



## JMF-T2 系列 • 机柜温控散热风扇单元

JMF-T2 • Cabinet cooling fan unit

用户手册 User Manual v1.0



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### 版本信息/Version information:

版本号 Version number	主要变更内容 Main change content	日期 date
V1.00	初始版本 The initial version	2023-09

## 1. 功能概述 Function overview

JMF-T2 系列机柜温控风扇单元为我司原研产品，内置 2 个大风量直流散热风机，设备主要用于机箱机柜的抽/排风散热；内部集成温度传感器，实时采集、显示温度，采用智能温控调速技术，低温时风机低速运行或关停，节能降噪；高温时风机自动加速运行，快速排风散热；全自动平衡机柜温度和风机噪音，无需布线插电即用，是机箱机柜抽排风散热的新选择。

\*我司风扇单元可直接用于升级替换图腾 G/K 系列机柜原装的内嵌式风扇单元

The JMF-T2 series cabinet temperature control fan unit is our company's original research product, which is equipped with two large air volume cooling fans, mainly used for the extraction/exhaust heat dissipation of the cabinet. The equipment integrates temperature sensors, real-time temperature collection and display, and adopts intelligent temperature control speed regulation technology internally. The fan operates at low speed for energy-saving and noise reduction, and operates at high speed for fast ventilation and heat dissipation. It automatically balances the cabinet temperature and fan noise, and can be used without wiring or plugging in, It is the preferred choice for mid to high end chassis and cabinet ventilation and heat dissipation.

## 2. 技术参数 Technical parameters

1. 供电范围：AC100V~260V（全球通用）

Power supply range: AC100V~260V

2. 整机功率：≤10W

Overall power: ≤ 10W

3. 散热风量：≈175cfm (350m<sup>3</sup>/h)

Heat dissipation air volume: ≈ ≈175cfm (350m<sup>3</sup>/h)

4. 内置风机类型及数量：双滚珠直流无刷风机 \*2，

Internal fan type: DC fan \*2, double ball bearing

5. 测温范围：-20~120℃

Temperature measurement range: -20~120 °C

6. 温度误差：±1℃

Temperature error: ± 1 °C

7. 净重：≈1Kg

Net weight: ≈ 1Kg

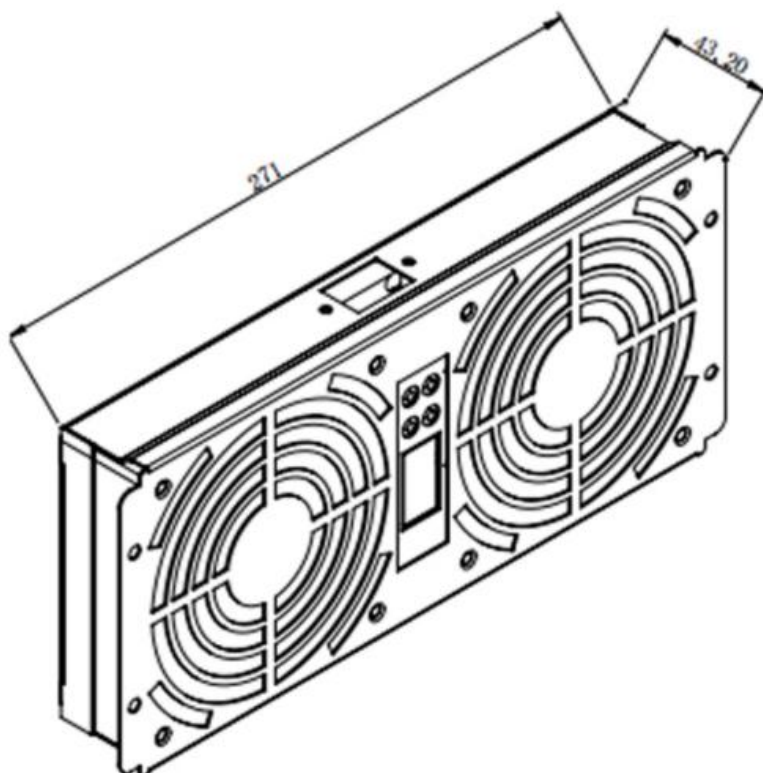
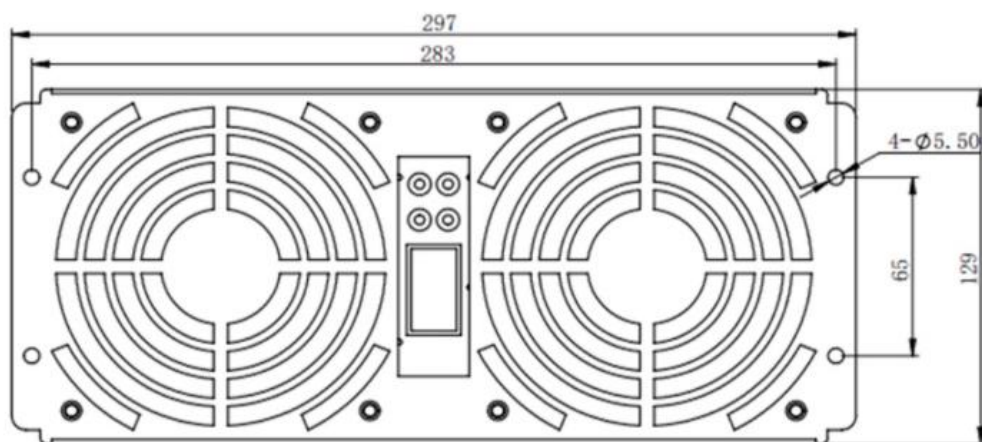
8. 安装方式：嵌入式安装

