

SPECIFICATION FOR APPROVAL

REFOND P/N 产品型号
RF-MTEC*0T12242-A0

☐ R&D 研发 ☒ Mass Product 量产供货		
Supplier 供应商		
Approved By 核准	Checked By 初审	Prepared By 编制
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Customer 客户		
Approved By 核准	Checked By 初审	Received By 接受
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1.Description 产品介绍

1.1General Description 产品描述



Notes 备注 :The product consists of Chips(504PCS/M) 3000K/4000K and FPC soft board, consisting of DC24V constant voltage COB strip.

产品由 Chips(504PCS/M) 3000K/4000K 和 FPC 软板, 组成 DC24V 恒压 COB 灯带。

1.2Features 产品特征

- ▶ The light source of the LED strip is Chips, which has high luminous efficiency, less heat, no mercury, and environmentally friendly performance;
LED 灯带的光源是 Chips, 具有高发光效率, 较少的热量, 无汞, 环保的性能;
- ▶ 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;
- ▶ IP20protection grade;
IP20 防护等级;
- ▶ RoHS, CE compliant.
符合 CE,RoHS.

1.3Application 产品应用领域

- ▶ 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 scenery, exhibition venue decoration, exhibition hall decoration, showcase, window, props, charging pile and other application decoration lighting;
活动会场布景、展览会场装饰、展馆装饰、展柜、橱窗、道具、充电桩等应用装饰照明;
- ▶ Linear light source and other applications
线型灯具光源等应用。

1.4Size chart 产品尺寸图

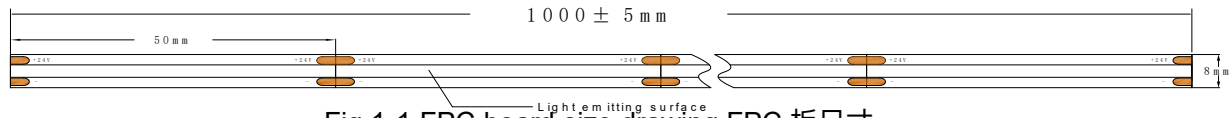


Fig.1-1 FPC board size drawing FPC 板尺寸

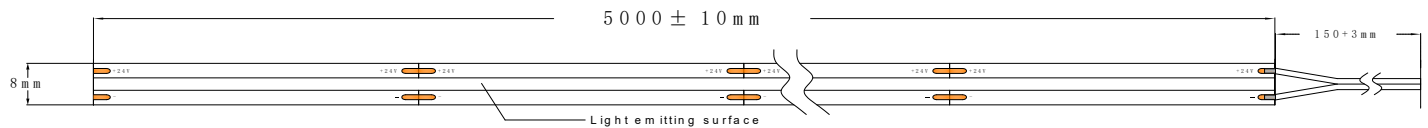


Fig.1-2 Top View 正面视图

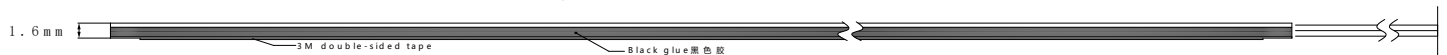


Fig.1-3 SideView 侧面视图

Fig.1-4 Enter the line sequence 线材接线图

	Dimension 尺寸	Specification 规格	Tolerance 公差
L	Strip Length 灯条长度	1000	±5
W	Strip Width 灯条宽度	10	+0.5
H	Strip Height 灯条高度	1.6	+0.15
line	line length 线长	150	±5

Notes 备注:

1. All dimensions units are millimeters;所有尺寸标注单位为毫米;
2. All dimensions tolerances are ±0.5mm unless otherwise noted;除特别标注外，所有尺寸公差为±0.5 毫米;

