

# Product Specification

## Flexible LED Strip AC 230V LED HV Strip

2835 AC230V 112LEDs/M IP65

HVFLST2XFD-XX-EU-HR-HQ1 (BF)  
&  
HVFLST2XFD-XX-EU-HR-HQ1-EP (BF)



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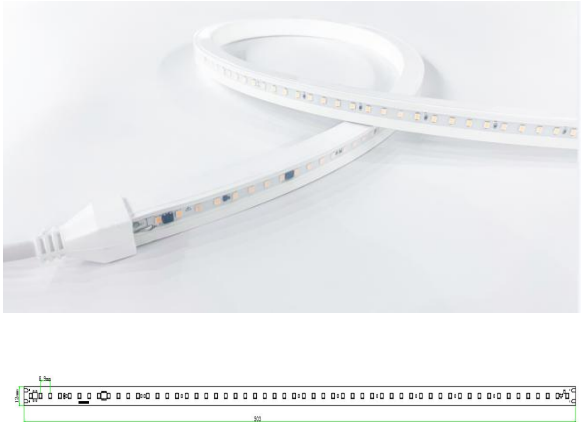




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|   |   |
|---|---|
| <p><b>Product Features</b></p> <ul style="list-style-type: none"> <li>• Flexible Silicone material, electrical insulation;</li> <li>• Self-encapsulated design offer four optional white light from 2600-6500K;</li> <li>• High quality FPC;</li> <li>• Light source lifetime:30K hours(L70);</li> <li>• Meet (EU)2019/2020 ErP regulations.</li> <li>• Min. Bending Diameter: <math>\Phi 150\text{mm}</math></li> <li>• Max. length(M): 30M</li> </ul> |   |
| <p><b>Technology info</b></p> <ul style="list-style-type: none"> <li>• Lighting Technology: LED</li> <li>• DLS or NDLS: NDLS</li> <li>• MLS or NMLS: MLS</li> </ul>   | <p><b>Certification Standards</b></p> <ul style="list-style-type: none"> <li>• EN55015:2019+A11</li> <li>• EN61547:2009</li> <li>• EN60598-1:2015</li> <li>• EN60598-2-20:2015</li> <li>• EN62493:2015</li> <li>• EN62471:2008</li> </ul> |

|  |  |
|--|--|
| <p><b>Non-ErP Waterpro of Type</b></p> | <br> |
|  | <p>3 Years Warranty</p>  |

|                                    |  |
|------------------------------------|--|
| <p><b>ErP Waterpro of Type</b></p> | <br> |
|                                    | <p>3 Years Warranty</p>  |

