TRDEM-500W

SUCCARLED

TRIAC/0-10V/1-10V/POTENTIOMETER/10V PWM

DEM SERIES indoor/outdoor drivers are highly efficient, stable with smooth dimming capability compatible with most TRIAC, ELV, MLV, 0-10V reverse and forward phase dimmers, and on/off switches. These drivers are factory derated which allows them to be loaded to maximum wattage capacity.The wet/dry housings are IP66 rated designed to fit most installations.

FEATURES

OUTPUT	Constant Voltage
RANGE	110-277VAC
PFC DESIGN	Built-in active PFC function
EFFICIENCY	Up to 93%
PROTECTIONS	Short circuit/ over load/ over temperature
HEAT DISSIPATION	Cooling by free air convection
WATERPROOF PERFORMANCE	Driver built-in Junction box, For dry, damp and wet locations
DIMMING FUNCTION	Phase dimming: work with Forward phase , MLV and Reverse phase , ELV, TRIAC dimmers. 0-10V dimming: 0-10V/1-10V/ Potentiometer/10V PWM 4 in 1
DIMMING RANGE	0-100%
APPLICATION	Suitable for LED lighting and moving sign applications
WARRANTY	5 years warranty

SELV Class 2 WET
Class P TYPE HL

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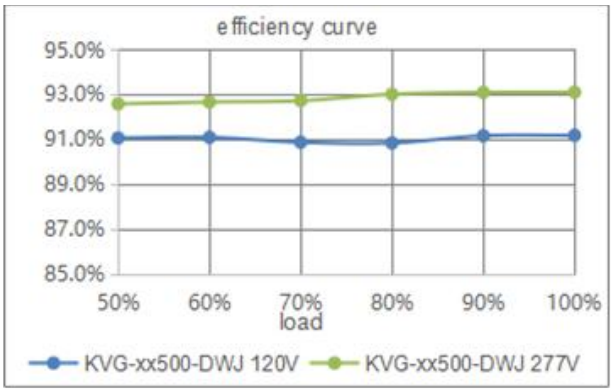
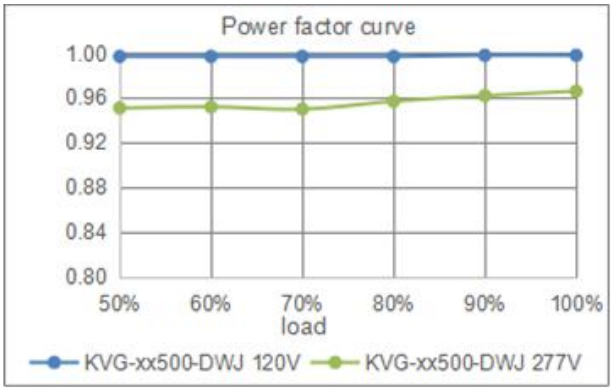
SPECIFICATIONS

Model		TRDEM-500W			
Certificates		UL / cUL / FCC / TYPE HL / SELV / RoHS / Reach			
Output	DC Voltage	12V	24V	36V	48V
	Rated Current	41.67A	20.84A	13.89A	10.42A
	Rated Power	500W	500W	500W	500W
	Voltage Tolerance	±0.5V			
	Voltage Regulation	±0.5V			
	Load Regulation	≤1%			
Input	Voltage Range	110-277VAC			
	Frequency Range	47-63Hz			
	Power Factor（Typ.） @ full load	PF≥0.95@110VAC; PF≥0.93@277VAC;			
	THD（Typ.）@ full load	≤10%@120VAC			
	Efficiency（Typ.）@ full load	90%@120VAC	90.2%@120VAC	90.2%@120VAC	90.5%@120VAC
		92.5%@277VAC	93%@277VAC	93%@277VAC	93%@277VAC
	AC Current（Max.	4.8A@110VAC			
	Inrush Current （Typ.）	52A, 810us@50%110VAC 76A, 148us@50%277VAC			
	Leakage current	<0.50mA			
Protection	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.			
	Over Loading	≤120% Hiccup mode, recovers automatically after fault condition is removed			
	Over temperature	100℃±10℃ shut down o/p voltage, automatically recover after cooling.			
Environment	Working TEMP.	-40～+60℃ (see below derating curve)			
	Working Humidity	20～95%RH, non-condensing			
	Storage TEMP. Humidity	-40 - +80℃,10 - 95% RH non-condensing			
	TEMP. coefficient	±0.03%/℃（0～50℃）			
	Vibration	10~500Hz, 5G 12min./1 cycle, period for 72min. each along X,Y,Z axes			
Safety & EMC	Safety standards	UL8750 CAN/CSA-C22.2 No. 250.13 (US)			
	Withstand voltage	I/P-O/P: 1.8KVAC I/P-FG: 1.8KVAC O/P-FG1.8KVAC			
	Isolation resistance	I/P-O/P: 100MΩ / 500VDC / 25℃ / 70% RH			
	EMC EMISSION	FCC Part 15, Subpart B; ANSIC63.4-2017 (US)			
Others	Net. Weight	2.8KG			
	Size	280*140.2*50.2mm(L*W*H)			
	packing	342*285*170mm | 5pcs /CTN			
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.				

