## Technical Parameters

| Input and Output |  | Warranty and Protection |  | Safety and EMC |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Input voltage | 12-24VDC | Warranty | 5 years |  | ETSI EN 301 489-1 V2.2.3 |
| Input current | 15.5A | Protection | Reverse Polarity |  | ETSI EN 301 489-17 V3.2.4 |
| Input signal | PWM |  |  | Safety standard(LVD) | EN 62368-1:2020+A11:2020 |
| Output voltage | 12-24VDC | Environment |  | Cerrification | CE, EMC, LVD |
| Output current | 15A | Operation temperature | Ta: $-30^{\circ} \mathrm{C} \sim+55^{\circ} \mathrm{C}$ | Package |  |
| Output power | 180-360W | Case temperature (Max.) | Tc: $+85^{\circ} \mathrm{C}$ | Size | $\mathrm{L} 178 \times \mathrm{W} 50 \times \mathrm{H} 38 \mathrm{~mm}$ |
| Output type | Constant voltage | IP rating | IP20 | Gross weight | 0.119 kg |

## Packing List



Power Repeater 1 pcs


User manual 1 pcs


Switching power supply


LED controller


Single color LED strip


Connecting wire (cuts required)

## Notes:

1. The output voltage of the switching power supply must be the same as the supply voltage of the light strip, and the output power of the switching power supply $\geq 1.25$ times the total output power of all the connected light strips.
2. When the controller is dimmed, the switching power supply may emit noise that can be heard by the human ear (20~20KHz), and it is recommended to use the glue filling switching power supply in places with noise requirements.
3. The power repeater is a constant voltage type, for the switching type constant voltage/constant current conversion lamps, not guaranteed adaptation, dimming process may flicker, subject to actual measurement, the maximum access power of such lamps can not be higher than $50 \%$ of the rated power of the power repeater, otherwise it is easy to cause damage to the power repeater.

## Wire selection:

Solid wire or stranded wire can be selected, the cross-sectional area is $0.5-2 \mathrm{~mm}^{2}$, Select the wire with the appropriate cross sectional area according to the total power of the LED strip.
Example: 5 m 12 V LED strip, 12 W per meter, total 60 W , current 5 A ,
Select a wire with a cross-sectional area of $0.5 \mathrm{~mm}^{2}$ or more.

| Copper wire <br> cross-sectional area | $0.5 \mathrm{~mm}^{2}$ | $0.75 \mathrm{~mm}^{2}$ | $1.0 \mathrm{~mm}^{2}$ | $1.5 \mathrm{~mm}^{2}$ | $2.0 \mathrm{~mm}^{2}$ | $2.5 \mathrm{~mm}^{2}$ | $4.0 \mathrm{~mm}^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $<=5 \mathrm{~A}$ | $<=8 \mathrm{~A}$ | $<=10 \mathrm{~A}$ | $<=12 \mathrm{~A}$ | $<=16 \mathrm{~A}$ | $<=20 \mathrm{~A}$ | $<=30 \mathrm{~A}$ |

## Constant voltage/constant current lamps:

Can be judged according to the parameters marked by the lamp, If the input voltage marked is $\mathrm{DC} 12 / 24 \mathrm{~V}$, it is a constant voltage lamp; Mark input current as constant current value, input voltage as range value, such as $600 \mathrm{~mA}, 12-20 \mathrm{~V}$, which is a constant current lamps.
Common constant voltage lamps: Light strips, light bars, wall washer lights, buried lights, etc.
Common constant current lamps: down lights, spotlights, panel lights, ceiling lights, linear lights, etc.

## Installation steps

1 Measure the length of light strips required according to the scene and determine a sufficient number of power supplies and power repeaters.
For example: in the corridor to install a 200 m 24 V monochrome strip for the overall synchronization of dimming, LED strip $20 \mathrm{~W} / \mathrm{m}$,
the total power is $20 \times 200=4000 \mathrm{~W}$,
Need 1 pcs controller, 12 pcs power repeaters (Based on the maximum power of the power repeater, 4000/360).
1 pcs 24 V 1 A power supply (for controller power supply), 12 pcs 24V 15 A switching power supply (for power repeater power supply).


2 Determine the installation location of the power repeater, connect the controller, power supply, and LED strips to the power repeater respectively and mark them.

When the same signal loop is connected
to more than one power repeater,
in order to ensure dimming synchronization, the PWM signal line should be connected
in a hand-over-hand style
(multi-stage parallel connection method).


When the LED strip is too long, it will cause the brightness of the LED beads away from the power repeater to be darker.
In this case, the LED strip should be cut from
the marked line.
A power repeater is connected to only one LED strip, thus keeping the brightness of the LED beads are same at all points of the LED strip.

The controller is only for dimming signal output, not connected to the LED strip.
The controller and power repeater are powered by different $D C$ switching power supply.



Do not stack products.
The distance between products should be $\geq 20 \mathrm{~cm}$,
to avoid poor heat dissipation affect lifespan.

3 The recommended wire stripping length at each terminal wiring is $6-7 \mathrm{~mm}$.

5 After connecting the Push switch and the LED strip, test the resistance of each port with a multimeter to avoid short circuit or open circuit.



Do not make PWM signal lines and strong current or high voltage line contact each other, contact each other,
to avoid signal interference.