## HVFLST2XFD-XX-EU-HR-HQ1(BF)

### Parameters for non-ErP

| Model NO.                   | CRI (Ra) | Rf | Rg | Typical Power (W/M) | Max. Power (W/M) | Color          | LED Color Temp.(K) Wavelength(nm)* | Typ. Luminous Flux LM/M(39.37in) | Strip Input voltage |
|-----------------------------|----------|----|----|---------------------|------------------|----------------|------------------------------------|----------------------------------|---------------------|
| HVFLST2WFD-05-EU-HR-HQ1(BF) | 80       | 82 | 96 | 9                   | 9.9              | Warm White     | 2600-2900K                         | 910                              | AC 230V             |
| HVFLST2WFD-05-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Warm White     | 2900-3200K                         | 960                              |                     |
| HVFLST2NFD-05-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Natural White  | 3700-4250K                         | 990                              |                     |
| HVFLST2SFD-05-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Standard White | 5700-6500K                         | 1000                             |                     |
| HVFLST2WFD-10-EU-HR-HQ1(BF) | 80       | 82 | 96 | 9                   | 9.9              | Warm White     | 2600-2900K                         | 910                              | AC 230V             |
| HVFLST2WFD-10-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Warm White     | 2900-3200K                         | 960                              |                     |
| HVFLST2NFD-10-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Natural White  | 3700-4250K                         | 990                              |                     |
| HVFLST2SFD-10-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Standard White | 5700-6500K                         | 1000                             |                     |
| HVFLST2WFD-20-EU-HR-HQ1(BF) | 80       | 82 | 96 | 9                   | 9.9              | Warm White     | 2600-2900K                         | 910                              | AC 230V             |
| HVFLST2WFD-20-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Warm White     | 2900-3200K                         | 960                              |                     |
| HVFLST2NFD-20-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Natural White  | 3700-4250K                         | 990                              |                     |
| HVFLST2SFD-20-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Standard White | 5700-6500K                         | 1000                             |                     |
| HVFLST2WFD-25-EU-HR-HQ1(BF) | 80       | 82 | 96 | 9                   | 9.9              | Warm White     | 2600-2900K                         | 910                              | AC 230V             |
| HVFLST2WFD-25-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Warm White     | 2900-3200K                         | 960                              |                     |
| HVFLST2NFD-25-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Natural White  | 3700-4250K                         | 990                              |                     |
| HVFLST2SFD-25-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Standard White | 5700-6500K                         | 1000                             |                     |
| HVFLST2WFD-30-EU-HR-HQ1(BF) | 80       | 82 | 96 | 9                   | 9.9              | Warm White     | 2600-2900K                         | 910                              | AC 230V             |
| HVFLST2WFD-30-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Warm White     | 2900-3200K                         | 960                              |                     |
| HVFLST2NFD-30-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Natural White  | 3700-4250K                         | 990                              |                     |
| HVFLST2SFD-30-EU-HR-HQ1(BF) |          |    |    | 9                   | 9.9              | Standard White | 5700-6500K                         | 1000                             |                     |

Remarks:

- \* The above color temperature is the color temperature of LED source.
- The typ. Luminous flux tolerance range is  $\pm 10\%$  (subject to the manufacturer's instrument test).
- Test methods of parameter:
- Test while turning on.  
Test 1m strip in the integrating sphere under the condition of input AC230V voltage

Test condition of above technical data:

- Surrounding temperature: 26 °C.
- The above parameters are data of internal power supply

## HVFLST2XFD-XX-EU-HR-HQ1-EP(BF)

### Parameters for ErP

| Model NO.                      | CRI (Ra) | Rf | Rg | Typical Power (W/M) | Max. Power (W/M) | Color          | LED Color Temp.(K)<br>Wavelength(nm)* | Luminous Flux LM/M(39.37') | Lumen/watt | Energy Efficiency class | Strip Input voltage |
|--------------------------------|----------|----|----|---------------------|------------------|----------------|---------------------------------------|----------------------------|------------|-------------------------|---------------------|
| HVFLST2WFD-05-EU-HR-HQ1-EP(BF) | 80       | 82 | 96 | 10                  | 11               | Warm White     | 2700K                                 | 960                        | 96         | F                       | AC 230V             |
| HVFLST2WFD-05-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Warm White     | 3000K                                 | 1000                       | 100        | F                       |                     |
| HVFLST2NFD-05-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Natural White  | 4000K                                 | 1040                       | 104        | F                       |                     |
| HVFLST2SFD-05-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Standard White | 6000K                                 | 1060                       | 106        | F                       |                     |
| HVFLST2WFD-10-EU-HR-HQ1-EP(BF) | 80       | 82 | 96 | 10                  | 11               | Warm White     | 2700K                                 | 960                        | 96         | F                       | AC 230V             |
| HVFLST2WFD-10-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Warm White     | 3000K                                 | 1000                       | 100        | F                       |                     |
| HVFLST2NFD-10-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Natural White  | 4000K                                 | 1040                       | 104        | F                       |                     |
| HVFLST2SFD-10-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Standard White | 6000K                                 | 1060                       | 106        | F                       |                     |
| HVFLST2WFD-20-EU-HR-HQ1-EP(BF) | 80       | 82 | 96 | 10                  | 11               | Warm White     | 2700K                                 | 960                        | 96         | F                       | AC 230V             |
| HVFLST2WFD-20-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Warm White     | 3000K                                 | 1000                       | 100        | F                       |                     |
| HVFLST2NFD-20-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Natural White  | 4000K                                 | 1040                       | 104        | F                       |                     |
| HVFLST2SFD-20-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Standard White | 6000K                                 | 1060                       | 106        | F                       |                     |
| HVFLST2WFD-25-EU-HR-HQ1-EP(BF) | 80       | 82 | 96 | 10                  | 11               | Warm White     | 2700K                                 | 960                        | 96         | F                       | AC 230V             |
| HVFLST2WFD-25-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Warm White     | 3000K                                 | 1000                       | 100        | F                       |                     |
| HVFLST2NFD-25-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Natural White  | 4000K                                 | 1040                       | 104        | F                       |                     |
| HVFLST2SFD-25-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Standard White | 6000K                                 | 1060                       | 106        | F                       |                     |
| HVFLST2WFD-30-EU-HR-HQ1-EP(BF) | 80       | 82 | 96 | 10                  | 11               | Warm White     | 2700K                                 | 960                        | 96         | F                       | AC 230V             |
| HVFLST2WFD-30-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Warm White     | 3000K                                 | 1000                       | 100        | F                       |                     |
| HVFLST2NFD-30-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Natural White  | 4000K                                 | 1040                       | 104        | F                       |                     |
| HVFLST2SFD-30-EU-HR-HQ1-EP(BF) |          |    |    |                     |                  | Standard White | 6000K                                 | 1060                       | 106        | F                       |                     |

