



Antron Electronics Co.,LTD  
安雄電子股份有限公司

# Constant Current Emergency LED Driver



|                 |                                                                              |
|-----------------|------------------------------------------------------------------------------|
| Model Name      | EMLEDS20-1555-9.6CHXNB-FTC                                                   |
| Output Mode     | Constant Current                                                             |
| Input Voltage   | 120-277 Vac                                                                  |
| Input Frequency | 50/60 Hz                                                                     |
| Dimming         | N/A                                                                          |
| Surge Rating    | 3KV                                                                          |
| Warranty        | 5 Years TC $\leq 60^{\circ}\text{C}$<br>3 Years TC $\leq 70^{\circ}\text{C}$ |

## Product Specification

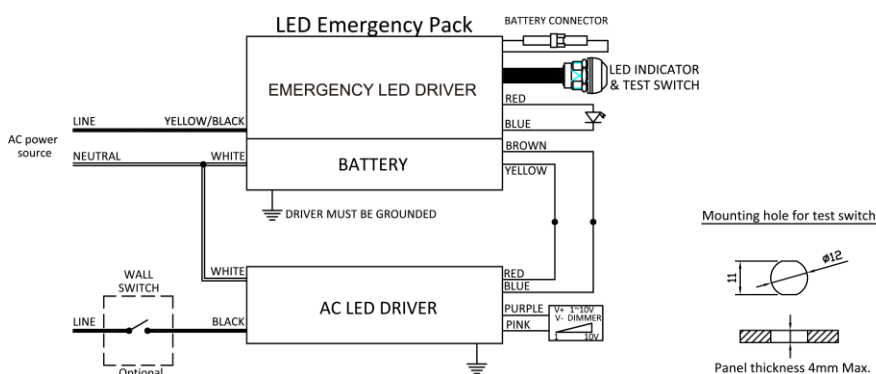


Class2



| Output Power (W) | Output Voltage (V) | Output Current (mA) | Operating Duration Time | Operating Temp. (C) | Battery Voltage (V) | Battery Charge Current (mA) | Battery Charge Time | Input Power | Input Current (mA) |
|------------------|--------------------|---------------------|-------------------------|---------------------|---------------------|-----------------------------|---------------------|-------------|--------------------|
| Max. 20          | 15-55              | 380                 | Min. 90min              | 0-50                | 9.6                 | Max. 450                    | Min. 24Hrs          | Max. 4.6    | Max. 113           |

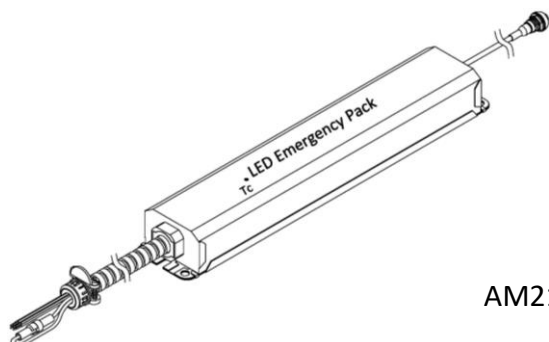
## Wire Diagram



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

| Lead Length       | Inch  | Cm    |
|-------------------|-------|-------|
| White             | 33.46 | 85    |
| Yellow/Black      | 33.46 | 85    |
| Red               | 34.64 | 88    |
| Blue              | 34.64 | 88    |
| Yellow            | 34.64 | 88    |
| Brown             | 34.64 | 88    |
| Battery Connector | 40.55 | 103   |
| Test Switch       | 27.6  | 70    |
| LED Indicator     | 6     | 15.24 |

## Enclosure



AM212

| 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 Specifications

| Parameter       | Min. | Typ.     | Max.   | Notes                        |
|-----------------|------|----------|--------|------------------------------|
| Input Voltage   | 108V | 120/277V | 305V   |                              |
| Input Current   | -    | -        | 0.113A | @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      | 70%  | 73%      | 76%    | @55Vdc output at full load   |
| Standby Power   | -    | -        | 4.6W   |                              |

## Output Specifications

| Parameter              | Min.  | Typ.  | Max.  | Notes                  |
|------------------------|-------|-------|-------|------------------------|
| Output Voltage         | 15V   | -     | 55V   |                        |
| Output Current         | -     | 380mA | -     | @55Vdc-@15Vdc          |
| Battery Charge Current |       | 420mA | 450mA | LiFePO4, 9.6V, 4600mAh |
| Battery Voltage        |       | 9.6V  |       |                        |
| Battery Charge Time    |       |       | 24Hrs |                        |
| Emergency Operation    | 90min |       |       |                        |
| No-Load Output Voltage | 55V   | 58V   | 60V   |                        |
| Rated Current          | 344mA | 363mA | 380mA |                        |
| Rated Power            | -     | 20W   | -     |                        |
| Output Current Ripple  | -     | ±10%  | -     |                        |

