PYJD-TDW Series 300W

TRIAC Dimmable LED Driver - Constant Voltage Output

Class P TYPE HL SELV RoHS Reach



Features

Output:	Constant Voltage
Range:	110-277VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 91%
Protections:	Short circuit/ over load/ over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	Full Iron protection housing, for dry, damp & wet locations.
Dimming function:	Phase dimming: work with Forward phase, MLV and Reverse phase, ELV, TRIAC dimmers.
Dimming range:	0.1-100%
Application:	Suitable for the application of LED lighting
Warranty:	2 years warranty
Others:	PWM output, High power factor PF>0.9, flicker-free dimming

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MAXTAR™ Lighting

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Specification

Model		PYJD-12300-TDW	PYJD-24300-TDW
Certificate		UL / cUL / FCC / Class P / TYPE HL / SELV / RoHS / Reach	
Output	DC Voltage	12V	24V
	Voltage Tolerance	±4%	±2%
	Voltage Regulation	≤0.5%	
	Line Regulation	±1%	
	Rated current	25A	12.5A
	Rated power	300W	
	Voltage Ripple	356mVp-p	252mVp-p
Input	Voltage Range	110-277VAC	
	Frequency Range	50 / 60Hz	
	Power Factor (Typ.)@ full load	>0.9	
	THD(Typ.) @ full load	<20%	
	Efficiency(Typ.) @ full load	88%@120VAC 89%@277VAC	89%@120VAC 91%@277VAC
	AC Current (Max.)	3.4A	
	Inrush Current (Typ.)	26.8A, 5us @50%120VAC 70A, 8us@50% 277VAC	
	Leakage current	<0.5mA	
Protection	Short Circuit	Shut down o/p voltage, re-power on to recover after fault condition is removed	
	Over Load	≥120% Hiccup mode, recovers automatically after fault condition is removed	
	Over temperature	Shell surface temp.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 TEM.,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	
	Withstand voltage	I/P-O/P: 1.88KVAC I/P-FG: 1.88KVAC O/P-FG: 0.5KVAC	
	Isolation resistance	I/P-O/P: 100MΩ / 500VDC / 25℃ / 70% RH	
	Surge Immunity Test	AC Power Line:Differential Mode 1KV,Common Mode 2KV	
	EMC Immunity	FCC/ICES do not request this test	
	EMC Emission	FCC Part 15, Subpart B; ANSI C63.4-2014	
Others	Net Weight	2.12Kg	
	Dimension	278*110*48.6mm (L*W*H)	
	Packing	340*295*250mm 10pcs/CTN 22.45KG/CTN	
Notes	1. All parameters NOT specially mentioned are measured at 120VAC input,rated load and 25℃of ambient temperature. 2. Tolerance: includes set up tolerance and load regulation . 3. LED driver Meets the harmonic emissions requirements of ANSI C82.77-10.		

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MCB recommendation

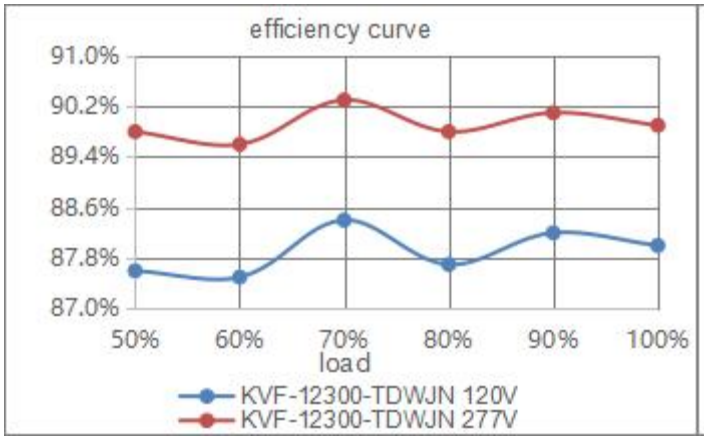
When the input voltage is 120Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	2
	13A	3
	16A	4
	20A	5
	25A	6
When the input voltage is 277Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	5
	13A	7
	16A	9
	20A	11
	25A	14

