

本设备可供 8 岁及以上儿童，以及身体、感官或认知能力受限，或缺乏使用经验与知识的人员使用。使用者须在专人监督或指导下安全操作，并充分了解相关风险。儿童不得玩耍该设备；清洁及日常维护工作，须在专人指导监督下方可由儿童完成。

本设备必须仅使用与设备标识相符的安全特低电压供电。

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

it must only be supplied at safety extra low voltage corresponding to the marking on the appliance.

1232 直流离心鼓风机风扇 产品说明书

1232 DC Centrifugal Blower Fan Product Manual

产品概述 Product Overview

本款 1232 直流鼓风机风扇，为无刷直流风机，额定工作电压 DC12V，额定工作电流 2.5A，具备风量充足、噪音低沉、运行稳定、寿命长久、节能环保、安装便捷等优势，性能稳定可靠，兼容性强。

This 1232 DC blower fan, For brushless DC fan, Rated operating voltage: DC 12 V, Rated operating current: 2.5 A, It offers advantages such as ample airflow, low noise levels, stable operation, long service life, energy efficiency, environmental friendliness, and easy installation, with reliable performance and strong compatibility.

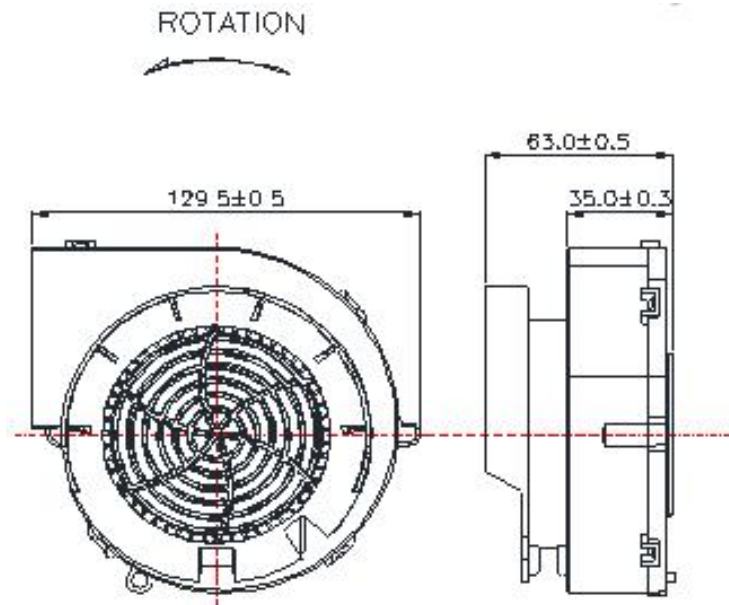
一. 产品基本信息 Product Basic Information

1. 产品型号：CD1232HS2.5A

Product Model: CD1232HS2.5A

2. 产品尺寸：120mm×120mm×32mm（长×宽×厚，标准规格）。

Product dimensions: 120mm × 120mm × 32mm (length × width × thickness, standard specification).



3. 供电方式：直流供电。

Power supply method: Direct current (DC).

4. 轴承结构：高精度含油轴承。

Bearing structure: High-precision oil-filled bearing.

5. 接线方式：红色导线（电源正极）、黑色导线（电源负极）。

Bearing structure: High-precision oil-filled bearing.

6. 产品材质：外壳+叶轮均采用高品质工程塑料，环保、抗老化、耐高温不变形。

Material: Both the casing and impeller are made of high-quality engineering plastics, which are environmentally friendly, resistant to aging, and maintain their shape even under high temperatures.

二、电气参数 Electrical Parameters

参数名称 Parameter Name	规格数值 Parameter Name	参数备注 Parameter Remarks
额定工作电压 rated operational voltage	DC 12V	直流稳压供电，禁止接交流电源 Use DC regulated power supply; do not connect to AC power source.
额定工作电流 rated operational current	2.5A	标准满载运行电流 Standard operating current under full load
工作电压范围 Working voltage range	DC 9V-13.2V	宽压稳定运行，超压易损坏产品 operates stably under low pressure but is prone to damage under high pressure
额定功率 power rating	30W	低功耗、高效率 Low power consumption, high efficiency
工作温度 working temperature	-10℃~+70℃	非冷凝、无腐蚀性气体环境 Environment with non-condensable and non-corrosive gases
储存温度 storage temperature	-40℃~+70℃	干燥密闭环境储存 Store in a dry and sealed environment
绝缘电阻 insulation resistance	≥10MΩ	500VDC 测试，绝缘性能达标 500 VDC test: Insulation performance meets requirements
环保标准 Environmental Protection Standards	符合 RoHS 环保认证 Complies with RoHS environmental certification	无有害物质，绿色环保 Free from harmful substances, environmentally friendly

