

## KV-DP2L Series 60W

Whole Family: KV-xy-DP2L 12V/ 24V/ 36V/ 48V DC - [ 30W 36W 60W 100W 150W ]



## Features

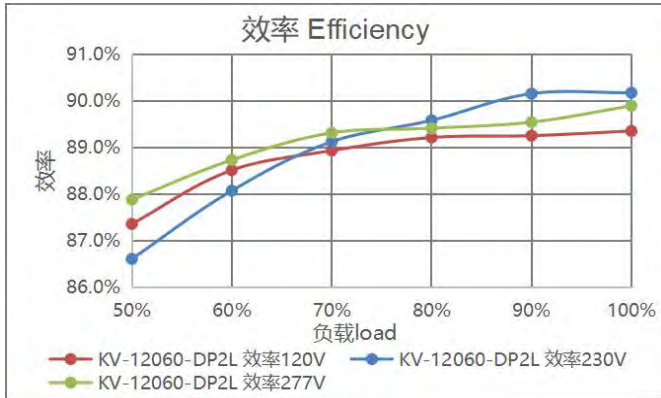
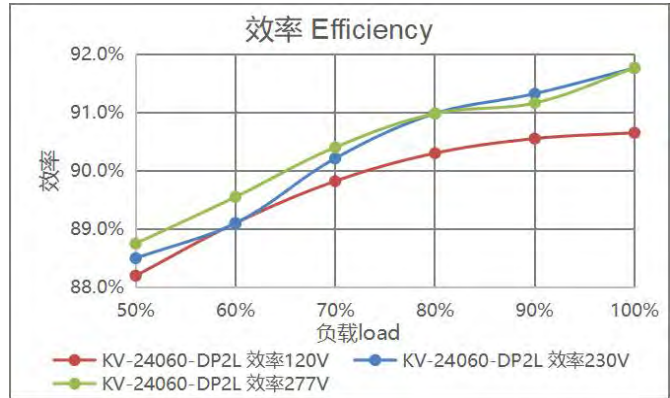
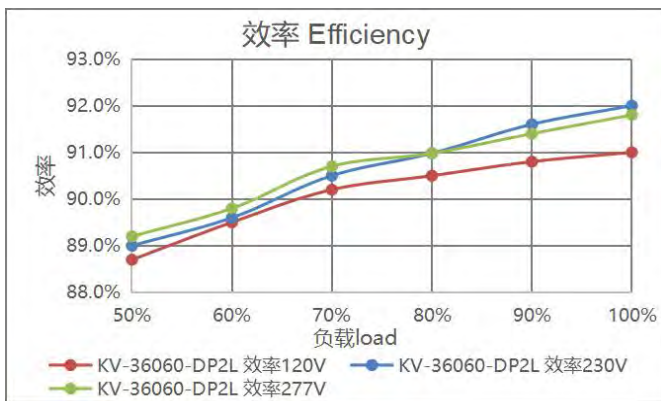
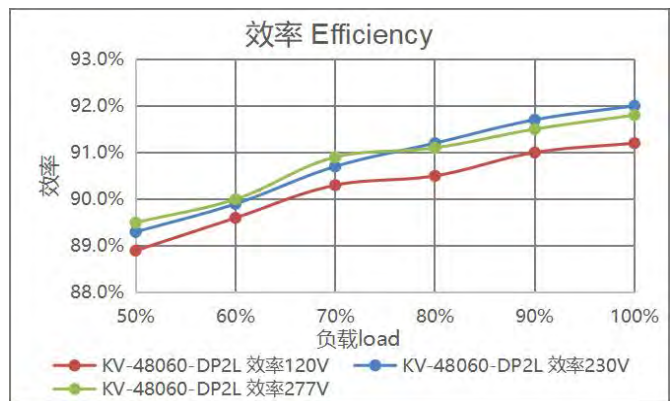
|                         |                                                               |
|-------------------------|---------------------------------------------------------------|
| Output:                 | Constant Voltage                                              |
| Range:                  | 100-277VAC                                                    |
| PFC design:             | Built-in active PFC function                                  |
| Efficiency:             | Up to 91.5%                                                   |
| Protections:            | Short circuit/ over load/ over temperature                    |
| Heat dissipation:       | Cooling by free air convection                                |
| Waterproof performance: | IP66 for indoor and outdoor                                   |
| Dimming function:       | DALI Protocol IEC62386; PUSH-DIM                              |
| Dimming range:          | 0-100% dimming depth: 0.1%                                    |
| PWM output:             | Frequency 4K Hz, reaching the exemption level                 |
| NFC function            | Adjust slightly, read & write output voltage, and set address |
| Application:            | Suitable for LED lighting and moving sign applications        |
| Warranty:               | 5 years warranty                                              |

