

FHCS-UNV3-20P-C-SD-40C



Emergency LED Driver

- Emergency LED Driver
- Universal Voltage: 120-347V~
- Output Voltage Range: 12-56V $\overline{\text{---}}$
- Output Current: 55-700mA
- Output Wattage: 3-20W(programmable) , 8W Max @ -40°C, 20W Max @ -20°C
- Output Type: LED Class 2
- Number of Output Channels: 1 Channel
- Dry and Damp

General Specifications

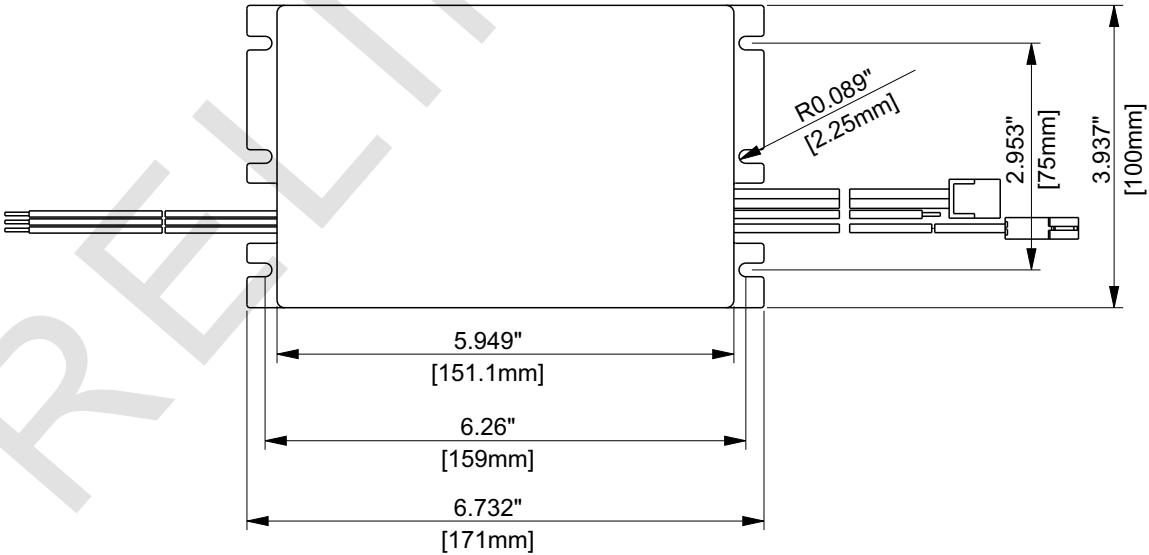
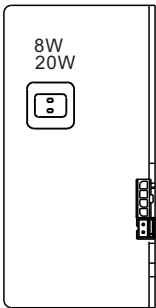
Input Voltage / Frequency	120-347V~, 50/60Hz
Input Current	0.12A Max
Input Power	5W Max
Standby Input Power	<0.85W
Input Power Pass-Through Rating (AC Driver Line)	5A
Max Output Rating (LED+ LED-Terminal)	3A, 55V Max
Output Type	LED Class 2
Output Power	3- 20W(programmable) , 8W Max @ -40°C, 12W Max @ -30°C, 20W Max @ -20°C
Output Voltage Range	12-56V $\overline{\text{---}}$
Output Current Rated	55-700mA
Number of Output Channels	1Channel
Input Surge Protection	3KV/6KV Ring Wave
Protections	Output Open Protection Output Overload Protection Output Short Circuit Protection Output Temperature Protection
RFI/EMI	FCC Part 15A
Ambient Operating Temperature Rang	-20°C To 55°C (-4°F To 131F°) (20W),-40°C To 55°C (-40°F To 131F°) (7W)
Sound Rating	A
Battery Type	Lithium
Battery Voltage	9.6V
Pack Capacity	4000mAh
Battery Rating	38.4Wh
Battery Count	3 Cells
Battery Recharge Time	24 Hours
Battery Discharge Time	Min 1.5 Hours
Test Switch Remote Mounting Distance	20' (6m) Max.
Service Life	50,000 hours
Warranty	5 years
Safety Standard	UL 924, UL 1310, CSA C22.2 No.141-10

FHCS-UNV3-20P-C-SD-40C



Mechanical Data

Overall Dimensions	
Length	6.732" [171mm]
Width	3.937" [100mm]
Height	1.969" [50mm]

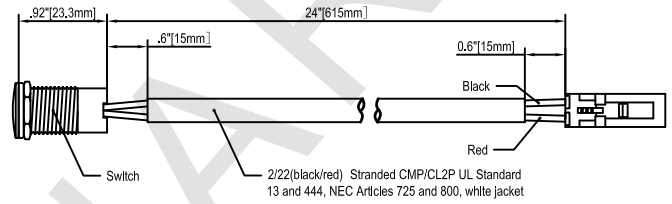


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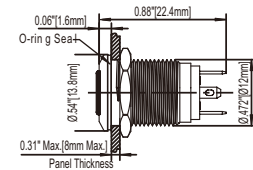
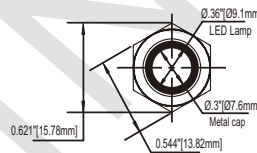