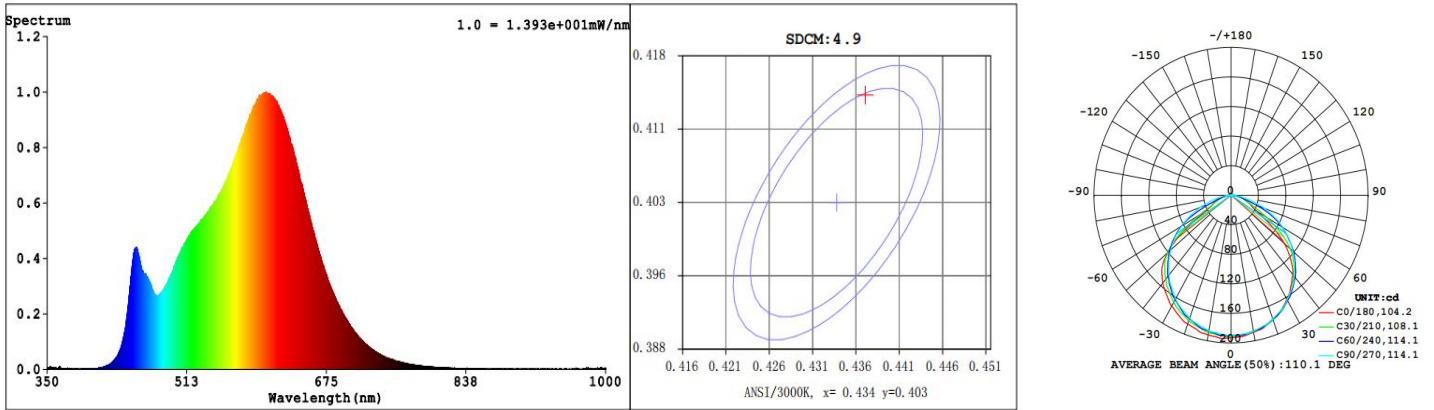
Remarks:

- \*The above color temperature is the color temperature of LED source.
- The typ. Luminous flux tolerance range is  $\pm 10\%$  (subject to the manufacturer's instrument test).
- Test methods of parameter:
- Test after 10 mins turned on.
- Test 1m strip in the integrating sphere under the condition of input AC230V voltage
- Test condition of above technical data:
- Surrounding temperature: 26 °C.
- The above parameters are data of internal power supply

ErP Note:

