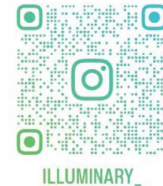


ILLUMINARY LLC

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Instagram:



Junction Box Triac Dimmable LED Driver 60W

Features:

- Output constant voltage
- UL cUL listed, Class 2, Class P, Type HL, FCC, NEMA 4X, 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, wet location
- Flicker-free
- Suitable for LED lighting and moving sign applications



Class 2 WET
Class P TYPE HL

Product advantage:

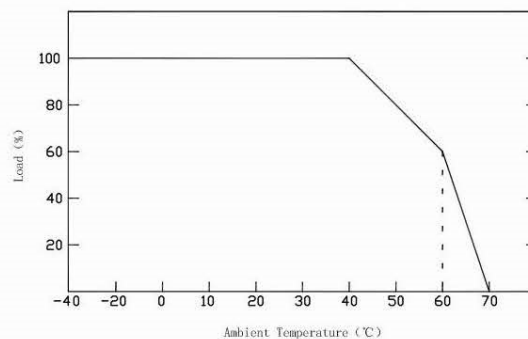
•Dim-all: Triac (tested Lutron DVCL-153PR, Lutron MACL-153MR, Lutron Caseta series and more!)
•Switch to PWM or Voltage regulation output (American Invention Patent)
•Dimming effect: Voltage Reduce mode: 100%-0.01% dim, stepless dimming, flicker-free, PWM dim mode: 100-0.1% dim, flicker-free
•Triac dim mode: Forward phase & reverse phase, MLV, ELV dim
•Exclusive patent design of “Clamshell” junction box, low-profile logo
•Flexible wiring compartment to adjust the AC and DC wiring space
•Metal shell 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.
5 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

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■ Specification

Model		OTM-TDJ60-24			
Certificates		UL, cUL listed, Class 2 unit, Type HL rated, FCC NEMA 4X,T24			
Output	DC Voltage	24V			
	Rated Current	2.5A			
	Rated Power	60W			
	Voltage Tolerance	±0.5V			
	Voltage Regulation	±0.5%			
	Load Regulation	±1%			
Input	Voltage Range	110-277VAC			
	Frequency Range	47-63Hz			
	Power Factor (Typ.) @ full load	0.98@120VAC 0.95@277VAC			
	THD (Typ.) @ full load	<20% @120VAC &277VAC			
	Efficiency (Typ.) @ full load	24V 85% @120Vac 86%@277Vac			
	AC Current (Max.)	0.9A@110Vac			
	Inrush Current (Typ.)	14A, 50%, 780us @120Vac 15A, 50%, 660us @277Vac			
	Leakage current	<0.50mA			
Protection	Short Circuit	shut down o/p voltage, re-power on to recover after fault condition is removed			
	Over Loading	≤120% constant current limiting, auto-recovery			
	Over temperature	100°C±10°C shut down o/p voltage, automatically recover after cooling.			
Environment	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			
Safety& EMC	Safety standards	UL8750+UL1310			
	Withstand voltage	I/P-O/P: 1.88KVAC			
	Isolation resistance	I/P-O/P: 100MQ/500VDC/25°C/70%RH			
	EMC EMISSION	FCC Part 15 B			
others	Warranty	5 year			
	Net. Weight / Size	2.381lb / 8.91"x4.62"x1.67"(L*W*H)			
Notes	<p>1. All parameters if NOT specially mentioned are measured at 120VAC input ,rated load and 77F of ambient temperature.</p> <p>2. To extend the driver's usage life ,please reduce the loading at lower input voltage.</p>				