1.5Product photoelectric parameter 产品光电参数

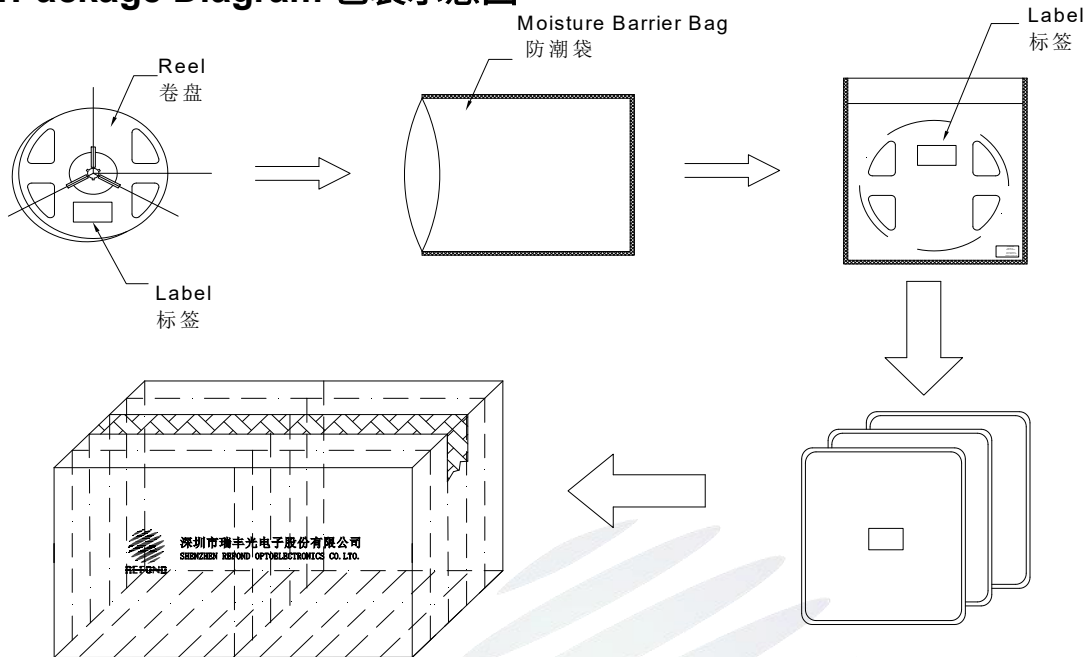
Refond PN 瑞丰产品料号	灯条参数Strip Characteristics							
	CCT/Wave 色温/波长 (K/nm)	Viewing Angle 发光角度 (°)	CRI 显指 (Ra)	FLUX 光通量 (lm/M)	Eff 光效 (lm/w)	VF 电压 (V)	IF 电流 (mA)	Power 功率 (W/M)
RF-MTEC30T12242-A0	3000K	120	90	480	480	24	500	12
RF-MTEC40T12242-A0	4000K	120	90	480	40	24	500	12

Notes 备注:

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

2.Packaging 产品包装

2.1Package Diagram 包装示意图



2.2 Carton silk printing 纸箱丝印

REFOND LOGO Pay attention to identify



Notes 备注: No special requirements, neutral packaging is allowed. 无特殊要求, 允许中性外箱包装。

2.3 Label Form Specification 标签规格

Refond LED Flexible Strips	
P/N: RF-MTEC*0T12242-A0	
Item code:	
LED TYPE :Chips	Color:3000K/4000K
Voltage: 24V	Power: 12W/M
IP Rate: IP20	Length: 1M/Reel
Date:2025-xx-xx	

