

THCC-1M1UNV140P-50E



RoHS
COMPLIANT



Constant Current LED Driver

- 120~277VAC(NA), 220-240VAC(EU), 50/60Hz
- cULus Listed, Class P, CE
- Programmable: 400mA - 1400mA
- 0-10V dimmable from 100%-1%, Dim to off (only applicable in North America)
- 12V, 200mA AUX Output
- Linear Form Factor with Connectors
- Flicker Free (<4%)
- NTC

General Specifications

Input Voltage / Frequency	120~277VAC(NA), 120-240VAC(EU) 50/60Hz
Input Current	0.52A Max
Input Power	62W Max
Input Power Factor	>0.9
THD	<20%
Driver Type	Constant Current
Output Voltage	12-55VDC
Output Current	400-1400mA
Default Output Current	1400mA
Output Power	50W Max
Efficiency	86%
Output Type	LED Class 2
Inrush Current	5A@120V, 14A@277V
Max. Leakage Current	750uA at 277V Full Load
Line Regulation / Load Regulation	Line Regulation +/-3%, Load Regulation +/-4%
Flicker Percentage	<4%
Dimming Type	0-10V
Dimming Range	100%-1%, Dim-to-off disabled by default (dim-to-off only applicable in North America and can be enabled using the TPSB-100 or SmartSet Software)
Operating Ambient Temperature Range	-40°C to 50°C (-40°F to 122°F)
Max. Driver Case Tc Temperature (Per UL)	90°C (194°F)
Start Up Time	<750ms
Number of Output Channels	1
Overall Size	11.02" x 1.14" x 1.02"
Wire Type / Length	N/A
Connector Type	WAGO 250-102 Push Pin
Safety / Compliance	UL8750, CSA-C22.2 No.250.13, IEC/EN 61347-1, IEC/EN61347-2-13
IP Rating	IP20, Suitable for Dry and Damp locations
Withstand Voltage	Input to Output: 2000 Vac. Output to Dim: 2000Vac
EMC Emission	FCC 47CFR Part 15 Class A
EMC Immunity	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN61547
Operating Humidity	95% RH
Input Surge Protection	Input Surge Line-Neutral 2.5KV, Line & Neutral-Ground 2.5KV
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 @ 85°C (185°F)
Warranty	5 Years @ tc 85°C (185°F) from the date of manufacture

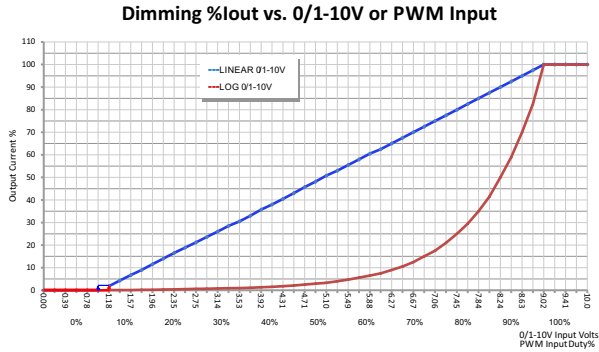


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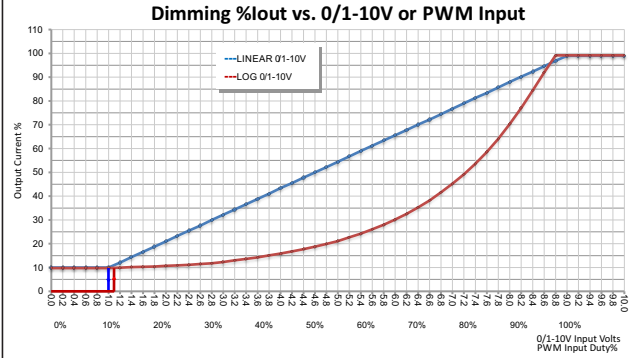


