

## HP200 IP67 Series

### 200W Waterproof 5 in 1 Dimmable LED Driver



#### Features:

- Input Voltage: 200-240V
- Built in active PFC, typical power factor >0.95
- High efficiency: up to 88%
- Load: 0.01-100%
- IP67 Design, Flicker-free
- Protection: Short Circuit/Over Loading/Over Temperature
- Full protection metal case



| Model No    | Power | Output Voltage | Output Current | Weight | Size (L*W*H)  |
|-------------|-------|----------------|----------------|--------|---------------|
| HP200-24-67 | 200W  | 24V            | 8.33A          | 1.6kg  | 273.4*78*46mm |

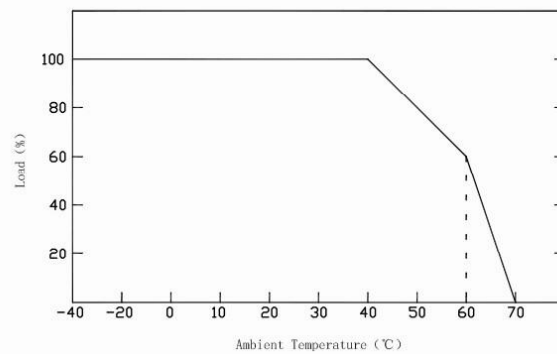
|                         |                               |   |
|-------------------------|-------------------------------|---|
| <b>Input</b>            | Input Voltage:                | 220-240VAC  |
|                         | Input Frequency:              | 50/60Hz   |
|                         | Power Factor (Typ.):          | @ full load 0.96@277VAC   |
|                         | THD (Typ.) @ full load        | <20% @277VAC  |
|                         | Efficiency (Typ.) @ full load | 24V 89% @ 277Vac  |
|                         | Inrush Current (Typ.)         | 30A, 50% 1.4ms @277VAC  |
|                         | Leakage Current               | <0.50mA   |
| <b>Output</b>           | DC Voltage                    | 24V   |
|                         | Rated Current                 | 8.33A   |
|                         | Rated Power                   | 200W  |
|                         | Voltage Tolerance             | ±0.5V   |
|                         | Voltage Regulation            | ±0.5%   |
|                         | Load Regulation               | ±1%   |
| <b>Protection</b>       | Short Circuit                 | Hiccup mode, recovers automatically after fault condition is removed                  |
|                         | Over Loading                  | ≤120%   |
|                         | Over temperature              | 100°C±10°C, Shut down o/p voltage, recover automatically after temperature goes down. |
| <b>Environment</b>      | Working TEMP.                 | -40~+60°C   |
|                         | Working Humidity              | 20~90%RH, non-condensing  |
|                         | Storage TEMP. Humidity        | -40~+80°C, 10~95%RH   |
|                         | TEMP .co efficient            | ±0.03%/°C (0~50°C)  |
|                         | Vibration                     | 10~500Hz, 5G 10min./1 cycle, period for 60min. each along X,Y,Z axes                  |
| <b>Safety &amp; EMC</b> | 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   |

### Product Advantages:

- Multiple Dimming Modes: Triac (Forward phase & reverse phase, MLV ELV dim) /0-10V/1-10V/10V PWM/ Potentiometer
- Switch to PWM or Voltage regulation output
- 100%-0.01% dimmable, stepless dimming, flicker-free
- Metal shell NEMA 4X for indoor and outdoor use
- Super low loading request, works perfect at 0.01-100% load
- No Vpeak-peak during driver on/off and dimming, no harm to the LED for long-term use and slow lumen depreciation

