



T2C1UNV150P-40L

SELV



BLE Compatible Constant Current Programmable Driver

- Input Voltage: 120V-277V~ - 50/60Hz
- Constant Current Programmable 250-1500mA
- Class 2 LED Driver
- Output Voltage Range of 10-57V
- Output Power: 40W Max.
- U-OUT: 60V ---
- 0-10V Dimmable: 100%-1%, or 0% (off) (Figure 6&7)
Minimum Current:15mA
- Compatible with Fulham Smartlink

General Specifications

Input Voltage / Frequency	120-277VAC (+/- 10%), 50/60Hz
Input Current	0.18A - 0.4A
Input Power	47W (Max.)
Input PF	>0.9 @277V / 60% - 100% Load
THD	<15% @277V / 60% - 100% Load
Efficiency	89% Typical@277V Output 57V Full Load
Inrush Current	25A@277V within = 250us
Max Leakage Current	<0.7mA@240V for EU / <0.75mA@277V for UL
Output Voltage Range	10-57V ---
Output Current	250mA-1500mA (Factory default 250mA) Factory programming available upon request, MOQ may apply
Line Regulation / Load Regulation	<1% @100% Load / <3% @100% Load
Total Overall Ripple	<5% @100% Load
Low Frequency Ripple(120Hz ripple peak to peak)	<5% @100% Load
Dimming Isolation	Dimming isolated from input and output
Operating Ambient Temperature Range	-40°C to 60°C (-40°F to 140°F)
Maximum Driver Case Temperature (Tc) (Per UL)	85.2°C (185.4°F)
Start-up Time	<500ms
Standby Power	<0.5W (0-10V) Dimming short circuit
Driver Output Type / Number of Output Channels	Constant Current - LED Class 2 / 1 Channel
Overall Size	6.61" L x 1.97" W x 1.18" H (168mm L x 50mm W x 30mm H)
Wire Type / Length	18AWG / 13" Black / White / Gray / Purple / Red & Blue wires 18AWG / 9.84" Orange & Yellow wires
Weight	0.415Kg / 0.915b
Safety / Compliance	EN61347-1, EN61347-2-13, UL8750,1310 cULus Listed E342838 RoHS Compliant SELV Compliant CE Dry Location only (IP20)
Withstand Voltage	I/P-O/P:3000VAC, I/P-FG:1750VAC, I/P-(0-10V) Dimming: 1750VAC, O/P-(0-10V) Dimming: 1750VAC,O/P-FG:500VAC I/P-O/P, I/P-FG, O/P-FG:100M Ohms/ 500VDC/25°C/70%RH
Insulation Resistance	Potting As Per ASTM D36-86
Potting Type / Degree of Fill	FCC Part 15B Consumer, EN55015,EN61000-3-2, 3
EMC Emission	IEC61000-4-2,3,4,5,6,8,11,IEC61547
EMC Immunity	20-95% RH Non-condensing
Operating Humidity	Input Surge Line-Neutral 2.5KV, Line & Neutral-Ground 2.5KV
Protections	Input Current Protection Output Short Circuit Protection(Recovers automatically after short is removed) Output Open Circuit Protection Output to Ground Short Protection Overload Protection Over Temperature Protection
Hot Swappable	No
Sound Rating	A
Service Life	50,000 hours lifetime @ 75°C (167°F), see figure 9
Warranty	5 years @ Tc 75°C from the date of manufacture

*FG = Fault Ground

**I/P = Input Power

***O/P = Output Power



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Typical Characteristics Graphs: Input