Charts

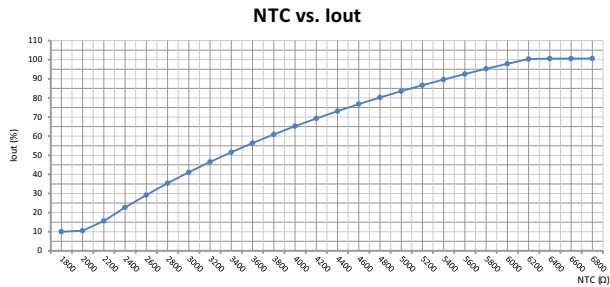
0-10V Dimming Curve @ Minimum Dimming Set to 0



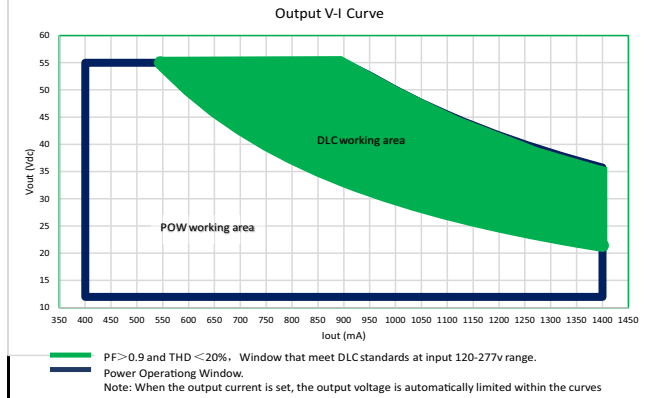
0-10V Dimming Curve @ Minimum Dimming Set to 10%



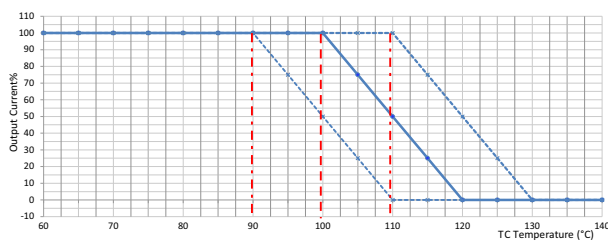
NTC Current Control



Power Operating Window & DLC Window

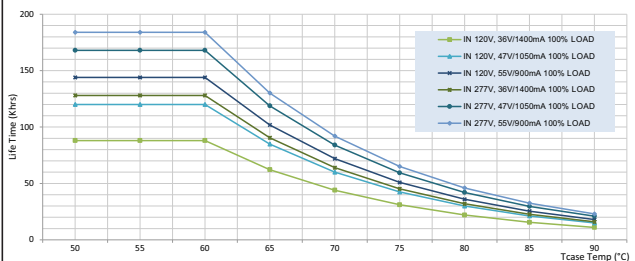


Output Current % Derating vs. TC Temperature Curve



Note:
◆ The temperature control curve is the test result of the technical sample, and the product is not tested.
◆ Affected by the internal temperature distribution of the shell, the test temperature has a large error corresponding to the TC temperature.

