



RoHS
COMPLIANT



IP66



WHSG-1M1UNV069P-100L

Constant Current LED Driver

- 100~277VAC, 50/60Hz
- Output Voltage: 96-192VDC
- Programmable Current: 500mA-690mA
- Flicker -Free (<4%)
- Bi-Level Dimming using 0-10V
- Prog. Min. Dim Level
- 0-10V dimmable from 100%-10%
- Input Surge Line-Neutral 6KV, Line & Neutral-Ground 10KV
- IP66 , Type HL
- Suitable for Dry and Damp location

General Specifications

Input Voltage / Frequency	100~277VAC, 50/60Hz
Input Current	1.2A Max @100V Full Load
Input Power	104 W Max @100V Full Load
Input Power Factor	>0.92
THD	<20%
Driver Type	Constant Current
Output Voltage	96-102VDC
Output Current	500-690mA
Default Output Current	690mA
Output Power	96W Max
Efficiency	92% Typical @230V
Output Type	LED Class 2
Inrush Current	20A@100V, 45A@277V
Max. Leakage Current	750uA at 277V Full Load
Line Regulation / Load Regulation	Line Regulation +/-2%, Load Regulation +/-5%
Flicker Percentage	<4%
Dimming Type	0-10V
Dimming Range	100%-10%
Operating Ambient Temperature Range	-30°C to 50°C (-22°F to 122°F)
Max. Driver Case Temperature	90°C (194°F)
Start Up Time	<500ms
Number of Output Channels	1
Overall Size	5.71" x 2.6" x 1.44" (145.03mm X 66.04mm x 36.58mm)
Wire Type / Length	18AWG/ 9"(228.6mm) input & output, 22AWG/ 12"(304.8mm) dimming
Safety / Compliance	UL8750, CSA C22.2 No. 250.13
IP Rating	IP 66
Withstand Voltage	I/P to O/P: 2000 Vac (UL); Dim to I/P: 2500 Vac, Dim to O/P: 2500 Vac.
EMC Emission	FCC 47CFR Part 15, Class B @120V & Class A @277V
Operating Humidity	5% to 95% RH
Input Surge Protection	Input Surge Line-Neutral 6KV, Line & Neutral-Ground 10KV
Protections	Output Over Current (OCP) Output Open Circuit Protection Output Short Circuit Protection(Recovers automatically after short is removed) Output Over Voltage (OVP)
Hot Swappable	No
Service Life	50,000 hours lifetime @ 80°C (176°F)
Warranty	5 Years @ Tc 80°C(TBD) from the date of manufacture