## Specification

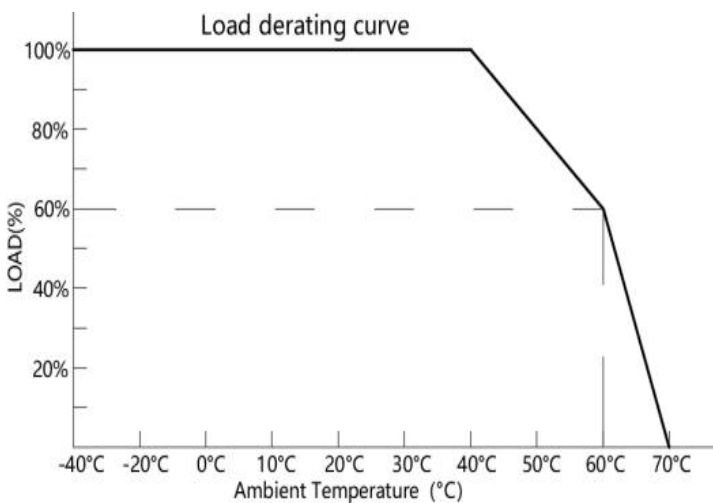
| Model        |                          | KV-12060-DP2L                                                                                                         | KV-24060-DP2L                                | KV-36060-DP2L                                | KV-48060-DP2L                                |
|--------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| Certificate  |                          | UL (pending) / cUL (pending) / FCC (pending) / ENEC / SAA / CE / CB / RoHS                                            |                                              |                                              |                                              |
| Output       | DC Voltage               | 12V<br>(12-13.5V adjust by NFC)                                                                                       | 24V<br>(24-26V adjust by NFC)                | 36V<br>(36-38V adjust by NFC)                | 48V<br>(48-50V adjust by NFC)                |
|              | Voltage Tolerance        | ±0.2V                                                                                                                 |                                              |                                              |                                              |
|              | Voltage Regulation       | ±0.5%                                                                                                                 |                                              |                                              |                                              |
|              | Rated current            | 5A                                                                                                                    | 2.5A                                         | 1.67A                                        | 1.25A                                        |
|              | Rated power              | 60W                                                                                                                   |                                              |                                              |                                              |
|              | Load Regulation          | 2%                                                                                                                    | 1%                                           |                                              |                                              |
|              | Standby power            | ≤ 0.5W @120VAC & @230VAC                                                                                              |                                              |                                              |                                              |
| Input        | Voltage Range            | 100-277VAC                                                                                                            |                                              |                                              |                                              |
|              | Frequency Range          | 47 - 63Hz                                                                                                             |                                              |                                              |                                              |
|              | Power Factor @ full load | PF≥0.99@120VAC                                                                                                        | PF≥0.98@230VAC                               | PF≥0.95@277VAC                               |                                              |
|              | THD(Typ.) @ full load    | ≤10%@120VAC                                                                                                           | ≤10%@230VAC                                  | ≤15%@277VAC                                  |                                              |
|              | Efficiency @ full load   | 89%@120VAC<br>90%@230VAC<br>90%@277VAC                                                                                | 90.5%@120VAC<br>91.5%@230VAC<br>91.5%@277VAC | 90.5%@120VAC<br>91.5%@230VAC<br>91.5%@277VAC | 90.5%@120VAC<br>91.5%@230VAC<br>91.5%@277VAC |
|              | AC Current (Max.)        | 0.8A                                                                                                                  |                                              |                                              |                                              |
|              | Inrush Current (Typ.)    | 18.4A,200us @50%120VAC    64.8A,91us @50%230VAC    45.6A,192us @50%277VAC                                             |                                              |                                              |                                              |
|              | Leakage current          | <0.5mA                                                                                                                |                                              |                                              |                                              |
| Protection   | Short Circuit            | Hiccup mode, recover automatically after fault condition is removed                                                   |                                              |                                              |                                              |
|              | Over Load                | ≤120%, Hiccup mode, recover automatically after fault condition is removed                                            |                                              |                                              |                                              |
|              | Over temperature         | Shell surface temp.100℃±10℃,output will be off; recovers automatically after temp. drops.                             |                                              |                                              |                                              |
| 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         | EN61347-1    EN61347-2-13(EU)    &    UL8750    UL1310 (US)                                                           |                                              |                                              |                                              |
|              | Withstand voltage        | I/P-O/P:3.75KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC (EU)<br>I/P-O/P:1.8KVAC    I/P-FG:1.8KVAC    O/P-FG:1.8KVAC (US) |                                              |                                              |                                              |
|              | Isolation resistance     | I/P-O/P:100MΩ / 500VDC / 25℃ / 70%RH                                                                                  |                                              |                                              |                                              |
|              | EMC immunity             | EN61000-4-2,3,4,5,6,11    EN61547                                                                                     |                                              |                                              |                                              |
|              | EMC Emission             | EN55015    EN61000-3-2,3(≥50%) (EU)    &    FCC Part 15 Subpart B(US)                                                 |                                              |                                              |                                              |
| Others       | Net Weight               | 0.41Kg                                                                                                                |                                              |                                              |                                              |
|              | Dimension                | 308*38.5*23.6mm (L*W*H)                                                                                               |                                              |                                              |                                              |
|              | Packing                  | 350*275*145mm    20pcs /CTN                                                                                           |                                              |                                              |                                              |

