

SPECIFICATION

产品规格书

REFOND P/N 产品型号
RF-MTCG40T0924*-A0

☐ R&D 研发

☒ Mass Product 量产供货

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REFOND

1. Description 产品介绍

1.1 General Description 产品描述



Notes 备注: The product consists of SMD2835LED(120PCS/m) white light and FPC soft board to form DC24V constant pressure LED soft light belt.

产品由 SMD2835LED(120PCS/m)白光和 FPC 软板组成 DC24V 恒压 LED 软灯带。

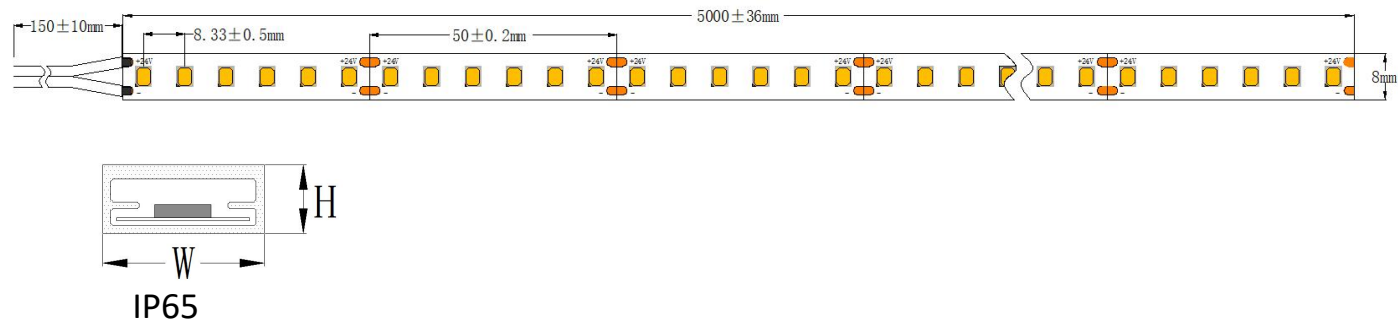
1.2 Features 产品特征

- ▶ The light source of the LED strip is 2835, which has high luminous efficiency, less heat, no mercury, and environmentally friendly performance;
LED 灯带的光源是 2835, 具有高发光效率, 较少的热量, 无汞, 环保的性能;
- ▶ 6 color temperature for options, 2700K, 3000K, 3500K, 4000K, 5000K, 6500K.;
提供 2700K, 3000K, 3500K, 4000K, 5000K, 6500K, 6 种色温可选;
- ▶ Low voltage DC24V constant voltage driving to ensure safe and reliable running;
低压 DC24V 恒压驱动, 确保运行安全可靠;
- ▶ RoHS, CE compliant.
符合 CE, RoHS.

1.3 Application 产品应用

- ▶ Home decoration (staircase lighting, hall aisle lighting, lighting decoration, edge hook decoration)
家居装饰 (阶梯照明、大厅走道照明、灯光装饰、边缘勾边装饰)
- ▶ Event venue decoration, exhibition venue decoration, exhibition hall decoration, showcases, window, props and other decorative lighting applications
活动会场布景、展览会场装饰、展馆装饰、展柜、橱窗、道具等应用装饰照明
- ▶ Linear light source and other applications
线型灯具光源等应用
- ▶ General use. 其他应用

1.4 Size chart 产品尺寸图



Size: W10*H5.0mm

	Dimension 尺寸	Specification 规格	Tolerance 公差
L	Strip Length 灯条长度	5000	±36
W	Strip Width 灯条宽度	8	±0.2
H1	PCB Thickness PCB 厚度	0.25	±0.15
H2	Height of Strip 灯条高度	1.0	±0.1

