



## PYJD-TDW Series 60W

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TRIAC Dimmable LED Driver - Constant Voltage Output - PYJD-TD Series 60W



Class 2 Class P TYPE HL SELV RoHS



### Features

|                         |  |
|-------------------------|--|
| Output:                 | Constant Voltage   |
| Range:                  | 100-277VAC   |
| PFC design:             | Built-in active PFC function   |
| Efficiency:             | Up to 83%  |
| 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:               | 5 years warranty   |
| Others:                 | PWM output, High power factor PF>0.9, flicker-free dimming                                 |



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**Specification**

| Model        |   | PYJD-12060-TDW   | PYJD-24060-TDW |
|--------------|---|--|----------------|
| Certificate  |   | UL / cUL / FCC / Class 2 / Class P / TYPE HL / SELV / RoHS / Reach                       |                |
| Output       | DC Voltage  | 12V  | 24V            |
|              | Voltage Tolerance   | ±0.5V  |                |
|              | Voltage Regulation  | ±0.5%  |                |
|              | Rated current   | 5A   | 2.5A           |
|              | Rated power   | 60W  |                |
|              | Load Regulation   | ±2%  | ±1%            |
| Input        | Voltage Range   | 100-277VAC   |                |
|              | Frequency Range   | 50 / 60Hz  |                |
|              | Power Factor (Typ.)@ full load  | >0.9   |                |
|              | THD(Typ.) @ full load   | <20%   |                |
|              | Efficiency(Typ.) @ full load  | 83%@120VAC 277VAC  |                |
|              | AC Current (Max.)   | 0.9A   |                |
|              | Inrush Current (Typ.)   | 14A, 780us@50% 120VAC 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% shut down o/p voltage,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 Part 15, Subpart B; ANSI C63.4-2014  |                |
| Others       | Net Weight  | 1.04Kg   |                |
|              | Dimension   | 188*95.4*43.8mm (L*W*H)  |                |
|              | Packing   | 415*265*270mm 20pcs/CTN 22.6KG/CTN   |                |
| Notes        | <ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25°Cof ambient temperature.</li> <li>Tolerance: includes set up tolerance and load regulation .</li> </ol> |  |                |



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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   | 11                       |
|          | 13A   | 15                       |
|          | 16A   | 18                       |
|          | 20A   | 23                       |
|          | 25A   | 29                       |

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   | 25                       |
|          | 13A   | 33                       |
|          | 16A   | 41                       |
|          | 20A   | 51                       |
|          | 25A   | 64                       |

**Note:**

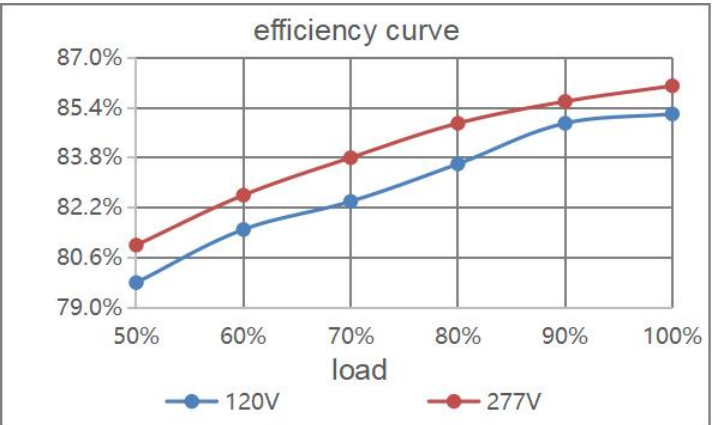
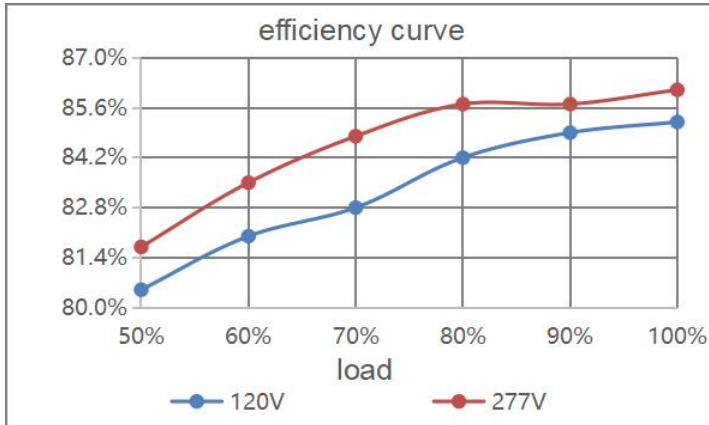
1. The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 °C
2. The breaker should be selected according to the input rated voltage, input rated current, ambient temperature, and trip characteristic curve.