|              |                                                                                                                                                                                                                                |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Notes</b> | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at rated load and 25°C of ambient temperature.</li> <li>2. Tolerance: includes set up tolerance and load regulation .</li> </ol> |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Efficiency Curve (efficiency vs output load)

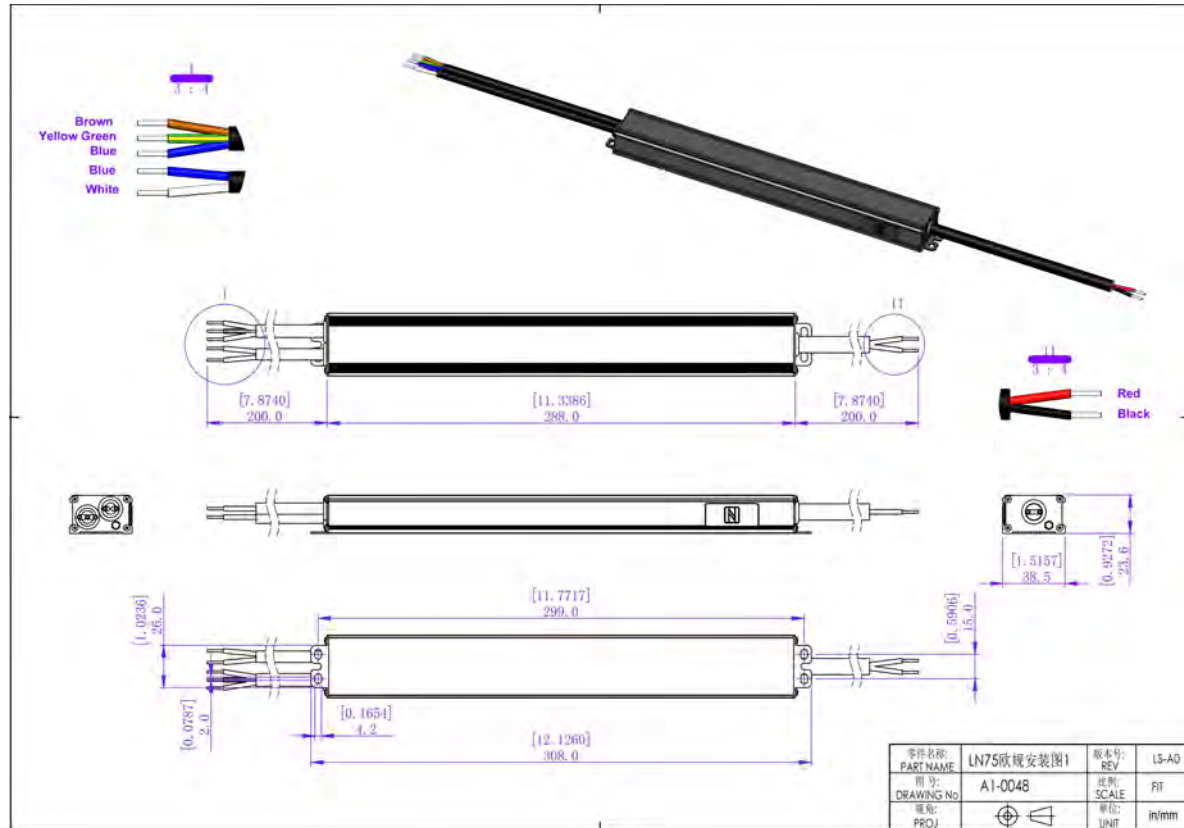


### Derating Curve (output load vs TEMP.)



1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. 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.

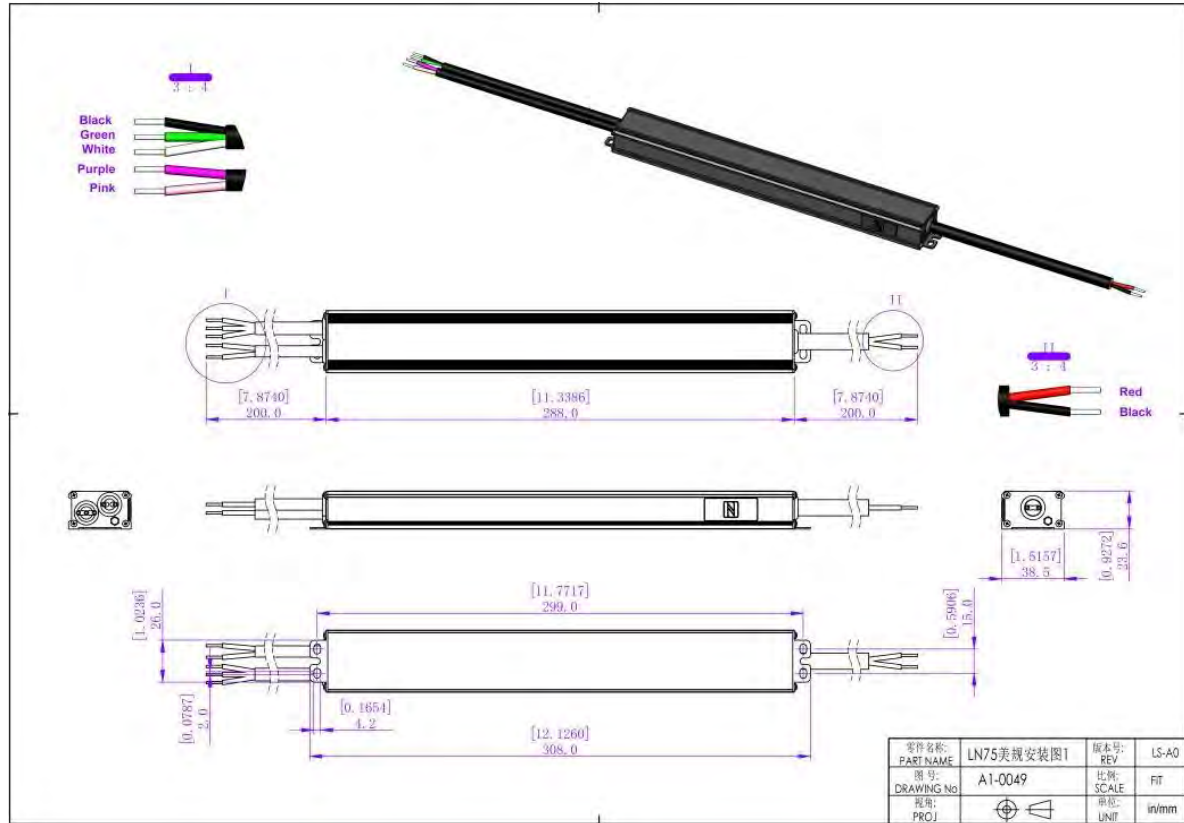
## Mechanical Specification ( For European Market )