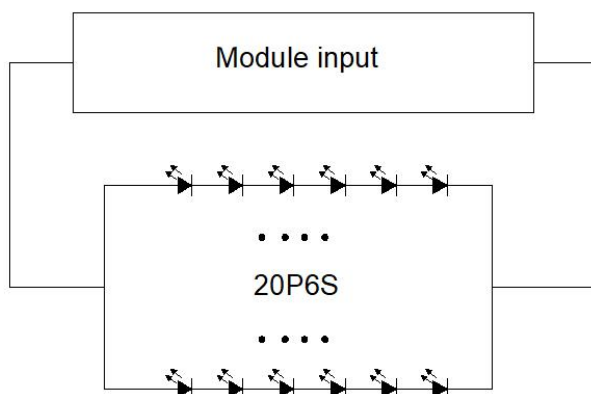
Notes 备注：The product has a single strip of 500mm, with a imum of 10 cascades (5m). The 8PCS lamp is a set of cuttable, single-ended outlets, which can be spliced at will.
 产品单条 500mm，级联 10 条（5m），6PCS 灯为一组可剪，单端出线，可任意拼接。

1.5 Product Parameters 产品参数

Refond PN 瑞丰产品料号	灯条参数Strip Characteristics							
	CCT/Wave 色温/波长 (K/nm)	Viewing Angle 发光角度 (°)	CRI 显指 (Ra)	FLUX 光通量 (lm/M)	Eff 光效 (lm/w)	VF 电压 (V)	IF 电流 (mA)	Power 功率 (W/M)
	Typ	Typ	Typ	Typ	Typ	Typ	Typ	Typ
RF-MTCG40T09242-A0 IP20	4000K	120	≥90	1008	105	24	400	9.6
RF-MTCG40T09247-A0 IP65	4000K	120	≥90	998.4	104	24	400	9.6

- Notes 备注:
- 1 meter test parameter.1 米的测试参数
 - The tolerance of the aboveparameters is ± 10%.上述标准参数误差范围在 ± 10%.

1.6 LED Strip Schematic And Interface Definition 灯带电性规格



2. Packaging 产品包装

2.1 Packaging Specification 包装规格

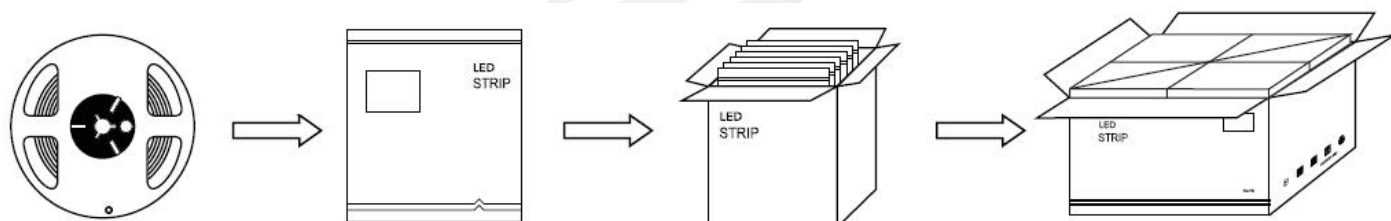


Fig.2-1 Title 图名

2.2 Label Form Specification 标签规格

Refond LED Flexible Strips	
P/N: RF-MTCG40T09242-A0	
Item code:	
LED TYPE: 2835	Color: 4000K
Voltage: 24V	Power: 9.6W/M
IP Rate: IP**	Length: 5M/Reel
Date:2024-xx-xx	