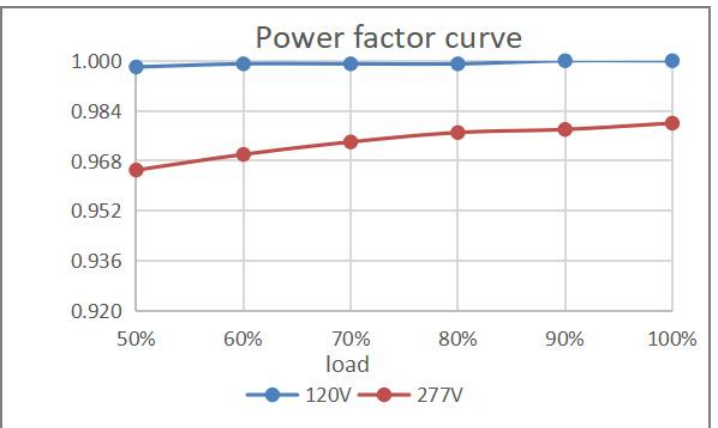
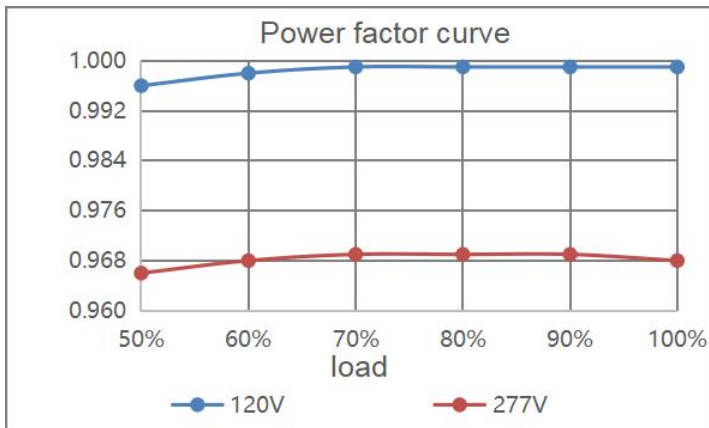


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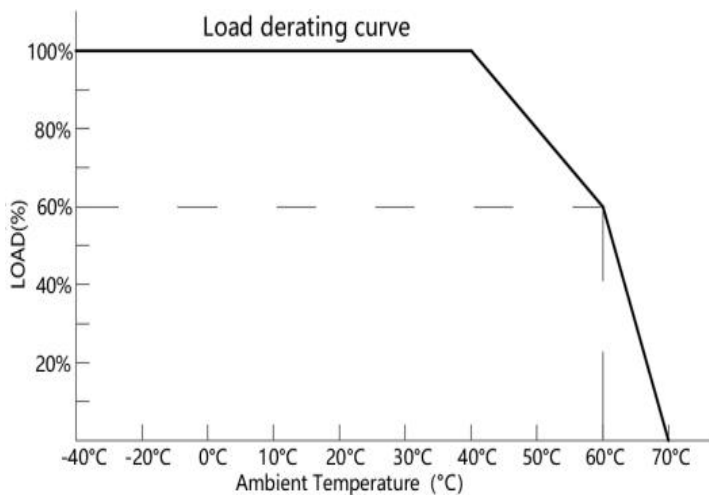
**Efficiency Curve (efficiency vs output load)**



**Power Factor Curve**



**Derating Curve (output load vs TEMP.)**



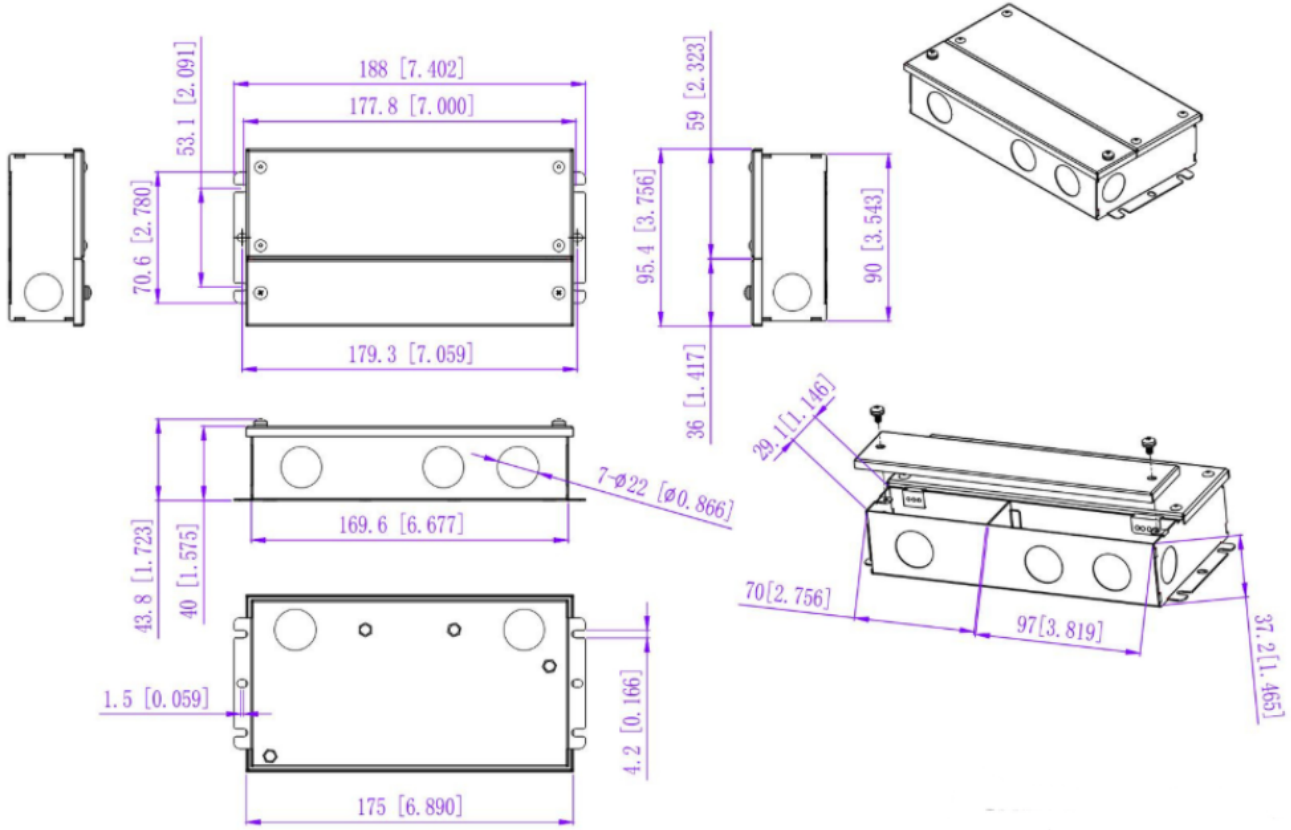
1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise.

