













Emergency LED Driver for Direct AC Engines

- Emergency LED Driver
- Input Voltage: 120-277VAC~,50/60Hz
- Output Voltage: Normal: 120-277V~, 50/60Hz
- Output Voltage: Emergency: 60-230V ==
- Emergency Power: 6W Max
- Emergency Output Type: Constant Power
- Single Channel Output
- May work with other LED products contact Fulham for compatibility

| neral Specifications | | | | |
|--------------------------------------|--|--|--|--|
| Input Voltage / Frequency | 120-277V~, 50/60Hz | | | |
| Input Current | Total: 0.85A Max Recharge: 65mA @120VAC, 46mA @277VAC | | | |
| | | | | |
| Input Power | Total: 100W Max | | | |
| • | Recharge: 5W Max | | | |
| Output Voltage | Normal: 120-277V~,50/60Hz | | | |
| | Emergency: 60-230V=- | | | |
| Emergency Power | 6W Max See Table1 | | | |
| Emergency Output Type | Constant Power | | | |
| Number of Output Channels | 1Channel 2.5kV Ring Wave | | | |
| Input Surge Protection | | | | |
| Protections | Input Current Protection | | | |
| | Input Surge Protection | | | |
| | Output Open Protection | | | |
| | Output Overload Protection | | | |
| | Output Short Circuit Protection | | | |
| RFI/EMI | FCC Part15A | | | |
| ta | 0°C To 50°C (32°F To 122F°) 9.5"L x 2.4"W x 1.49"H(241.2mm L x 61mm W x 37.9mm H) | | | |
| Overall Size | | | | |
| Weight | 900g / 1.98lb. | | | |
| Sound Rating | A | | | |
| Humidity | 0%-95% | | | |
| Battery Type | Ternary Lithium Battery | | | |
| Battery Voltage | 11.1V | | | |
| Battery Capacity | 2200mAH | | | |
| Battery Charge Current | 220mA | | | |
| Battery Recharge Time | 12 Hours | | | |
| Battery Rating | 24.4Wh | | | |
| Test Switch Remote Mounting Distance | 65.6' (20m) Max. | | | |
| IP Rating | IP20 | | | |
| Service Life | 50,000 hours | | | |
| Warranty | 5 years | | | |
| Safety / Compliance | UL924, CSA C22. 2No.141-10/cUL | | | |
| | CEC Title20, MSDS, DGM | | | |







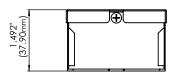




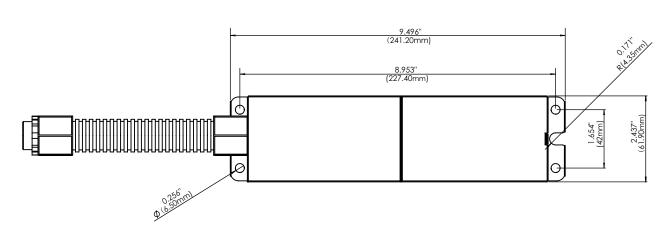


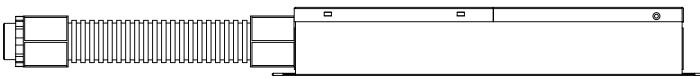


Mechanical Data



| Overall Dimensions | | | | | | |
|--------------------|-------------------|--|--|--|--|--|
| Length | 9.5" (241.2mm) | | | | | |
| Width | 2.4" (61mm) | | | | | |
| Height | 1.49" (37.9mm) | | | | | |





Tolerance=±0.02" (0.05mm)











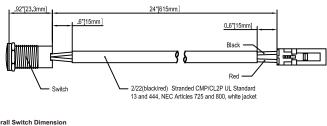


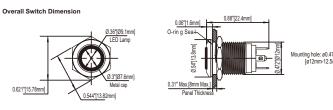


Accessories

Bi-Color Wet Location Test Switch: FHS-TSTWL-BC

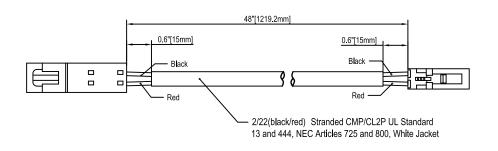






Test Switch Extension: FHS-EXT-48-TST

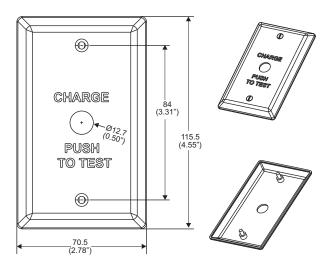




Wall Plate: FHSWLPWH



Wall plate and screw color: white with black lettering



1."Charge push to Test"plate
2. (2) 6-32 x ½"LG mounting screws















TEST SWITCH INDICATOR STATUS

| Indicators Type | LED Indicators Status | EM Driver Status / Mode | |
|--------------------|--|---|--|
| Bi-Color Indicator | ● Solid Green | System OK / AC OK(Self-diagnostic Enabled or Disabled). | |
| Bi-Color Indicator | None. Both LEDs OFF | Normal working in EM mode. | |
| Bi-Color Indicator | ● Slow Flashing Red,4s on / 1s off | Battery notdetected, check battery switch or connection. | |
| Bi-Color Indicator | ●Flashing Red, 1s on / 1s off | Replace battery. | |
| Bi-Color Indicator | ●Flashing Green,1s on / 1s off | Self-Diagnostictest underway. | |
| Bi-Color Indicator | ● Fast Flashing Red,0. 1s on / 0.1s off | Abnormal driver performance, replace driver. | |
| Bi-Color Indicator | ◆ Very Slow Flashing Red,1s on / 7s off | Over temperature. | |
| Bi-Color Indicator | ● Very Slow Flashing Red, 4s on / 4s off | 1. LED output load is short / Over Current/Over Voltage/Open load / OCP in EM Mode. 2. Output circuit failure in EM mode. | |

TEST SWITCH OPERATIONS

EM Test:

Press and hold the test button (>1s) to enter EM mode in normal AC powered.

