

## Triac & 0-10V Dim. (5 in 1) Constant Voltage LED driver

### SMT-XX060-EUVTD-P Series **60W**

Whole Family: SMT-XXYYYY-EUVTD-P

(Input Voltage: 200-240VAC)

(XX:12V / 24VDC)

(YYY=18W 24W 30W 36W 48W 60W 80W 100W 120W 150W 200W )



### ■ Features

Output:	Constant Voltage
Range:	200-240VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 80%
PWM output:	4000Hz constant frequency
Protections:	Short circuit/ over load/ over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	IP20
Dimming function:	Phase dimming: work with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV, TRIAC dimmers. 0-10V dimming: 0-10V/1-10V/Potentiometer/10V PWM 4 in 1
Min load	Min load is 10%
Dimming range:	0.1-100% dimming depth 0.1%
Application:	Suitable for LED lighting and moving sign applications
Warranty:	7 years warranty

**■ Specification:**

Model Number		SMT-12060-EUVTD-P	SMT-24060-EUVTD-P
Output	Rated Power	60W	
	Rated Voltage	DC12V	DC24V
	Rated Current	5A	2.5A
	Voltage Tolerance	±0.5V	
	Voltage Regulation	±0.5%	
	Load Regulation	±1%	
Input	Voltage Range	200-240V	
	Frequency Range	47-63Hz	
	Efficiency (Typ.)	84%@230VAC	85%@230VAC
	THD	THD≤20% (@100% load)	
	Power Factor (Typ.)	0.99@ 230VAC (full loading)	
	AC Current (Typ.)	0.30A	
	Inrush Current (Typ.)	<20A	
	Leakage Current	<0.5mA	
Protection	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.	
	Over Loading	Intelligently reduce the output voltage, auto-recovery or re-power on to recovery	
	Over Temperature	100°C±10°C shut down o/p voltage, automatically recover after cooling.	
	Protection Class	II	
Environment	Working Temp.	Tcase=-40°C ~ +60°C (Please refer to“OUTPUTLOAD vs TEMPERATURE”section)	
	Working Humidity	20 ~ 95% RH non-condensing	
	Storage Temp. Humidity	-40 ~ +90, 10 ~ 95% RH	
	Temp. Coefficient	±0.03%/°C (0~50°C)	
	Vibration	10-500Hz,2G 12 minutes/cycle, Period 72 minutes each along X,Y,Z axes	
Safety & EMC	Safety Standards	EN613471, EN61347-2-13	
	Withstand Voltage	I/P-O/P:3KVAC	
	Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH	
	EMS	EN61000-3-2; EN61000-3-3; EN61547	
	EMF	EN62493-2010	
Others	IP Rating	IP20	
	Weight	0.2Kg	
	Size	L145xW53xH16.5mm	

## ■ MCB recommendation

When the input voltage is 120Vac, the number of LED Driver matched by circuit breakers is as follows:

MCB Type	Level	The number of LED Driver
C type	10A	9
	13A	11
	16A	14
	20A	18
	25A	23

When the input voltage is 277Vac, the number of LED Driver matched by circuit breakers is as follows:

MCB Type	Level	The number of LED Driver
C type	10A	24
	13A	32
	16A	40
	20A	50
	25A	62