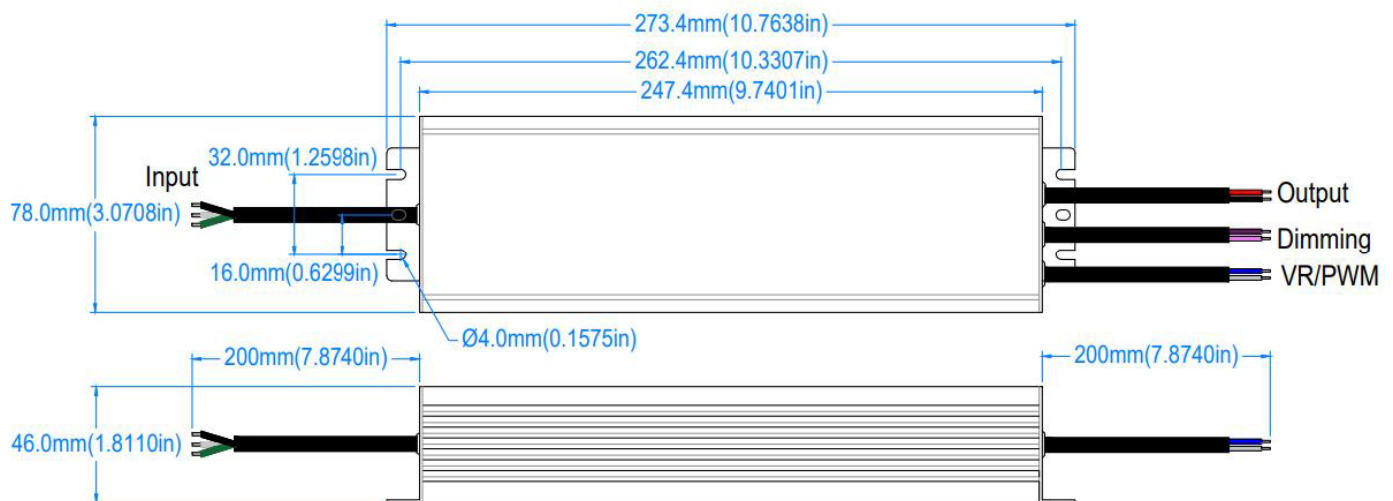
### Derating Curve

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



### Dimensions

Unit: mm  
Tolerance: 0.5-2mm

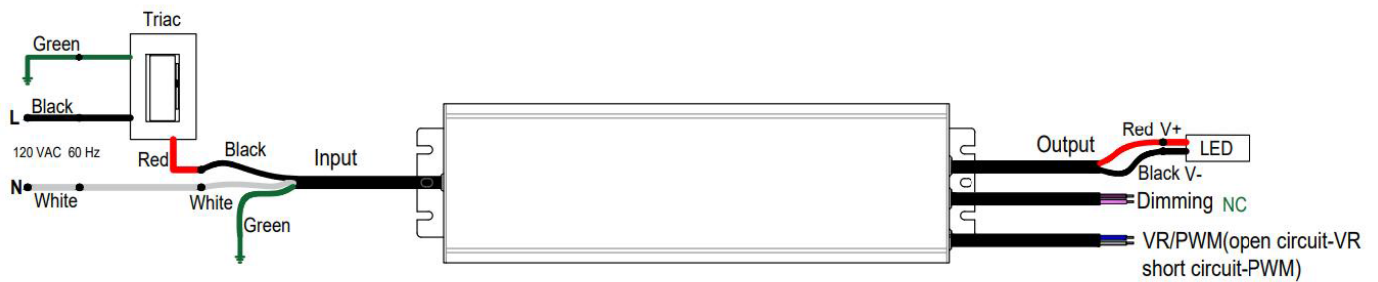


- Input wire Black and White to be connected to AC L and N ,Green wire go ground,
- Output wire Red to LED Positive side (+) , Black to LED Negative side (-).
- Dimming cable DIM (+) Purple to 0/1-10V dimmer signal(+),DIM (-) Pink to 0/1-10V dimmer signal (-)
- Switch output mode: The default output is VR mode, To switch the output to PWM, short connect the blue line and the white line
- Please make sure your connect these correctly otherwise your product will not function correctly and could be damaged.