Accessories

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

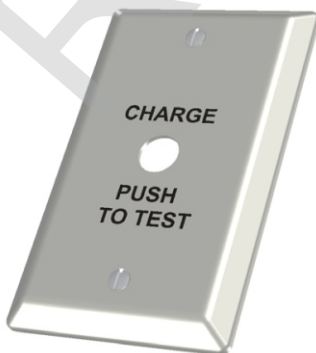


Overall Switch Dimension

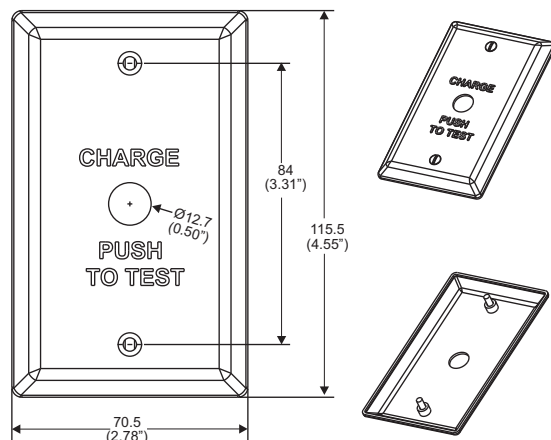


Mounting hole: $\varnothing 0.472$ - 0.492
[$\varnothing 12\text{mm} - 12.5\text{mm}$]

Wall Plate: FHSWLPWH



Wall plate and screw color:
white with black lettering

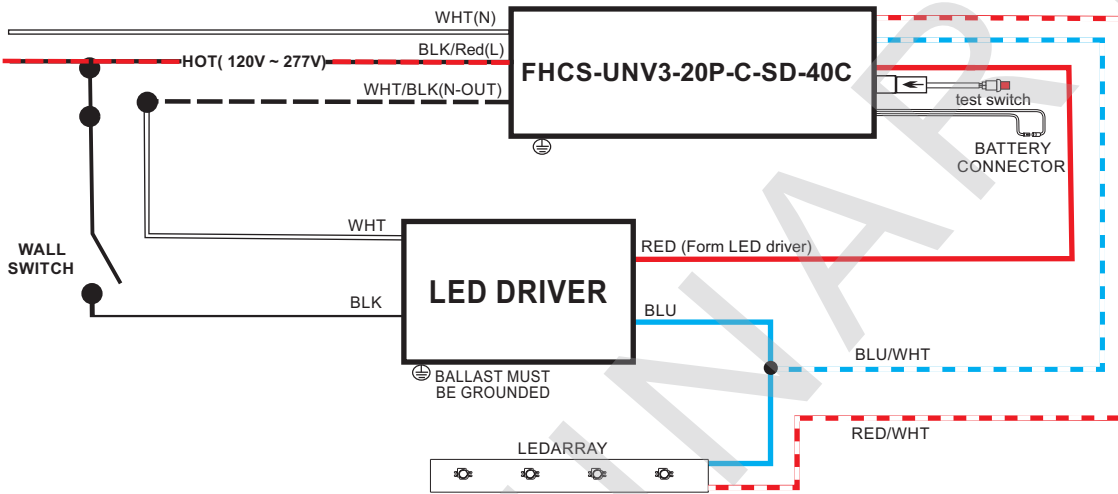


1. "Charge push to Test" plate
2. (2) 6-32 x 1/2" LG mounting screws

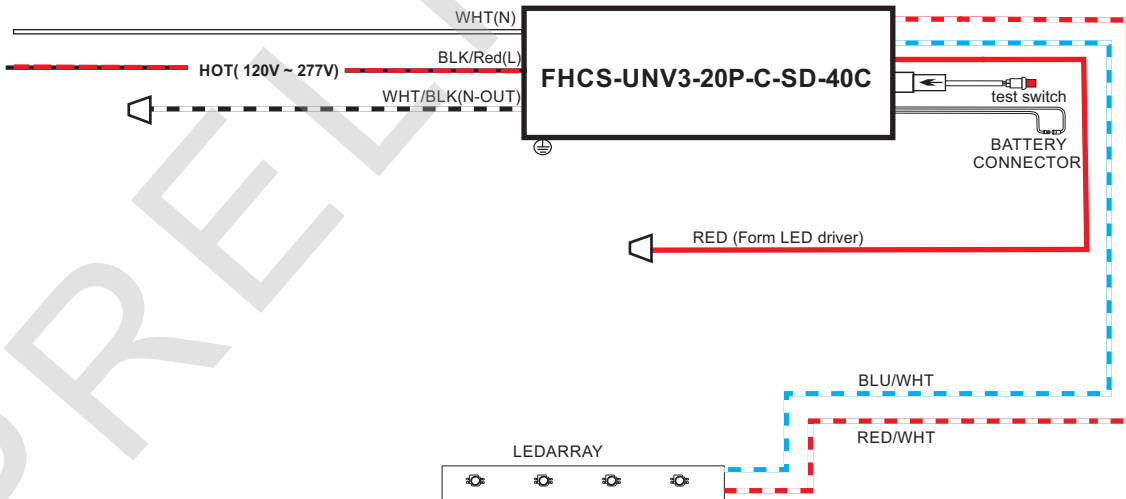
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Wiring Diagram



