

# LED NEON FLEX

NSF1017





Features

- Color option: single color, WN, RGB, RGBW; Adopt high quality
- components with stable and reliable performance;
- Side bending, suitable for many shapes and good weather adaptability;
- Single color can not dimming (If using Mean Well ELG/HLG power supply, it supports 0-2KHz PWM dimming)
- Warranty: 5 years indoor, 3 years outdoor;
- Multiple specifications, support customization;-



Optical & Electrical Parameters

Model No.	Voltage	Beam Angle	CRI	Color	Lm/m	Lm/W	Rated Power (W/m)
NSF1017-Single color	24V DC	120°	>90	2300K	320	28.0	11.5
				2700K	482	41.8	
				3000K	485	42.4	
				4000K	500	43.4	
				5000K	499	43.3	
NSF1017-Single color	24V DC	120°	/	Red	146	12.2	11.5
				Green	293	24.1	
				Blue	61	14.9	
				Yellow	291	24.0	
				Orange	122	10.8	
				White	278	38.5	
NSF1017-WN	24V DC	115°	>80	2700K	263	36.6	7.2
				6500K	278	38.5	7.2
				W+N	528	36.8	14.4
NSF1017-RGB	24V DC	120°	/	Red	35	7.8	5.7
				Green	66	11.6	5.7
				Blue	17	2.7	5.7
				RGB	112	6.8	17.2
				White	278	38.5	7.2
NSF1017-RGBW	24V DC	120°	>90	3000K	172	29.2	5.04
				Red	42	9.4	5.04
				Green	150	28.2	5.04
				Blue	34	6.5	5.04
				RGBW	394	19.2	20.16

Note: "RGBW" data is obtained when 4 chips are all lit

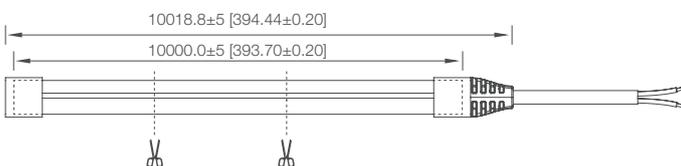
Other Parameters

Model No.	LED QTY	Standard Run	Min. Cuttable Length	Working Temperature	Storage Temperature
NSF1017-Single color	112 pcs/m	10000.0mm	62.5mm	-20~+60°C	-20~+70°C
NSF1017-WN	240 pcs/m	10000.0mm	50.0mm		
NSF1017-RGB	108 pcs/m	5000.0mm	55.6mm		
NSF1017-RGBW	84 pcs/m	5000.0mm	71.42mm		

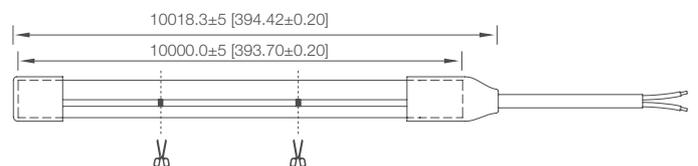
Profile Drawings

Unit:mm[inch]

Glue Process

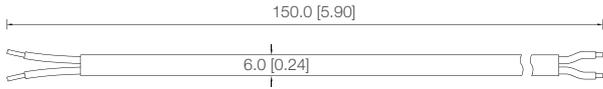


Molding Pressed

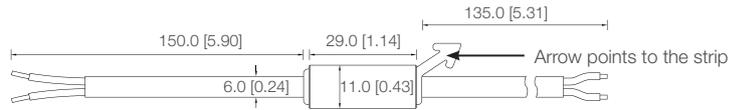


Wire Spec

General Wire



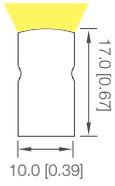
Wire with anti-wicking ferrule



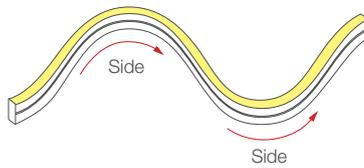
Notes:

- You can choose one of the above two wires.
- 2/3/4/5 cores are available.
- The wire length support customization.
- The anti-wicking ferrule needs to be above water for any underwater applications. Do not disassemble or reprocess the ferrule; otherwise, we will not be responsible for the consequences.