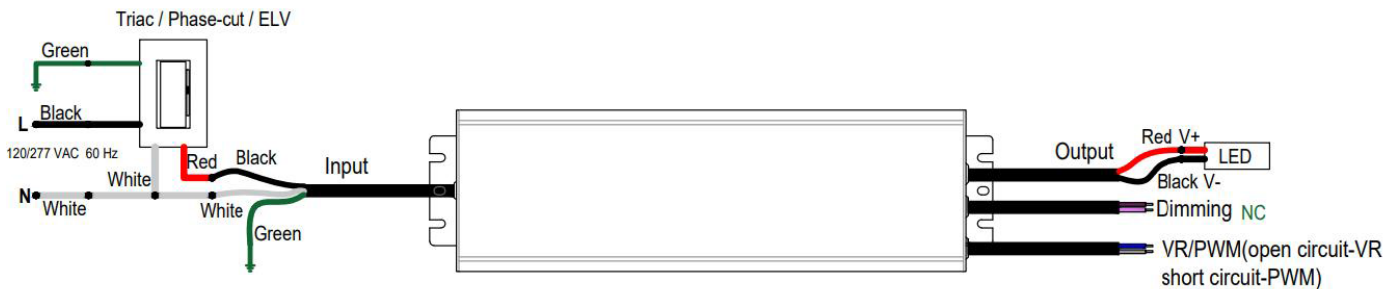
## ■ Wiring Diagram for Triac/Phase cut dimming

1. The Pulse-Width Modulation (PWM) of output voltage can be adjusted through the input terminal of the AC phase line (L) by connection of a phase/Triac dimmer
2. Works 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