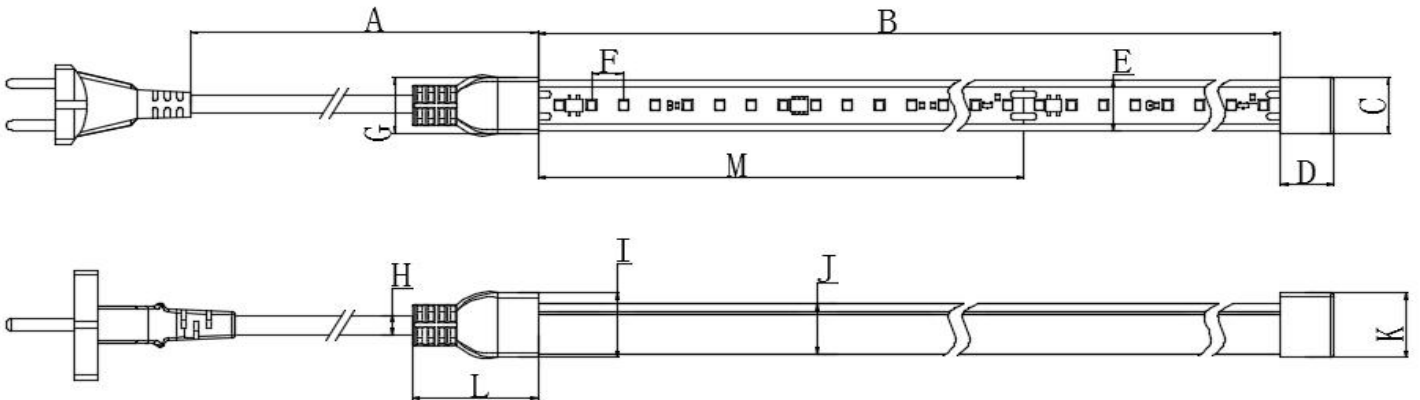
- According to the new ErP 2019/2020 regulation for each 0.5m or nearest 0.5m strip, the following requirements must be met:
- Measured power  $\leq P_{on} + 5\%$  ;
- Measured lumen  $\geq$  Useful luminous flux  $-10\%$ ;
- Measured CRI  $\geq$  Declared CRI-2
- The above technical data, including typical power are based on the test of 0.6m
- Only for industrial application.

**Optical Test Diagram**



**Dimension Drawing**

**Dimension Drawing of 5/10/20/25/30M high voltage LED strip**



5M

| A               | B                | C/G             | D               | E/J             | F              | H               | I/K             | L                | M               |
|-----------------|------------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|------------------|-----------------|
| 1000 ± 20mm     | 5000 ± 30mm      | 19 ± 0.5mm      | 15 ± 0.5mm      | 16 ± 0.5mm      | 8.9 ± 0.5mm    | 6.5 ± 0.5mm     | 20.5 ± 0.5mm    | 35 ± 1mm         | 503 ± 1mm       |
| 39.37 ± 0.787in | 196.85 ± 1.181in | 0.748 ± 0.019in | 0.591 ± 0.019in | 0.629 ± 0.019in | 0.35 ± 0.019in | 0.255 ± 0.019in | 0.807 ± 0.019in | 1.377 ± 0.0393in | 19.8 ± 0.0393in |

10M

| A               | B               | C/G             | D               | E/J             | F              | H               | I/K             | J                | L               |
|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|------------------|-----------------|
| 1000 ± 20mm     | 10000 ± 50mm    | 19 ± 0.5mm      | 15 ± 0.5mm      | 16 ± 0.5mm      | 8.9 ± 0.5mm    | 6.5 ± 0.5mm     | 20.5 ± 0.5mm    | 35 ± 1mm         | 503 ± 1mm       |
| 39.37 ± 0.787in | 393.7 ± 1.968in | 0.748 ± 0.019in | 0.591 ± 0.019in | 0.629 ± 0.019in | 0.35 ± 0.019in | 0.255 ± 0.019in | 0.807 ± 0.019in | 1.377 ± 0.0393in | 19.8 ± 0.0393in |

20M

| A               | B               | C/G             | D               | E/J             | F              | H               | I/K             | J                | L               |
|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|------------------|-----------------|
| 1000 ± 20mm     | 20000 ± 50mm    | 19 ± 0.5mm      | 15 ± 0.5mm      | 16 ± 0.5mm      | 8.9 ± 0.5mm    | 6.5 ± 0.5mm     | 20.5 ± 0.5mm    | 35 ± 1mm         | 503 ± 1mm       |
| 39.37 ± 0.787in | 787.4 ± 1.968in | 0.748 ± 0.019in | 0.591 ± 0.019in | 0.629 ± 0.019in | 0.35 ± 0.019in | 0.255 ± 0.019in | 0.807 ± 0.019in | 1.377 ± 0.0393in | 19.8 ± 0.0393in |