Wiring Diagram (Emergency Only)



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SELF-DIAGNOSTIC INSTRUCTIONS / OPERATION:

If the self-diagnostic feature is enabled:









The emergency LED driver will conduct a self-check for sixty(60) seconds every thirty(30) days; and a ninety(90) minutes self-check every 12 months. After every self-check the LED indicator light will indicate a status signal. Check indicator status chart below to diagnose the status signal.

If the self-diagnostic feature is disabled:

User must conduct a manual test every thirty (30) days to ensure the emergency LED light source illuminates as intended. A full discharge test shall be conducted once a year; the LED light source shall illuminate for a minimum of ninety (90) minutes.

***Self-Diagnostic feature is factory enabled**

TEST SWITCH INDICATOR STATUS:

LED Indicators Status	EM Driver Status / Mode
 Solid Green	System OK / AC OK (Self-Diagnostic Enabled or Disabled)
 Slow Flashing Red, 4s on / 1s off	Battery NOT detected, check battery switch or connection
 Flashing Red, 1s on / 1s off	Battery Failure, replace battery
 Flashing Green, 1s on / 1s off	Self-Diagnostic test underway
 Fast Flashing Red, 0.1s on / 0.1s off	Abnormal driver performance, replace driver
 Slow Flashing Green, 0.1s on / 3s off	Normal working in EM mode
 Solid Red	No load or output over voltage protection triggered , Check LED connection
 Slow Flashing Red, 0.5s on / 0.5s off	Charge circuit failure replace driver

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 quit 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/2.5sOFF stands for Disabled.

Load Test:

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.

Turn Off EM Output:

Press and hold the test switch for 10 seconds during EM output condition to turn off EM output. This is useful for production environment to turn off the EM output once a luminaire has completed functionality testing.

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Guidelines

Grounding

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

Over temperature protection

- The Fulham's Hotspot Constant Power Emergency LED drivers are protected against thermal overload. If the temperature limit is exceeded, the output current is reduced.

LED load

- Fulham's Hotspot Constant Power Emergency LED drivers 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 10W, 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

Remote Mounting

- Up to 15ft 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

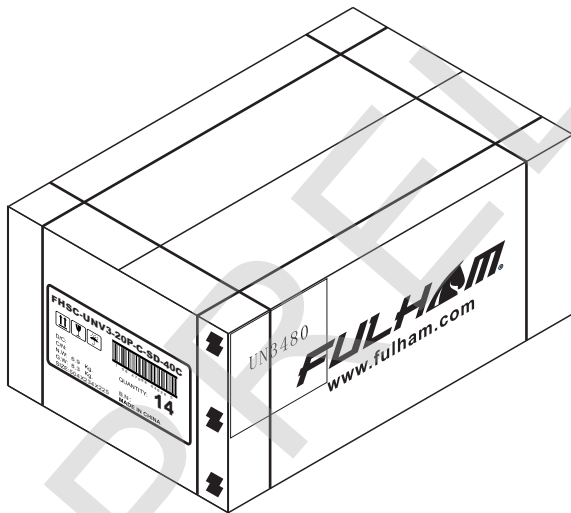
<u>FH</u>	<u>CS</u>	<u>UNV3</u>	<u>20</u>	<u>P</u>	<u>C</u>	<u>SD</u>	<u>-40C</u>
<u>LED Driver</u>	<u>Driver Type</u>	<u>Input Voltage</u>	<u>Power</u>	<u>Characteristic</u>	<u>Characteristic</u>	<u>Special Features</u>	<u>Special Features</u>
FH = FireHorse Driver	CS = Cold Spot	UNV3= 100-347V	20= 20W	P= Programmble	C= Compact	SD= Self Diagnostic	-40C= -40°C

Product Image: LED Driver

FHCS-UNV3-20P-C-SD-40C

Packaging

Master Carton



OUTER DIMENSION		
L	W	H
19.84" (504mm)	9.21" (234mm)	8.86" (225mm)
Net Weight	Gross Weight	QUANTITY
15.21lbs. (6.9kg.)	18.30lbs. (8.3kg)	14pcs.