1.110V/220V High Voltage SMD LED flexible strip lights

1.1 Introduction of 110/220V High Voltage SMD LED flexible strip light series

The 240V high voltage SMD LED Flexible rope light series is newly developed, in square shape, with SMD3528(5050) as light source, and is covered by eco-friendly PVC totally.

which is led out by machine automatically, thus good-looking and 100% waterproof, so it is the new as well as low cost, easy application, as well as excellent heat Sink features.

Now, we have white PCB or bronze PCB as option Single color of 3528: R, G, B, Y, W, WW, Pink, and 5050 of R, G, B, Y, W, WW, and RGB.

For LED qty per meter: 40LED, 48LED or 60LED per meter available.

For cuttable length, we have 1M cuttable, 0.4M cuttable and 0.5M cuttable.

For 3528 each, 6lumen/pc; for 5050, 14-15lumen/pc, high brightness to assure performance.

1.2. Features and Advantages

1. 240V (or 220V, 120V, 100V), high voltage, but the PVC cover is waterproof, thick enough, good heat-sink, 100% safe.

2. 3528 type can be used for 100M/roll, 5050 50M/roll with 1 front connector without cutting necessary.

3. 3528 SMD LED 5-6lumens/pc, 5050 14-15lumens/pc, better than diameter 5mm LED lamps, greatly promoting the brightness.

4. It is square in shape, less than 1cm in width. Thus easy to install by mounting brackets and screws, or mounting tracks.

5. No extra LED driver/power supply or transformer necessary, saving cost or labor in projects.

6. 0.4 or 1M per cut available, so easy for projects use as well as for wholesales, if 1M defected, other meters still working.

7. Easy to form into shape of what you want, adoptable to various places and locations.
1.4. Applications and Adoptability

For its performance and reliability, the product can be widely applied to add glamor to replace the traditional LED rope light, LED neon flex, 12V/24V low voltage LED Flexible strip as the next generation in the following sectors:

1) Architectural, residential, ceiling and corner decorative lighting
2) Archway, canopy and bridge edge lighting, Stairway accent lighting
3) Amusement park, theater and aircraft cabin mood lighting
4) Emergency hallway, Auditorium walkway, exit path lighting
5) Backlighting for signage letters, billboard
6) Concealed lighting
7) Wine cabinet, jewelry cabinet, display case decorative lighting

<table>
<thead>
<tr>
<th>Item NO.</th>
<th>Voltage</th>
<th>Color</th>
<th>Dimension</th>
<th>LED Qty/M</th>
<th>Power (W/M)</th>
<th>Luminous (lm/m)</th>
<th>Angle (degree)</th>
<th>Cut length</th>
</tr>
</thead>
<tbody>
<tr>
<td>WW-SMD3528-40P</td>
<td>110V/220V</td>
<td>R,G,B,Y,W,WW</td>
<td>10mmx7mm</td>
<td>40pcs</td>
<td>3w/m</td>
<td>200</td>
<td>120</td>
<td>1M</td>
</tr>
<tr>
<td>WW-SMD3528-60P</td>
<td>110V/220V</td>
<td>R,G,B,Y,W,WW</td>
<td>10mmx7mm</td>
<td>60pcs</td>
<td>5w/m</td>
<td>300</td>
<td>120</td>
<td>1M</td>
</tr>
<tr>
<td>WW-SMD5050-40P</td>
<td>110V/220V</td>
<td>R,G,B,Y,WW</td>
<td>12mmx8mm</td>
<td>40pcs</td>
<td>8w/m</td>
<td>560</td>
<td>120</td>
<td>1M</td>
</tr>
<tr>
<td>WW-SMD5050-60P</td>
<td>110V/220V</td>
<td>R,G,B,Y,WW</td>
<td>12mmx8mm</td>
<td>60pcs</td>
<td>12w/m</td>
<td>840</td>
<td>120</td>
<td>1M</td>
</tr>
<tr>
<td>WW-SMD5050-60P-RGB</td>
<td>110V/220V</td>
<td>RGB</td>
<td>12mmx8mm</td>
<td>60pcs</td>
<td>12w/m</td>
<td>500</td>
<td>120</td>
<td>1M</td>
</tr>
<tr>
<td>WW-SMD3528-24P</td>
<td>110V/220V</td>
<td>R,G,B,Y,W,WW</td>
<td>10mmx7mm</td>
<td>60pcs</td>
<td>5w/m</td>
<td>300</td>
<td>120</td>
<td>0.4M</td>
</tr>
<tr>
<td>WW-SMD5050-24P</td>
<td>110V/220V</td>
<td>R,G,B,Y,W,WW</td>
<td>12mmx8mm</td>
<td>60pcs</td>
<td>12w/m</td>
<td>840</td>
<td>120</td>
<td>0.4M</td>
</tr>
</tbody>
</table>
1.5. Accessories and drawings

For the controller, DMX is not yet used in this RGB product. But for comparative simple controller, 27 types of changes are included.

