	Light Engine Power (W)	Operating Duration Time	Operating Temp. ( $^{\circ}\text{C}$ )	Battery Voltage (V)	Battery Charge Current (mA)	Battery Charge Time	Input Power (W)	Input Current (mA)
40-180	Load Dependent	Max. 10W	Min. 90min	0-50	12.8	Max. 200	Min. 24Hrs	Max. 11	Max. 140

## Wire Diagram



Lead Length	Inch	Cm
Black	6	15.2
White	6	15.2
Yellow/Black	6	15.2
Red	6	15.2
Blue	6	15.2
Brown	6	15.2
Battery Connector	37	94
Test Switch	7	18
LED Indicator	23	60

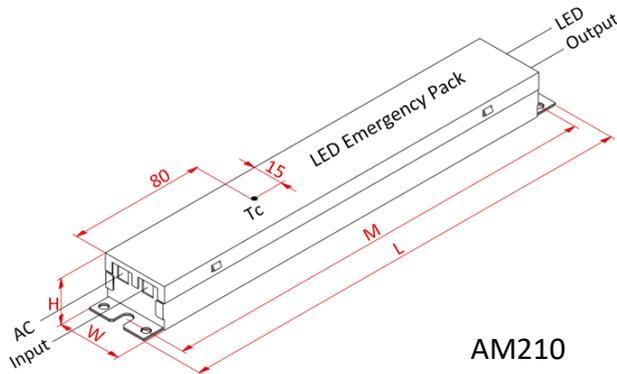
Mounting hole for test switch



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



## Enclosure

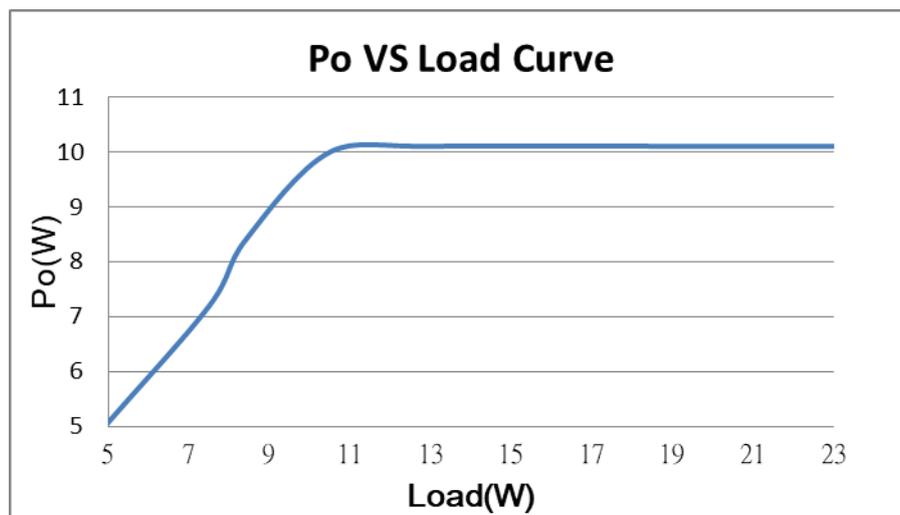


Enclosure	Inch	Cm
Length(L)	11.97	30.4
Width(W)	1.7	4.3
Height(H)	1.2	3.05
Mounting(M)	11.38	28.9

## Product Features

1. Optimized for single-ended Triac dimmable Type B 4.5w-23w LED lamp or non-dimmable Type B 4.5w-23w LED lamp.
2. Constant Power at emergency status. When working with lamp rated less than 10w, it offers the same power to the lamp as the lamp rating. When working with lamp rated at higher or equal to 10w, it offers 10w constant power to the lamp.
3. Auto Recovery feature with output short ckt protection.