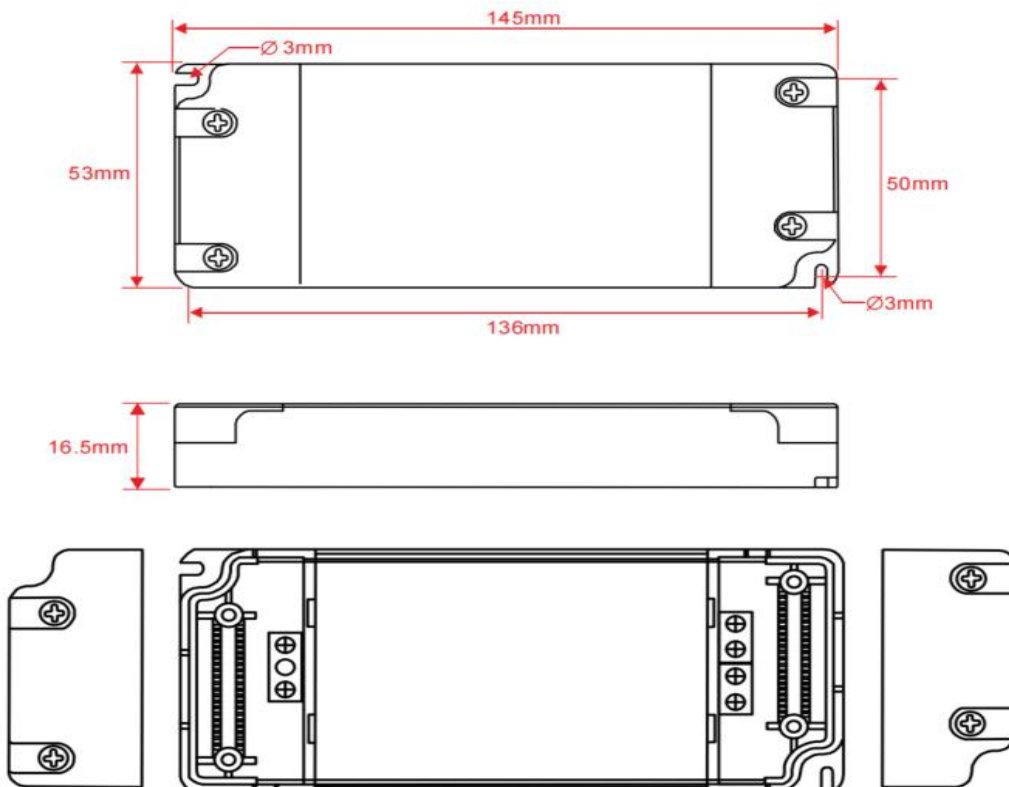
Note:

1. The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 °C.
2. The breaker should be selected according to the input rated voltage, input rated current, ambient temperature, and trip characteristic curve.