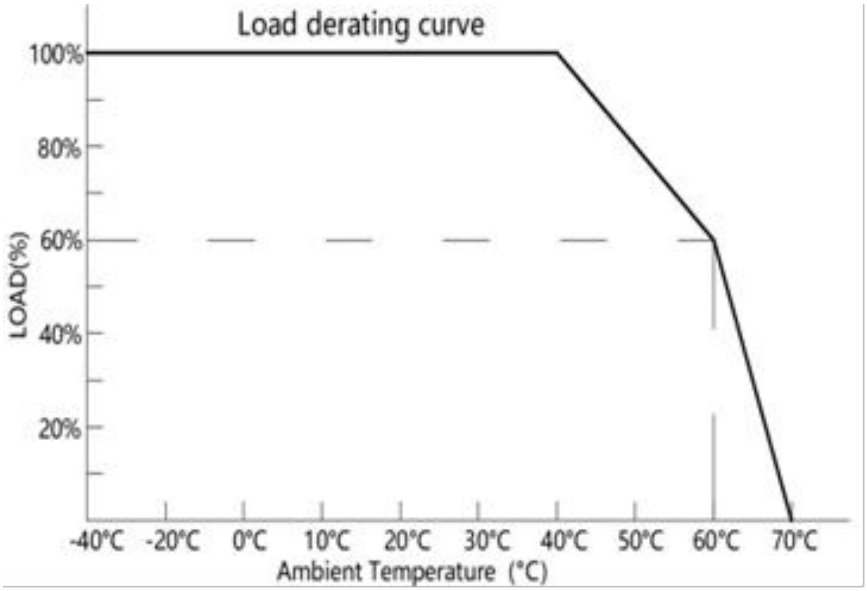
EFFICIENCY CURVE (EFFICIENCY VS OUTPUT LOAD)



