

## Triac Dimmable LED driver

### OTM-TD30 series

#### ■Features:

- Output constant voltage
- UL cUL listed, Class 2, Class P, FCC, CE, RoHs, T24
- Universal input, 110-277Vac
- Build in active PFC, typical power factor>0.95, THD<10%@120V Max. load
- High efficiency : up to 80%
- Load: 0.01-100%
- Short-circuit, over-temperature, over-load protection
- Full protection metal case, for dry, damp location Plastic enclosures can be used indoors
- Flicker-free
- Suitable for LED lighting and moving sign applications



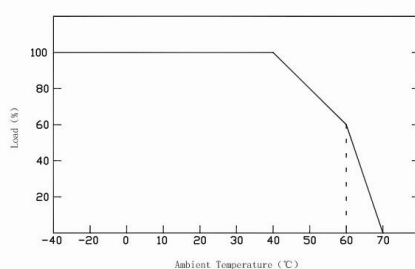
#### Product advantage:

•Dim-all: Triac
•Switch to PWM or Voltage Reduce output
•Dimming effect: Voltage Reduce mode: 100%-0.01% dim, stepless dimming, flicker-free, PWM dim mode: 100-0.1% dim, flicker-free
•Triac dim mode: Forward phase & reverse phase, MLV, ELV dim
•Flexible wiring compartment to adjust the AC and DC wiring space
•Plastic housing NEMA 4X for indoor and outdoor use; Wet, damp, and dry location
•Title 24 JA8 compliant
•Constant voltage type, fine tune of output voltage
•Super low loading request, works perfect at 0.01-100% load.
7 years warranty
Dimming range: 100%-0.01% Ultra Deep Amplitude
No Vpeak-peak during driver on/off and dimming, no harm to the LED for long-term using, and slow down the speed of lumen depreciation.
Works with single channel CCT warm-dim LED strip/tape (2 wires).
Switching different output mode, can be compatible with more different types of LED lamps
compatible with DC-DC design LED fixture, such as MR16, PAR, wall washer, linear lighting, LED strip/type

### ■ Specification

Model	OTM-TD30-12		OTM-TD30-24		
<b>Certificates</b>	UL, cUL listed, Class 2 unit, rated, FCC,T24				
<b>Output</b>	DC Voltage	12V	24V		
	Rated Current	2.5A	1.25A		
	Rated Power	30W	30W		
	Voltage Tolerance	±0.5V			
	Voltage Regulation	±0.5%			
	Load Regulation	±1%			
<b>Input</b>	Voltage Range	110-277VAC			
	Frequency Range	47-63Hz			
	Power Factor (Typ.) @ full load	0.99@120VAC	0.98@277VAC	0.99@120VAC	0.95@277VAC
	THD (Typ.) @ full load	<20%			
	Efficiency (Typ.) @ full load	79% @120Vac	80%@277Vac	79% @120Vac	80%@277Vac
	AC Current (Max.)	0.35A@100Vac			
	Inrush Current (Typ.)	7A, 50%, 420us @120Vac	12A, 50%, 480us @277Vac		
	Leakage current	<0.50mA			
<b>Protection</b>	Short Circuit	shut down o/p voltage, re-power on to recover after fault condition is removed			
	Over Loading	≤120% Hiccup mode,recovers automatically after fault condition is removed			
	Over temperature	100°C±10°C shut down o/p voltage, automatically recover after cooling.			
<b>Environment</b>	Working TEMP.	-40~+60°C (see below derating curve)			
	Working Humidity	20~90%RH, non-condensing			
	Storage TEMP. Humidity	-40~+80°C, 10~95%RH			
	TEMP .coefficient	±0.03%/°C (0~50°C)			
	Vibration	10~500Hz, 5G 10min./1 cycle,period for 60min. each along X,Y,Z axes			
<b>Safety&amp; EMC</b>	Safety standards	UL8750+UL1310			
	Withstand voltage	I/P-O/P:1.88KVAC			
	Isolation resistance	I/P-O/P:100MΩ/500VDC/25°C/70%RH			
	EMC EMISSION	FCC Part 15 B			
<b>others</b>	Net. Weight	0.21Kg			
	Size	158*54*20mm (L*W*H)			
	packing	40PCS/CTN SIZE:230*170*240mm(L*W*H)			
<b>Notes</b>	1. All parameters if NOT specially mentioned are measured at 120VAC input , rated load and 25°Cof ambient temperature. 2. To extend the driver's using life ,please reduce the loading at lower input voltage.				