Fig.2-2 Title 图名

2.3 Moisture Resistant Packing 防潮包装

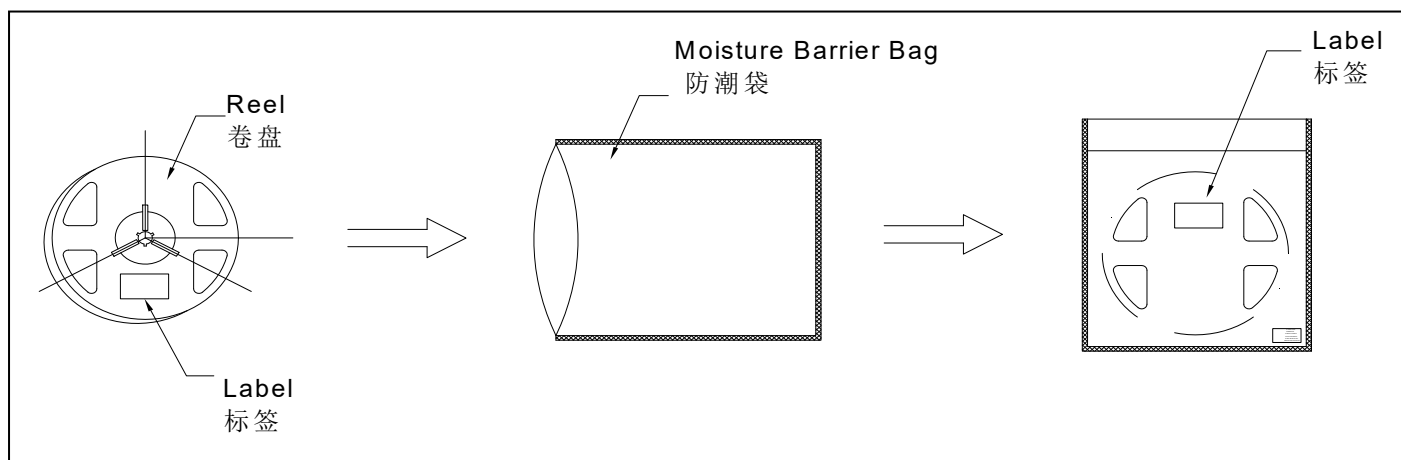


Fig.2-3 Title 图名

2.4 Cardboard Box 包装纸箱

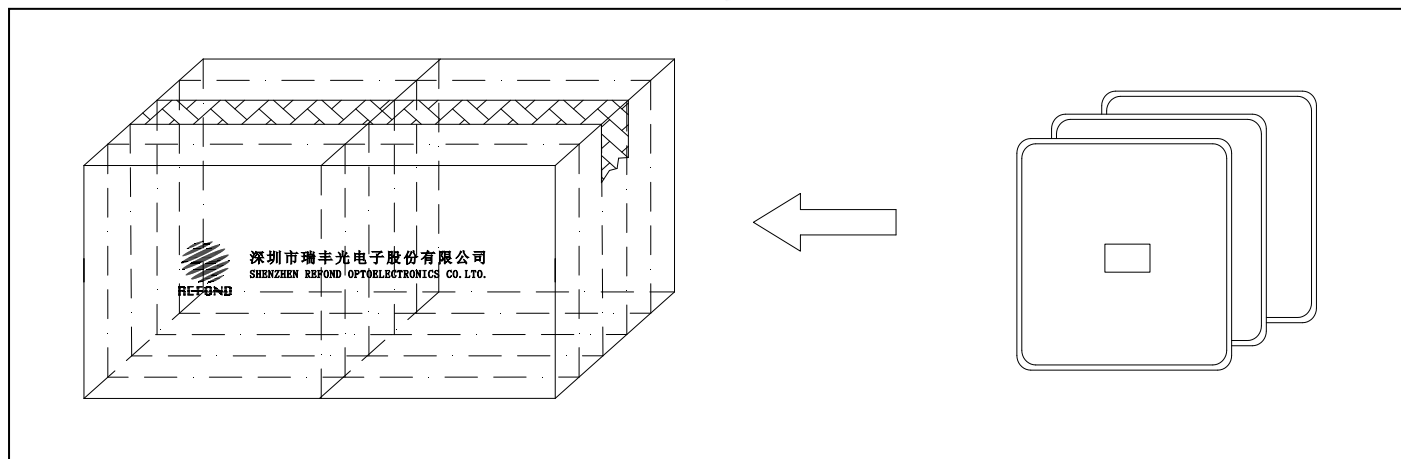


Fig.2-4 Title 图名

3.LED Strip Reliability Test 灯条可靠性实验

Tab 3-1 Strip Reliability Test 灯条可靠性实验

Test Item/ 测试项目	Test Conditions/ 测试条件	Test Time/ 测试时长	Number of Test/ 测试数量	Judgement Criteria/判定标准
Operating Life at Room Temperature/ 常温测试	T _A =25°C DC24V T _J <115°C	1000Hrs	0/6	1. $\Delta\Phi < 30\%$, V _f <110%, CIE $\Delta x/\Delta y < 0.015$ 2.No catastrophic failure
Operating Life at High Temperature/ 高温测试	T _A =80°C DC24V T _J <115°C	1000Hrs	0/6	
Operating Life at High Temperature and Humidity/ 高温高湿测试	70°C R _H =90% DC24V T _J <115°C	1000Hrs	0/6	
Thermal Shock/ 冷热冲击	-40°C 15min ↑↓10S 80°C 15min	150 cycle	0/6	No DeadLED
Distortion Test 扭曲测试	T _a =25°C, straighten the lamp belt at both ends and fix it on the instrument. The lamp strip needs to be lit up with power (the actual power condition is determined). In the experiment, 360° positive turn and then 360° reverse. T _a =25°C, 将灯带拉直两端固定夹在仪器上, 灯条需通电点亮(是实际通电条件定), 在进行实验, 360°正转, 再 360°反转	8 cycles	0/6	No DeadLED
Tension test 拉力测试	Lamp belt welded wire end fixed tractor tail fixed 60N weight (double panel) 50N weight (single panel). 灯带焊接线材端固定拉力器尾部固定 60N 砝码(双面板) 50N 砝码 (单面板)	3 cycles	0/6	No DeadLED

Notes 备注: The above reliability test is based on the results of Ruifeng's existing experimental platform LED light bar verified under good heat dissipation conditions. 以上可靠性测试是基于瑞丰现有实验平台 LED 灯条在良好散热条件验证下的结果。