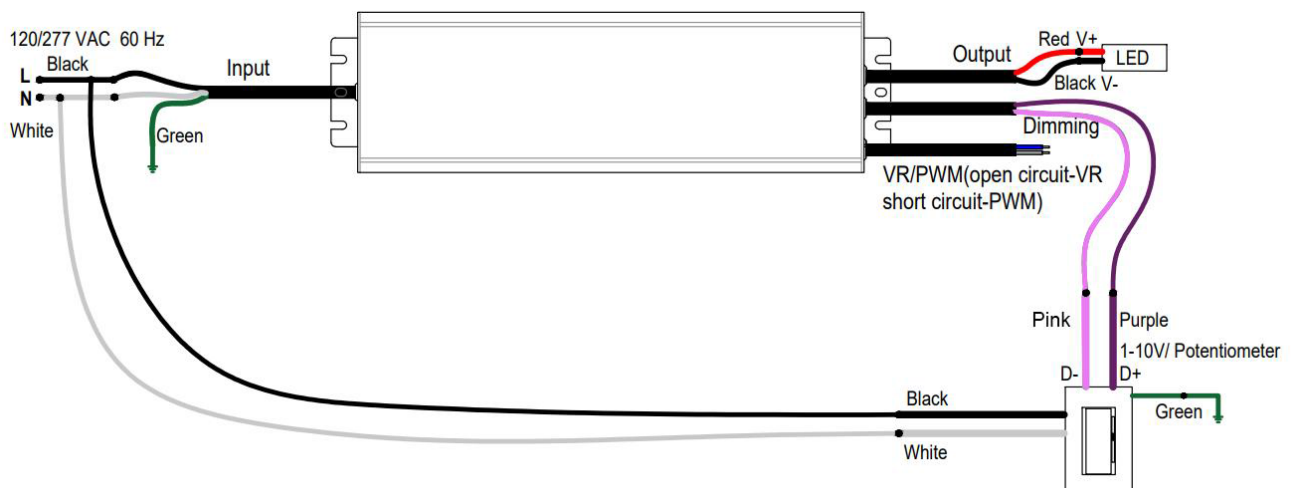
### Using Triac MLV wiring diagram



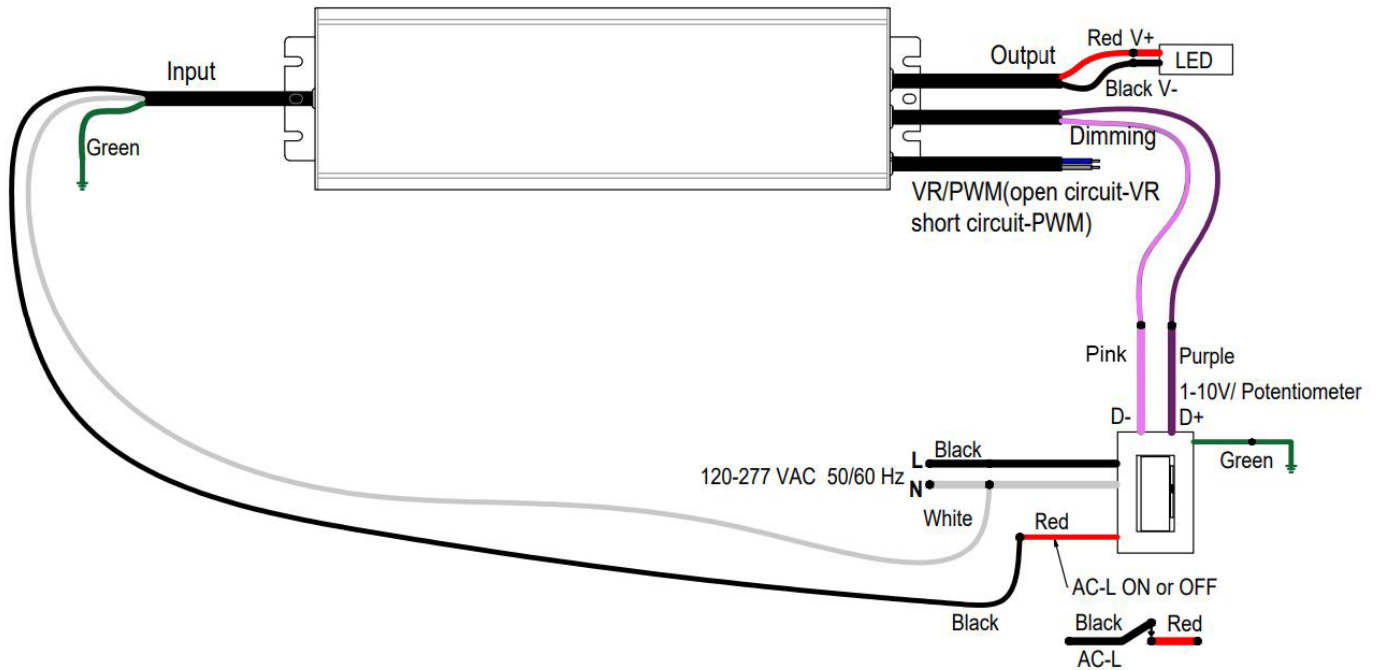
### Using Triac ELV wiring diagram



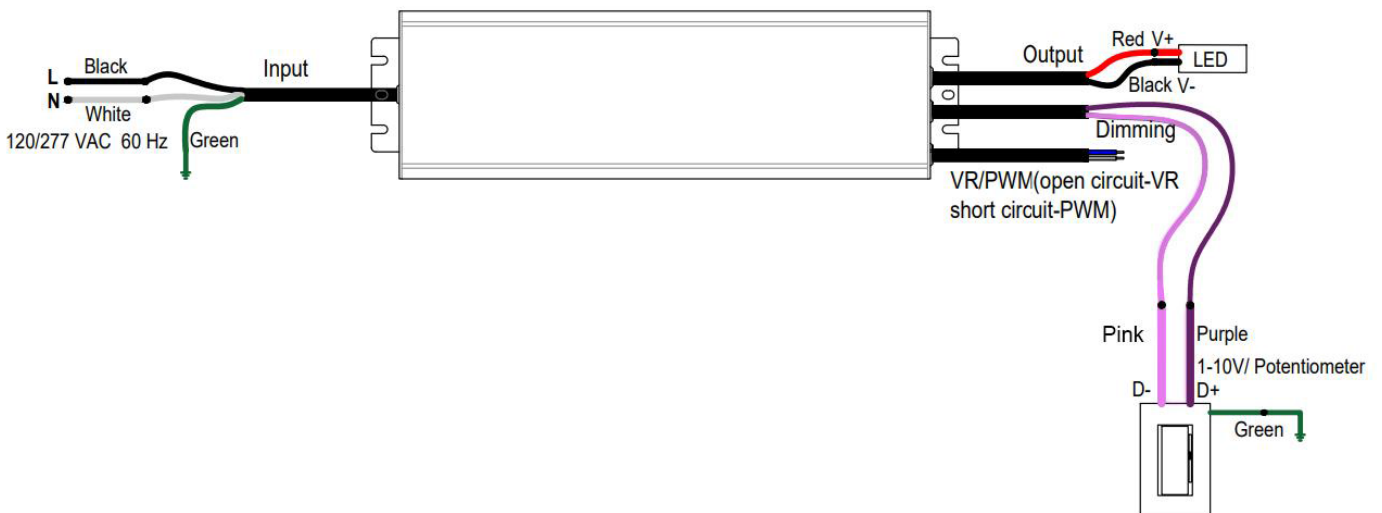