Figure 1

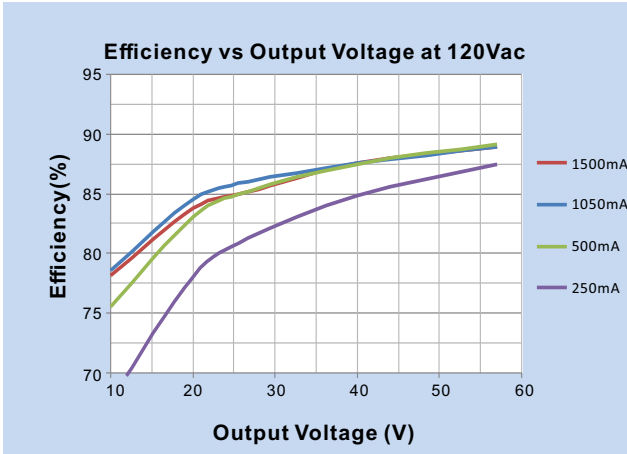


Figure 2

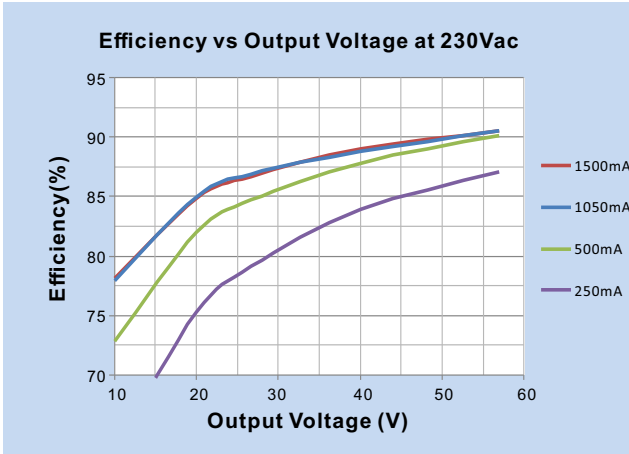


Figure 3

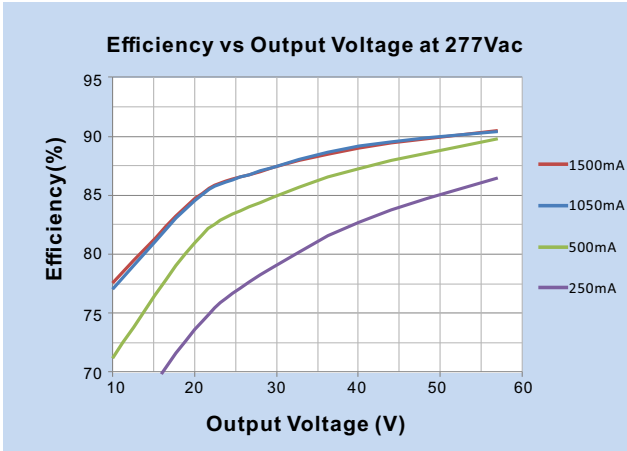


Figure 4

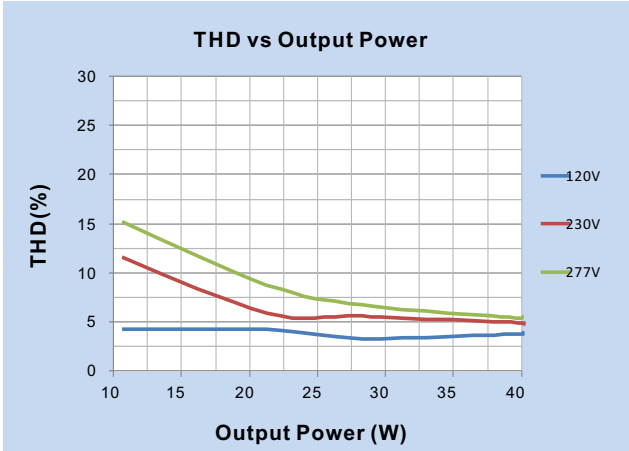
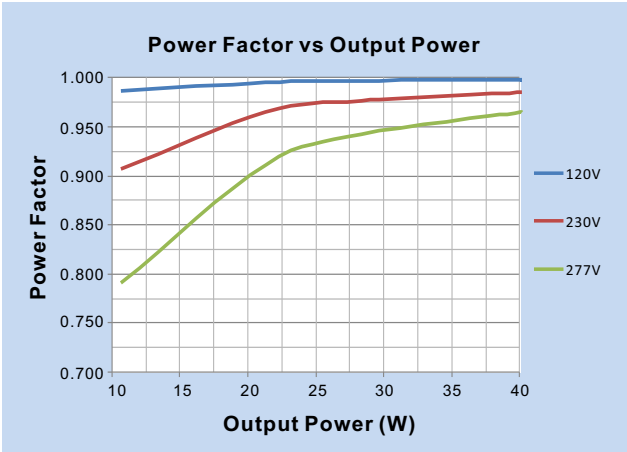