Installation method: Embedded installation

9. 外观颜色：常规为磨砂黑，批量订单可以定制颜色

Appearance color: matte black, and the color can be customized for bulk orders

### 3. 产品尺寸 (单位 mm) size



\*单台设备嵌入式安装时，安装孔开孔尺寸约为 273mm\*130mm

\*此设备与图腾 G/K 系列机柜原装的内嵌式风扇单元尺寸一样，可直接用于升级替换机柜原装的内嵌式风扇单元

#### 4. 接口说明 interface specification



**1 号端口：**级联插头，多台并排使用时，可以直接并排级联，仅使用一条电源线供电

\*仅 JMF-T2-A 版本有此端口

Cascade plug, when multiple units are used, they can be directly cascaded side by side with only one power cord used for power supply

\*Only JMF-T2-A version has this port

**2 号端口：**AC220 三孔供电插口

AC power port

**3 号端口：**温度探头(金属圆柱体内含测温传感器)

Temperature probe (metal part temperature measurement)

## 5. 基础功能使用说明 Come into use

### 5.1 插上电源线

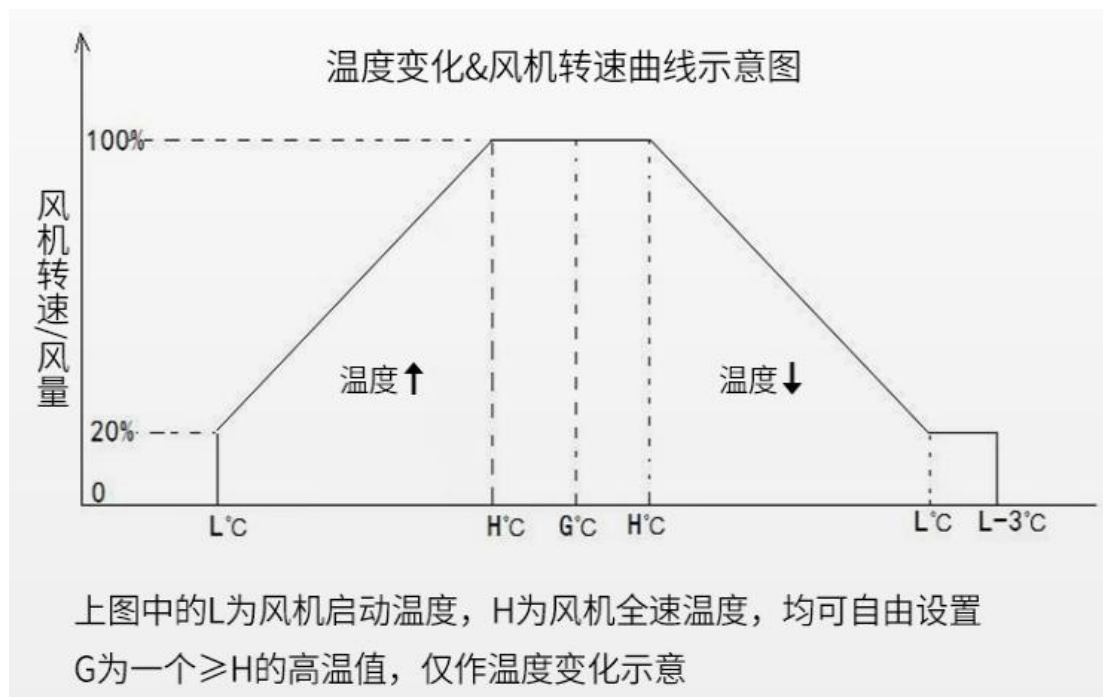
Connect the wiring according to the interface Commands

5.2 供电正常后，数码显示屏会显示当前温度，并根据当前设置的温度区间来调节风机的转速，以出厂默认的温度区间为例，设备出厂默认的温度区间为L=30℃、H=50℃，当检测到当前温度大于等于30℃时，设备按线性比例调节风扇的转速，温度升高，风扇转速也会加快，当温度 $\geq 50^\circ\text{C}$ 时，风机变为全速。当温度降低到 $\leq 27^\circ\text{C}$  (L-3)时，设备使风扇处于最小转速/或关停风机。

After the power supply is normal, the LED lights up, the governor starts to detect the current temperature, and adjust the speed of the fan according to the current temperature interval. Take the default temperature interval of the governor as an example, the default temperature interval of the governor is L=30℃, H=50℃. When the current temperature is greater than or equal to 30℃, the governor adjusts the fan speed in linear proportion, and the fan speed will accelerate. When the temperature is 50℃, the fan changes to full speed.