POWER FACTOR CURVE



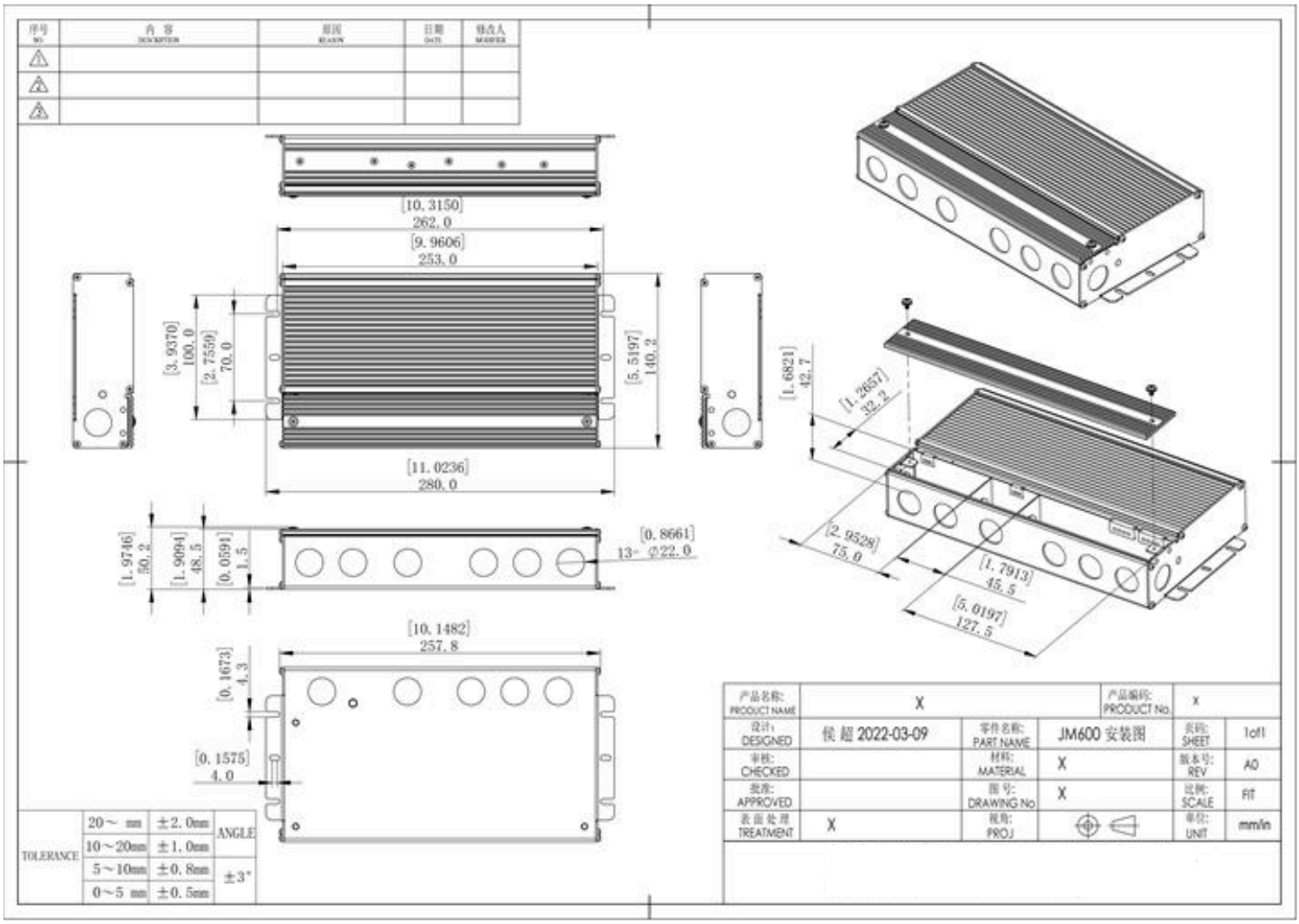
DERATING CURVE (OUTPUT LOAD VS TEMP.)



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 .

MECHANICAL SPECIFICATION



American Wire Guage	
JM600	
Output	Black(L) White(N) Green(G)(3*18AWG)
Output wire(12V)	Red(V+) Black(V-)(2*14AWG) Red(V+) Black(V-)(2*14AWG) Red(V+) Black(V-)(2*14AWG)
Output wire(24V)	Red(V+) Black(V-)(2*14AWG) Red(V+) Black(V-)(2*14AWG)
Output wire(36V&48V)	Red(V+) Black(V-)(2*14AWG)
Dimming wire	Purple(D+) Pink(D-)(2*18AWG)
Remarks:	Please make sure your connect these correctly otherwise your product will not function correctly and could be damaged

Warm tips:

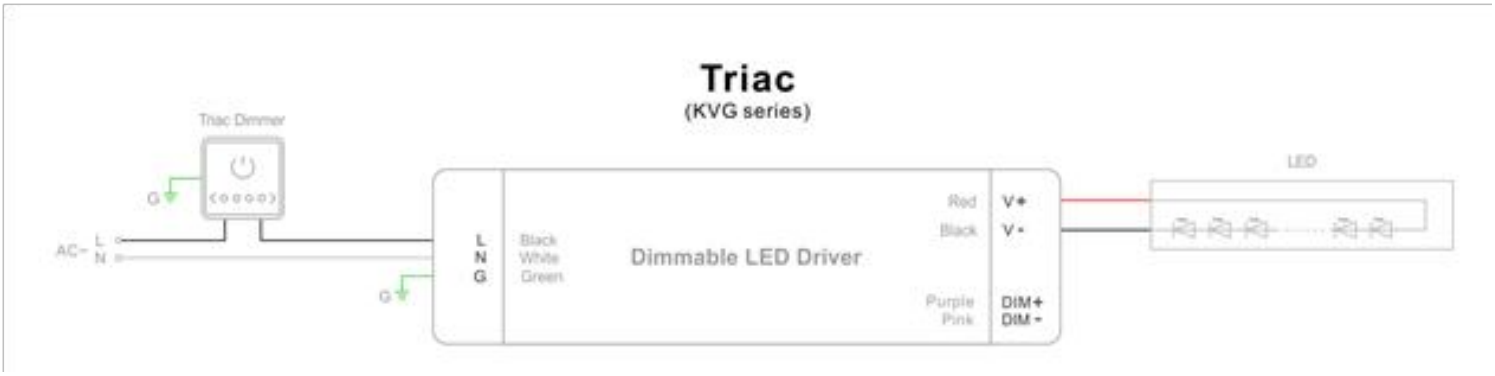
1. Recommended Max. Carrying Current (A) = wire diameter(mm^2) x 10A/mm^2 | For example: 1mm^2 output cable, Recommended Max. Carrying Current (A) = 1mm^2 x 10A/mm^2=10A
2. Any other requests for cable, we can customize.