## ■ Mechanical Specification

Unite: mm

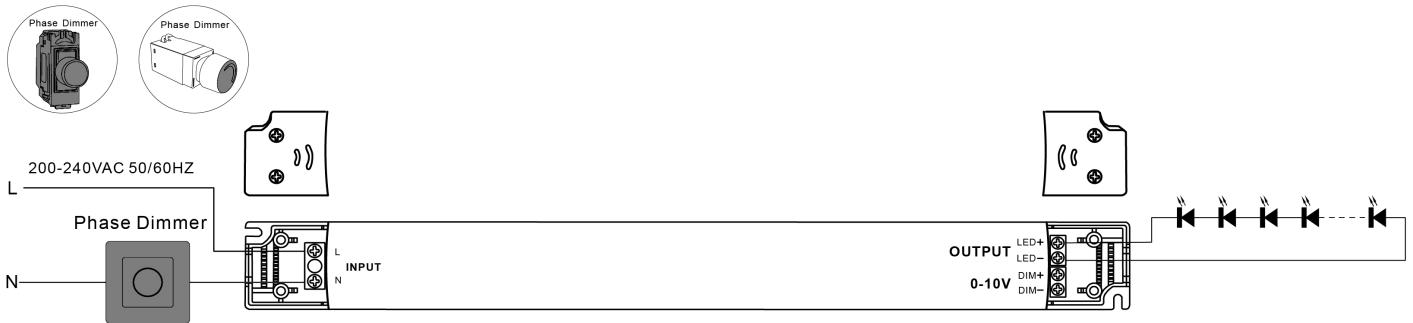
Tolerance:P 0.5-2mm



## ■ Dimming Operation and Connecting Diagram

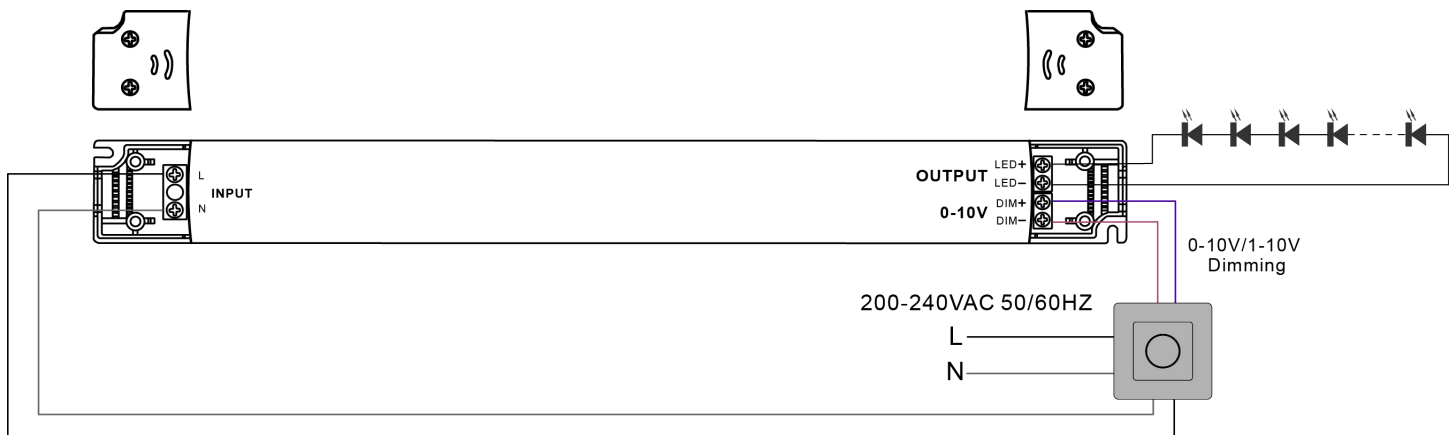
### ● Using one dimming ---TRIAC/Phase cut dimming

1. The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer or lighting system.
2. Working with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV, TRIAC dimmers or light system.
3. Min. loading is about 10%
4. Please try to use dimmers with power at least 1.5 times as the output power of the driver.



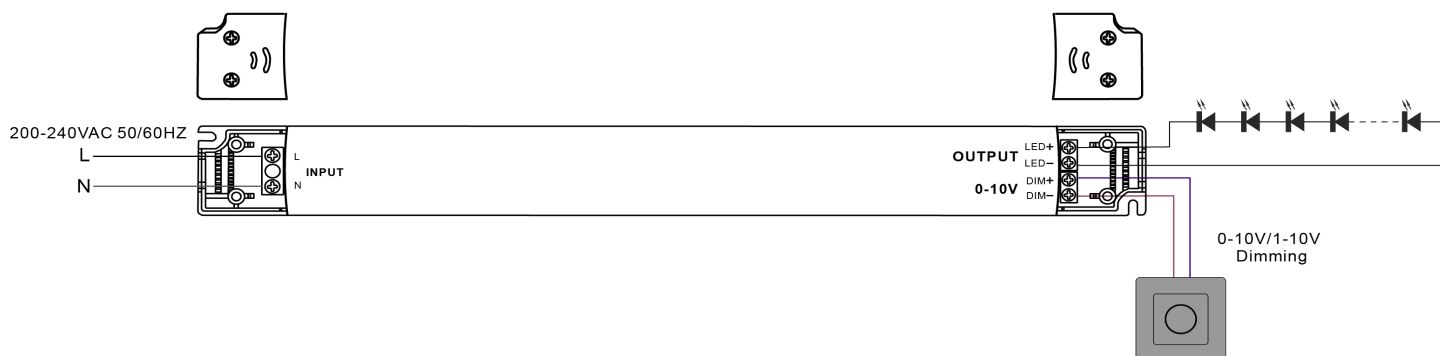
### ● Using one dimming ---0-10/ 1-10V/ 10V PWM/ Potentiometer dimming

(The driver input is connected to the dimmer.)