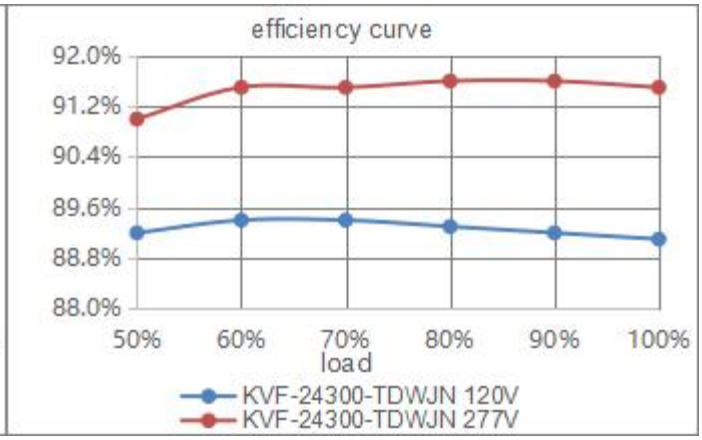
Note:

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.

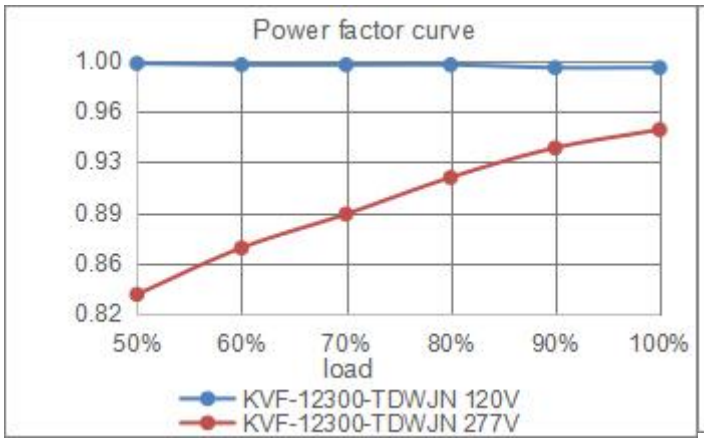
TRIAC Dimmable LED Driver - Constant Voltage Output

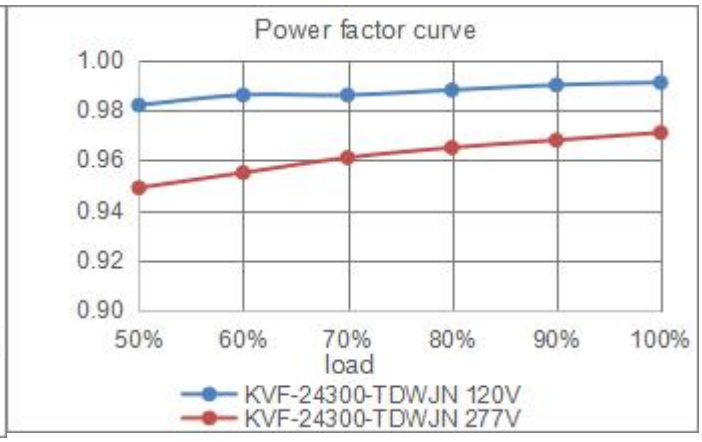
Efficiency Curve (efficiency vs output load)



