



THCC-1M1UNV140P-30C

Constant Current LED Driver

- 120~277VAC $\pm$ 10%, 50/60Hz
- cULus Listed, Class P
- Programmable: 300mA - 1400mA
- 0-10V dimmable from 100%-1%, 0%
- 12V, 200mA AUX Output
- Compact case with Flying Leads
- Flicker Free (<5%)
- NTC
- IP65, Type HL

General Specifications

Input Voltage / Frequency	120~277VAC(NA) 50/60Hz
Input Current	0.42A Max
Input Power	36.6 W Max
Input Power Factor	>0.9
THD	<20%
Driver Type	Constant Current
Output Voltage	12-56VDC
Output Current	300-1400mA
Default Output Current	700mA
Output Power	30W Max
Efficiency	82%
Output Type	LED Class 2
Inrush Current	7.8A@277Vac
Max. Leakage Current	750uA at 277V Full Load
Line Regulation / Load Regulation	Line Regulation +/-5%, Load Regulation +/-5%
Flicker Percentage	<5%
Dimming Type	0-10V
Dimming Range	100%-1%, 0%, Dim-to-off disabled by default (enabled using TPSB-100 or SmartSet Software)
Operating Ambient Temperature Range	-40°C to 55°C (-40°F to 131°F)
Tc	90°C (194°F)
Start Up Time	<500ms
Number of Output Channels	1
Overall Size	4.96" x 2.41" x 0.95"(126mm X 61.2mm X 24mm)
Wire Type / Length	N/A
Connector Type	Input/Output: 18AWG / 6.30" (160mm), Dimming/Programming: 22AWG / 7.09" (180mm)
Safety / Compliance	UL8750, CSA-C22.2 No.250.13
IP Rating	IP65, Suitable for Dry and Damp locations
Withstand Voltage	Input to Output: 3750 Vac. Output to Dim: 2000Vac
EMC Emission	FCC 47 CFR Part 15 Class A
Operating Humidity	95% RH
Input Surge Protection	Input Surge Line-Neutral 2KV, Line & Neutral-Ground 4KV Ring Wave
Protections	Output Over Current (OCP) Output Short Current (SCP) Output Over Voltage (OVP)
Hot Swappable	No
Service Life	50,000 hours lifetime @ Tc 80°C (176°F)
Warranty	5 Years @ Tc 80°C (176°F) from the date of manufacture



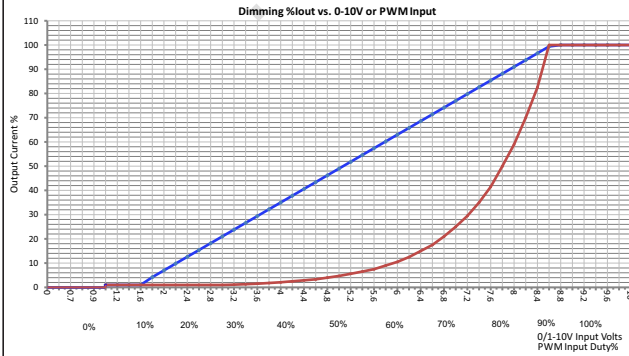
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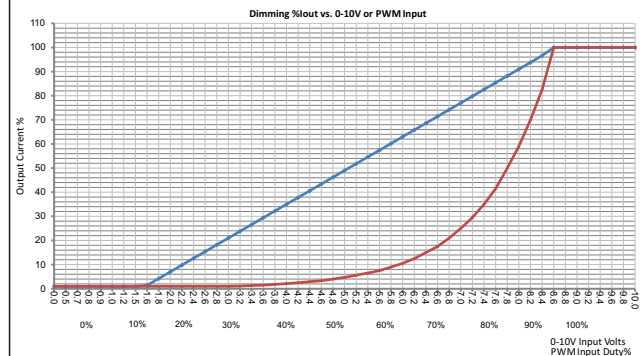
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Charts

