

**PE294R 3-12W**



**Features:**

- LED phase-cut dimming driver, dimming range 2-100%
- Suitable for RPC MOSFET dimmer and FPC TRIAC dimmer
- Active PFC
- Protections: short circuit/over voltage/over current
- Natural cold wind
- Big terminal locked by screw
- Suitable for LED home lighting and commercial lighting
- Safe no load protection device
- Economic and convenient installation
- conform to the world lighting equipment safety standards
- Protection class II
- Three years warranty

**Class 2**



**General description:**

PE294R is one of the constant current dimming LED driver developed by my company with high power factor, high efficiency, high precision, the use of the efficient stable low loss switch control chip and the high performance components makes it with low noise, energy saving, environmental protection, long life and other characteristics.

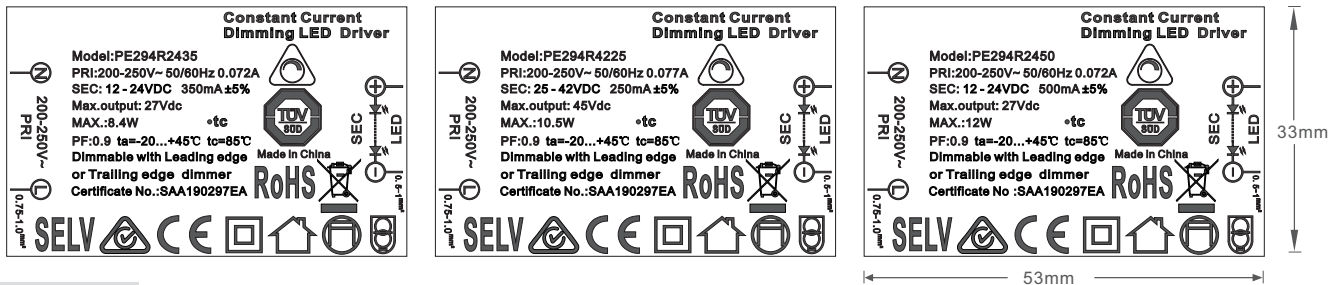
**Specification:**

| Model           |                          | PE294R2435   | PE294R4225            | PE294R4230            | PE294R24250           | PE294R1570            | PE294R1570            |
|-----------------|--------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OUTPUT          | Output Voltage           | 12-24Vdc   | 25-42Vdc              | 25-42Vdc              | 12-24Vdc              | 6-15Vdc               | 2.5-6Vdc              |
|                 | Max Output Voltage       | 24Vdc  | 42Vdc                 | 42Vdc                 | 24Vdc                 | 15Vdc                 | 6Vdc                  |
|                 | Non-load Output Voltage  | 27Vdc  | 45Vdc                 | 45Vdc                 | 27Vdc                 | 19Vdc                 | 8Vdc                  |
|                 | Output Current           | 350mA  | 250mA                 | 300mA                 | 500mA                 | 700mA                 | 700mA                 |
|                 | Output Power             | 4.2W~8.4W  | 6.25W~10.5W           | 7.5W~12.6W            | 6W~12W                | 4.2W~10.5W            | 1.75W~4.2W            |
|                 | Strobe Level             | Lower flicker(8%)  |                       |                       |                       |                       |                       |
|                 | Dimming Range            | 2~100%,  |                       |                       |                       |                       |                       |
|                 | PWM Dimming Frequency    |  |                       |                       |                       |                       |                       |
|                 | Current Accuracy         | ±5%  |                       |                       |                       |                       |                       |
| Ripple & Noise  | =500mv p-p               |  |                       |                       |                       |                       |                       |
| INPUT           | Dimming Interface        | Triac Leading edge/Trailing edge   |                       |                       |                       |                       |                       |
|                 | Input Voltage Range      | 200-250Vac   |                       |                       |                       |                       |                       |
|                 | Frequency                | 50/60Hz  |                       |                       |                       |                       |                       |
|                 | Input Current            | <0.072A  | <0.077A               | <0.077A               | <0.066A               | <0.077A               | <0.02A                |
|                 | Power Factor             | PF>0.9 (at full load)  | PF>0.9 (at full load) | PF>0.9 (at full load) | PF>0.9 (at full load) | PF>0.9 (at full load) | PF>0.9 (at full load) |
|                 | THD                      | 230Vac@THD <18% (at full load)   |                       |                       |                       |                       |                       |
|                 | Efficiency (typ.)        | 77%  | 79%                   | 78%                   | 78%                   | 77%                   | 75%                   |
|                 | Inrush Current (typ.)    | Cold start 1.44A   | Cold start 1.54A      | Cold start 1.54A      | Cold start 1.32A      | Cold start 1.54A      | Cold start 0.4A       |