3.LED Strip Reliability Test 灯条可靠性实验

3.1 Strip Reliability Test 灯条可靠性实验

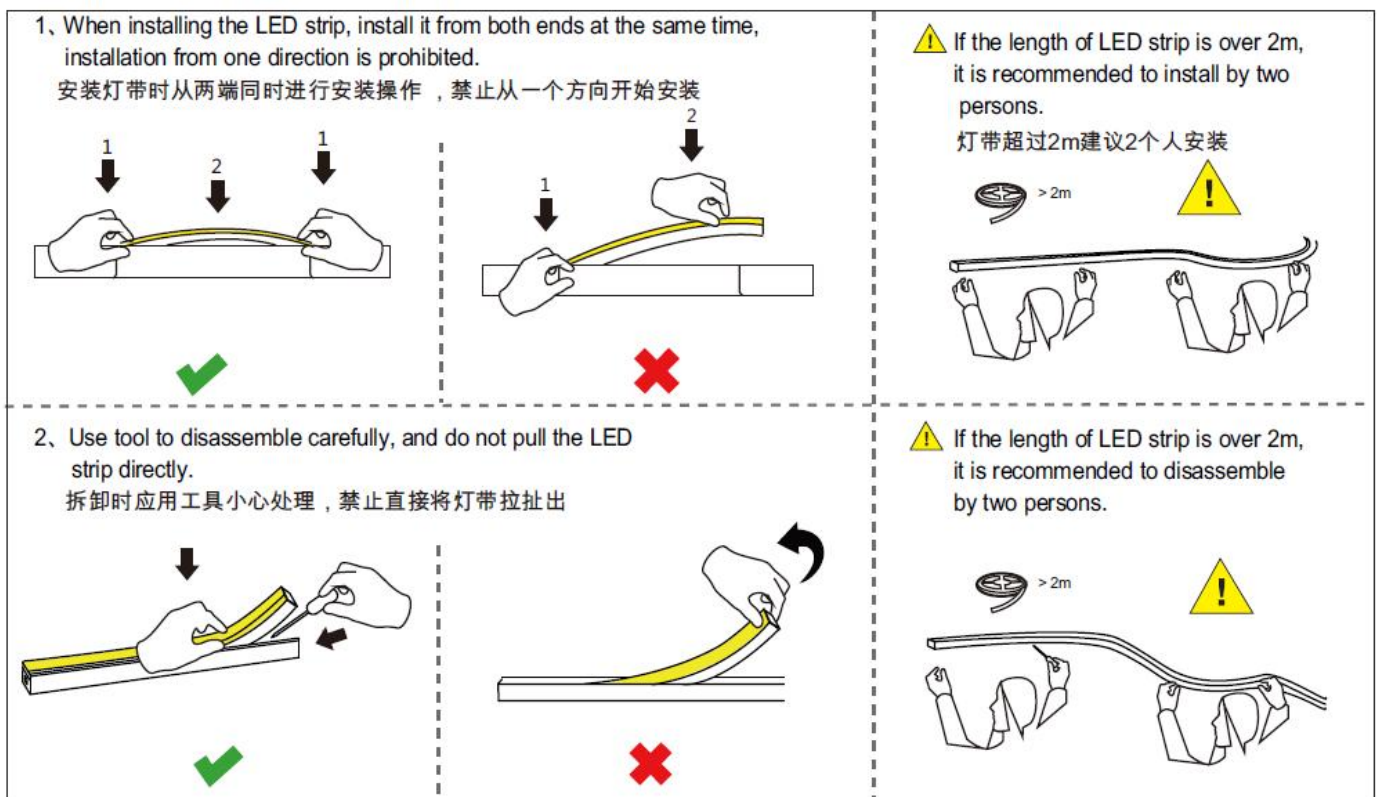
Tab 3-1 Strip Reliability Test 灯条可靠性实验

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	$T_A=25^{\circ}\text{C}$ DC24V $T_J<115^{\circ}\text{C}$	1000Hrs	0/6	After the experiment, 1. Lumen value $\Phi<30\%$, Voltage $V_f<110\%$, 2.No catastrophic failure. 实验后, 1.流明值 $\Phi<30\%$, 电压值 $V_f<110\%$, 2.无灾难性故障。
Operating Life at High Temperature/ 高温测试	$T_A=80^{\circ}\text{C}$ DC24V $T_J<115^{\circ}\text{C}$	1000Hrs	0/6	
Operating Life at High Temperature and Humidity/ 高温高湿测试	70°C $R_H=90\%$ DC24V $T_J<115^{\circ}\text{C}$	1000Hrs	0/6	
Thermal Shock/ 冷热冲击	-40°C 15min $\uparrow\downarrow$ 10S 80°C 15min	150 cycle	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