2. RGB 110V/220V High Voltage SMD LED flexible strip light

2.1. Introduction of the RGB 110V/220V High Voltage SMD LED flexible strip light

The RGB High Voltage SMD LED flexible rope light is within the high voltage SMD LED flexible strip series.

It is with 5050 RGB trip-chip LED as light source, with 4 cables and 4 connecting pins to transfer power supply and its signals. At present, it uses the market-recognized 4-cable 3-loops signal mode, one cable for power supply, other cables for R, G, B color separately, but, we are still updating the signal, try to be visual, dmx as well as others. this type of RGB can be DMX compatible, can be controlled by DMX console.

It is slim, bright, and flexible enough, and the controllable feature enables it to be very versatile and flexible, and, it is covered by eco-friendly PVC totally which is led out by machine automatically, thus good-looking and 100% waterproof, so it is the new update version of the traditional 2-wire LED rope light with 5mm LED as light source.

It can be sold in containers for its good performance as well as low cost, easy application, as well as excellent "waterproof, so it is the new update version of the traditional 2-wire LED rope light with 5mm LED as light source.
2.2 Features and Advantages:

1. 220V (or 120V, 100V), high voltage, but the PVC cover is waterproof, thick enough, good heat-sink, 100% safe.

2. 5050 RGB average 8 lumens/pc, better than diameter 5mm LED lamps, greatly promoting the brightness.

3. It is square in shape, can be covered by PC or Acrylic, or PVC sheath to form even visional effect, without bright spot.

4. No extra LED driver/power supply or transformer necessary, saving cost or labor in projects.

5. with mounting clips, screws, connectors, easy for projects and for wholesales, If 1M defected, other meters still working.

6. Easy to form into shape of what you want, adoptable to various places and locations

7. IP65, waterproof, anti-static, long-life, anti-UV as well as weatherproof.

2.3 Applications and Adoptability

For its performance and reliability, the product can be widely applied to add glamour, to replace the traditional LED rope light, LED neon flex. 12V/24V low voltage LED Flexible strip as the next generation in the followings sectors:

Big controller: 500W to 5000W, with 27 functions, max connecting to 350-400 meters per pc Red/orange cable to connect to public 220V/110V input Black cable to connect to PORT 1
2.4.4-cable 3-loops RGB LED lighting controller introduction

This RGB LED lighting controller is based on the core new 4wire-3loops technology, used of micro-computer digital processing, large capacity program chip (EPROM, MUC), changes in pattern program is rich and can be adapted to large multi-pattern light board procedural requirements. Strong function, stable quality, easy application, with a dozen features to choose from, it also has many features like automatic cycle and can produce a variety of wonderful dramatic lighting effects when equipped with LED lights. Optional flashing effect, speed adjustable, as long as the controllers are with same grid and power, many sets of controller does not suffer from installed distance limit and work synchronously.

SPEED button is for speed adjustment, when you transfer to 7 that is the slowest, when transferred to 0, the fastest; 30 seconds is the slowest time of an action, the fastest was 0.1 seconds. Function button is to the function you like

Changes in three-way pattern
1. Full light on
2. One full-color LED light positioning
3. Three lights alternative change
4. Single color flash
5. Color mix
6. Colur jump
7. Single color fade
8. Three colors with flash

Changes in four-way patterns
1. Fixed color
2. Alternative fade+full bright
3. One Happy+full bright lights
4. Single light flash
5. Alternative fade
6. Color fade
7. Three jump combination lights
8. Single light color fades
9. Four lights with flash
10. Chase

Changes in two-way pattern
0. Automatically change
1. One full-color LED light positioning
2. One full-color LED light positioning
3. Full light on
4. Second, alternating light fade
5. Single light change
6. Three color fade
7. Three colors jump
8. Loop jump
9. Second, while light gradient

Case Study

The power of RGB strip light: 12W/M
Total power: 1500*12W/M=18000W
The controller power: 1000-5000W/pc
Thus, 5pcs controllers will bneeded.
The Installation instruction of LED controller:
3. Operation Instruction of High Voltage SMD LED Flexible Strips Notes

1. All operations shall be operated by professionals such as technician and staff that has experience of the traditional LED rope light treatment.
2. The product is with high voltage, thus serious safety operation shall be observed.
3. The product is normally OK, while the front connector, the pins as well as the waterproof treatment is the key issue.