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 |                                      |
| JM85-H-A1           |                                      |
| Input wire          | Black(L) White(N) Green(G) (3*18AWG) |
| Output wire         | Red(V+) Black(V-) (2*18AWG)          |

**Warm tips:**

- Recommended Max. Carrying Current (A) = wire diameter(mm<sup>2</sup>) x 10A/mm<sup>2</sup>  
For example: 1mm<sup>2</sup> output cable, Recommended Max. Carrying Current (A) = 1mm<sup>2</sup> x 10A/mm<sup>2</sup>=10



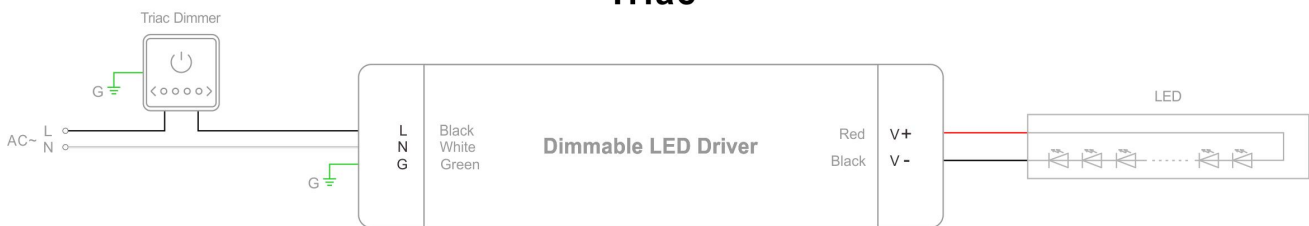
## TRIAC Dimmable LED Driver - Constant Voltage Output - PYJD-TD Series 60W

### Dimming Operation and Connecting Diagram

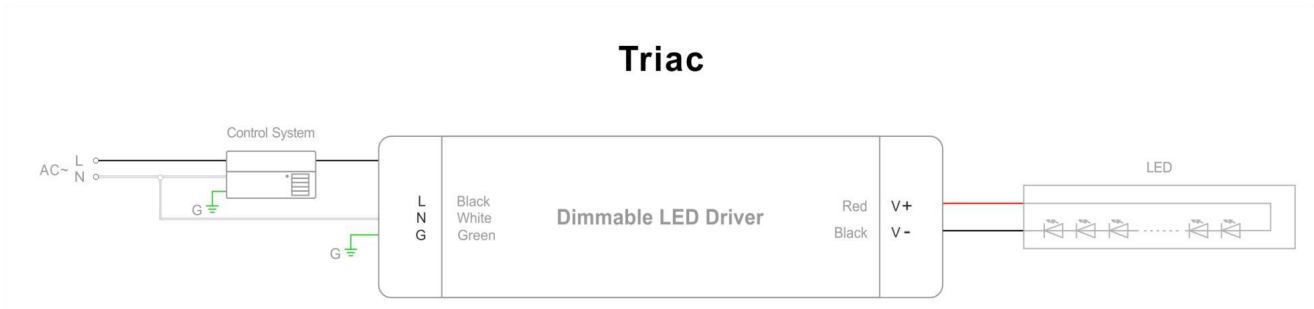
#### TRIAC/Phase cut dimming

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.