Manual Self-Diagnostic:

After charging twelve (12) hours or battery fully charged, quickly press the test button three (3) times within two (2) seconds to force the controller to enter Self-Diagnostic cycle. To guit the Self-Diagnostic cycle after engaged, press and hold the test button for ten (10) seconds.

Enable/Disable Self-Diagnostic Status:

Fast click 2 times within 2s to query the Self-Diagnostic Enabled/Disabled status. The indicator would blink for current status for 3 cycles. 2.5s ON/0.5s OFF stands for Enabled. 0.5s ON/2.5s OFF stands for Disabled.

When the test button is flashing red 4s on/4s OFF, press and hold the test switch for 10s, the unit will enter Self -Diagnostic mode.

Fulham Co. Inc.: 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-323-779-2980 Fax.: 1-323-754-9060. order@fulham.com www.fulham.com Specifications subject to change without notice. Page 4 of 8









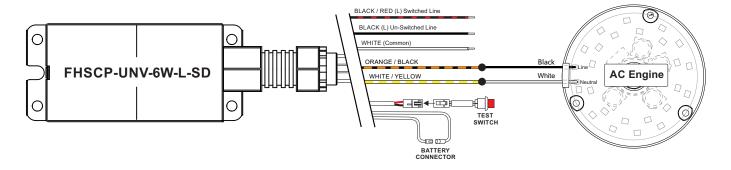






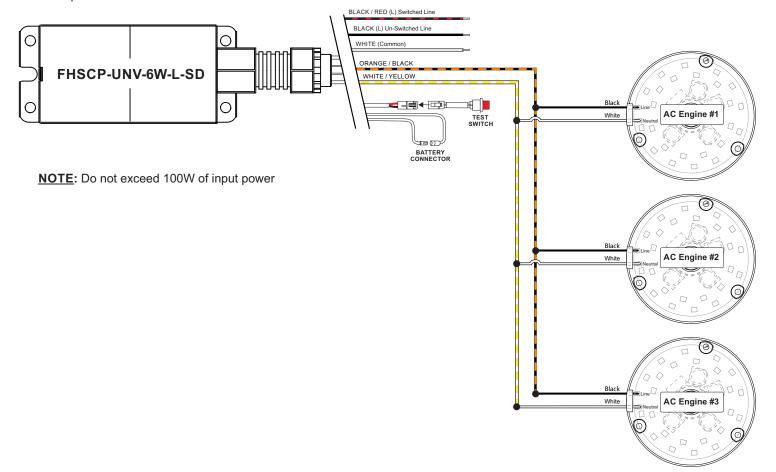
Wiring Diagram 1

Single Luminaire



Wiring Diagram 2

Multiple Luminaires















Programming:

Unless otherwise programmed the output will self-program to the maximum rating of the battery. This EM driver can be programmed using the Fulham SmartSet TPSB-100(E). Programming features include the following:

- * Output EM power can be set: 3W, 4W, 5W, 6W
- * Enable / Disable Self-Diagnostic

















Guidelines

Grounding

• Driver must be grounded by means of the Driver case.

LED load

• Fulham's Hotspot Constant Power Emergency LED drivers are designed to drive passive LEDs, COB's and LED assemblies. Proper function is not guaranteed when (LED) loads with active components are used.

Mounting / Cooling

Above an output power of 20W, the driver needs to be mounted on a heat conductive surface of at least 200cm². Always
test if the surface is sufficient enough before installing the driver.

Short-circuit protection

 In case of a short circuit the LED driver switches to protection mode. After the removal of the short-circuit the LED driver will recover automatically.

No-load Operation

In no-load operation the output voltage will not exceed the specified open circuit output voltage.

Hot Swapping

This driver does not support hot swapping of the LEDs

Compatibility

 Please contact your Regional Sales Manager regarding the compatibility of this emergency driver with products/fixtures other than Fulham DirectAC Engines.

Remote Mounting

• Up to 164ft (50m) with 18AWG. Contact Fulham for higher remote distance.

Battery Maintenance

• In order to maintain proper operation and warranty coverage, the battery must be recharged once per year prior to installation.

Warranty

Reference Fulham's limited Warranty: https://cdn.fulham.com/PDFs/Limited-Warranty.pdf

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Part Number Matrix



LED Driver

FHS = FireHorse EM Driver

CP

Output Type

CP= Constant Current

UNV

Input Voltage

UNV= 120V-277V

6W

Power

6 = 6W L= Long or Linear

Case Type

SD= Self Diagnostic

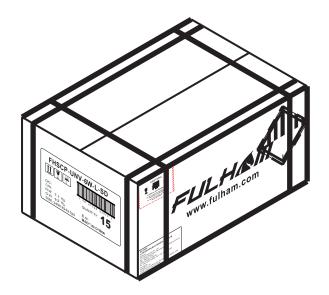
Product Image: LED Driver

FHSCP-UNV-6W-L-SD



Packaging

Master Carton



| OUTER DIMENSION | | | | | | | |
|-----------------------|----------------------|---------------|----|----------------|--|--|--|
| L | | W | | Н | | | |
| 18" (457mr | n) | 15.11"(384mm) | | 12.99" (330mm) | | | |
| Net Weight | G | ross eight | QL | JANTITY | | | |
| 16.98lbs. (7.7kg.) | 21.83lbs. (9.9kg) | | | 15pcs. | | | |