The following steps for you to reference:

Step 1
1. Cut the Strip in required length.
2. Clear main power cable with scissors and pliers at the cut end, do not leave the cooper cable to have thread residue which may cause short circuit by touching + & -.
3. Prepare the front plug and right connect pin.
4. Please notice that the bridge diode 6-8M, enough for 100M 3528 and 50M 5050.
5. Put the connect pin to the strip, please notice the sharp point toward the strip.
6. Please carefully handle the connect pin insert, it shall touch the 2 main cooper cable, do not insert too much to the PCB, if that, the burn will occur because of serious short circuit.

Step 2
1. Seal the vacant space in the PVC strip with waterproof glue.
2. Then, get the pin toward the front plug, the flat point direction.
3. Please notice that the flat pin has +/- difference, if wrong, it will not work or burn, pull out with pliers, then change and plug again.
4. Please do not insert too hard, otherwise, the pin may break the 2 holes or break the connect pin, the front plug to make sure there is no cooper thread out, and no residue PVC, then short circuit and burn will occur.
5. Please clean the connect pin, the front plug to make sure these is no cooper thread out, and no residue.

Step 3
1. To make sure, it is well connected.
2. Trial to light it on, if not on, change the pin front and back direction, then it is on.
3. Plug off to enter the next step of waterproof treatment.
Step 4
1. Outside waterproof treatment
2. Lighting on test again
3. If not on, dissect and repeat the steps again until the light is on
4. After on, leave the lighting on or off for 3-5 minutes, then it is solid.
5. For the middle connector and pins, the same operation as the front plug, the only difference is that there is 1 connection or 2 connections.

Step 5
Professional waterproof treatment; Careful handling; Basic engineering operation

Step 6
1. Outside waterproof treatment
2. Lighting on test again
3. If not on, dissect and repeat the steps again until the light is on
4. After on, leave the lighting on or off for 3-5 minutes, then it is solid.
5. For the middle connector and pins, the same operation as the front plug, the only difference is that there is 1 connection or 2 connections.

4. Cautions in installation and operation:
1. All products installed are configured with our exclusive fixed cards to install and fix.
2. Installation must be firmly fixed, they cannot be flowing, swinging, or will cause fracture of the wire in light and burn it.
3. Power on the light for few minutes if the light is installed in cold weather and the light will get soft, easier to bend, then you can power off and install.
4. Do not beat lamps with a sharp object, use heavy pressure or hit the light.
5. Only the same specification, voltage can be connected with each other at both ends of the same, cannot exceed the maximum length allowed (normally less than 100 meters).

Cut the light according to the scissors marked on the board
Bent the tail and cut
Block up by waterproof-glu

Fixed with retaining clips
Fixed with special trunking
The end cap is used

Bend the tail cut
Block up by waterproof-glu

Fixed with retaining clips
Fixed with special trunking
The end cap is used

Cut the light according to the scissors marked on the board
Bent the tail and cut
Block up by waterproof-glu
5. Operation special notice

1. --- Do not light on the whole roll until the whole roll is loosened linearly and unyoked open, otherwise the accumulated heat in short time will damage the PVC and may cause fire, very dangerous.

2. --- If there is any loose connection at the connector or at the end caps, professional electrical connection and waterproof treatment shall be executed before lighting or trying to light on; all related operations shall be under the condition that power is off. If tiny lead wire is observed at the connection, please power off instantly, cut off the tiny lead wire, the re-connect, execute waterproof treatment, and then light on.

3. --- During application in project after cutting, waterproof treatment is compulsory for the front connector, middle connector, end caps, we strongly advise 705 silicone glue to be used as the waterproof glue.

4. --- If possible, heat-shrink waterproof sheath tube is strongly advise for waterproof treatment at the joint or connection part, customer can find the heat-shrink tube in local market.

5. --- During connection process after cutting, special attention shall be give to for the inserting connect pins that the 2-pin shall just touch the 2 main high voltage cables of strip; if hard to touch, you can slightly squeeze the strip closer for 2-pin to touch the main cable; but, do not insert too hard to cause PVC broken, if so, the main cable + and touches and causes short circuit, another possible problem is that the pins will directly touch the PCB which leads to short circuit too.

6. --- In case of improper operation, front plug/connector, or the front section is burnt (normally, only plug, bridge diode, or 1m strip burnt), do not worry too much, cut the front part of the strip 1M, replace the plug, then re-connect, the rest will still function without problem.

6. Packaging

5-layer strong paper carton for export

whole roll with yoke(50m 5590, 100m 3528)

standard package carton: 33cmx33x22cm (100m 3528, 50m 5050)

100m 3528 6kg
50m 5050 6kg