Life Time vs. Tcase Temp

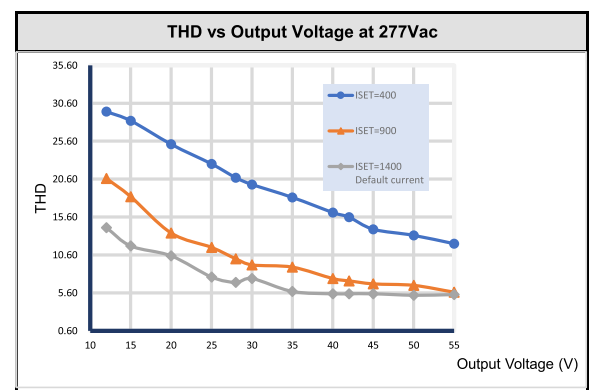
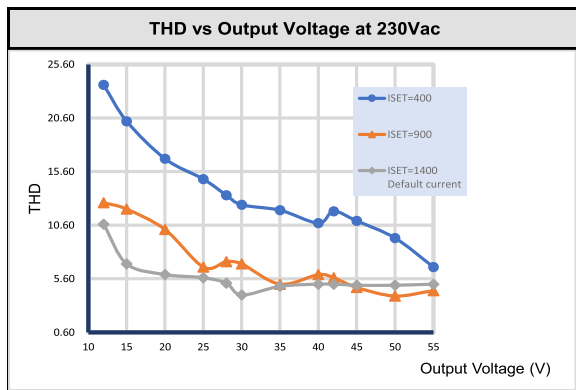
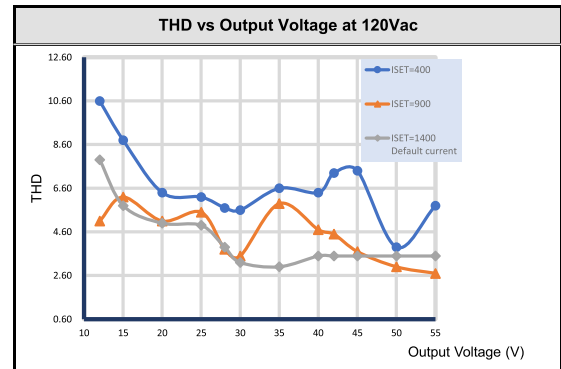
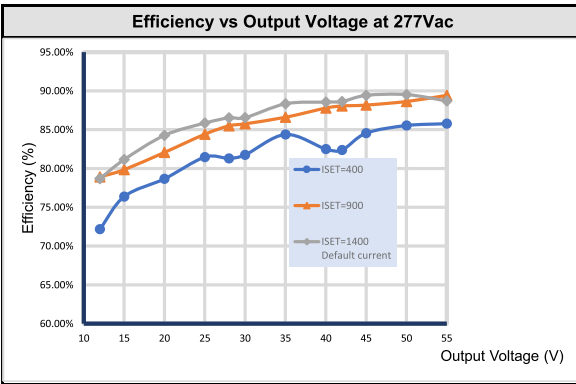
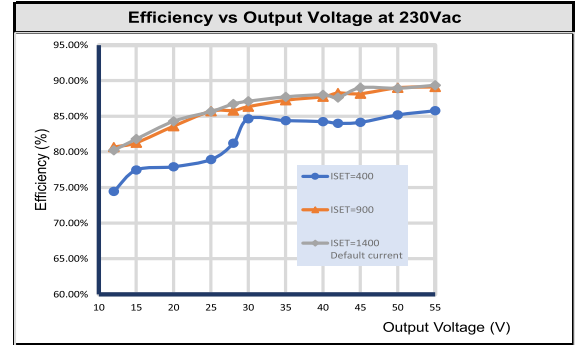
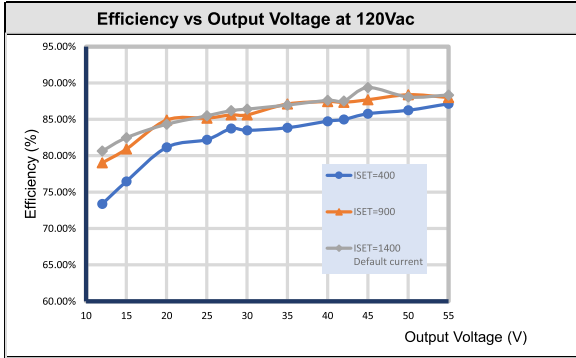