## Output Power vs Type B LED Load Curve





## 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
Transient Time	-	-	1.5s	@120Vac input at full load
Efficiency	80%	82%	84%	@ full load
Standby Power	-	-	11W	

## Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Voltage	40VDC	170VDC	180VDC	
Output Current	-	-	-	Load Dependent
Battery Charge Current			200mA	LiFePO4, 12.8V, 1800mAh
Battery Voltage		12.8V		
Battery Charge Time			24Hrs	
Emergency Operation	90min			
No-Load Output Voltage		170V	180V	
LED Load	4.5W		10W	Type B LED lamps

## 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 for 2 seconds, 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	Auto Recovery
Short Circuit	Auto Recovery
Over Temperature	Shut down mode, re-power on to recover.

## Environmental Specifications

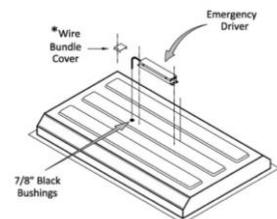
Parameter	Min.	Typ.	Max.	Notes
Operation Temperature	0°C	-	50°C	
Storage Temperature	-20°C	-	55°C	
Humidity	10%	-	90%	
T-Case Temperature	-	-	66°C	

## 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.





## Compatible Lamps List

Lamp Model	Brand	Lamp Length	Power(W) @120Vac/ 60Hz	Emergency Output		
				Voltage (Vdc)	Current (A)	Power (W)
9290013076A	PHILIPS	4ft	8.4	170.9	0.049	8.4
L9T8SE250-G	MaxLite	2ft	8.8	170.9	0.050	8.5
HL-N60C209X	HIGH LIGHT	2ft	8.9	170.9	0.052	8.8
LVT8E-0.6m-9W-865	OSRAM	2ft	9.5	85.8	0.117	10.0
L13T8SE450-GB	MaxLite	4ft	13.0	56.9	0.177	10.1
REC-LED-14W/HD/A70	TOSHIBA	4ft	13.2	84.5	0.120	10.1
865CNS-GD4	EVERLIGHT	4ft	17.2	89.0	0.113	10.1
MT8S69	Forest Lighting	4ft	17.7	75.9	0.133	10.1
MT8W69	Forest Lighting	4ft	17.9	79.5	0.127	10.1
830CNS-GD4	EVERLIGHT	4ft	18.2	88.8	0.113	10.0
LT8TR203LG	TRUNK	4ft	18.4	88.7	0.113	10.0
AL-TBT8-4G-18W30	ADATA	4ft	18.5	81.5	0.124	10.1
LT8TR203DG	TRUNK	4ft	18.5	81.8	0.123	10.1
929002468015	PHILIPS	4ft	19.1	76.6	0.132	10.1
LТУ010-20AAL S	東亞照明 TOA	4ft	19.1	76.3	0.132	10.1
LS-BTUBE18NW	LISTAR	4ft	19.4	87.4	0.115	10.1
LVT8E-1.2m-18W-865	OSRAM	4ft	19.5	77.6	0.130	10.1
LТУ010-20AAD E	東亞照明 TOA	4ft	19.6	79.6	0.127	10.1
HL-412020WD	HIGH LIGHT	4ft	19.7	79.1	0.127	10.0
T54J-20-30A	特力屋 TLW	4ft	19.8	72.7	0.139	10.1
TL280-60-1196-G1/277V 20W	Apmcomm	4ft	21.8	87.7	0.115	10.1
REC-LED-5W/HL/A55	TOSHIBA	Light Buld	4.9	171	0.029	5.0
5101-01-0075-3DC0102	特力屋 TLW	Light Buld	7.5	171	0.042	7.2

\* Please note that the input voltage of Type B lamp must be 120-277VAC.



## Revision History

Change date	Description of Change		
	Item	From	To
2023/12/12	Compatible Lamps	/	Updated
2023/12/14	Compatible Lamps List	/	Add a note to page 5
2023/12/15	Compatible Lamps List	/	Revised note in page 5