Figure 5



Typical Characteristics Graphs: Dimming and Thermal

Figure 6

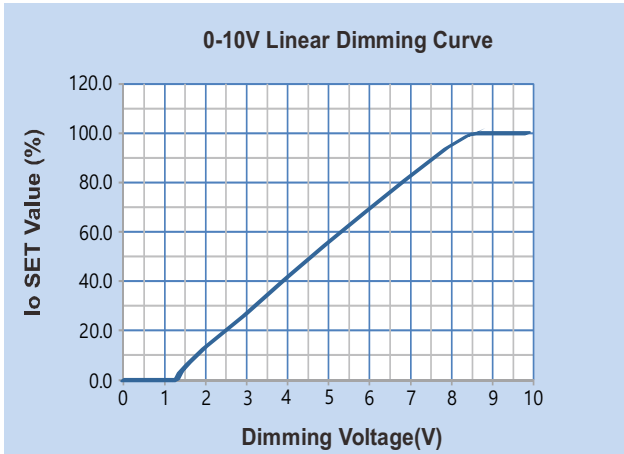


Figure 7

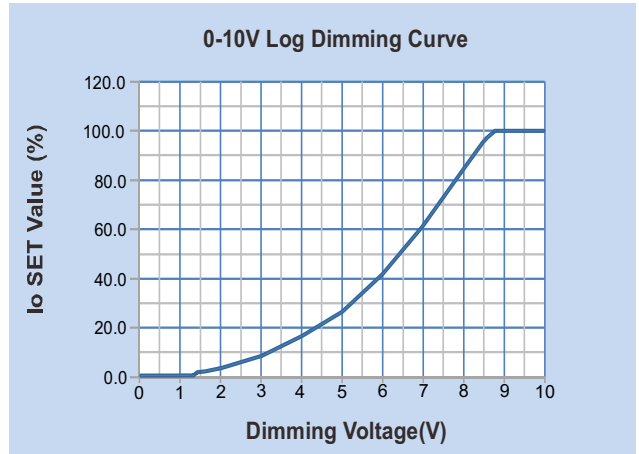


Figure 8

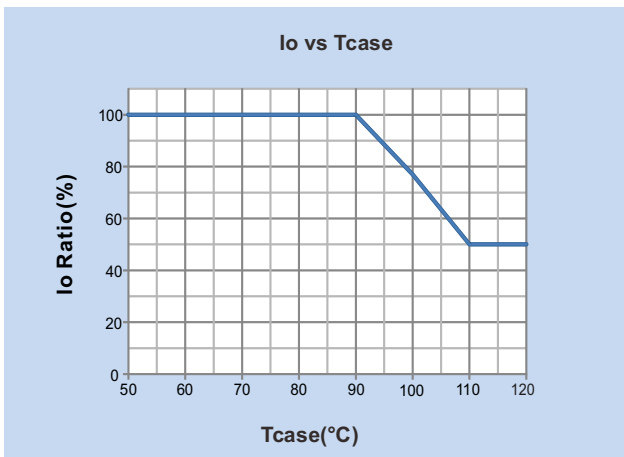
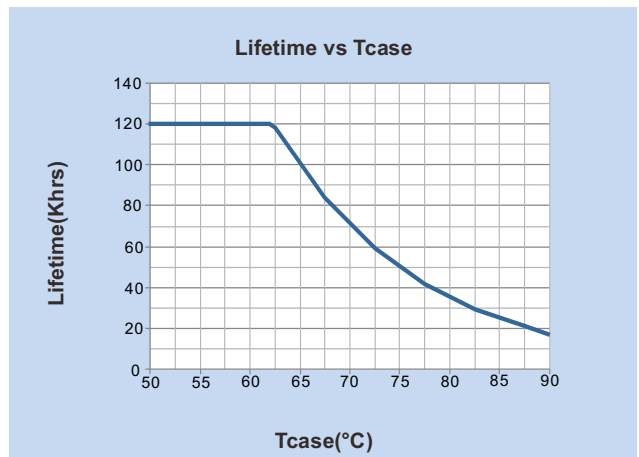


Figure 9



Failure Rate Info based upon MTBF modeling:
90% survivals at end of life @ ≤ Tc lifetime rating