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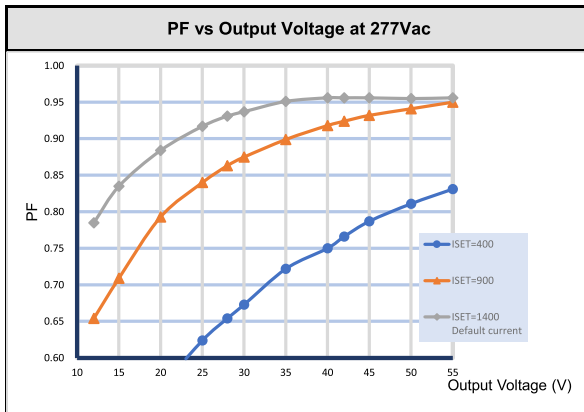
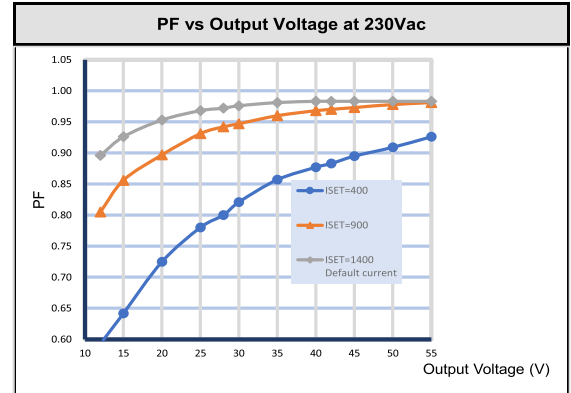
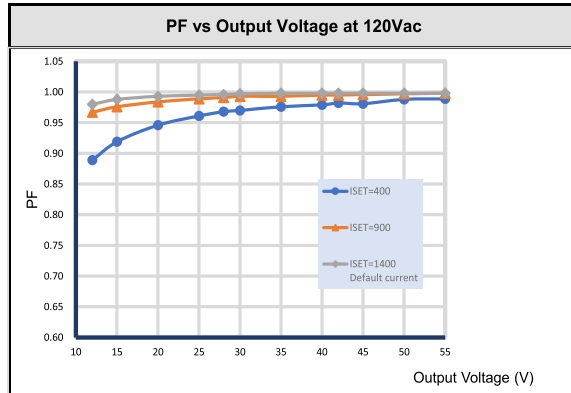




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Part Number Matrix

LED Driver	Constant Current	# of Control Channels	Control Type	# of Output Channels	Input Voltage	Output current	Characteristic	Max. Output Power	Case Type
TH=ThoroLED	CC = Constant Current	1 = 1 Channel	M = 0-10V dimming	1 = 1 Channel	120~277VAC(NA) 120-240VAC(EU)	140=1400mA	P = Programmable	50=50W	E = Long + Terminals

Grounding

- Driver must be grounded by means of the driver's case or ground wire/connection.

Over temperature protection

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

LED load

- Fulham ThoroLED 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

- This product isn't recommended working under no load condition for a long time for energy saving purpose.
- 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[5.5m] 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>



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 400mA - 1400mA. (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

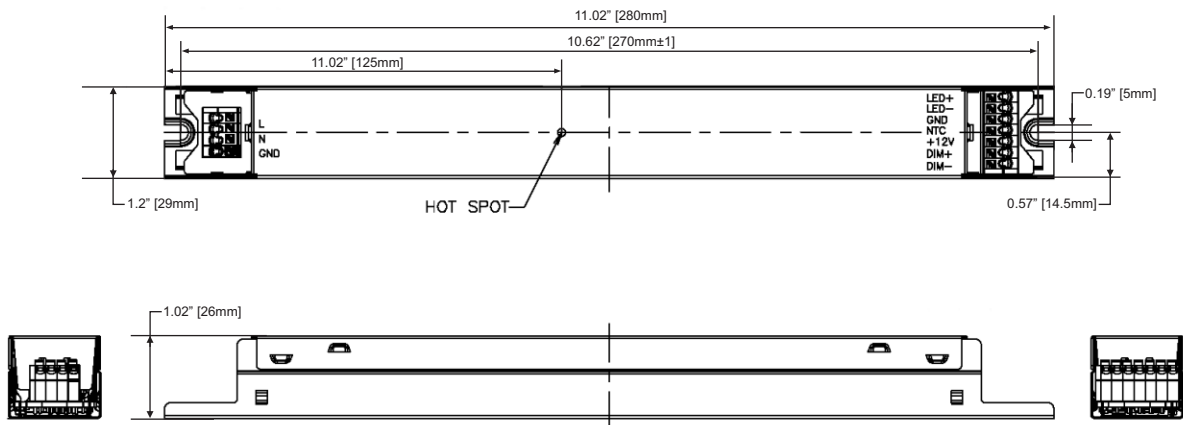
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Mechanical Drawing