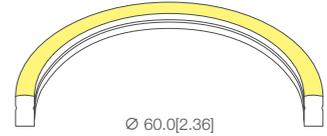
Sectional view



Bend direction

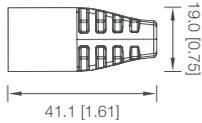


Bending Diameter

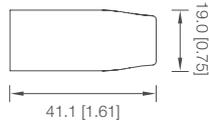


Front cap

Glue Process

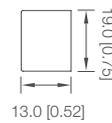


Molding pressed

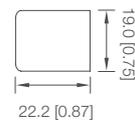


Closing End-cap

Glue Process



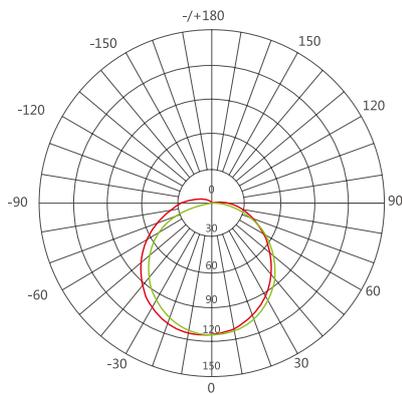
Molding pressed



Note: within 11m, the strip can be customized.

## Luminous Intensity Distribution Diagram

## Average Illumination



Unit: cd  
 - C 0 /180,120.2°  
 - C 90/270,113.6°  
 AVERAGE BEAM ANGLE (50%): 116.9°

Height	Eavg, Emax	Beam Angle: 110.83°	Diameter
0.5m	150.1,507.0lx		145.05cm
1.0m	37.5,126.8lx		290.10cm
1.5m	16.7,56.3lx		435.15cm
2.0m	9.38,31.7lx		580.20cm
2.5m	6.01,20.3lx		725.25cm
3.0m	4.17,14.1lx		870.30cm
3.5m	3.06,10.4lx		1015.35cm
4.0m	2.35,7.92lx		1160.40cm
4.5m	1.85,6.26lx		1305.45cm
5.0m	1.50,5.07lx		1450.50cm

Flux Out: 259.2lm (5200K)

Note: The data is the test result of Single color at CCT of 5200K. For other data, please consult sales rep.

## Recommended power supply upon working length

## NSF1017-Single color

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.48 A	24DC V	11.5 W	20 W	Single Feed
5m	2.4 A	24DC V	57.6 W	80 W	Single Feed
10m	4.8 A	24DC V	115.2 W	150 W	Single Feed

## NSF1017-WN

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.6 A	24DC V	14.4 W	25 W	Single Feed
5m	3.0 A	24DC V	72.0 W	100 W	Single Feed
10m	8.0 A	24DC V	114.0 W	200 W	Single Feed

## NSF1017-RGB

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.72 A	24DC V	17.28 W	24 W	Single Feed
5m	3.24 A	24DC V	77.76 W	100 W	Single Feed

## NSF1017-RGB-R

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.19 A	24DC V	4.56 W	7.2 W	Single Feed
15m	2.57 A	24DC V	61.56 W	100 W	Single Feed

## NSF1017-RGB-G

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.23 A	24DC V	5.52 W	7.2 W	Single Feed
15m	3.11 A	24DC V	74.52 W	100 W	Single Feed

## NSF1017-RGB-B

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.26 A	24DC V	6.24 W	7.2 W	Single Feed
15m	3.51 A	24DC V	84.24 W	120 W	Single Feed

## NSF1017-RGBW

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.84 A	24DC V	20.16 W	30 W	Single Feed
5m	3.78 A	24DC V	90.72 W	120 W	Single Feed

## NSF1017-RGBW-R

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.18 A	24DC V	4.32 W	7.2 W	Single Feed
20m	3.24 A	24DC V	77.76 W	100 W	Single Feed

## NSF1017-RGBW-G

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.22 A	24DC V	5.28 W	7.2 W	Single Feed
20 m	3.96 A	24DC V	95.04 W	120 W	Single Feed

## NSF1017-RGBW-B

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.22 A	24DC V	5.28 W	7.2 W	Single Feed
20m	3.96 A	24DC V	95.04 W	120 W	Single Feed