Typical Characteristics Graphs: Output

Figure 10

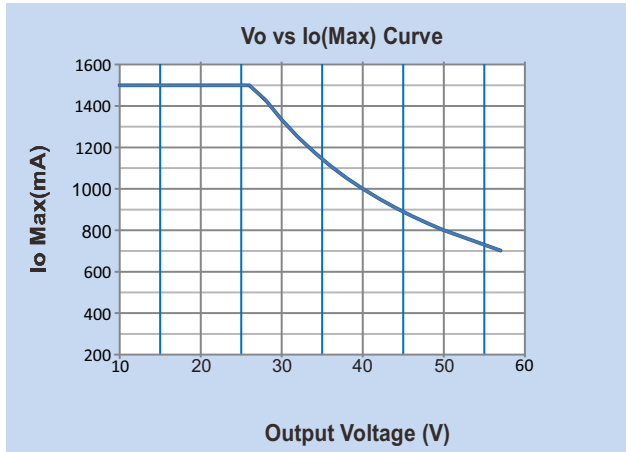


Figure 11

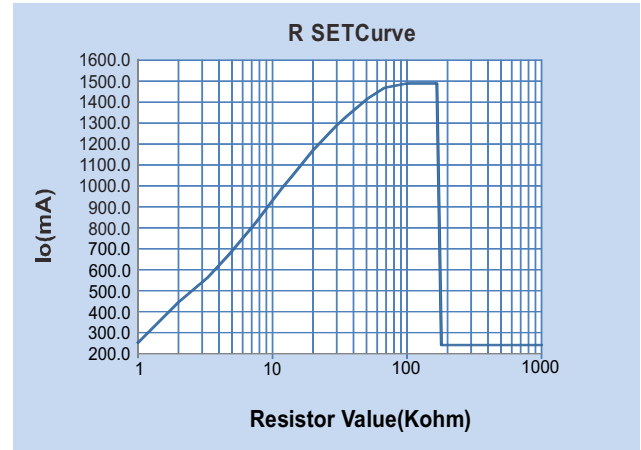
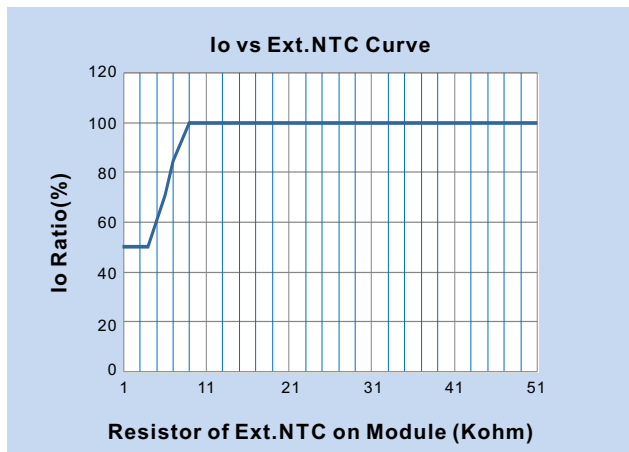


Figure 12

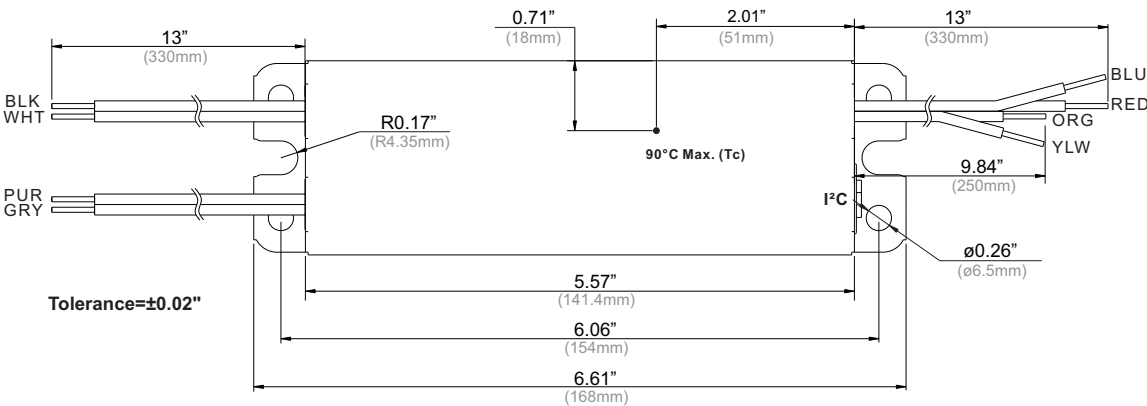




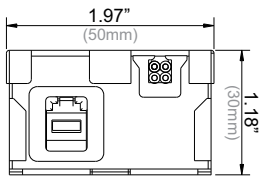
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SELV      
100%-1%, 0%
LISTED E342838

