



PYJD-TDW Series 300W

TRIAC Dimmable LED Driver - Constant Voltage Output - PYJD-TDW Series 300W



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:	<u>Phase dimming</u> : 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 $PF \geq 0.95$, flicker-free dimming



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Specification

Model		PYJD-48300-TDW
Certificate		/
Output	DC Voltage	48V
	Voltage Tolerance	±2%
	Voltage Regulation	≤1%
	Line Regulation	±0.5%
	Rated current	6.25A
	Rated power	300W
Input	Voltage Range	110-277VAC
	Frequency Range	47 - 63Hz
	Power Factor (Typ.) @ full load	>0.98@120VAC >0.96@277VAC
	THD(Typ.) @ full load	<20%@120V <20%@277V
	Efficiency(Typ.) @ full load	≥89%@120VAC ≥91%@277VAC
	AC Current (Max.)	≤3A @120VAC ≤1.5A@277VAC
	Inrush Current (Typ.)	34.4A, 50%, 0.48ms@120Vac; 30.8A, 50%,15.6us@277Vac
	Leakage current	<0.5mA
Protection	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.
	Over Load	≥110% Hiccup mode, recovers automatically after fault condition is removed
	Over temperature	Shell surface temp.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 - 95%RH non-condensing
	Storage TEM.,Humidity	-40 - +80°C,10 - 95% RH non-condensing
	TEMP.coefficient	±0.03%/°C(0 - 50°C)
	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°C / 70% RH
	EMC Immunity	FCC/ICES do not request this test
	EMC Emission	FCC Part15 Subpart B
Others	Net Weight	2.5Kg
	Dimension	278*110*48.6mm (L*W*H)
	Packing	340*295*250mm 10pcs/CTN
Notes	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25°Cof ambient temperature. To extend the driver's using life ,please reduce the loading at lower input voltage. 	



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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	3
	13A	4
	16A	4
	20A	6
	25A	7

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	6
	13A	8
	16A	10
	20A	13
	25A	15

Note:

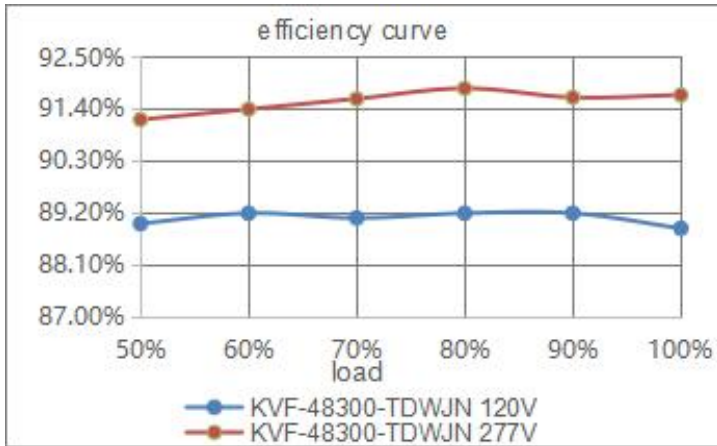
1. The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 °C
2. The breaker should be selected according to the input rated voltage, input rated current, ambient temperature, and trip characteristic curve.