25M

| A               | B                | C/G             | D               | E/J             | F              | H               | I/K             | J                | L               |
|-----------------|------------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|------------------|-----------------|
| 1000 ± 20mm     | 25000 ± 50mm     | 19 ± 0.5mm      | 15 ± 0.5mm      | 16 ± 0.5mm      | 8.9 ± 0.5mm    | 6.5 ± 0.5mm     | 20.5 ± 0.5mm    | 35 ± 1mm         | 503 ± 1mm       |
| 39.37 ± 0.787in | 984.25 ± 1.968in | 0.748 ± 0.019in | 0.591 ± 0.019in | 0.629 ± 0.019in | 0.35 ± 0.019in | 0.255 ± 0.019in | 0.807 ± 0.019in | 1.377 ± 0.0393in | 19.8 ± 0.0393in |

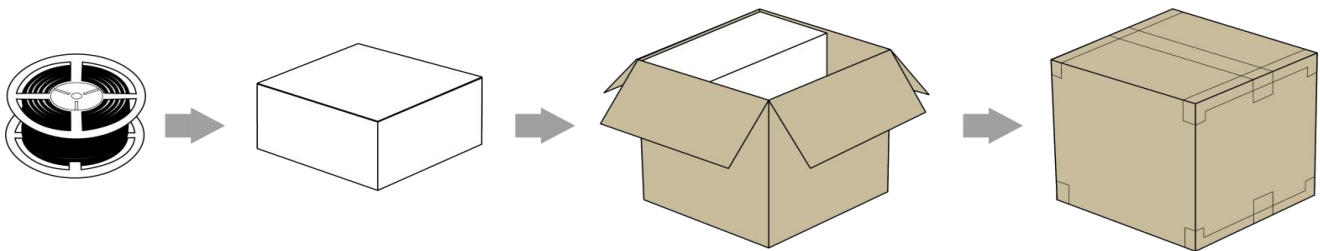
30M

| A               | B                | C/G             | D               | E/J             | F              | H               | I/K             | J                | L               |
|-----------------|------------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|------------------|-----------------|
| 1000 ± 20mm     | 50000 ± 50mm     | 19 ± 0.5mm      | 15 ± 0.5mm      | 16 ± 0.5mm      | 8.9 ± 0.5mm    | 6.5 ± 0.5mm     | 20.5 ± 0.5mm    | 35 ± 1mm         | 503 ± 1mm       |
| 39.37 ± 0.787in | 1968.5 ± 1.968in | 0.748 ± 0.019in | 0.591 ± 0.019in | 0.629 ± 0.019in | 0.35 ± 0.019in | 0.255 ± 0.019in | 0.807 ± 0.019in | 1.377 ± 0.0393in | 19.8 ± 0.0393in |

## Optional Accessories

| Category          | Picture   | Material Code              | Description   |
|-------------------|---|----------------------------|---|
| Aluminium Profile |  | WW-AP1917-100              | Aluminum Profile:<br>L1000*W19*H17mm                                |
| LED Dimmer Switch |  | WW-FSC-LRTHV600-DIM-1CH-A0 | size:<br>L85*W85*H45mm<br>Applicable to Nordic and German countries |
| LED Dimmer Switch |  | WW-FSC-LRTHV300-DIM-1CH-A1 | size:<br>L85*W85*H45mm<br>Applicable to Nordic and German countries |
| LED Dimmer Switch |  | WW-FSC-LRTHV250-DIM-1CH-A2 | size:<br>L85*W85*H45mm<br>Applicable to Italy and Spain             |