### 12V&24V&36V&48V Version

1. Input cable 3\*0.75mm<sup>2</sup>, the Brown cable to (L), the Blue cable to (N), and the Yellow & Green cable to (FG).
2. Output cable 2\*0.75mm<sup>2</sup>, Red cable (+) to Positive side(+), Black cable(-) to Negative side (-).
3. Dimming cable 2\*0.75mm<sup>2</sup>, White DA/N and Blue DA/L (No polar) connected to the DALI BUS.
4. Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.

### Mechanical Specification (For North American Market)

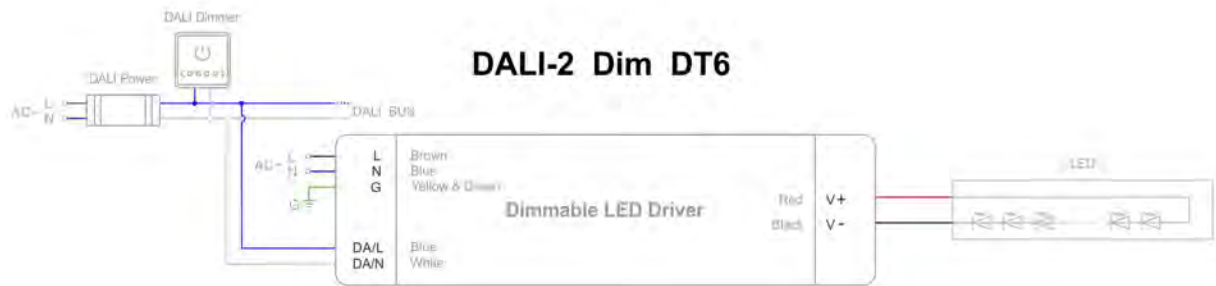


### 12V&24V&36V&48V Version

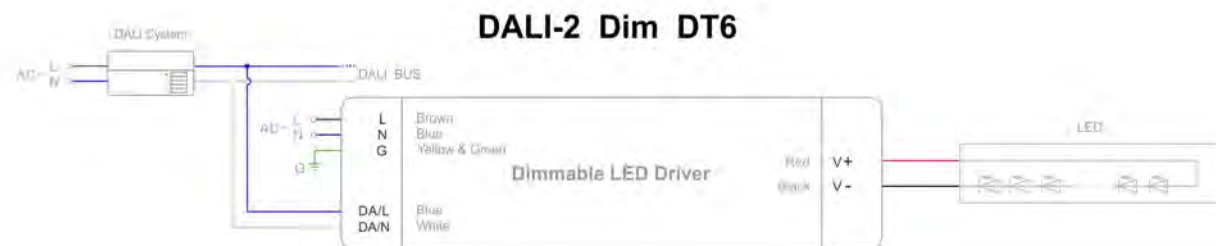
1. Input cable 3\*18AWG, the Black cable to (L), the White cable to (N), and the Green cable to (FG)
2. Output cable 2\*18AWG (12V), , Red cable (+) to Positive side(+), Black cable (-) to Negative side (-).
3. Dimming cable 2\*18AWG, Pink DA/N and Purple DA/L (No polar) connected to the DALI BUS when use DALI function. Pink (N) is connected to AC (N) while Purple (L) is connected to Push dim switch dimmer( L) when use Push function.
4. Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.