DIMMING OPERATION AND CONNECTING DIAGRAM

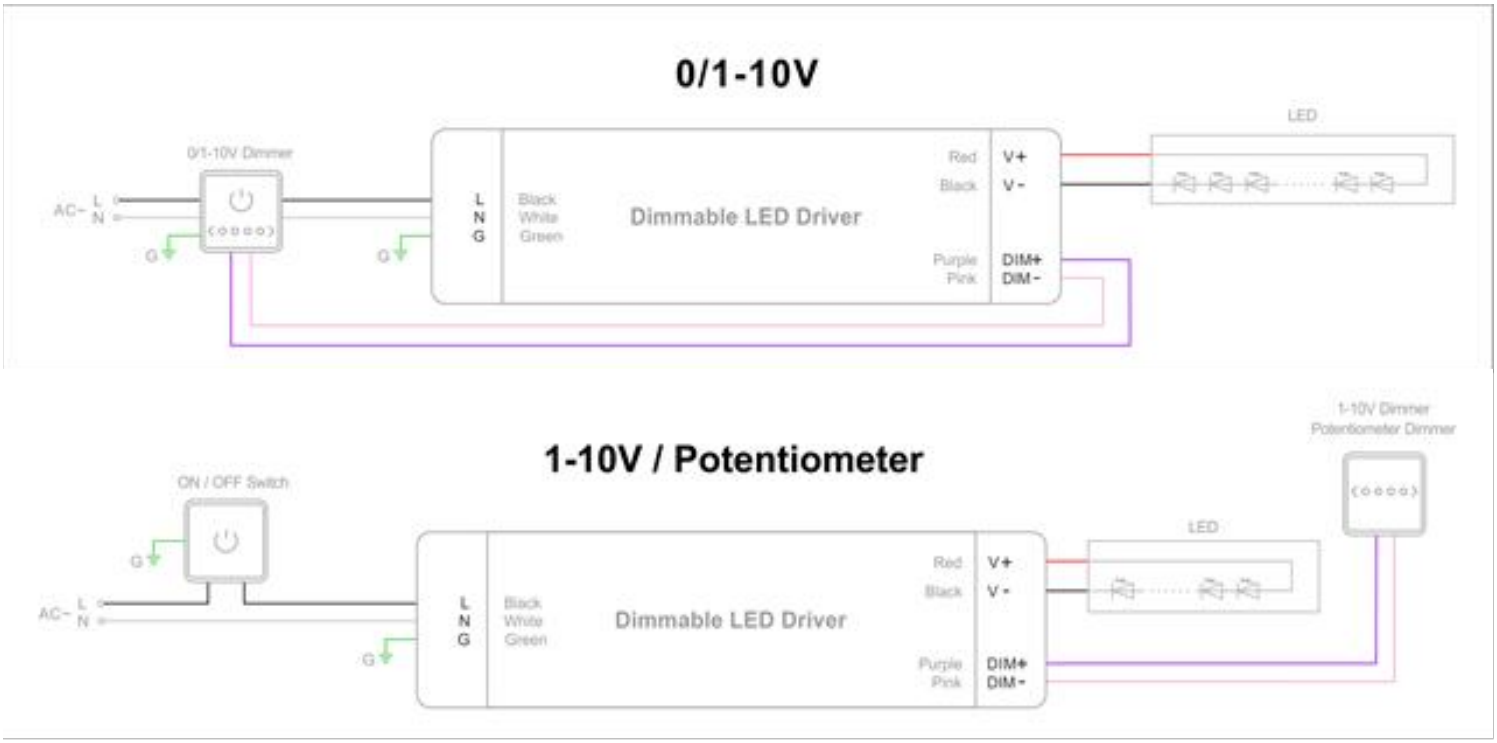
- **Using two ways of dimming at the same time**, you must be assured that LED lighting is up to the max. Brightness then you could operate with the other dimming;

- **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, MLV and Reverse phase , 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**



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.
4. If driver Cannot work normally, don't maintain privately.

Have any questions, please contact with SUCCAR LED
Please visit our website or contact us for more information! www.succarled.com