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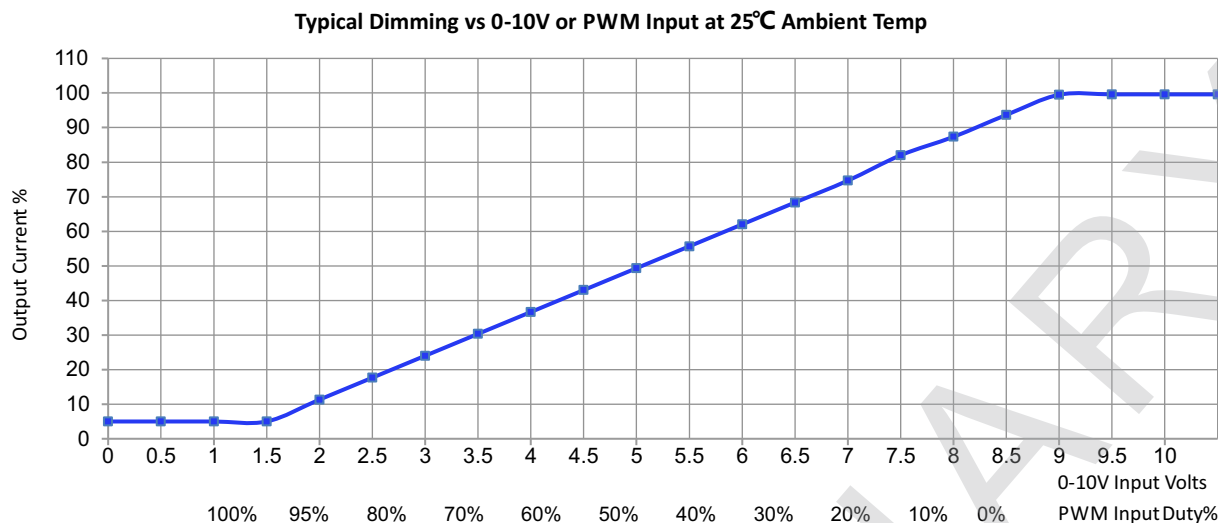
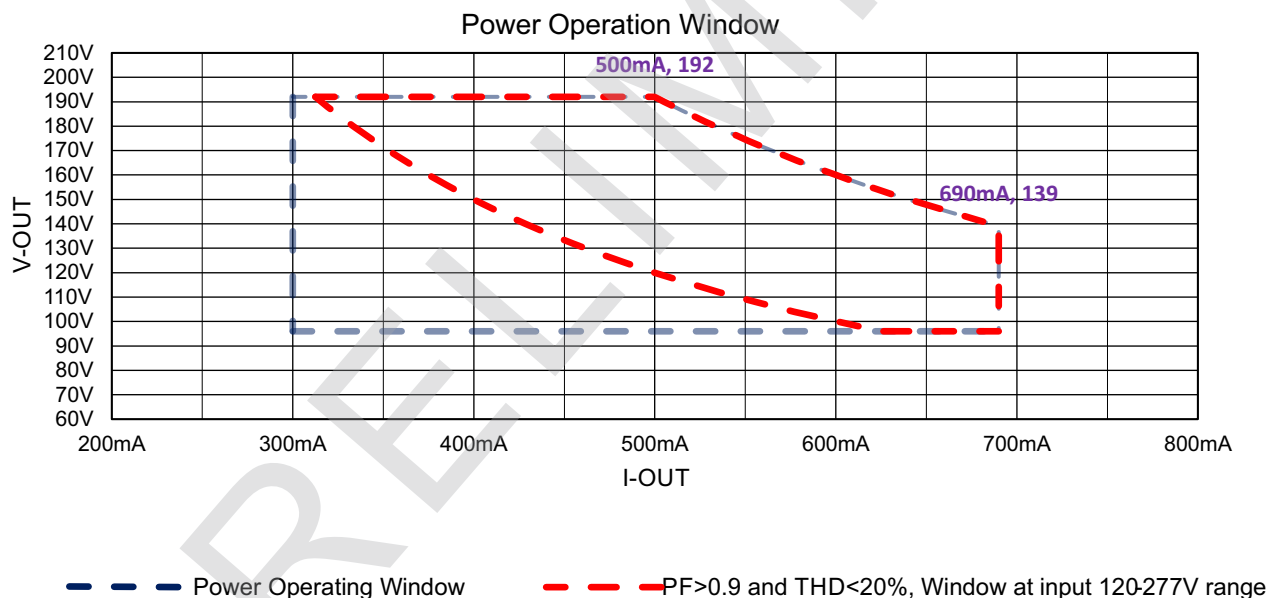


Figure 1





WHSG-1M1UNV069P-100L



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IP66



Charts

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8



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Charts

Figure 9

Figure 10

Figure 11

Figure 12



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Part Number Matrix

LED Driver	LED Driver	# of Control Channels	Control Type	# of Output Channels	Input Voltage	Output current	Characteristic	Max Output Power	Case Type
WH = WorkHorse	SG = Specialty Grade	1 = 1 Channel	M = 0-10V dimming	1 = 1 Channel	UNV = 100~277V	069 = 690mA	P = Programmable	100 = 100W	L = Linear

Grounding

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

Over temperature protection

- The Fulham Workhorse LED drivers is protected against thermal overload. If the temperature limit is exceeded, the output current is reduced.

LED load

- Fulham Workhorse 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.

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.
- It's not recommended to use this product for a long time without load.

Hot Swapping

- This driver does not support hot swapping of the LEDs.

Remote Mounting

- Up to 50ft(3657.6mm) with 18AWG(0.823mm²). Contact Fulham for higher remote distance.

Service life/Lifetime

- Failure Rate Info based upon MTBF modeling: 90% survivals at end of life @ <=Tc lifetime rating.