## Packaging Diagram



## Packaging Information

| Length | Reel size           | Inner carton      |          | Outer carton        |          | N.W            | G.W           | Outer carton volume   |
|--------|---------------------|-------------------|----------|---------------------|----------|----------------|---------------|-----------------------|
|        |                     | Size              | Reel/ctn | Size                | Reel/ctn |                |               |                       |
| 5m     | 470*440*0.14mm      | /                 | /        | 440*400*260mm       | 10       | 12KG ±10%      | 14.2KG ±10%   | 0.046m <sup>3</sup>   |
|        | 18.5*17.32*0.0055in | /                 | /        | 17.32*15.74*10.23in | 10       | 26.45 Lbs ±10% | 31.3Lbs ±10%  | 1.616ft <sup>3</sup>  |
| 10m    | 330*110mm           | 345*330*122mm     | 1        | 362*265*350mm       | 2        | 4.6/KG ±10%    | 6.28KG ±10%   | 0.0335m <sup>3</sup>  |
|        | 12.99*4.33in        | 13.58*12.99*4.8in | 1        | 14.25*10.43*13.78in | 2        | 10.14 Lbs ±10% | 13.84Lbs ±10% | 1.185ft <sup>3</sup>  |
| 20m    | 330*110mm           | 345*330*122mm     | 1        | 362*265*350mm       | 2        | 8.8KG ±10%     | 10.48KG ±10%  | 0.0335m <sup>3</sup>  |
|        | 12.99*4.33in        | 13.58*12.99*4.8in | 1        | 14.25*10.43*13.78in | 2        | 19.39 Lbs ±10% | 23.1Lbs ±10%  | 1.185ft <sup>3</sup>  |
| 25m    | 330*200mm           | /                 | /        | 370*370*250mm       | 1        | 5.6KG ±10%     | 6.96KG ±10%   | 0.034m <sup>3</sup>   |
|        | 12.99*7.87in        | /                 | /        | 14.56*14.56*9.84in  | 1        | 12.34 Lbs ±10% | 15.34Lbs ±10% | 1.2006ft <sup>3</sup> |
| 30m    | 330*200mm           | /                 | /        | 370*370*250mm       | 1        | 6.7KG ±10%     | 8.06KG ±10%   | 0.034m <sup>3</sup>   |
|        | 12.99*7.87in        | /                 | /        | 14.56*14.56*9.84in  | 1        | 14.77 Lbs ±10% | 17.76Lbs ±10% | 1.2006ft <sup>3</sup> |

 **Cautions**



Do not pull and crash



Connected to power supply every 30 meters



The minimum bending diameter >150mm



Please follow the user manual for installation



Operate carefully to avoid electric shock



Power supply retain > 20%



Note the positive and negative poles



Do not press the surface of LED



Only can be used in wet place, do not contact with water directly



No direct sunlight



Do not put plug, bridge rectifier, front and end cap into water



Pay attention to the power and ensure that the power supply wire is not overload



Ensure the output rated voltage operate within ±5%



Twist angle >45°



Operated by professionals



Ensure circuit protector for the electric circuit



The continuous working time do not exceed 12 hours daily



Storage temperature  
0°C~+60°C  
(32°F~+140°F)



Operating temperature  
-20°C~+45°C  
(-4°F~+113°F)



Relative humidity  
40%-70%



Storage life is within 6 months



Defective product photo should be provided for warranty



For avoiding LED get vulcanized, LED strip should be installed in the environment where does not has oil and corrosive substances. Such as these substances which contain Sulphur, Bromine, Iodine and Chlorine. Some other chemical elements which will cause Aromatic hydrocarbons releasing(such as: methylbenzene, xylene, methyl acetoacetate Ethyl acetate etc.).The environment in which includes strong acid and strong base.



During the warranty period, only defective products are acceptable to be replaced by the factory. Factory is not responsible for other expenses because of replacement, such as transportation fee, installation fee, etc..

Factory will not be responsible for warranty if product failure happens because of incorrect installation, incorrect use, man-made damage or irresistible external forces (Earthquake, Typhoon, Tsunami, Tornado, etc.)

\*\* If you do not follow the above "Cautions" to operate and result in damaging the product, the factory will not accept maintenance and return.

\*\*The right of final interpretation is owned by Dilux.