Mechanical Drawings



TOP VIEW



SIDE VIEW

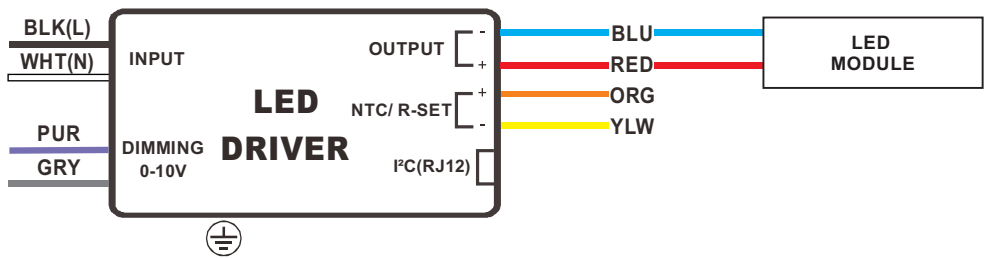
Overall Dimensions

Length	6.61" [168mm]
Width	1.97" [50mm]
Height	1.18" [30mm]

Wire Length

AC Input (Black / White)	13" [330mm]
0-10V Dimming Purple (10v+) Gray (10V-)	13" [330mm]
LED Output Red (+) Blue (-)	13" [330mm]
NTC / R-SET Orange (+) Yellow (-)	9.84" [250mm]

Wire Diagram



TOP VIEW

NOTES :

- 1) This driver must be installed by a licensed electrician
- 2) This driver must be grounded



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100%-1%, 0%

RoHS COMPLIANT

Accessories

Switch

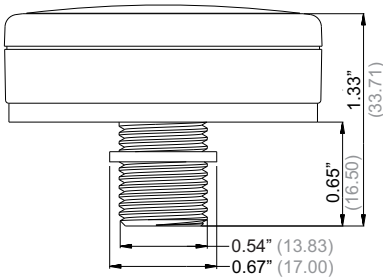
Fulham Part Number: **ESRPB-W-EO** (Single)
EDRPB-W-EO (Double)

- Single rocker EnOcean switch
- Double rocker EnOcean switch



SmartLink

Fulham Part Number: **ESLI01HB01** (External Bluetooth Radio)



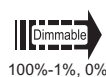
Fulham Application Information

Reference Fulham's commissioning guide: <http://www.fulham.com/PDFs/SpecSheets/eliteBlue-commissioning-manual.pdf>



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Programming Instructions

1. To program use the Fulham TPSB-100 SmartSet controller; use the convert cable to connect the programmer pins to the box and the RTC (orange and yellow wires) to the box output terminals.
2. Program the driver output current between range 250mA - 1500mA. (Note: set current represents total current of one channel).
3. Current programming and more function setting can be done through SmartSet PC Software.



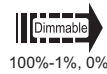
SmartSet Software



TPSB-100 SmartSet
Controller



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Guidelines

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.

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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100%-1%, 0%

LISTED

E342838

RoHS

COMPLIANT

Part Number Matrix

<u>I</u>	<u>2</u>	<u>C</u>	<u>1</u>	<u>UNV</u>	<u>150</u>	<u>P</u>	<u>40</u>	<u>L</u>
LED Driver	# of Control Channels	Control Type	# of Output Channels	Input Voltage	Output Current	Characteristic	Max.Output Power	Case Type
T = ThoroLED WorkHorse	2 = 2 Channels	C = I ² C+0-10V	1 = 1 LED Channel	UNV = 120V~277V	150 = 1500mA	P = Programmable	40 = 40W	L = Long

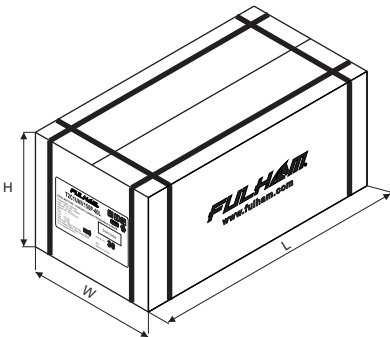
Product Image: LED Driver

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Packaging

Master Carton



OUTER DIMENSION		
L	W	H
14.96"(380mm)	12.20"(310mm)	6.5"(165mm)
Net Weight	Gross Weight	QUANTITY
18.26 lbs. (8.3 kg)	xxxx lbs. (xxx kg)	30pcs