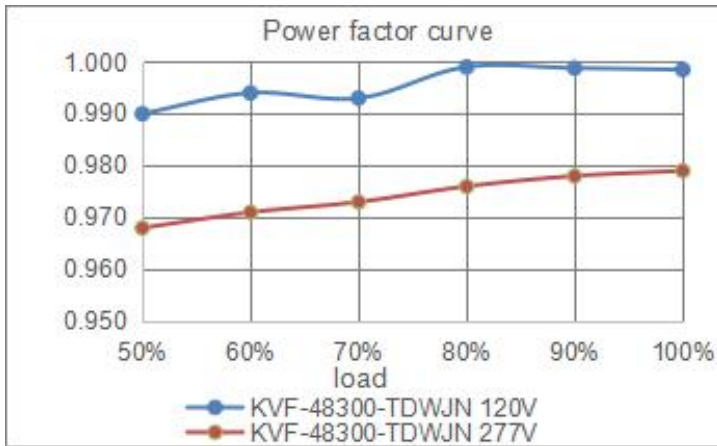


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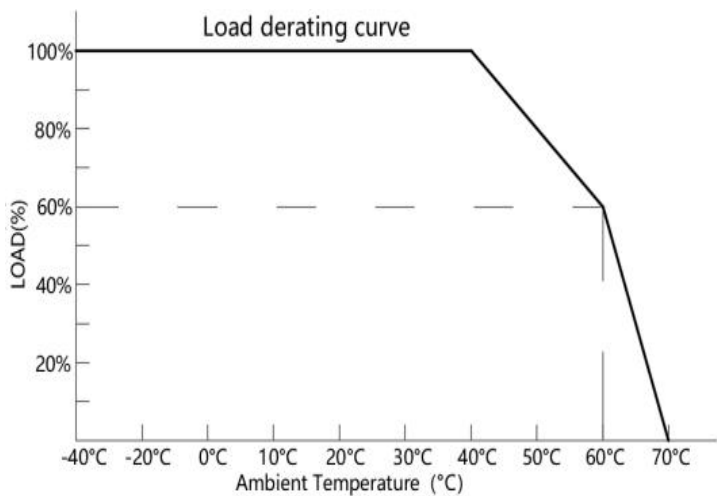
Efficiency Curve (efficiency vs output load)



Power factor curve(Power factor vs output load)



Derating Curve (output load vs TEMP)