4.Product use and installation instructions 产品使用安装说明

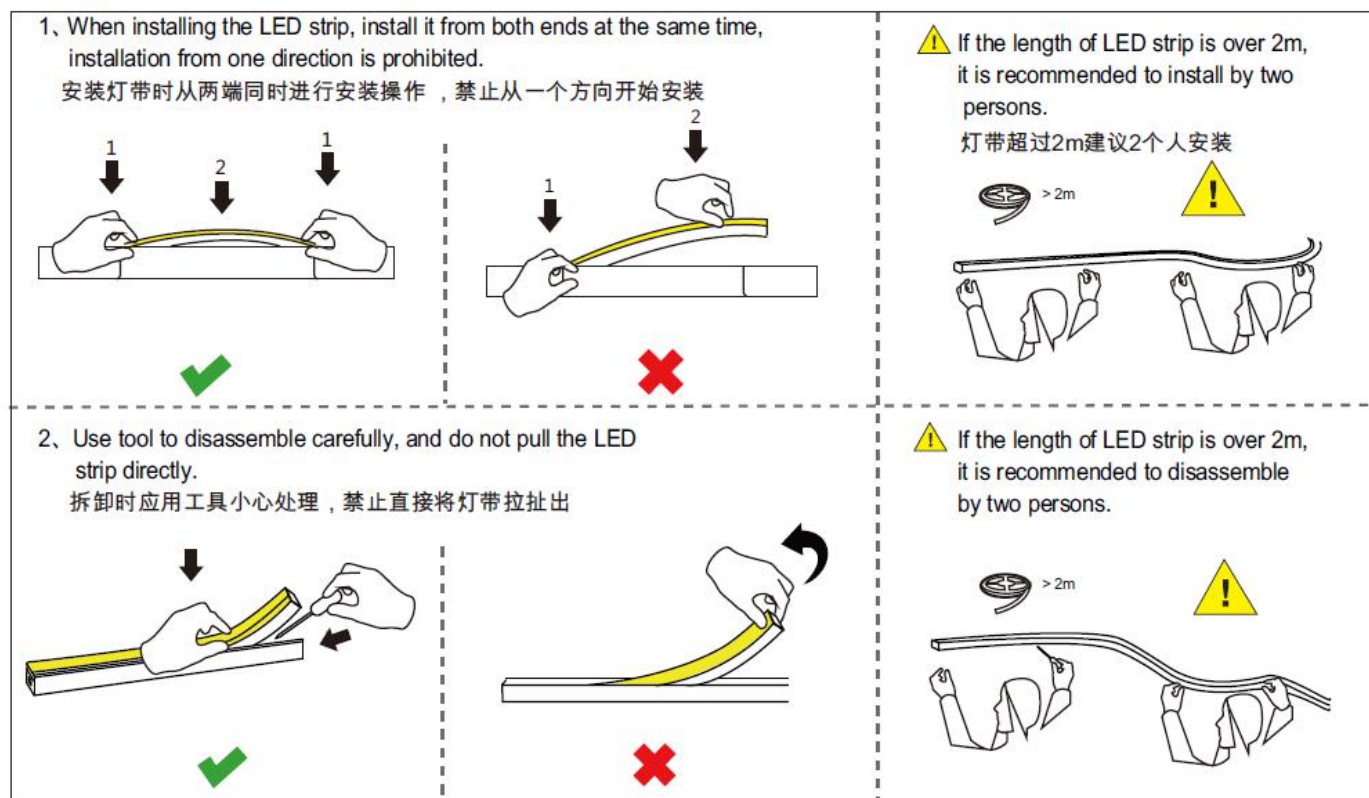
- Clean the installation surface.
将安装表面进行清理干净。
- Take out the flexible strip from the reel.
将柔性灯带从卷盘上取出。
- Place the products close to the mounting surface in sequence.
将产品依次序紧贴于安装表面。
- After mounting the flexible strip on the surface, connect the power supply lead of this product to

the driver output terminal and do proper insulation treatment, paying attention to the polarity of the lead.

将柔性灯带安装表面后，将本产品供电导线连接到驱动器输出端中，并做适当绝缘处理，注意导线极性。

- After the product cable is installed, connect the driver to the test power to supply power to the driver.

产品连接线安装完成后，将驱动器连接到市电当中，对驱动器进行供电。



5.Product use precautions 产品使用注意事项

- The power supply voltage should be the same as that indicated on the LED flexible strip, and appropriate safety devices should be installed.

电源电压应与 LED 软灯带所标示一致，并安装适当保险装置。

- Observe if the positive and negative poles of the power supply before installation, and connect them properly, otherwise the light strip will be damaged.

安装前观察好电源正负极后，正确连接，否则会损坏灯带。

- Do not apply power to the light strip during the installation of the goods. To avoid short-circuit failure of the light strip caused by operating errors during operation, the power can only be connected under the condition of connection, installation and correctness.

请勿在安装货装配灯带过程中通电操作，避免作业过程中操作失误导致灯带短路失效，只有接驳、安装好且正确的情况下才能接通电源。

- The flexible LED strip can only be cut at the silk-screened scissors mark on the light strip, and other places will damage the circuit of the light strip and cause some of the lamp beads to fail.
LED 软灯带只能在灯带上丝印有剪刀标记处剪开，其他地方剪开会损坏灯带电路回路，导致部分灯珠不亮现象。
- The interface must be firm and free from short-circuit risks.
接口必须牢固，无短路隐患。

Version History修订历史

Date日期	Revisor修订者	Version版本	Verifier审核	Remarks备注
2024-12-19	龙华伟	E/0	邱涛	新版发行