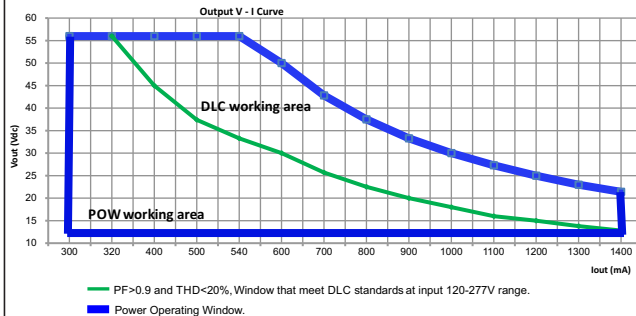
0-10V Dimming Curve @ Minimum Dimming Set to 1% And Dimming Off Enable



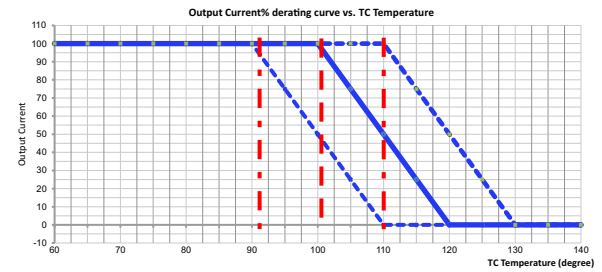
0-10V Dimming Curve @ Minimum Dimming Set to 1% And Dimming Off Disable



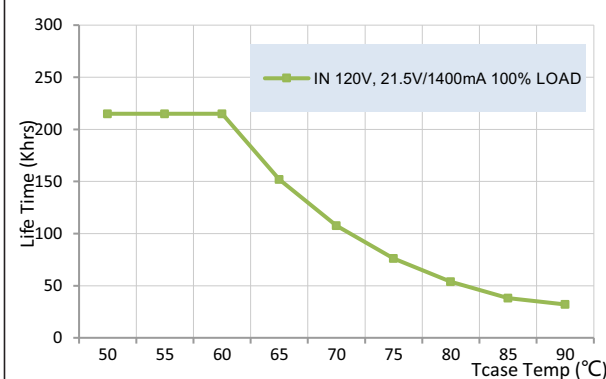
Power Operating Window & DLC Window



Output Current Derating vs. TC Temperature Curve



Life Time vs. Tcase Temp





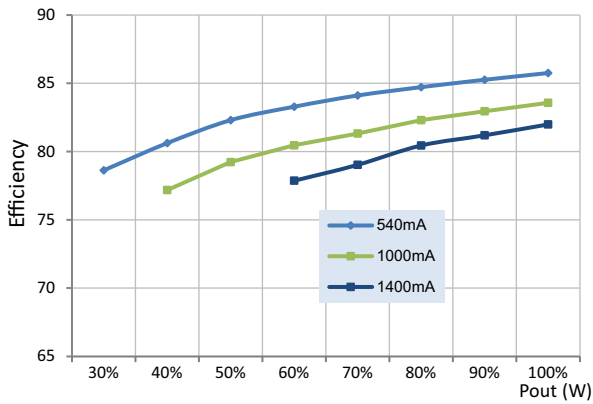
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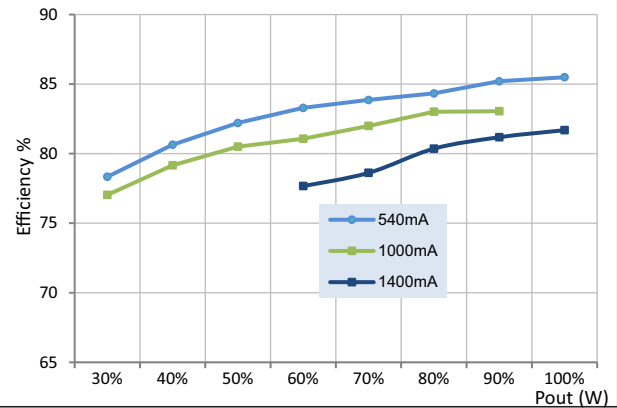
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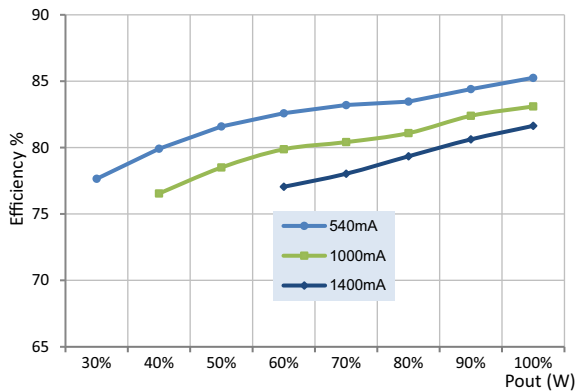
Efficiency vs Output Voltage at 120Vac