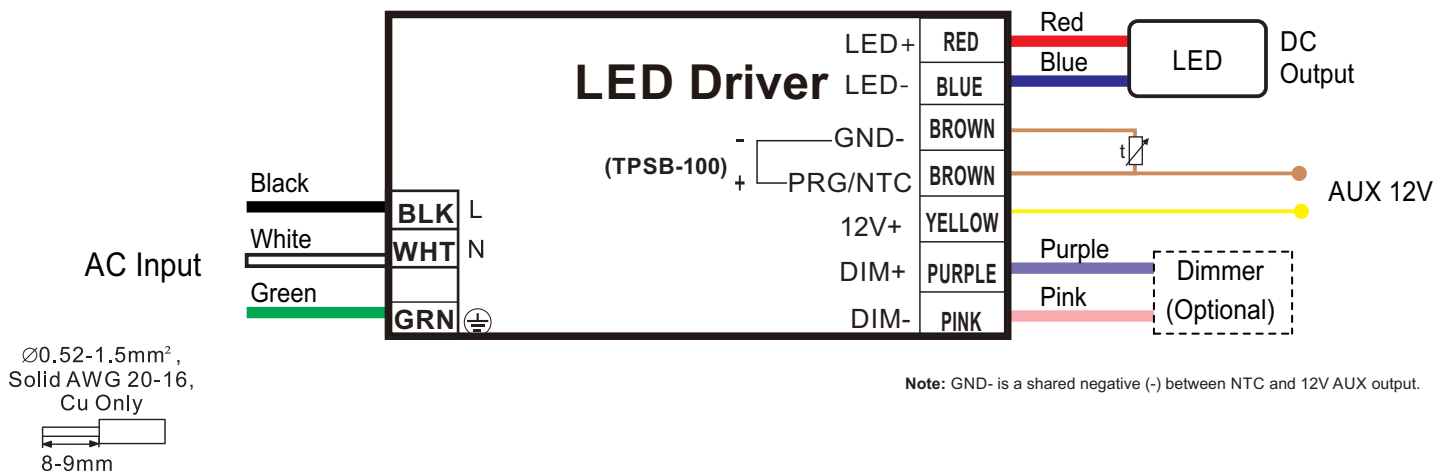
Overall Dimensions

Length	11.02" [280mm]
Width	1.2" [29mm]
Height	1.02" [26mm]
Mounting	10.62" [270mm]

Connector Type

WAGO 250-402

Wiring Diagram



Servicing should only be performed by qualified service personnel.
Use 16-20 AWG solid copper wire stripped to 3/8" with driver push in connectors.



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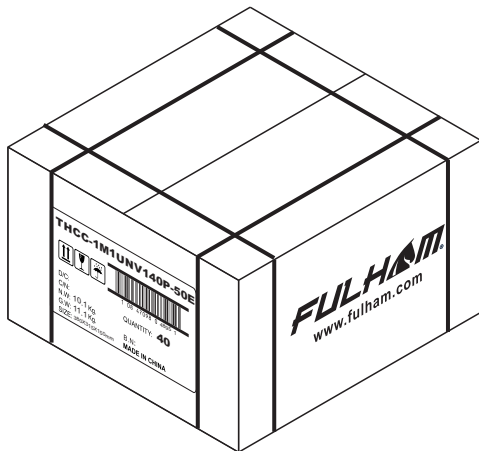


Product Image:



Packaging

Master Carton



OUTER DIMENSION		
L	W	H
14.96" (380mm)	12.40" (315mm)	5.91" (150mm)
Net Weight	Gross Weight	QUANTITY
22.27bs. (10.1kg.)	24.47lbs. (11.1kg)	40pcs.