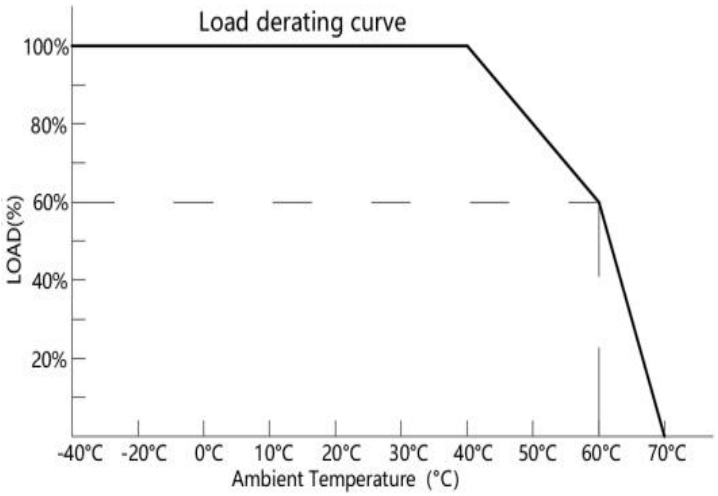


Power Factor Curve





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.

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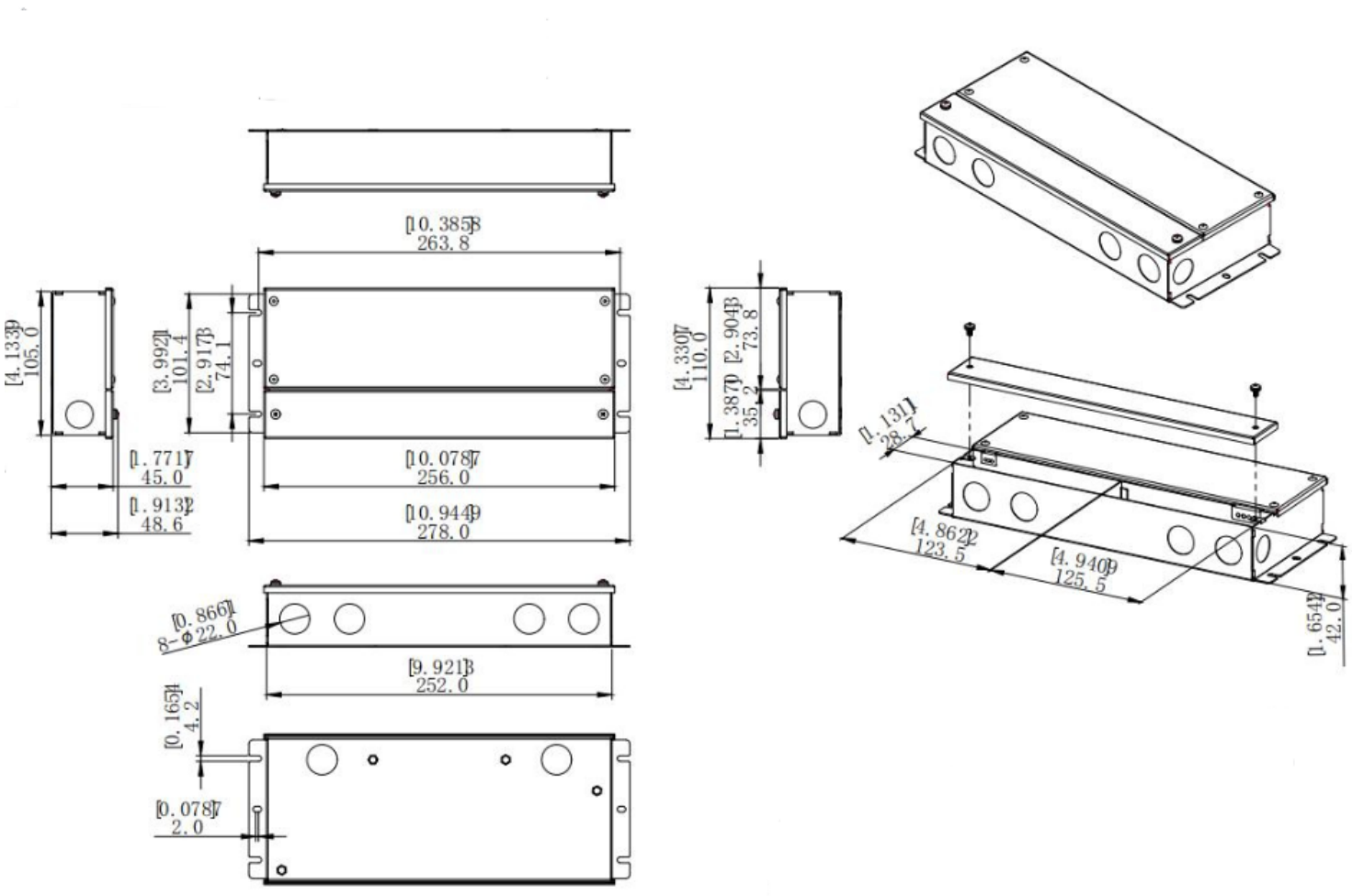
Mechanical Specification