|                 | Anti Surge               | L-N: 1.5kV   |                       |                       |                       |                       |                       |
| Leakage Current | <0.25mA/230Vac           |  |                       |                       |                       |                       |                       |
| ENVIRONMENT     | Working Temperature      | ta: 45 °C tc: 85 °C  |                       |                       |                       |                       |                       |
|                 | Working Humidity         | 20 ~ 95%RH, non-condensing   |                       |                       |                       |                       |                       |
|                 | Storage Temp., Humidity  | -40 ~ 80 °C , 10~95%RH   |                       |                       |                       |                       |                       |
|                 | Temp. Coefficient        | ±0.03%/°C(0-50)°C  |                       |                       |                       |                       |                       |
|                 | Vibration                | 10~500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes.                                     |                       |                       |                       |                       |                       |
| PROTECTION      | Over-heat Protection     | Intelligently adjusting or turning off the output current if the PCB temperature ≥ 110°C, , auto recovers. |                       |                       |                       |                       |                       |
|                 | Over Load Protection     | Shut down the output when rated power ≥ 102%, auto recovers.   |                       |                       |                       |                       |                       |
|                 | Short Circuit Protection | Shut down automatically if short circuit occurs, auto recovers.  |                       |                       |                       |                       |                       |
|                 | Non-load Protection      | Shut down the output if no load, auto recovers when load back to normal.                                   |                       |                       |                       |                       |                       |
| SAFETY & EMC    | Withstand Voltage        | I/P-O/P: 3750Vac   |                       |                       |                       |                       |                       |
|                 | Isolation Resistance     | I/P-O/P: 100M Ω /500VDC/25°C/70%RH   |                       |                       |                       |                       |                       |
|                 | Safety Standards         | IEC/EN61347-1, IEC/EN61347-2-13  |                       |                       |                       |                       |                       |
|                 | EMC Emission             | EN55015, EN61000-3-2 Class C, IEC61000-3-3   |                       |                       |                       |                       |                       |
|                 | EMC Immunity             | EN61000-4-2,3,4,5,6,8,11, EN61547  |                       |                       |                       |                       |                       |
| OTHERS          | Strobe Test Standard     | IEEE 1789  |                       |                       |                       |                       |                       |
|                 | Dimension                | 104×39×26mm(L×W×H)   |                       |                       |                       |                       |                       |
|                 | Packing                  | 105×40×26.5mm(L×W×H)   |                       |                       |                       |                       |                       |
| Weight(G.W.)    | 68g±10g                  |  |                       |                       |                       |                       |                       |

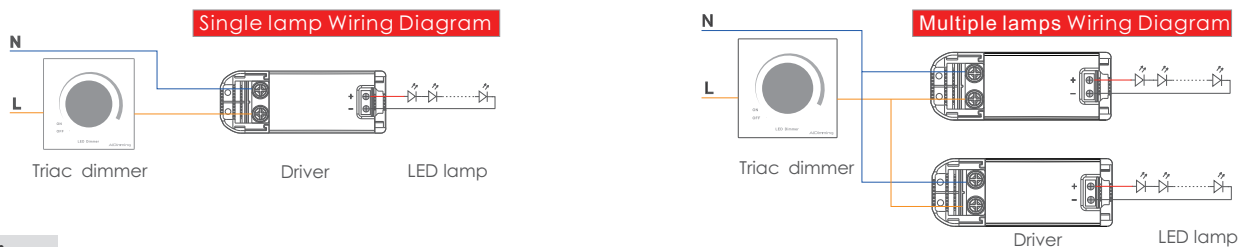
**Dimensions :**



**Product Label:**



**Wiring Diagram:**



**Wiring:**

The input terminal: wire gauge 22AWG-14AWG (0.315mm<sup>2</sup> – 2.06mm<sup>2</sup>) wire stripping requirement :9-10mm.  
 The output terminal: wire gauge 22AWG-12AWG (0.315mm<sup>2</sup> – 3.15mm<sup>2</sup>) wire stripping requirement :6-7mm.