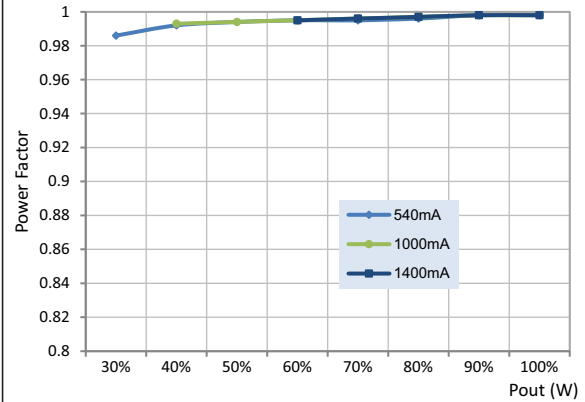
Efficiency vs Output Voltage at 230Vac



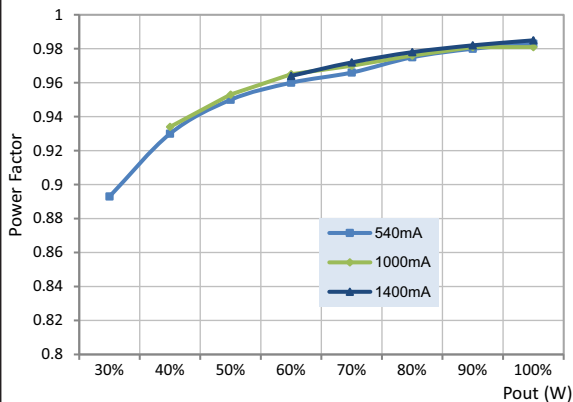
Efficiency vs Output Voltage at 277Vac



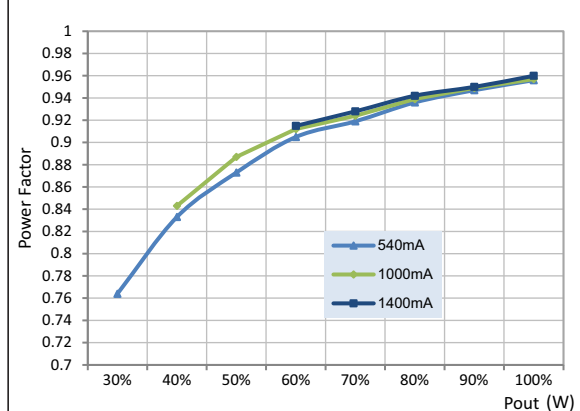
Power Factor vs Output Voltage at 120Vac



Power Factor vs Output Voltage at 230Vac



Power Factor vs Output Voltage at 277Vac





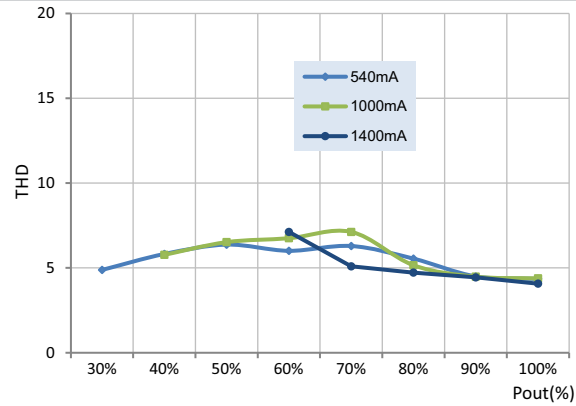
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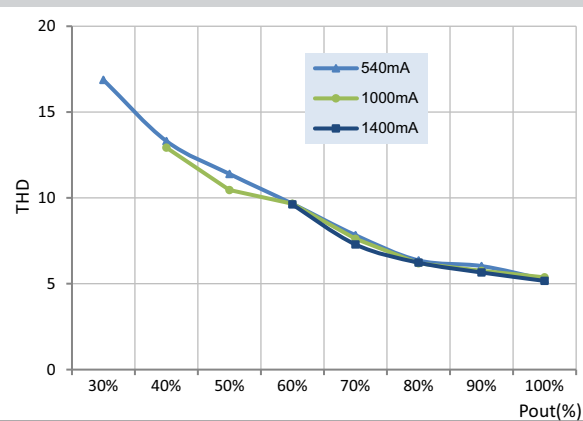
THD vs Output Voltage at 120Vac