风机转速&温度关系示意图:

Schematic diagram of the fan rotation speed & temperature relationship:



In the figure above, L is the starting temperature of the fan, and H is the temperature of the fan at full speed, which can be set freely.

G is for reference only



## 6. 数码面板操作说明 Panel operation Commands

数码面板实时显示当前温度，带 4 个按键，通过按键可以设置调速器的所有参数  
待机状态下，按 MODE 键可进入配置/切换参数项，配置时按↓键可以调整数值，OK 键确认  
\*设置参数时，每设置一项参数（改变了参数值），都必须按一次 OK 键确认，再设下一项。  
The digital panel displays the current temperature in real time, with four keys, through which all the parameters of the governor can be set In standby state, press MODE key to enter the configuration / switch parameter items, and press ↓ key to adjust the value, and OK key to confirm

\* When setting the parameters, for each parameter set (the parameter value is changed), you must press the OK key once to confirm, and then set the next item.

### 参数项 Parameter item

数显代号 Number of code	参数释义 Parameter definition	参数说明 parameter declaration
Lxx	风机启动温度 Start temperature of fan	设置风机的启动（下限）温度值 设置范围：-20~120℃ Set the start temperature value of the fan Setting range: -20~120℃
Hxx	风机全速温度 Full speed temperature of fan	设置风机的全速（上限）温度值 设置范围：-20~120℃，H 的值必须大于 L 的值 Set the full speed temperature value of the fan Set the range: -20~120℃, the value of H must be greater than the value of L
Pxx	工作模式 work pattern	设置设备的工作模式 当温度小于设置的启动温度-3℃时，用此参数设置设备是控制风机关闭还是维持风机处于最小（20%）的转速） 设置范围： 01 表示维持最小转速，00 表示关闭风机 Set up the working mode of the governor When the temperature is less than the set start temperature-3℃, use this parameter to set the governor to control the fan off or maintain the fan at the minimum (20%) speed) Setting range: 01 means maintaining the minimum rotation speed, and 00 means turning off the fan

### **\*以设置风机的启动、全速温度为例**

\* Take setting the start and full speed temperature of the fan as an example

待机状态下，面板显示当前的温度值，按 1 下 MODE 键，数码管显示 Lxx，L 代表启动温度，xx 表示当前设置的温度值，

按上下键可以调整参数值，调整完成后，按 ok 键确认，回到待机界面

In the standby state, the panel shows the current temperature value, press 1 MODE key, the digital tube displays Lxx, L represents the start temperature, xx represents the currently set temperature value, Press the upper and lower keys to adjust the parameter value. After the adjustment is completed, press the ok key to confirm and return to the standby interface

待机状态下，按 2 下 MODE 键，数码管显示 Hxx，H 代表全速温度，xx 表示当前设置的温度值，按上下键可以调整参数值，调整完成后，按 ok 键确认

In standby state, press MODE key for 2, the digital tube shows Hxx, H represents the full speed temperature, xx represents the current set temperature value, press the upper and lower key to adjust the parameter value, after the adjustment is completed, press OK key to confirm

设置完成，设备将根据新设置的温度参数来自动控制风机的转速。

其他参数的设置与上面步骤类似。

When the setting is complete, the governor will automatically control the speed of the fan according to the newly set temperature parameters. The other parameters were set similarly to the above steps.

### **\*使用提示 prompt**

实际使用时，可以根据现场的温控要求来设置风机的启动温度和全速温度，风机全速时会有比较大的噪音，如果觉得风机全速时的声音太大，可以将全速温度值稍微设置高一点；如果想要风机不停转一直保持通风散热，可以把工作模式设为最小转速模式。

The heat sink is generally embedded and installed on the top or side of the cabinet, with the wind direction facing outward, to discharge the hot air inside the cabinet outward,

In actual use, the starting temperature and full speed temperature of the fan can be set according to the environmental requirements on site. When the fan is at full speed, there will be relatively large noise. If you want to avoid this noise, you can set the full speed temperature value slightly higher; If you want the fan to remain idle and maintain ventilation, you can set the working mode to the minimum speed mode.



## 7. 关于安装

主流的安装方式一般是内嵌于机箱/机柜的顶部或侧面，这样有利于将柜内热空气更好的向外排除，根据空气对流特性（负压效应），热空气排除势必会使环境中的冷空气流入机柜，从而实现机柜散热降温的目的。

The mainstream installation method is generally embedded on the top or side of the cabinet, which is conducive to better expelling the hot air inside the cabinet. According to the characteristics of air convection, the removal of hot air will inevitably allow cold air in the environment to flow into the cabinet, thereby achieving the goal of cooling the cabinet.

安装实物图:



### ● 订货（版本）信息:

Ordering (Version) information:

JMF-T2-A	AC 交流供电、2 风机、带级联插头 AC supply, 2 fans, With cascade plug
JMF-T2-B	AC 交流供电、2 风机、不带级联插头 AC supply, 2 fans, Without cascade plug



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