### Using 0-10V/1-10v wiring diagram (the power does not pass through the dimmer)



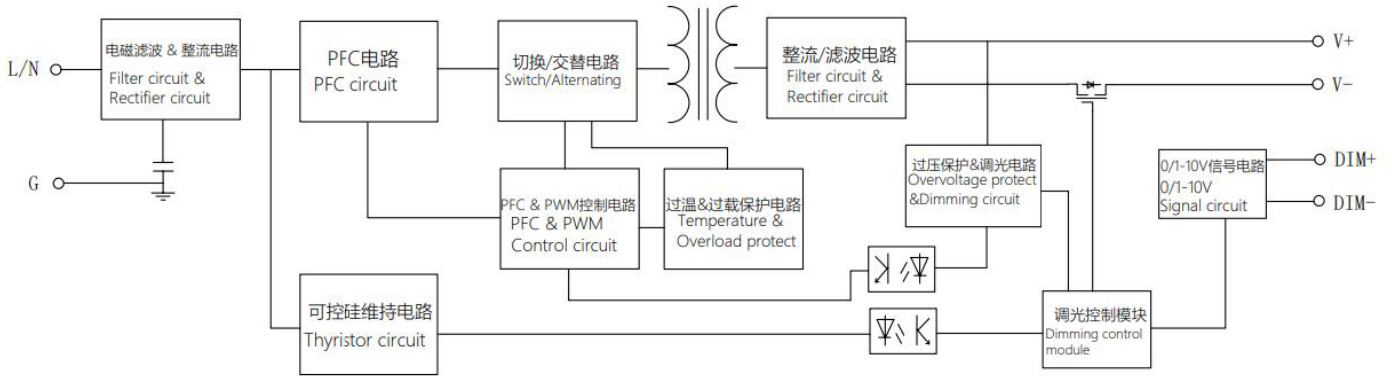
Using 0-10V/1-10V wiring diagram (power supply through the dimmer switch)