**Compatibility:**

| Dimming system Model   | Wiring 1 sample   | Wiring 2 samples | Wiring 3 samples | Dimmer Model          | Wiring 1 sample | Wiring 2 samples | Wiring 3 samples | Dimmer Model      | Wiring 1 sample | Wiring 2 samples | Wiring 3 samples |
|------------------------|---|------------------|------------------|-----------------------|-----------------|------------------|------------------|-------------------|-----------------|------------------|------------------|
| Leviton LNPWR-05B      | NF  | NF               | NF               | Panasonic WMY549      | NF              | NF               | NF               | BG DM400AP UK     | NF              | NF               | NF               |
| Siemens 5WG1 528-1D801 | NF  | NF               | NF               | Siemens 5UH82223-NC01 | NF              | NF               | NF               | CLIPSAL 32E540LM  | NF              | NF               | NF               |
| JOBO dimming system    | NF  | NF               | NF               | Simon 45E201          | NF              | NF               | NF               | CLIPSAL 32E540UDM | NF              | NF               | NF               |
| DALITEK DM802          | NF  | NF               | NF               | OPPLE P068102         | NF              | NF               | NF               | CLIPSAL 32E547M   | NF              | NF               | NF               |
| Lutron QSGR-3P         | NF  | NF               | NF               | CABLOFIL VRCM2        | NF              | NF               | NF               | HPM CAT 400L      | NF              | NF               | NF               |
| ABB 6197/12-12-101-500 | NF  | NF               | NF               | CDN X6-TG02           | NF              | NF               | NF               | KAOYI KDT-450A    | NF              | NF               | NF               |
| Crestron DIN-1DIM4     | NF  | NF               | NF               | ELKO 315GLED          | NF              | NF               | NF               | LEGRAND 400T      | NF              | NF               | NF               |
| Schneide L5504D2Ar     | NF  | NF               | NF               | ELKO 316GLED          | NF              | NF               | NF               | LEGRAND 400L      | NF              | NF               | NF               |
| DAJIN DC-TG0405CP      | NF  | NF               | NF               | POL CAT634LM          | NF              | NF               | NF               | DIGINET DGLCDM400 | NF              | NF               | NF               |
| Lite-Puter EDX-F0411   | NF  | NF               | NF               | DETA Gr100 UK         | NF              | NF               | NF               |                   |                 |                  |                  |
| Rmarks                 | Abbreviation: no flicker - NF, not compatible - NC, slight flicker - SL, flicker - F, strict flicker - SF |                  |                  |                       |                 |                  |                  |                   |                 |                  |                  |

Note: due to the different power of dimmer and dimming system, the compatibility will be different. Before purchase, it needs to confirm with the business to ensure the best matching effect of the product.

**The use of guidance :**

- Note:
- \*\* 1: please pay attention to the distinction between input and output, connect correctly, then power on
  - \*\*2: please connect first the load of the DC output, open the power supply after checking; in the constant current mode, if power on at open circuit, please turn off the power supply and can't connect the LED until the electric energy stored by the output release , or it may damage the LED;
  - \*\*3: this type of power supply is only limited to the use of the LED lamps and lanterns, the input voltage range is AC200-250V, the heat insulation cotton and other items that obstruct the heat dissipation of the product, which conforms to the product under the Specified output voltage, current range, the use environment temperature is -20-45 degrees, and the surface can not cover the conditions of the environment, this product enjoys three years of free warranty.

**The abnormal conditions and the corresponding treatment methods:**

- 1, the LED lamp doesn't bright after the dimming driver is connected at the first time ,please turn off the AC input and check as follow:
  - a) Whether or not DC output bad contact;
  - b) Whether DC output polarity is reversed, or the LED board is welded anti;
  - c) Whether AC input is bad contact; test after eliminating these failures.
- 2, the device has good connection, LED lights, but the LED flicker, please turn off the AC input, then check the DC output:
  - a) overload, under load.
  - b) Whether or not the parameters and actual parameters match.
- 3, please timely communicate with us if you any questions in the using, we will try our best to solve the problems with you.

**Statement:**

The pictures and specifications is for reference only, in kind prevail, specifications are subject to change with further notice.