Warranty

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



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Programming

TPSB-100 Programming Controller

Please consult the user manual for instructions on using the TPSB-100 SmartSet Programming Controller.



Programming Instructions

1. To program use the Fulham TPSB-100 SmartSet controller; connect the programming forks in to the appropriately labeled programming connections located on the LED driver.
2. Program the driver output current between 500mA - 690mA. (Note: set current represents total current of one channel).
3. Current programming and more function setting can be done through SmartSet PC Software.



SmartSet Software



TPSB-100 SmartSet
Controller



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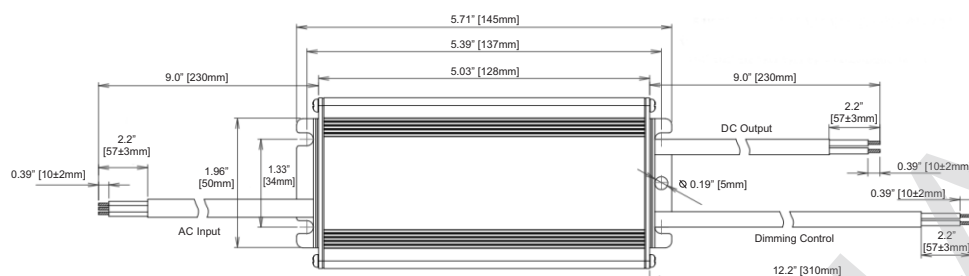


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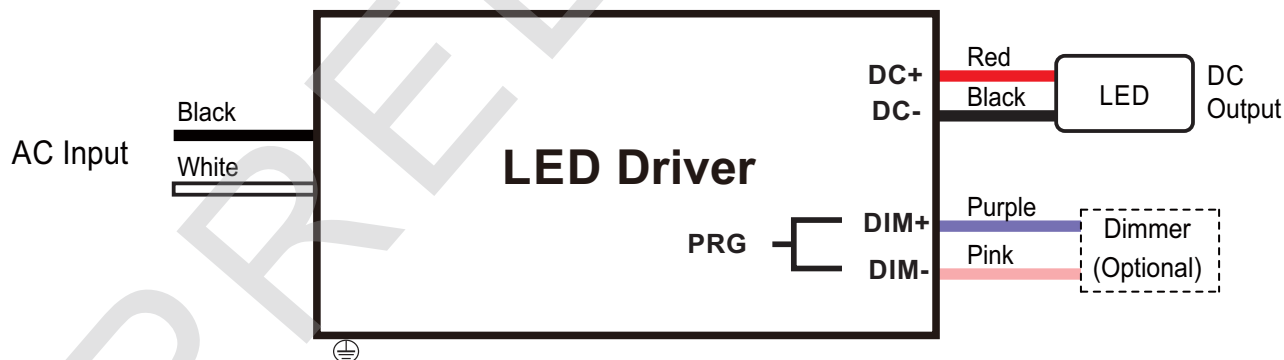
Mechanical Drawing



Overall Dimensions	
Length	5.71" [145mm]
Width	2.6" [66mm]
Height	1.44" [36.5mm]
Mounting	5.39" [137mm]
Wire Length	
Input/Output	9.0" [230mm]
0-10V Dimming	12.20" [310mm]



Wiring Diagram





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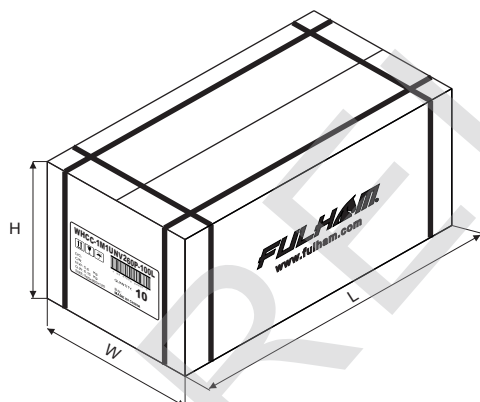


Product Image:



Packaging

Master Carton



OUTER DIMENSION		
L	W	H
14.37"(365mm)	10.24"(260mm)	4.72"(120mm)
Net Weight	Gross Weight	QUANTITY
12.35lbs. (5.6 kg)	13.56lbs. (6.15 kg)	10pcs.