### ■ Derating Curve

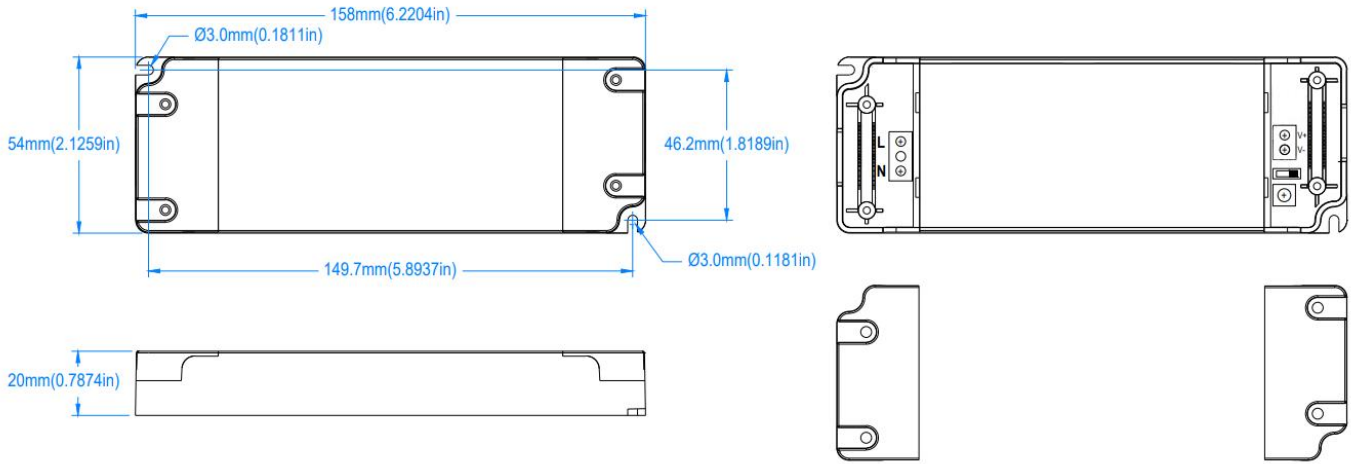


※To extend their life, please refer to the Derating Curve and derate according to the temperature.

## ■ Mechanical Specification

Unit: mm

Tolerance: 0.5-2mm



※Input with terminals Live(L) and Neutral(N) wires to be connected AC;

※Output LED SEC output Positive (LED+) , output negative(LED-). Connected to LED light.

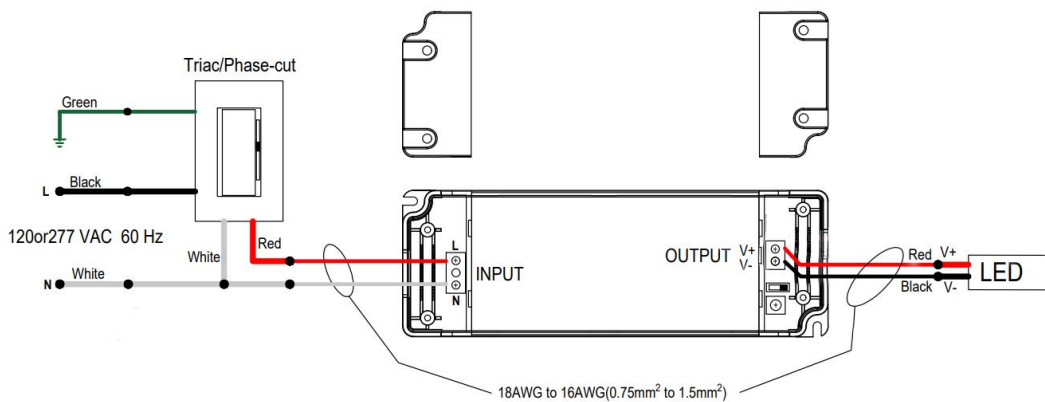
※Please make sure your connect these correctly otherwise your product will not function correctly and could be damaged.

※Note: Any other requests we can customized.