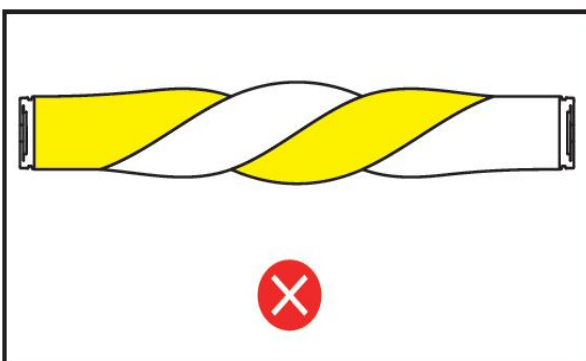
- ▶ Clean the installation surface;
将安装表面进行清理干净;
- ▶ Remove the flexible lamp strip from the electrostatic bag;
将柔性灯带从静电袋上取出;
- ▶ Place the product close to the installation position in sequence, as shown in step 1 below;
将产品依次序紧贴于安装位置, 如下图步骤 1;
- ▶ After the flexible light strip is installed on the surface, insert the terminal pair of the power supply wire into the corresponding power supply output terminal, and properly insulate the terminal. Pay attention to the anti-stay mark of the terminal, and do not insert or remove the terminal forcibly;
将柔性灯带安装表面后, 将本产品供电导线端子对插到相对应的供电输出端子中, 并做适当绝缘处理, 注意端子防呆标识, 切勿强制插拔端子;
- ▶ After connecting terminals, connect the driver to the mains to supply power to the driver;
产品端子对接安装完成后, 将驱动器连接到市电当中, 对驱动器进行供电;
- ▶ Product disassembly should be carried out according to step 2 of the following picture, do not force disassembly.
产品拆卸需按下图步骤 2 进行, 切勿暴力拆装。



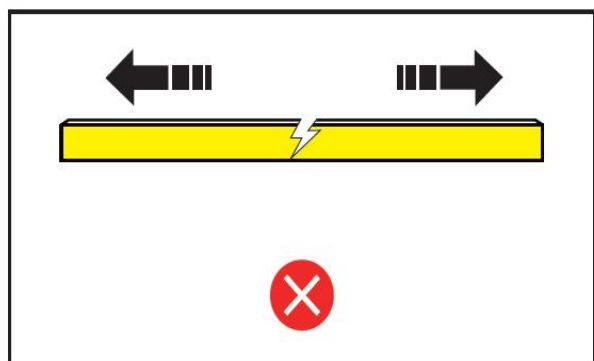
5.Product use precautions 产品使用注意事项

- ▶ The power supply equipment should be consistent with the LED soft light belt mark, and install the appropriate safety device;
供电设备应与 LED 软灯带所标示一致，并安装适当保险装置；
- ▶ Before installation, observe the anti-retarding mark of the terminal. The terminal must be connected correctly; otherwise, the lamp belt will be damaged.
安装前观察好端子防呆标识，端子需要正确连接，否则会损坏灯带；
- ▶ Do not power on the light belt during the installation of the cargo assembly. Otherwise, the light belt may fail due to short circuit due to misoperation. Power on the power supply device only when it is properly connected and installed.
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供电设备，进行通电；
- ▶ The interface must be firm and free from short-circuit risks. For outdoor installation, each interface must be sealed with neutral glass glue, or waterproof connectors should be used for splicing to ensure that water does not enter the interface;
接口必须牢固，无短路隐患，户外安装时，各接口必须用中性玻璃胶密封接口，或使用防水连接器进行拼接，保证接口处不进水；
- ▶ Actions such as transportation, assembly and disassembly of the product light belt shall meet the bending radius $R \geq 30\text{mm}$, and do not operate the product with positive bending, twisting, pulling and other actions.
产品灯带运输、装配、拆卸等动作需满足半径 $R \geq 30\text{mm}$ ，切勿有正弯、扭曲、拉扯等动作操作产品。

③ No distortion



④ No stretching



Version History/修订历史

Date日期	Revisor修订者	Version版本	Verifier审核	Remarks备注
2025-02-19	周彦兵	E/0	邱涛	新版发行



Declare 申明

This specification is written both in English and in Chinese and the latter is formal.

产品规格书以中英文方式书写，若有冲突以中文版本为准。