■ Derating Curve

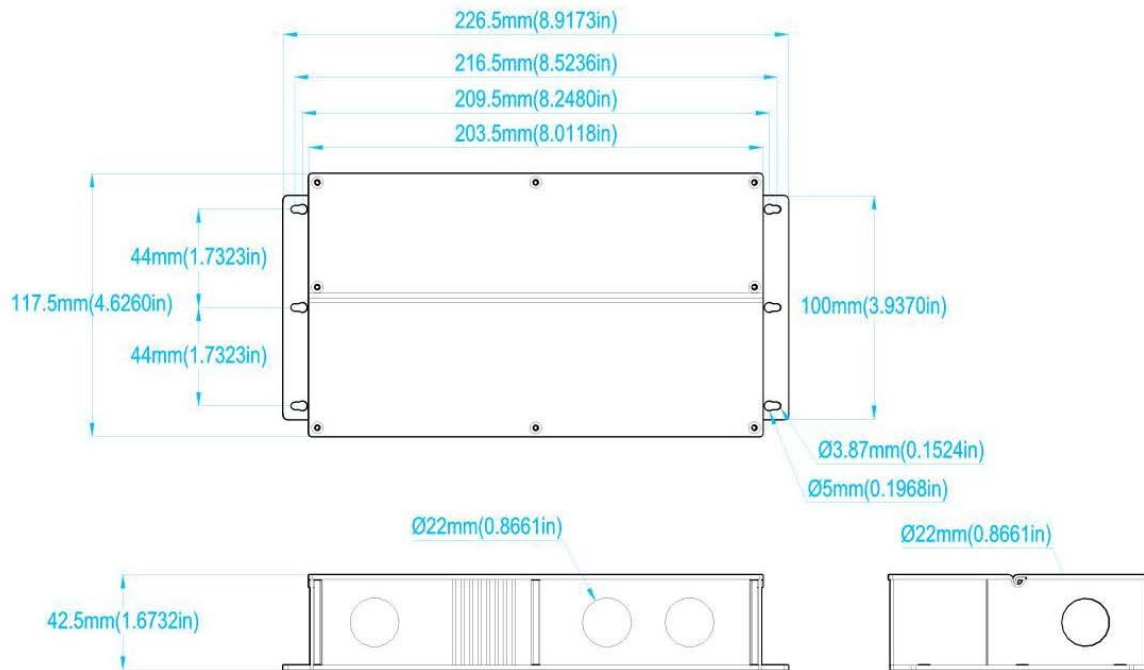


To extend the transformer life, please refer to the Derating Curve and derate it according to the temperature.

■ Mechanical Specification

Unit: mm

Tolerance: 0.5-2mm



- ※ Input wire Black (live) and White (Neutral) to be connected to AC Black (Live) and White (Neutral) , Green wire to be ground.
- ※ Output wire Red to LED Positive side (+) , Black to LED Negative side (-).
- ※ Please make ensure the connection to be correctly connected otherwise the transformer will not function correctly and could be damaged.

