



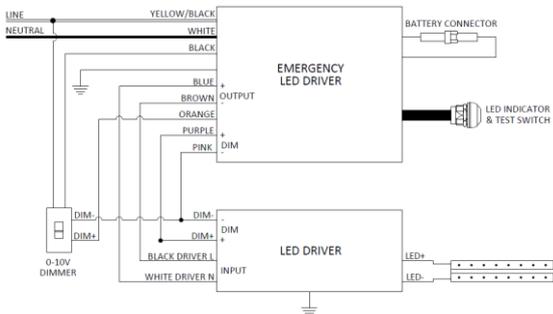
| | |
|------------------------|--|
| Model Name | FEMAP20-180 |
| Output Mode | Constant Power |
| Input Voltage | 120-277 Vac |
| Input Frequency | 50/60 Hz |
| Surge Rating | 3KV |
| Warranty | 5 Years TC $\leq 60^{\circ}\text{C}$ 3 Years TC $\leq 70^{\circ}\text{C}$ |

Product Specification

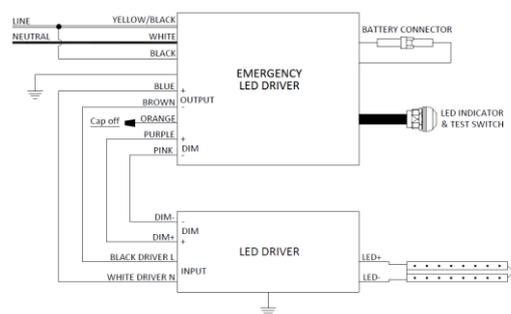


| Output Voltage (V) | Output Current (mA) | Light Engine Power (W) | Operating Duration Time | Operating Temp. ($^{\circ}\text{C}$) | Battery Voltage (V) | Battery Charge Current (mA) | Battery Recharge Time | Input Power (W) | Input Current (mA) |
|--------------------|---------------------|------------------------|-------------------------|--|----------------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

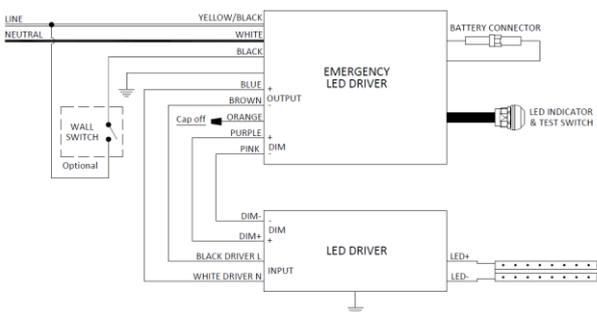
Wire Diagram



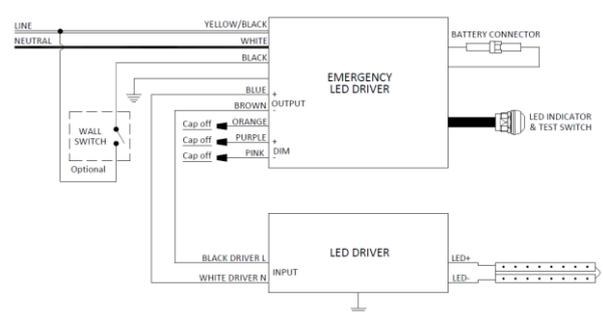
With dimmable LED driver
(W/ dimmer, W/O wall switch)



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



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



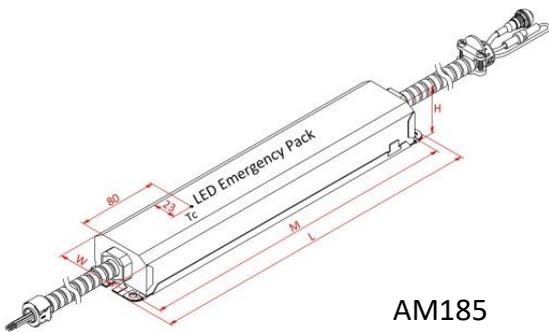
With Non-dimmable LED driver
(W/O wall switch)



| Lead Length | Inch | Cm |
|-------------------|-------|----|
| Black | 30.7 | 78 |
| White | 30.7 | 78 |
| Yellow/Black | 30.7 | 78 |
| Blue | 30.7 | 78 |
| Brown | 30.7 | 78 |
| Orange | 30.7 | 78 |
| Purple | 30.7 | 78 |
| Pink | 30.7 | 78 |
| Battery Connector | 37.8 | 96 |
| Test Switch | 28.35 | 72 |
| LED Indicator | 23.62 | 60 |

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

Enclosure



AM185

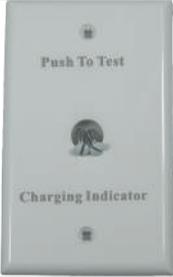
| Enclosure | Inch | Cm |
|-------------|-------|------|
| Length(L) | 13.3 | 33.8 |
| Width(W) | 2.44 | 6.2 |
| Height(H) | 1.49 | 3.8 |
| Mounting(M) | 12.68 | 32.2 |



| Input Wiring | | |
|------------------------------|-----------------------------|--------|
| Standard | Isolated Pass Relay | Others |
| <input type="checkbox"/> | <input type="checkbox"/> | |
| Power Activate | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | |

| Output Lead Type | | | |
|--------------------------|--------------------------|--------------------------|--------|
| Standard | Single Conduit | Dual Conduits | Others |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

| Test Switch | | | | |
|-------------|--|--|--|--|
| Type | Black & Red | White & Red | White & Translucent | Metal |
| Image |  <small>IP 67</small> |  <small>IP 67</small> |  <small>IP 67</small> |  <small>IP 67</small> |
| | <input type="checkbox"/> Red Light | <input type="checkbox"/> Red Light | <input type="checkbox"/> Red Light | <input type="checkbox"/> Red Light |
| Type | PVC Wire | Fire-Resistant Wire | R-Mount | Customization |
| Image |  |  |  | |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Panel | | | | |
|-------|---|---|--------------------------|--------|
| Type | White | Metal | No Need | Others |
| Image |  |  | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |



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 | 220mA | 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

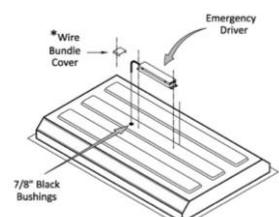
| Parameter | Min. | Typ. | Max. | Notes |
|-----------------------|-------|------|------|-------|
| Operation Temperature | 0°C | - | 50°C | |
| Storage Temperature | -20°C | - | 55°C | |
| Humidity | 10% | - | 90% | |
| T-Case Temperature | - | - | 70°C | |

Safety and EMC Compliance

| Safety Standards | Withstand Voltage | Isolation Resistance | EMC Standards | |
|-------------------------------|---|--|---------------------|---------------------|
| | | | EMI | EMS |
| 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 | 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 | 1. Model Name 2. Panel | 1. EMLEDS20-170-14.4-FCP-FT 12.8 2. / | 1. FEMAP20-180 2. Removed |