

## Triac Dimmable LED driver

### OTM-TD96 series

#### ■Features:

- Output constant voltage
- UL cUL listed, Class 2, Class P, FCC, CE, RoHs, T24
- Universal input, 110-277Vac, 200-240Vac
- Build in active PFC, typical power factor>0.95
- High efficiency : up to 87%
- 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



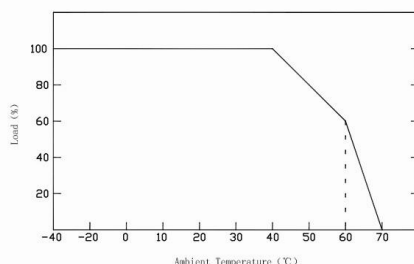
#### Product advantage:

•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-PD90
Certificates		CE, UKCA, UL, cUL listed, Class 2 unit, Type HL rated, FCC NEMA 4X,T24
Output	DC Voltage	48V
	Rated Current	1.875A
	Rated Power	90W
	Voltage Tolerance	±0.5V
	Voltage Regulation	±0.5%
	Load Regulation	±1%
Input	Voltage Range	180-240VAC
	Frequency Range	47-63Hz
	Power Factor (Typ.) @ full load	0.97@220VAC
	THD (Typ.) @ full load	<20% @220VAC
	Efficiency (Typ.) @ full load	48V 87% @220Vac
	AC Current (Max.)	0.409A@220Vac
	Inrush Current (Typ.)	48A, 50%, 480us @220Vac
	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℃±10℃ shut down o/p voltage, automatically recover after cooling.
Environment	Working TEMP.	-40~+60℃ (see below derating curve)
	Working Humidity	20~90%RH, non-condensing
	Storage TEMP. Humidity	-40~+80℃, 10~95%RH
	TEMP .coefficient	±0.03%/℃ (0~50℃)
	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:100MΩ/500VDC/25℃/70%RH
	EMC EMISSION	FCC Part 15 B
others	Net. Weight	0.4Kg
	Size	212*56*24mm (L*W*H)
	packing	20PCS/CTN SIZE:270*220*140mm(L*W*H)
Notes	1. All parameters if NOT specially mentioned are measured at 120VAC input , rated load and 25℃of ambient temperature. 2. To extend the driver's using life ,please reduce the loading at lower input voltage.	

## ■ Derating Curve

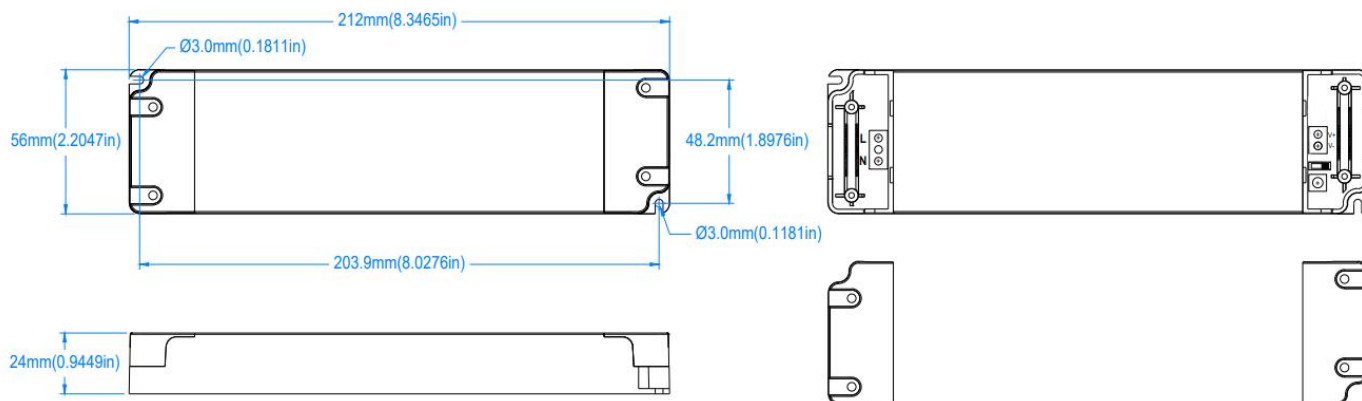


※To extend their life, please refer to the Derating Curve and derate according to the temperature.