## NSF1017-RGBW-W

Working Length	Measured Current	Rated Voltage	Measured Power	Recommended Power Supply	Power Supply Mode
1m	0.24 A	24DC V	5.76 W	7.2 W	Single Feed
20m	4.32 A	24DC V	103.68 W	150 W	Single Feed

Product accessories



**ASY-NSF1017-N00NNH-EC**

Item: Front cap  
 Dimensions L\*W\*H: 33\*12\*17mm  
 Quantity (10/15m): 2-4pcs  
 Free/Optional: Free



**ASY-NSF1017-N00NNX-EC**

Item: Closing End-cap  
 Dimensions L\*W\*H: 13\*12\*17mm  
 Quantity (10/15m): 2-4pcs  
 Free/Optional: Free



**ASY-NSF1017-N00NNL-EC**

Item: Front cap(Left)  
 Dimensions L\*W\*H: 26.1\*19.2\*18.2mm  
 Quantity (10/15m): --  
 Free/Optional: Optional



**ASY-NSF1017-N00NNR-EC**

Item: Front cap(Right)  
 Dimensions L\*W\*H: 26.1\*19.2\*18.2mm  
 Quantity (10/15m): --  
 Free/Optional: Optional



**ASY-NSF1017-N00NNB-EC**

Item: Front cap(bottom)  
 Dimensions L\*W\*H: 26.1\*24.2\*12.2mm  
 Quantity (10/15m): --  
 Free/Optional: Optional



**ASY-NSF1017-A3NN0025-MT**

Item: Aluminum track  
 Dimensions L\*W\*H: 25\*12.3\*17mm  
 Quantity (10/15m): --  
 Free/Optional: Optional



**ASY-NSF1017-MNN0500-MT**

Item: S-type track  
 Dimensions L\*W\*H: 500\*11\*14.6mm  
 Quantity (10/15m): --  
 Free/Optional: Optional



**ASY-NSF1017-A1NN1000-MT**

Item: Aluminum channel  
 Dimensions L\*W\*H: 1000\*12.3\*17mm  
 Quantity (10/15m): --  
 Free/Optional: Optional



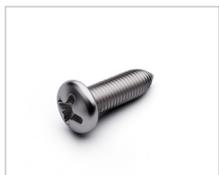
**ASY-NSF1017-P1NN0015-MT**

Item: Plastic Clip  
 Dimensions L\*W\*H: 12\*12\*12mm  
 Quantity (10/15m): --  
 Free/Optional: Optional



**WR-7516**

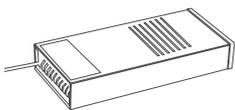
Item: Silicone Glue  
 Dimensions: 45g/pc  
 Quantity (10/15m): --  
 Free/Optional: Optional



**PA3**

Item: Screws  
 Dimensions L\*W\*H: PA3\*10  
 Quantity (10/15m): --  
 Free/Optional: Optional

Products and Tools



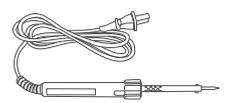
LED power supply



Cutter



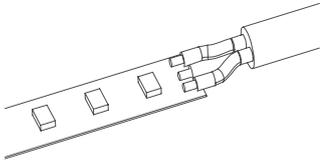
Electric drill



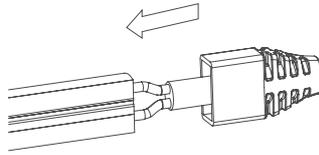
Electric iron

Installation Methods and Steps

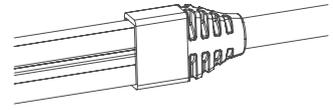
Details of installation operation at input end



Weld the wire to the PCB board.

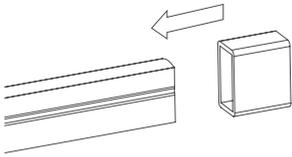


Apply waterproof glue to the front cap, then push the cap into the strip.

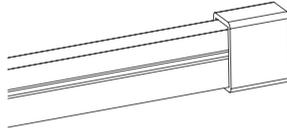


Wipe off the excess glue and wait for the glue to solidify.