## General Specifications

| Parameter     | Min.            | Typ.             | Max. | Notes                                                                                                      |
|---------------|-----------------|------------------|------|------------------------------------------------------------------------------------------------------------|
| MTBF          | -               | 100,000<br>Hours | -    | @25°C ambient temperature                                                                                  |
| Lifespan Time | 75,000<br>Hours | -                | -    | In the range of specification required<br>by normal use of the power supply at<br>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 Voltage     | Output current decay mode, recovers automatically after fault condition is removed. |
| Short Circuit    | Hiccup mode, recovers automatically after fault condition is removed.               |
| Over Temperature | Shut down o/p voltage, re-power on to recover.                                      |

## Environmental Specifications

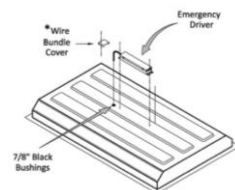
| Parameter             | Min.  | Typ. | Max. | Notes |
|-----------------------|-------|------|------|-------|
| Operation Temperature | 0°C   | -    | 50°C |       |
| Storage Temperature   | -20°C | -    | 55°C |       |
| Humidity              | 10%   | -    | 90%  |       |
| T-Case Temperature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

## Safety and EMC Compliance

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

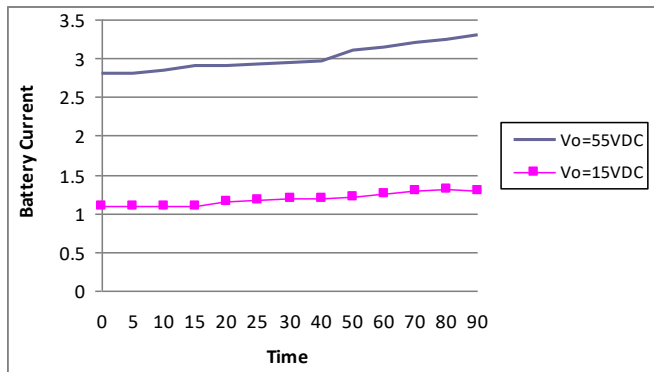
## Note

- 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.

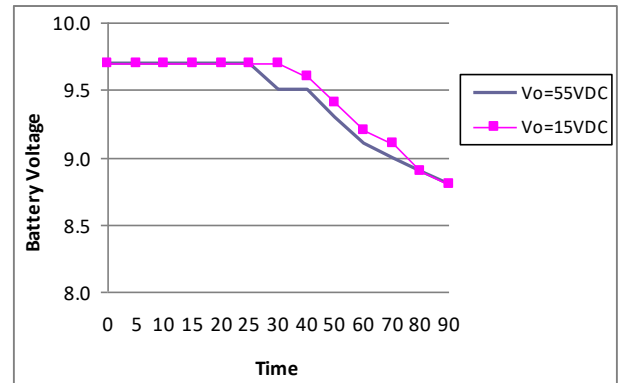




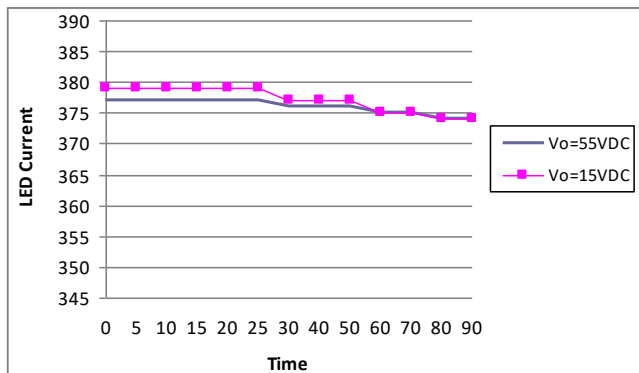
## Battery Current V.S. Time



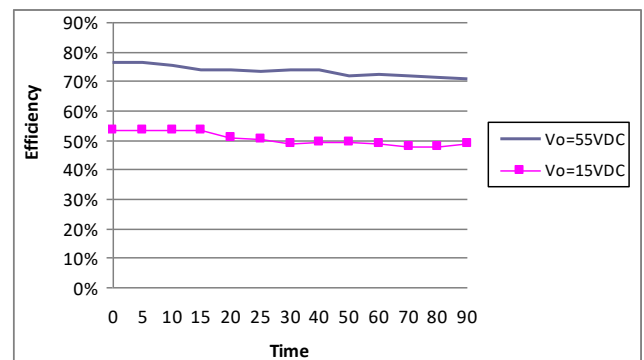
## Battery Voltage V.S. Time



## LED Current V.S. Time



## LED Efficiency V.S. Time



Data is based upon tests performed by Antron Electronics in a controlled environment and representative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.