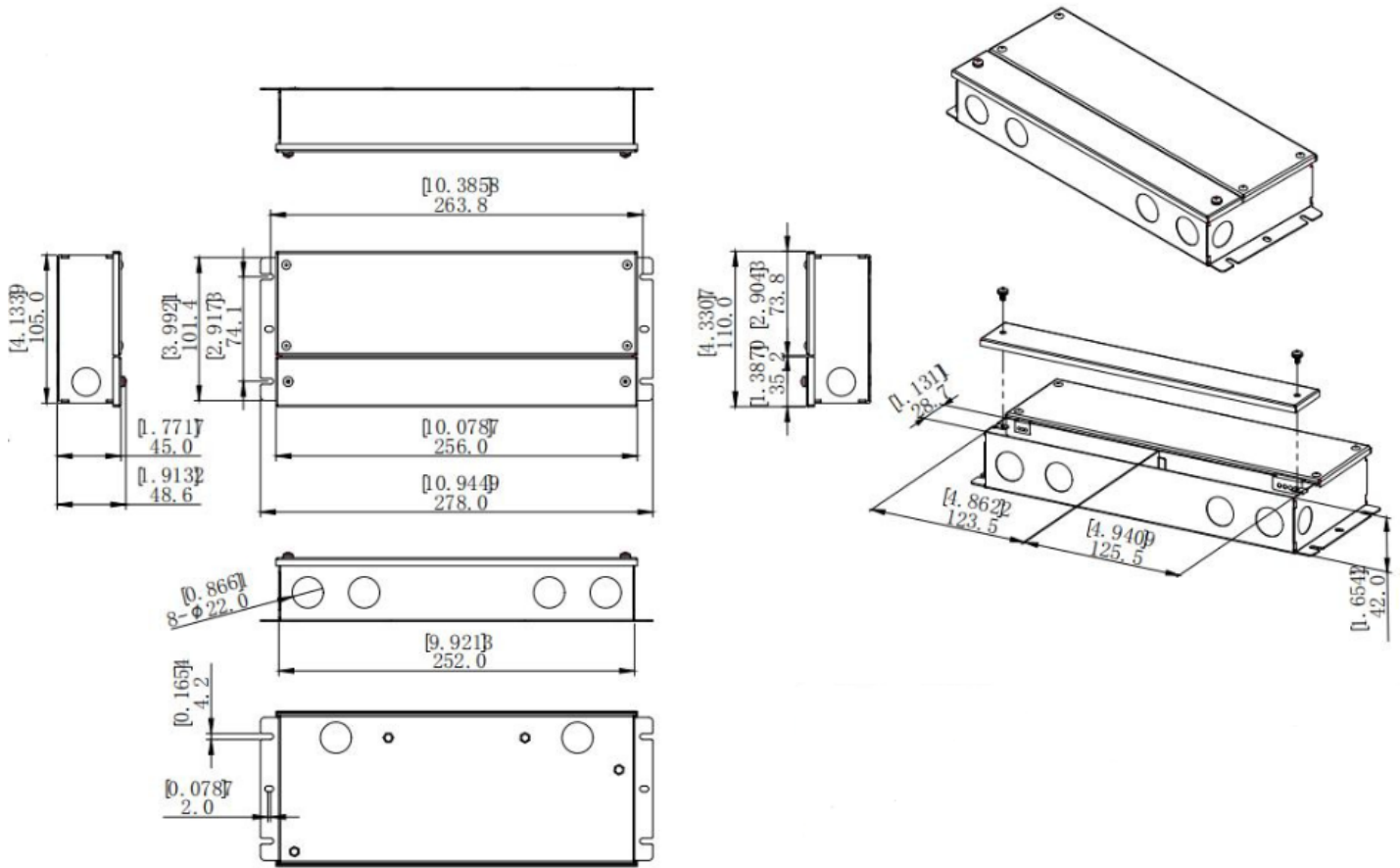


1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. The output current of the LED driver should be selected according to the rated current of the lamp and the ambient temperature. Normally, we recommend the power supply to reserve a certain amount of load to extend LED driver's life.



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Mechanical Specification



48V Version

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

Warm tips:

1. Recommended Max. Carrying Current (A) = wire diameter(mm²) x 10A/mm²
2. For example: 1mm² output cable, Recommended Max. Carrying Current (A) = 1mm² x 10A/mm² = 10A



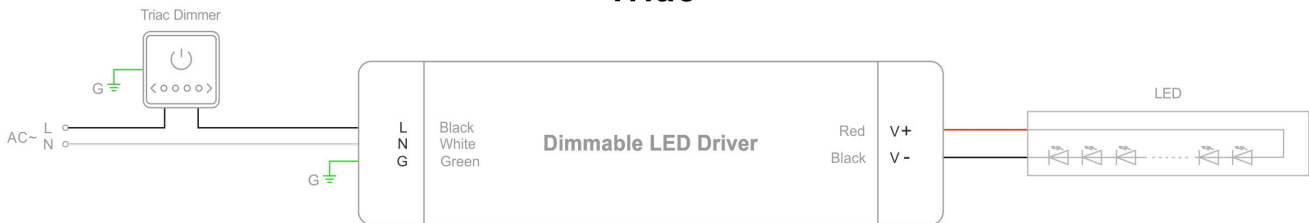
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Dimming Operation and Connecting Diagram

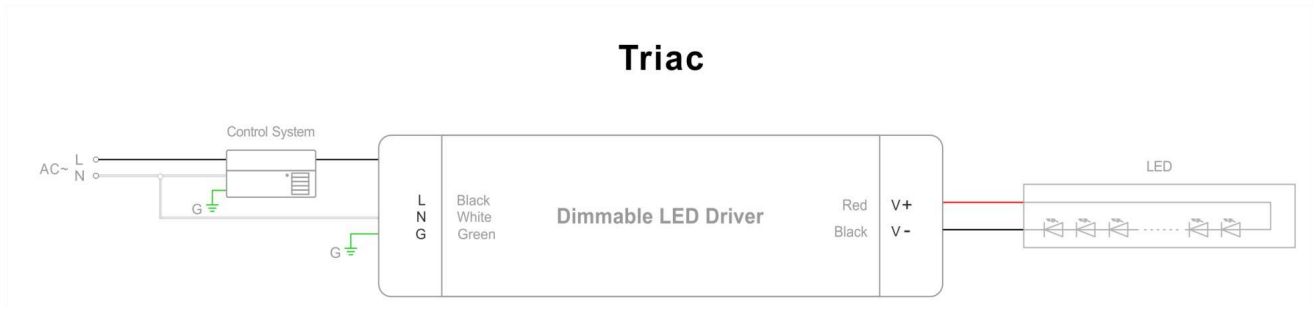
TRIAC/Phase cut dimming

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.

Triac



Triac



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.