Closing-end cap installation

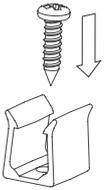


Apply waterproof glue to the end cap, then push the cap into the strip.

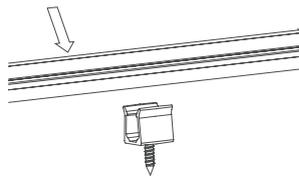


Wipe off the excess glue and wait for the glue to solidify.

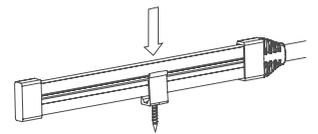
PC clip installation



Fix the clip with screw



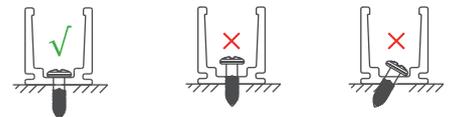
Put the strip into the clip



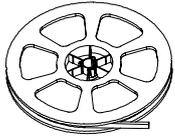
Finished

NOTE:

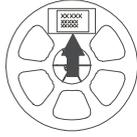
- During welding, please pay attention to the positive and negative poles of the wire and the strip;
- Each connection must use 10g silica gel for waterproof and insulating treatment;
- The screws must be vertical to the mounting surface and be fastened, as shown in the figure on the right;
- Please choose suitable operation steps according to the actual needs;
- During mounting, please pay attention to the min bending diameter, and best to use original factory accessories;
- More information, please feel free to consult us;



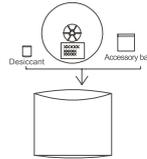
Packaging Information



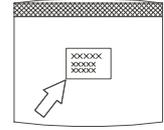
Roll the product to a reel



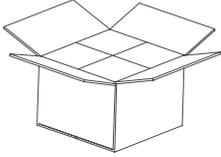
Label the reel;



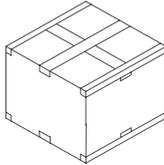
Put reel, accessory bag and desiccant together into static shielding bag;



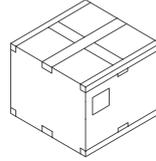
Seal and label the static shielding bag;



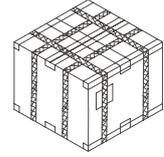
Put the packed static shielding bag into carton box;



Seal the carton box;



Label the carton box;



Use packing belt to pack. Add edge protectors if necessary

Packaging information

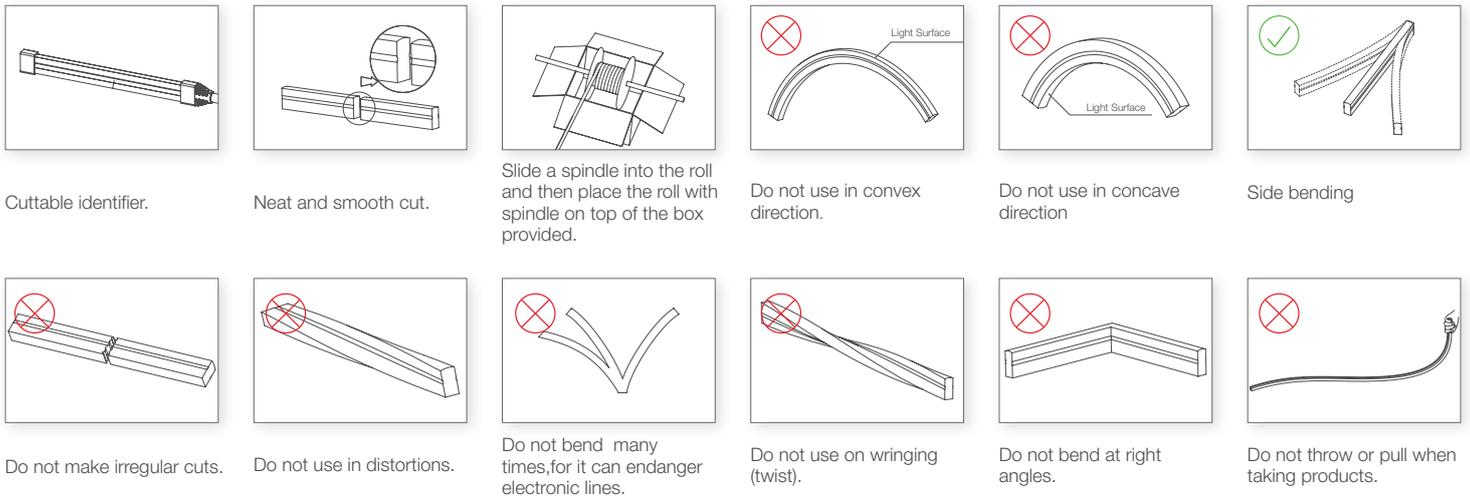
Model No.	Product Size L*W*H (mm)	Carton Size (mm)	Meter/Reel	Reel/Carton	Net Weight (kg)	Gross Weight (kg)
NSF1017-Single color	10000*10*17	390*390*325	10	3	/(± 10%)	6.80 (1± 10%)
NSF1017-WN	10000*10*17	380*380*325	10	6	/(± 10%)	14.15 (1± 10%)
NSF1017-RGB	5000*10*17	390*390*325	5	12	/(± 10%)	15.50 (1± 10%)
NSF1017-RGBW	5000*10*17	390*390*325	5	10	/(± 10%)	12.50 (1± 10%)