## Dimming Operation and Connecting Diagram ( For European Market )

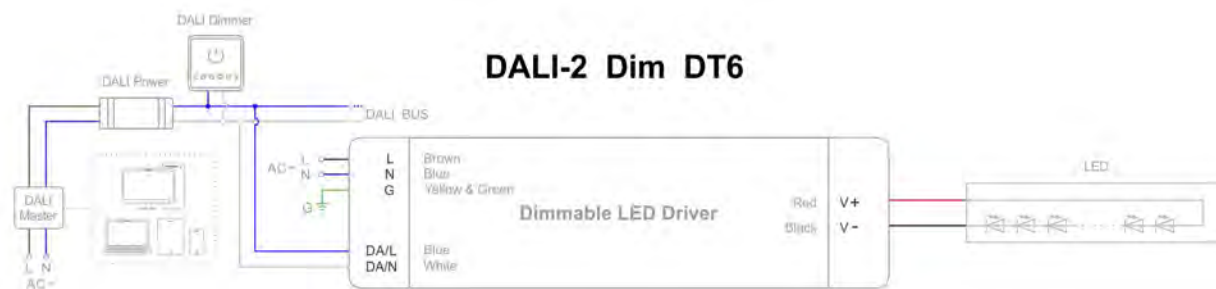
- Using DALI-2 dimming with DALI power and dimmer



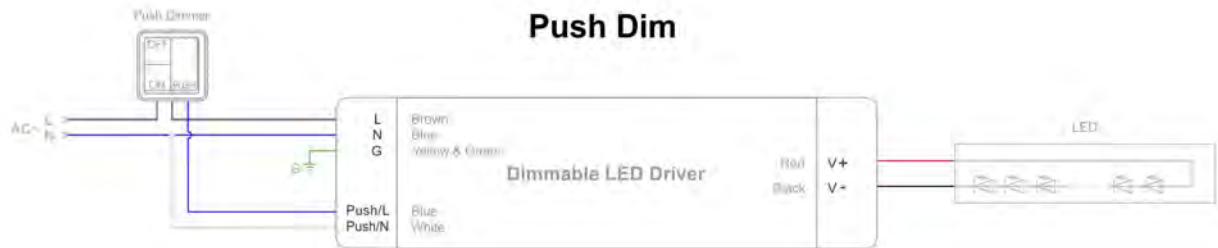
- Using DALI-2 dimming with DALI system and DALI bus



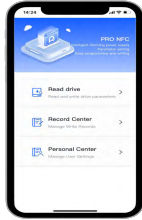
- Using DALI-2 dimming with intelligent device, DALI master and dimmer



- Using PUSH dimming with dimmer (on & off function)



### NFC Function



ProNFC APP



NFC Handheld devices

- Address settings:

NFC setting address:

The address can be read and written by a mobile with ProNFC APP or NFC handheld device (NFC read & write device: NFC-RW) by close to the NFC signal area of the DALI driver.

### NFC voltage regulation level

|     | level 1 | level 2 | level 3 | level 4 | level 5 | level 6 | level 7 | level 8 | level 9 | level 10 |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| 12V | 12V     | 12.2V   | 12.3V   | 12.5V   | 12.6V   | 12.8V   | 13V     | 13.1V   | 13.3V   | 13.5V    |
| 24V | 24V     | 24.2V   | 24.4V   | 24.7V   | 24.9V   | 25.1V   | 25.3V   | 25.6V   | 25.8V   | 26.0V    |
| 36V | 36V     | 36.2V   | 36.4V   | 36.7V   | 36.9V   | 37.1V   | 37.3V   | 37.6V   | 37.8V   | 38.0V    |
| 48V | 48V     | 48.2V   | 48.4V   | 48.7V   | 48.9V   | 49.1V   | 49.3V   | 49.6V   | 49.8V   | 50.0V    |

### 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.