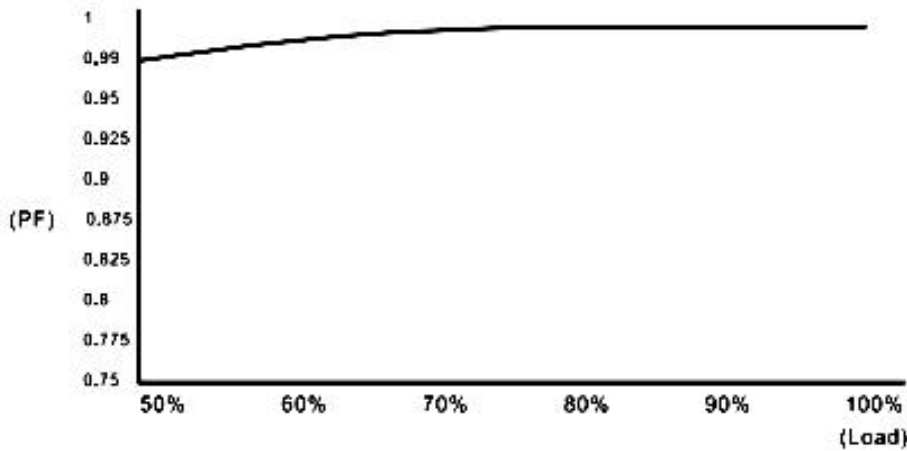


### ● Using one dimming ---0-10/ 1-10V/ 10V PWM/ Potentiometer dimming

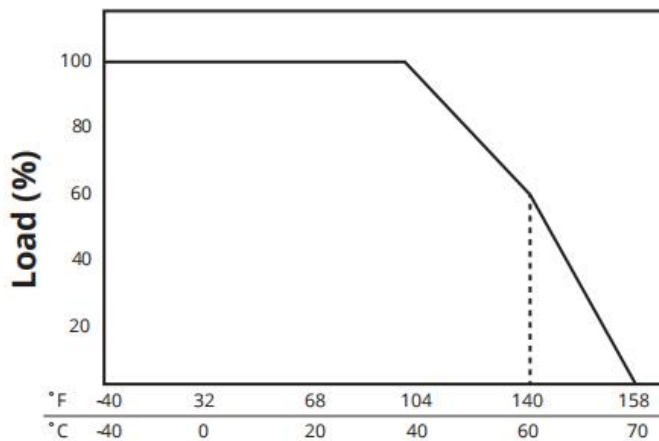
(The driver is independently connected to the input.)



## ■ PF Load Graph



## ■ Derating Curve (output load vs TEMP.)



1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise. Therefore, we recommend the power supply to reserve a certain amount of load to avoid overloading.

## ■ Instruction:

- 1. Confirm if the rated input voltage of the power supply is within the range of market voltage before use.
- 2. Pay attention to the distinction between the input and output lines of the power supply to avoid power damage or unnecessary safety accidents caused by connecting the reverse line.
- 3. The power supply cannot be stacked for installation (placement), and the installation distance between the power supply and the power supply should be greater than 10cm. Multiple power supplies should be installed in a narrow space, and the environmental temperature should be less than 55 °C during use; For example, distribution boxes, etc.
- 4. In order to extend the service life of the power supply, the power supply should be installed in an environment that is conducive to heat dissipation as much as possible;
- 5. As the ambient temperature increases, the power used by the power supply gradually decreases, and the

lifespan of the power supply also gradually shortens.

- 6. Do not use under abnormal loads: Overloading can cause damage to the power supply, and extremely light loads can cause the power supply to malfunction.
- 7. To ensure safety and reduce interference, please ensure that the grounding wire is reliably grounded
- 8. If the dimmable LED drivers do not work normally, pl. don't maintain privately, but contact us:  
[sales1@smartselectronics.com](mailto:sales1@smartselectronics.com) Or take a phone call: 0086-595-27256889