12V&24V Version

American wire gauge	
JM98-1-A1	
Input wire	Black(L) White(N) Green(G) (3*18AWG)
Output wire(12V)	Red(V+) Black(V-)(2*14AWG)*2
Output wire(24V)	Red(V+) Black(V-)(2*14AWG)

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.

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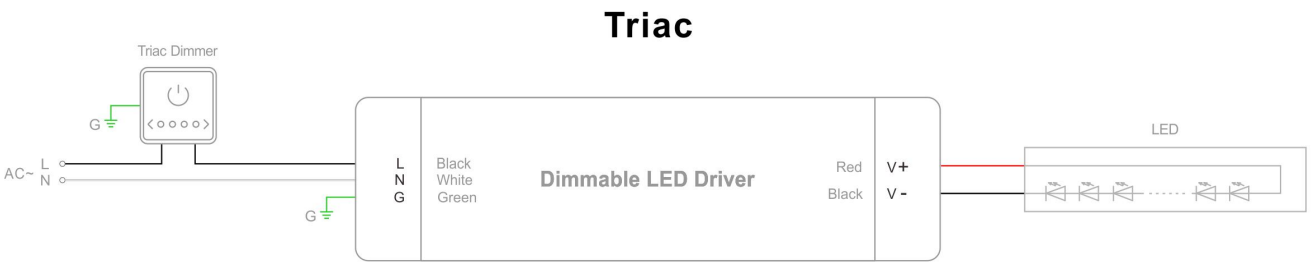
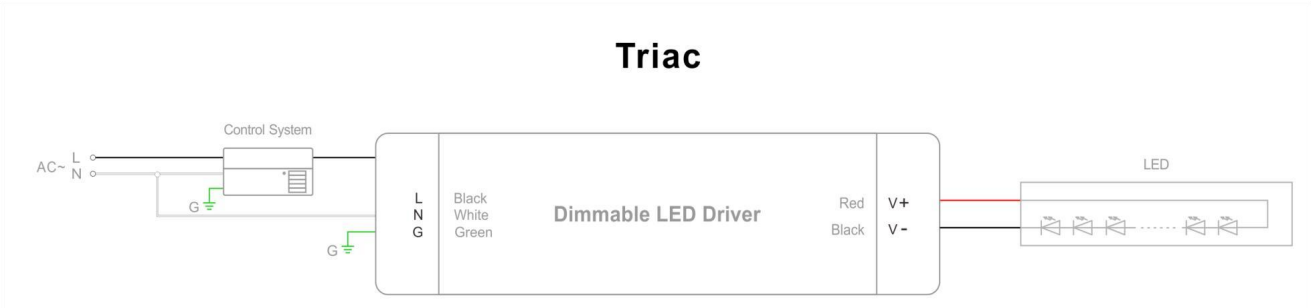
Dimming Operation and Connecting Diagram

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.
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.





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.