THD vs Output Voltage at 230Vac



THD vs Output Voltage at 277Vac





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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	UNV=120-277V	140=1400mA	P = Programmable	30=30W	C = Compact + leadwire

Grounding

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

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.

Hot Swapping

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

Remote Mounting

- Up to 50ft with 18AWG. Contact Fulham for higher remote distance.

Service life/Lifetime

- Failure Rate Info based upon MTBF modeling: 90% survivals at end of life @ $\leq T_c$ 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 300mA - 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

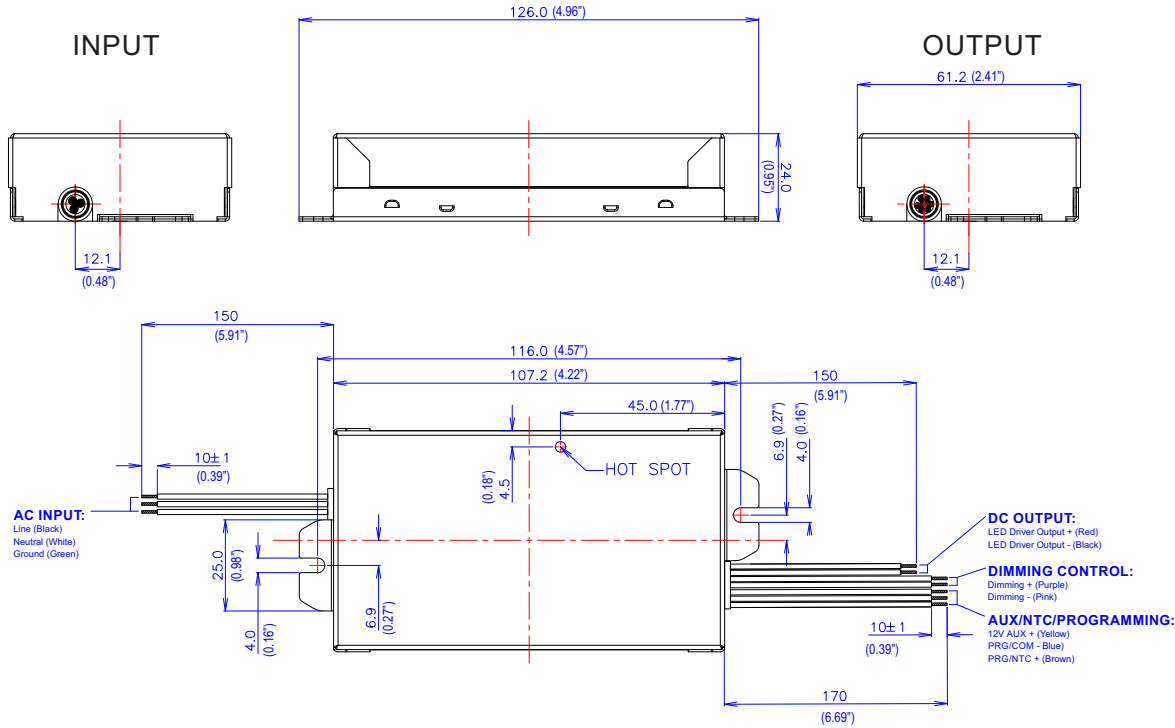


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Mechanical Drawing