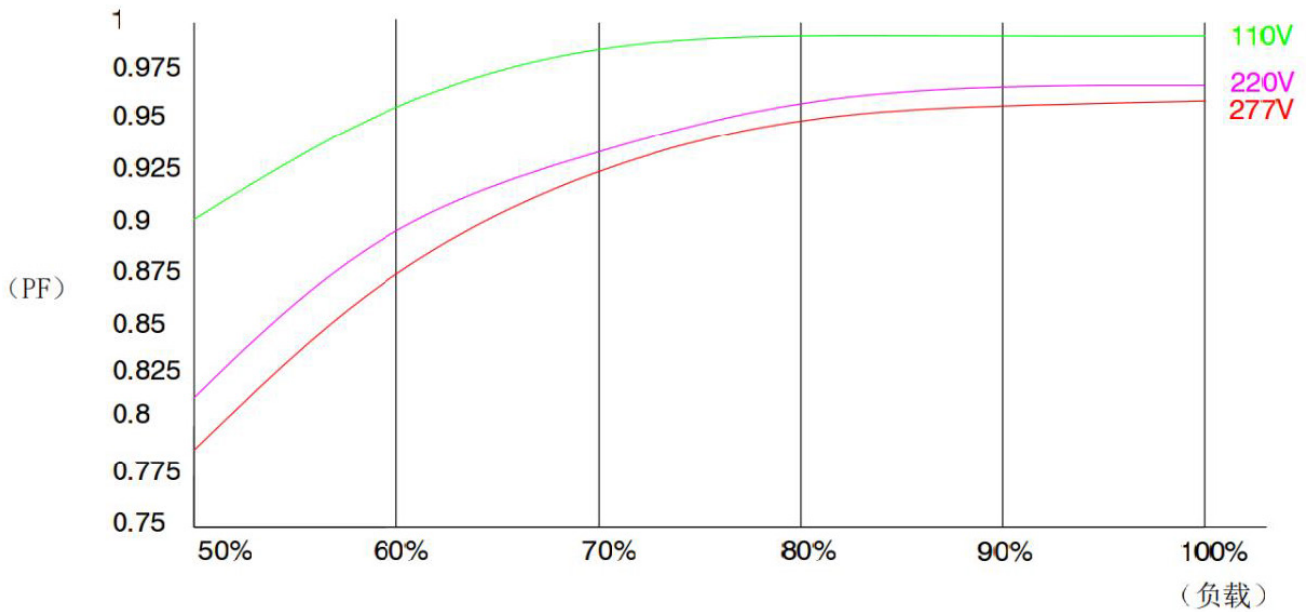
Using 0-10V/1-10V wiring diagram (the dimmer is not connected to high voltage)



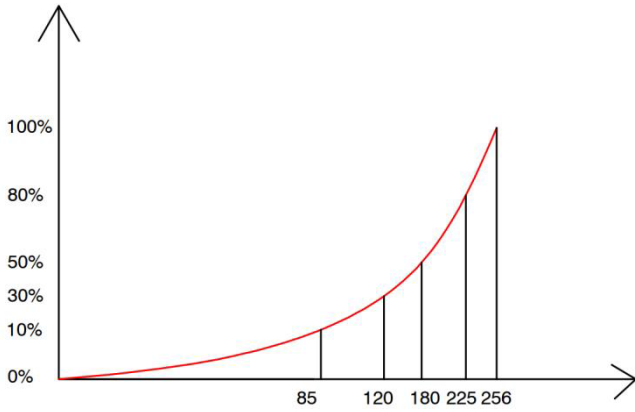
## The Topology



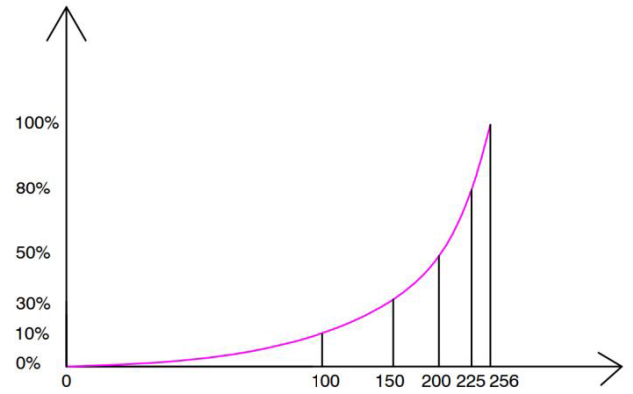
## PFC load graph



PWM dimming curve



VR dimming curve



Instruction

- This driver should be installed by a qualified and professional person
- Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation
- Ensure the wiring is correct before testing in order to avoid light and power supply damage

Power supply operating temperature and life curve