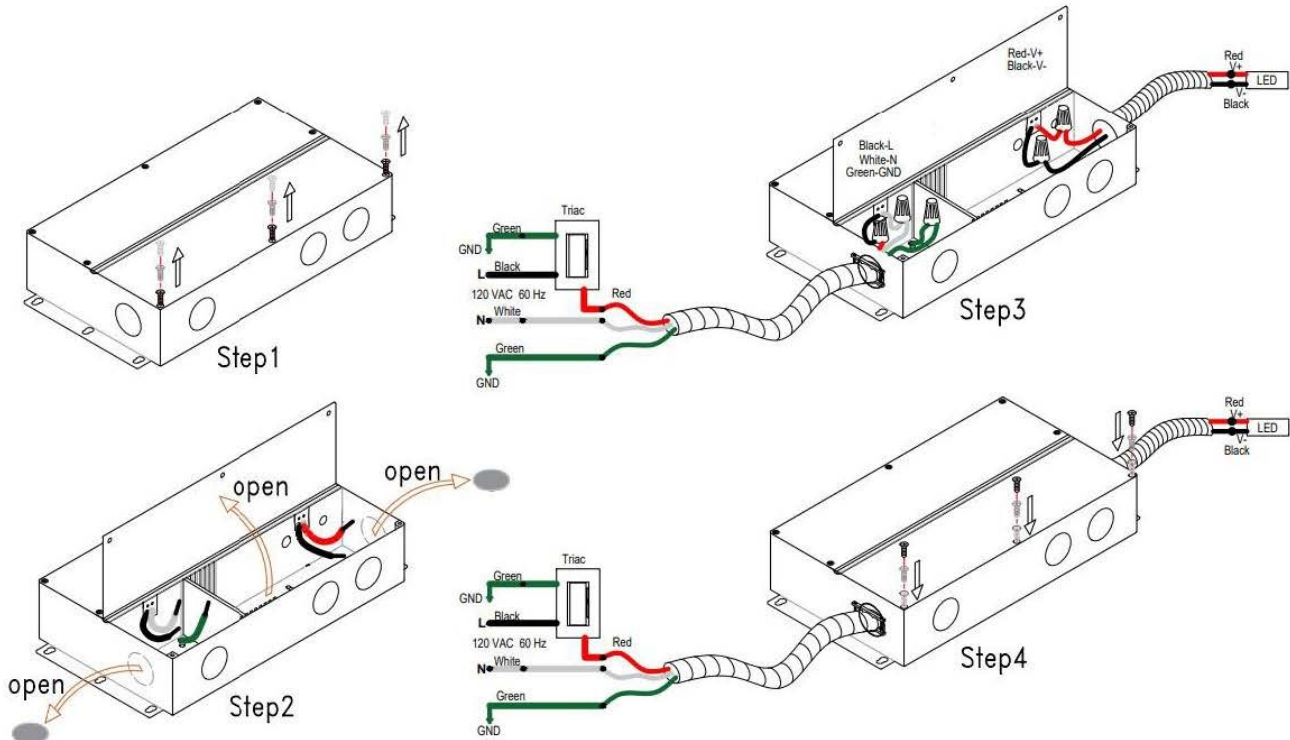
■ Connecting Diagram

※Using TRIAC/Phase cut dimming

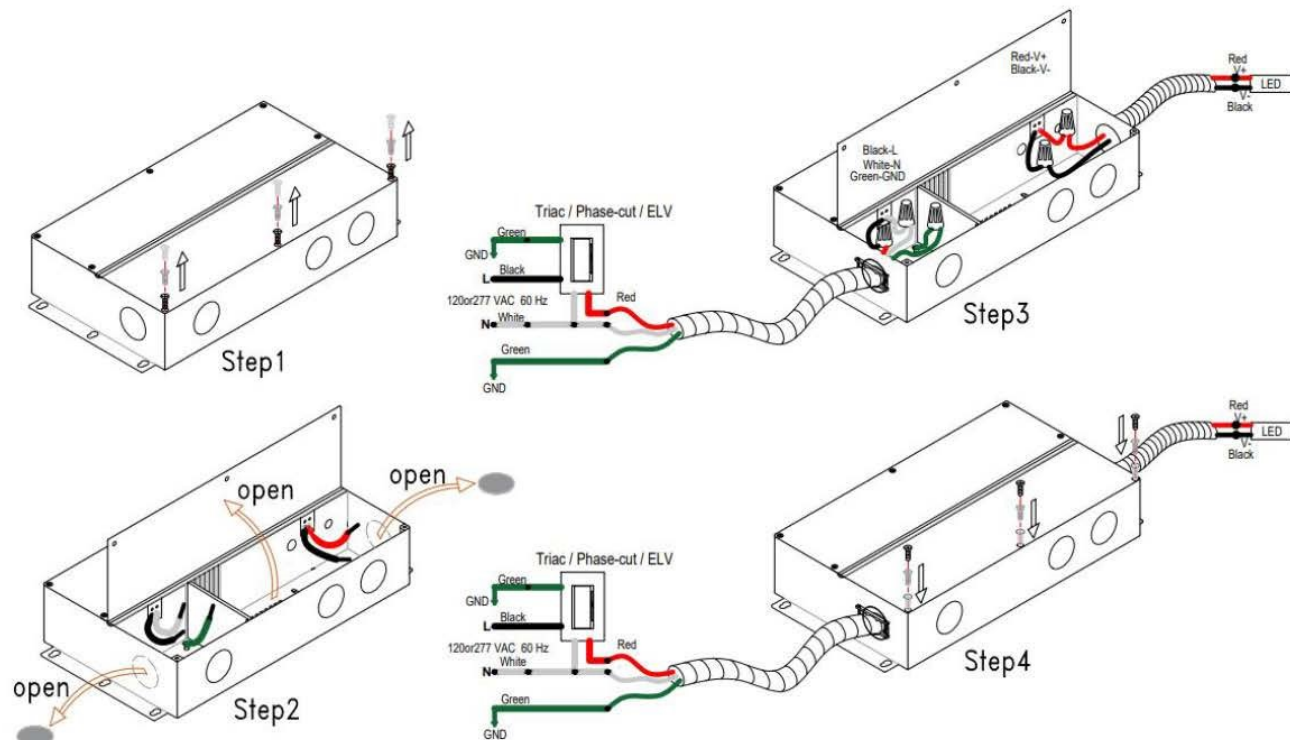
- 1.The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer of lighting system.
- 2.Work with forward phase /leading edge ,MLV and reverse phase /trailing edge ,ELV, TRIAC dimmers.
- 3.Please try to use dimmers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

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Using Triac MLV wiring diagram