- 5/10m per reel, and the reel is packed in an aluminum foil bag, and finally in an outer box
- For other customized length packaging, please ask our sales rep.
- The above-mentioned packaging quantity and weight are only for the illustrated packaging method. For other packaging methods, the packaging quantity and weight will be different. The actual weight is subject to the actual product.

Reliability test

Project	Reference standards	Category	Test conditions	Outcome
Environmental test	Blueview standard	PTC test	Test temperature -40°C to 60°C, cycle once every 2h (temperature holding time 15min, heating and cooling time 45min)	Pass
		Room temperature aging test	TH=25°C, continuous power on	
		Temperature cycling test	Th = 60°C/4h, Ta =20°C/1H, TL=- 40°C/4h,continuous cycle lighting	
		High temperature resistance test	Simulated TH=60 °C, continuous power on	
Mechanical strength testing	Blueview standard	Room temperature bending test	Bending diameter 10cm, T=25°C, continuous power on	Pass
		Tensile test	Fix the ends of the sample on the tension machine, then power on and record the tension value when the sample is turned off.	
		Twisting test	24V light on; rotate 360° forward and reverse, if the sample still OK, increase the degree of rotation until the sample broken.	

## Warning Mark



## Note:

The cutting mark is on the PCB, and the cutting position can be identified in the product cutting line window or the laser mark on the product surface; After unpacking, use warning signs during handling and installation, and rigorous operation can bring a pleasant experience;

## Warning

- Do not disassemble or retrofit the light. Do not touch the surface of the light with a sharp object.
- Do not do live-line working during installation, especially for high voltage product.
- Do not use any organic chemical solvents.
- Use neutral glass adhesive to fix this product and it needs to be dried 4 hours in the open environment after operation.
- Treat the ends and the circuit connection points that are not connected to the main line with insulation, waterproof, and anti-corrosion in the installation.
- Use 18AWG (0.75mm<sup>2</sup> cross-sectional area) or thicker core wire to avoid adverse consequences caused by overheating, if the power cable need to lengthen.
- Make sure the input voltage meets the requirements and lines are connected correctly before lighting on
- This product is for signage, and do not use as general lighting.
- Series connection within the max run.
- The length of the power cable between the power supply and the led strip should not exceed 2 meters. Otherwise, large circuit loss will lead to inconsistent brightness.
- Installation, maintenance and repair should be operated by a qualified technician.

## Attentions before installation

- Before installation, check that the product parameters are consistent with the requirements (Seeing product specifications or product labels)
- Load voltage, current, power and power supply should be matched with the product.
- Follow the instructions of wiring diagram (first connect the load and then the power supply) to avoid short circuit
- Make sure the correct connection of positive and negative poles between products and power supply. Otherwise, the light will not be on.
- Make sure the power cord firmly screwed into the terminal and it should not be pulled out by hands.
- The terminal should have waterproof and anti-corrosive treatment.