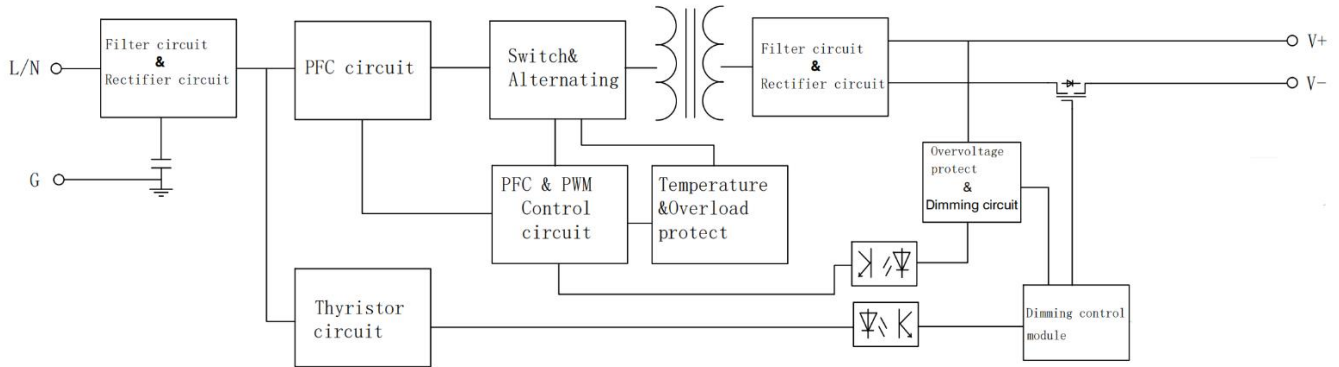
## ■ Connecting Diagram

### ※Using TRIAC/Phase cut dimming

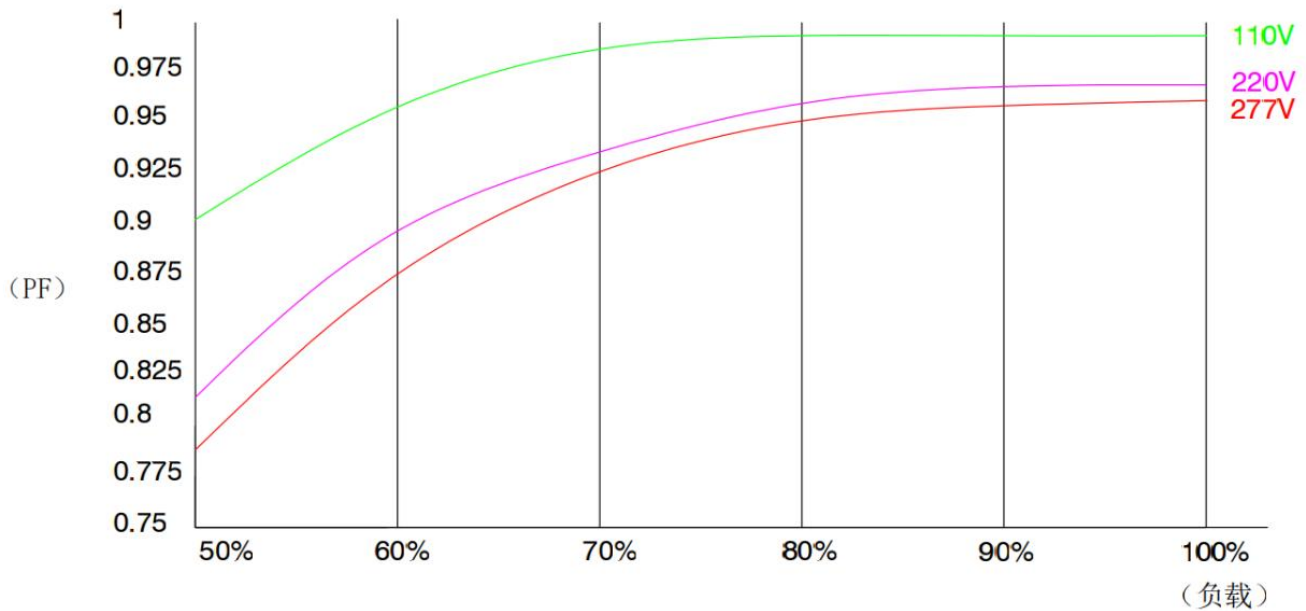
- 1.The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer of lighting system.
2. Work with forward phase /leading edge ,MLV and reverse phase /trailing edge ,ELV,TRIAC dimmers.
- 3.Please try to use dimmers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



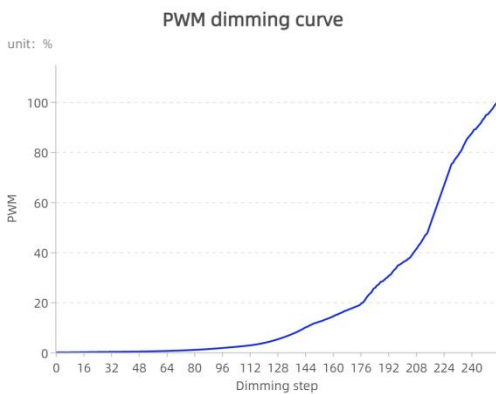
※The topology



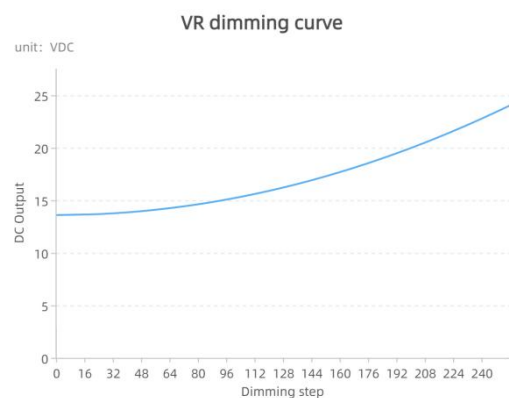
※PFC load graph



※PWM dimming curve



※VR dimming curve



■ **Instruction:**

- 1) This driver should be installed by qualified and professional person;
- 2) Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
- 3) Ensure that wiring is correct before test in order to avoid light and power supply damage;

Power supply operating temperature and life curve