## ■ 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.

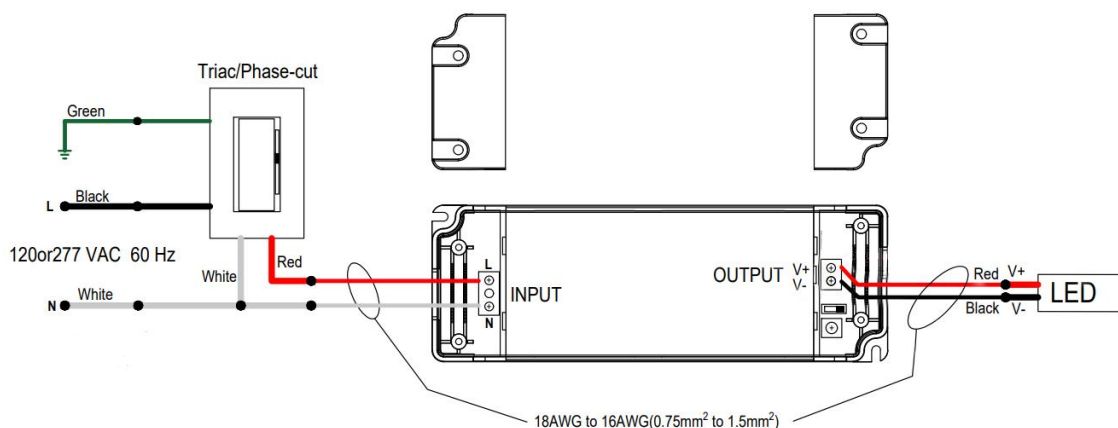
※Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.

※Note: Any other requests we can customized.

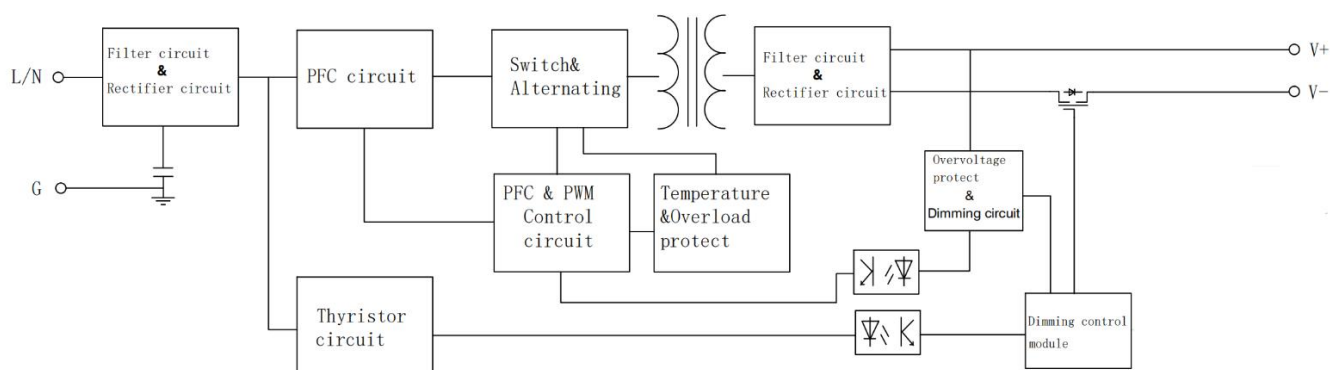
## ■ Connecting Diagram

### ※Using TRIAC/Phase cut dimming

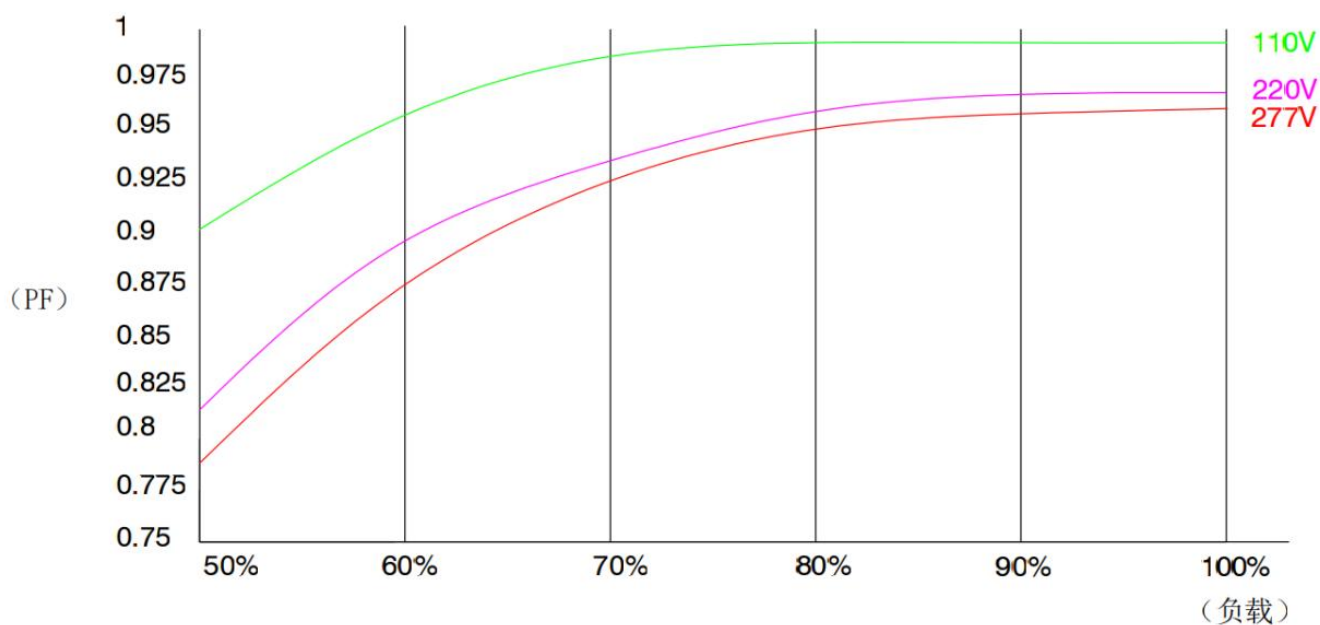
- 1.The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer of lighting system.
2. Work with forward phase /leading edge ,MLV and reverse phase /trailing edge ,ELV,TRIAC dimmers.
- 3.Please try to use dimmers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