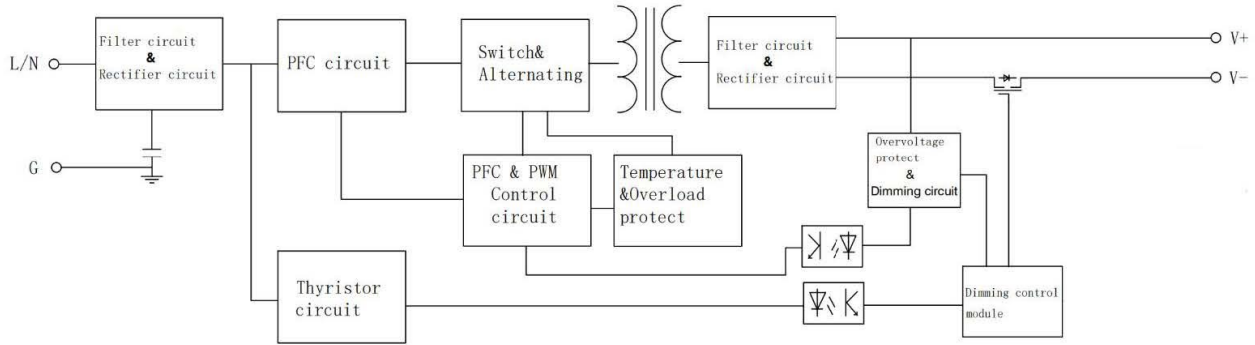


Using Triac ELV wiring diagram

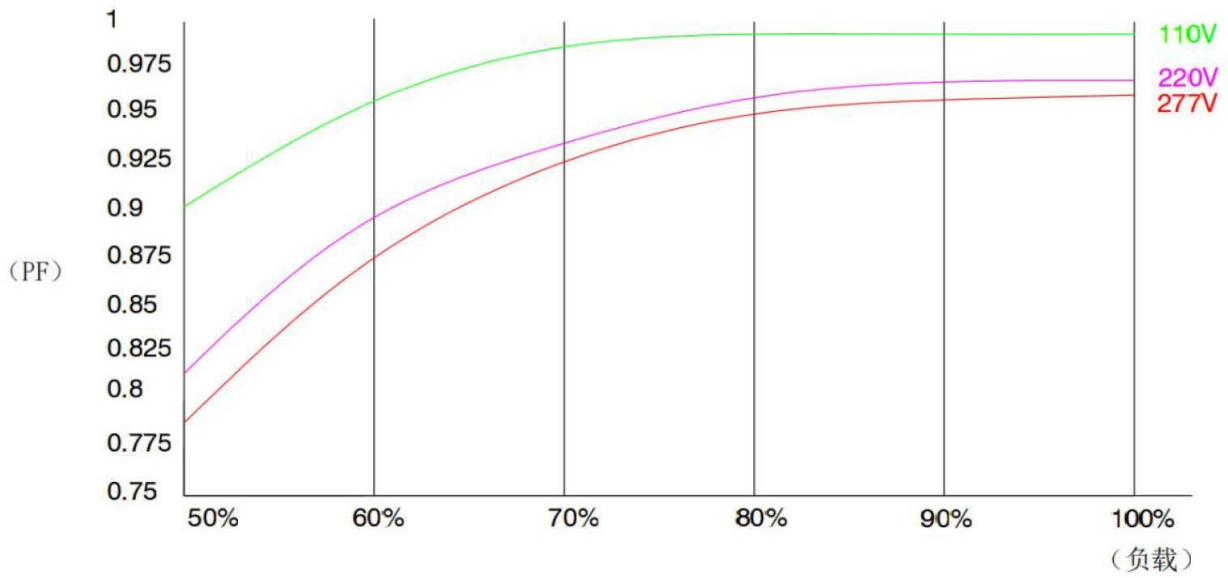


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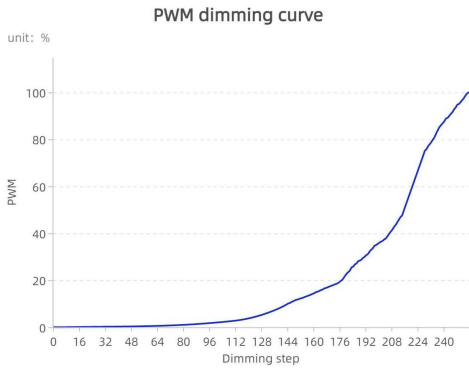
※The topology



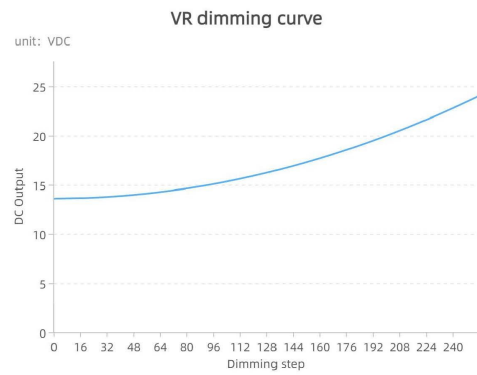
※PFC load graph



※PWM dimming curve



※VR dimming curve



■ Instruction:

- 1) This transformer should be installed by qualified and professional person only.
- 2) Please make sure the transformer is installed with adequate ventilation around it for heat dissipation.
- 3) Ensure that the wiring is correct before testing the transformer in order to avoid damage to the transformer and lighting fixtures.

Power supply operating temperature and life curve

(Unit: hour)