## Statements and Recycling

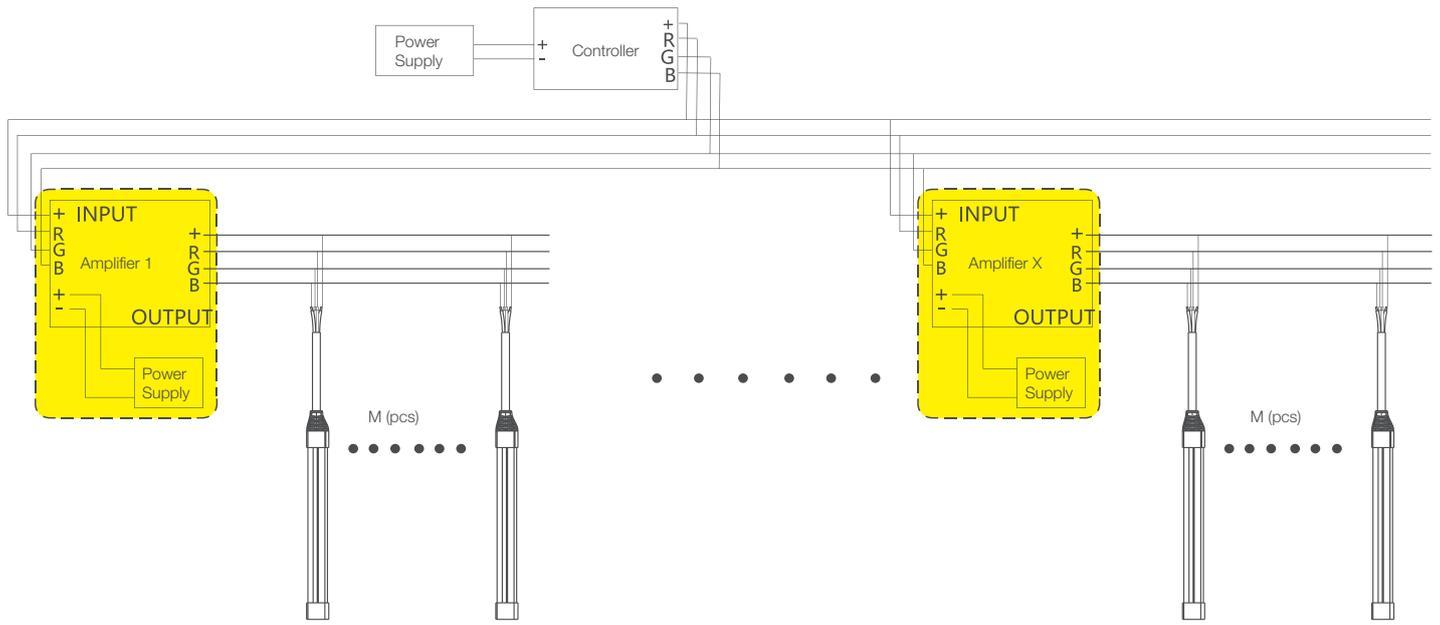
## Packaging information

- Repair should be operated by a qualified technician or supplier, if the external circuit or main line of this product is damaged.
- The parameters given in this manual are typical values and for reference only
- All illustrations and drawings in this manual are for reference.
- This product is subject to change without notice.

## Recycling

- LED lighting products belongs to electronic products, please do recycling treatment according to the relevant WEEE directives.

Connection Diagram of Controller



Rated power of the amplifier's power supply (W): P  
 Rated power of the strip (W): P(strip)  
 Amplifier load: M(pcs)  
 Max run length: MAX

$$M = \frac{P \cdot 0.8}{P_{(strip)} \cdot MAX}$$

For example: Take the NSF1017 as an example, P(strip)=17.3W/m, power supply 400W, Max run length(single feed)=4m, so the amplifier load is.

$$M = \frac{P \cdot 0.8}{P_{(strip)} \cdot MAX} = \frac{400 \cdot 0.8}{17.3 \cdot 4} \approx 5(pcs)$$

Note:

The power supply of the controller must match it's power;  
 If the distance between the controller and the product is more than 20 meters, an amplifier is needed. As shown above;  
 The above example adopts single feed mode;

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