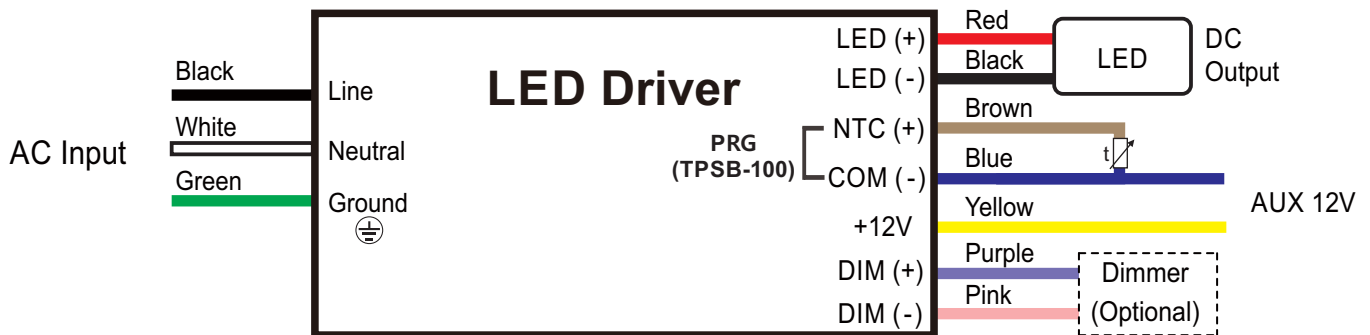
Overall Dimensions

Length	4.96" [126mm]
Width	2.41" [61.2mm]
Height	0.95" [24.0mm]
Mounting	4.57" [116mm]

Wire Length

AC Input (Black / White)	5.91" [150mm]
Output (Red / Black)	5.91" [150mm]
Ground (Green)	5.91" [150mm]
Dimming (Purple / Pink)	6.69" [170mm]
Programming (Brown / Blue / Yellow)	6.69" [170mm]

Wiring Diagram



Note: COM is a shared negative (-) between NTC and 12V AUX output.

Servicing should only be performed by qualified service personnel.



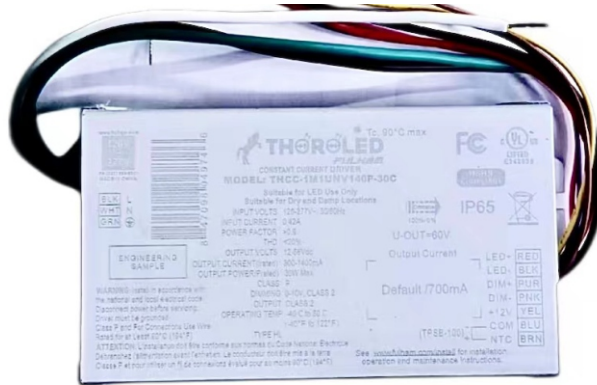
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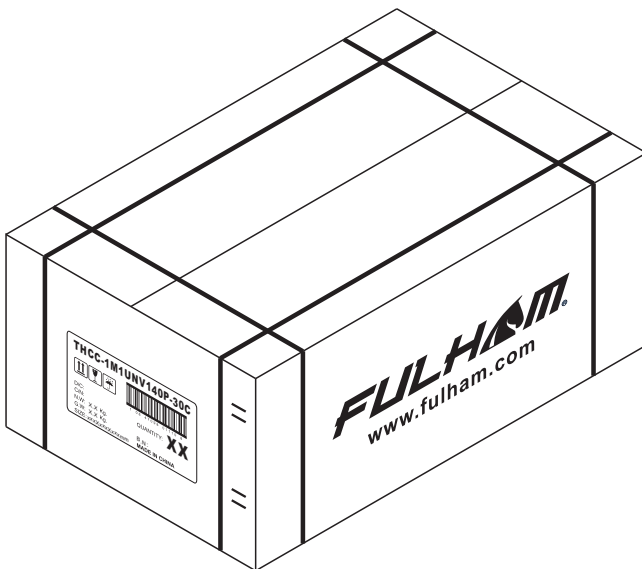


Product Image:



Packaging

Master Carton



OUTER DIMENSION		
L	W	H
15.75" (400mm)	12.40" (315mm)	5.91" (150mm)
Net Weight	Gross Weight	QUANTITY
20.50 bs. (9.3 kg.)	22.29 lbs. (10.11 kg)	30 pcs.