## ※The topology



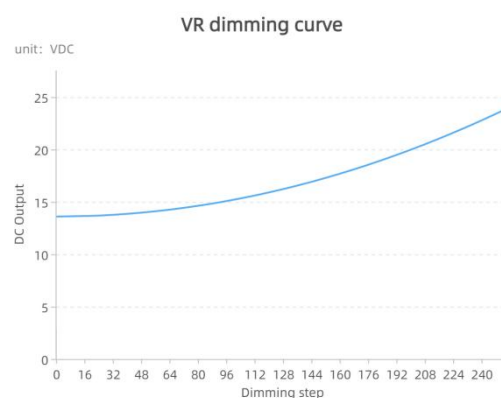
## ※PFC load graph



## ※PWM dimming curve



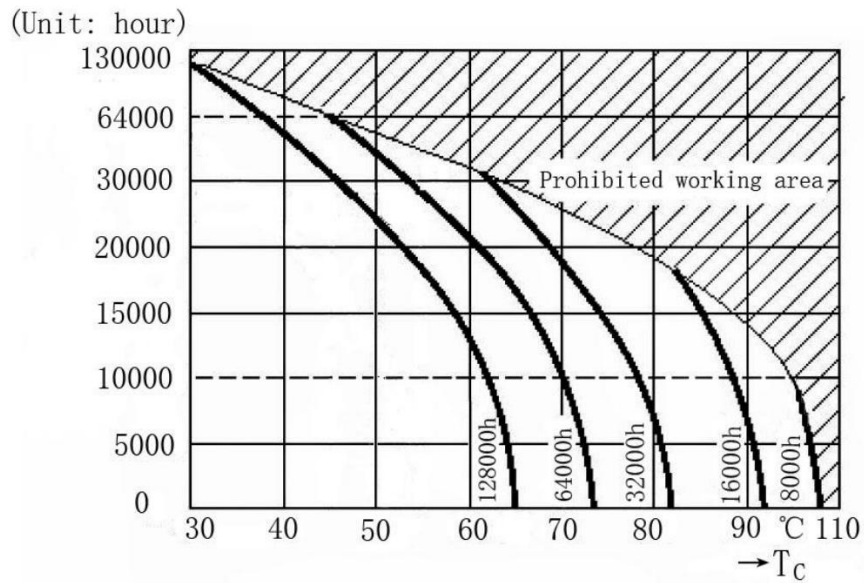
## ※VR dimming curve



■ **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



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## Dokumentation der Funktionalität verschiedener Netzteile mit Dimmern

LED System: luxKIT

Netzteil / Dimmer:		Busch - Jaeger 6523 U-102	Feller 40420.RLC	Feller 40600.RL	GIRA 3000 2455 00/03	GIRA 3000 2450 00/02	Berker 296-M0
	EAN Nr.:	4011395212677	7611386305660	7611386205793	4010337031413	4010337031406	4011334510147
OTM-PD60	7640382275080						
OTM-PD90	7640382275103						
KS-200AW-48T	7640382275158						
KS-300AW-48T	7640382275165						

Legende:

	Hohe Kompatibilität
	Kompatibel mit Einschränkungen*
	nicht kompatibel**

\* leichte Geräuschbildung beim Dimmen oder im Betrieb / leichtes flackern während Dimmvorgang, verschwindet jedoch innerhalb von bis zu 3 Sekunden

\*\* laute Geräuschbildung beim Dimmen oder in Betrieb / stetiges flackern oder ausfallen einer Leuchte während Dimmvorgang / Dimmen nicht möglich