

Technical Parameters

Input and Output		Warranty and Protection		Safety and EMC	
Input voltage	12-24VDC	Warranty	5 years	EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Input current	15.5A	Protection	Reverse Polarity	Safety standard(LVD)	EN 62368-1:2020+A11:2020
Input signal	PWM	Environment		Certification	CE,EMC,LVD
Output voltage	12-24VDC			Package	
Output current	15A			Size	L178 x W50 x H38mm
Output power	180-360W	Operation temperature	Ta: -30℃ ~ +55℃	Gross weight	0.119kg
Output type	Constant voltage	Case temperature (Max.)	Tc: +85℃		
		IP rating	IP20		

Packing List

Power Repeater 1 pcs	User manual 1 pcs	Switching power supply	LED controller	Single color LED strip	Connecting wire (cuts required)

Outsourced parts

- 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 ≥ 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.

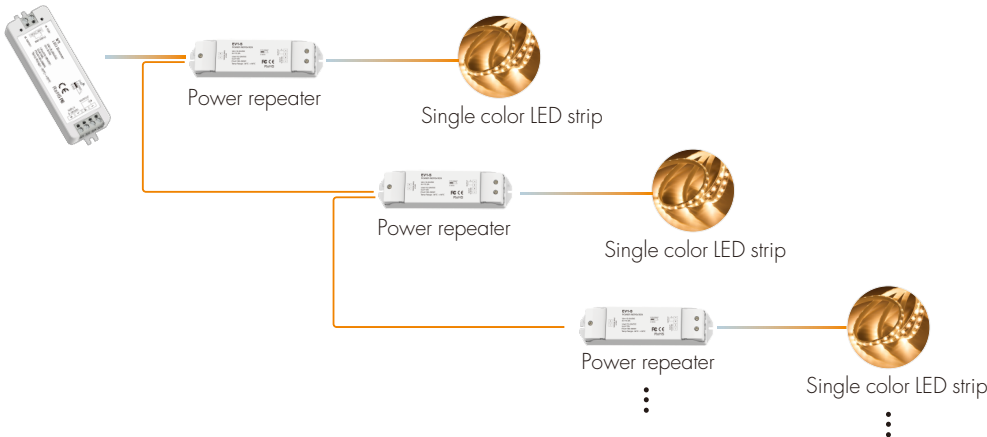
Wire selection:
Solid wire or stranded wire can be selected, the cross-sectional area is 0.5-2mm²,
Select the wire with the appropriate cross sectional area
according to the total power of the LED strip.
Example: 5m 12V LED strip, 12W per meter, total 60W, current 5A,
Select a wire with a cross-sectional area of 0.5mm² or more.

Copper wire cross-sectional area	0.5mm ²	0.75mm ²	1.0mm ²	1.5mm ²	2.0mm ²	2.5mm ²	4.0mm ²
Current	$\leq 5A$	$\leq 8A$	$\leq 10A$	$\leq 12A$	$\leq 16A$	$\leq 20A$	$\leq 30A$

Constant voltage/constant current lamps:
Can be judged according to the parameters marked by the lamp,
If the input voltage marked is DC12/24V, it is a constant voltage lamp;
Mark input current as constant current value, input voltage as range value,
such as 600mA, 12-20V, 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.

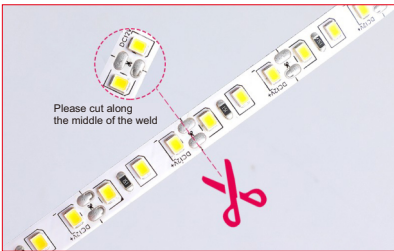
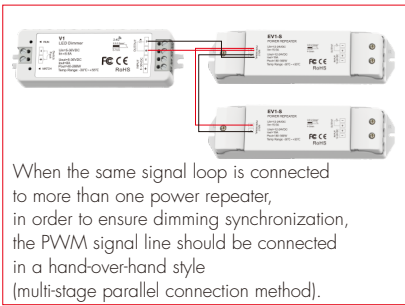
Installation steps

- 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 200m 24V monochrome strip for the overall synchronization of dimming, LED strip 20W/m,
the total power is $20 \times 200 = 4000W$,
Need 1 pcs controller, 12 pcs power repeaters (Based on the maximum power of the power repeater, $4000/360$).
1 pcs 24V 1A power supply (for controller power supply), 12 pcs 24V 15A switching power supply (for power repeater power supply).



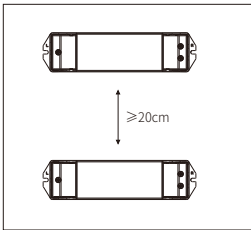
2 Determine the installation location of the power repeater, connect the controller, power supply, and LED strips to the power repeater respectively and mark them.

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

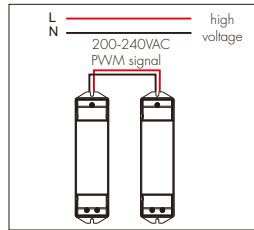


When the LED strip is too long, it will cause the brightness of the LED beads away from the power repeater to be darker. In this case, the LED strip should be cut from the marked line.

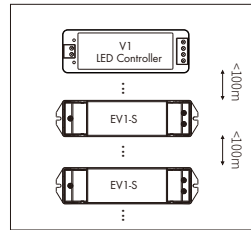
A power repeater is connected to only one LED strip, thus keeping the brightness of the LED beads same at all points of the LED strip.



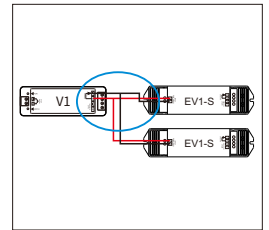
Do not stack products. The distance between products should be $\geq 20\text{cm}$, to avoid poor heat dissipation affect lifespan.



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

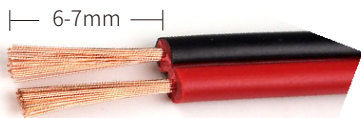


Do not space the products too far apart. The length of the signal circuit bus between products is less than 100 meters, to avoid signal interference.



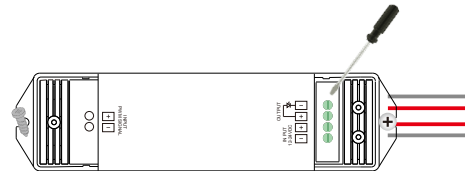
When multiple power repeaters are connected to the same signal loop, T-connections may be inconsistent due to distributed capacitors. The brightness difference between multiple LED strips occurs.

3 The recommended wire stripping length at each terminal wiring is 6-7mm.

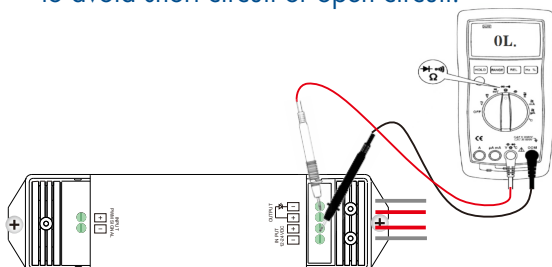


4 According to the installation position to drive in self-tapping screws for fixing.

When installing the wiring, the terminals and connecting wires must be twisted tightly. If the wiring is loose, it will lead to excessive resistance of the contact point when working with high power loads, which will cause the terminal to be hot and damaged.



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.



6 After confirming that there is no error, close both ends of the crimp cover and tighten the screws to lock it.