三、产品性能特点 Product Performance Features

1. 无刷电机驱动：采用直流无刷电机，免维护、无碳刷磨损，杜绝火花干扰，运行稳定性远超有刷风机，使用寿命大幅延长。

Brushless motor drive: Utilizes a DC brushless motor, offering maintenance-free operation, eliminating carbon brush wear, and preventing spark interference. Its operational stability far surpasses that of brush-driven fans, with a significantly extended service life.

2. 离心式大风量：离心涡轮风道设计，风压大、送风距离远，吹风效率优于普通轴流风扇，快速提供风力。

Centrifugal high-volume design: Featuring a centrifugal turbine air duct system that delivers high air pressure, long delivery distances, superior airflow efficiency compared to conventional axial fans, and rapid air supply.

3. 静音低噪运行：优化叶轮动平衡与风道结构，运行震动小、噪音低，适配对静音要求较高的气模。

Silent and low-noise operation: Optimized impeller dynamic balance and air duct structure ensure minimal vibration and low noise, making it ideal for aerodynamic models requiring high quietness.

4. 安全稳定：具备过载、过流基础防护，通电即启动，运行平稳，长时间连续工作无故障。

Silent and low-noise operation: Optimized impeller dynamic balance and air duct structure ensure minimal vibration and low noise, making it ideal for aerodynamic models requiring high quietness.

四、安装与接线说明 Installation and Wiring Instructions

1. 安装方式：采用螺丝固定安装，对准设备预留安装孔位，平稳固定风机，避免机身歪斜、挤压，保证风道通畅，无异物遮挡进/出风口。

Installation method: Secure the fan with screws by aligning it with the pre-drilled mounting holes on the equipment. Ensure stable fixation to prevent the unit from tilting or being compressed, and maintain unobstructed airflow in the ducts without foreign objects blocking the inlet or outlet ports.

2. 接线规范 Wiring Specifications

- 严格区分正负极：红线接 DC12V 电源正极，黑线接电源负极，严禁反接、错接；

strictly distinguish between positive and negative terminals: connect the red wire to the positive terminal of the DC 12V power supply and the black wire to the negative terminal. Reversed or incorrect connections are strictly prohibited.

- 接线时断开电源，禁止带电接线，避免短路烧毁产品；

Disconnect the power supply during wiring; do not connect wires while powered on to prevent short circuits that may damage the product.

- 导线避免挤压、破损，防止漏电、短路故障。The conductor should be protected from compression and damage to prevent electrical leakage and short-circuit faults.

3. 安装注意：进风口、出风口禁止堵塞，预留通风空间，保证风量正常输出，提升吹风效果。

Installation Note: Do not block the air inlet and outlet; leave adequate ventilation space to ensure normal airflow output and enhance blowing performance.

五、使用注意事项 Usage Instructions

1. 本产品仅适配直流 12V 电源，严禁接入 120V 或 220V 交流市电、超压直流电源，否则会直接烧毁产品，引发安全事故。This product is exclusively compatible with 12V DC power sources; connection to 120V or 220V AC mains or high-voltage DC supplies is strictly prohibited, as it may directly damage the device and cause safety hazards.

2. 禁止在易燃易爆、腐蚀性气体、高粉尘、高湿度、冷凝积水环境中使用，防止电机短路、机身腐蚀。

Use is prohibited in environments with flammable and explosive gases, corrosive gases, high dust levels, high humidity, or condensation water accumulation to prevent motor short circuits and equipment corrosion.

3. 安装时保证风机固定牢固，杜绝松动震动，请勿挤压、弯折、磕碰风机机身、叶轮及导线。

During installation, ensure the fan is securely fastened to prevent loosening or vibration. Do not press, bend, or damage the fan body, impeller, or wiring.

4. 禁止徒手触碰运行中的叶轮，避免划伤手部，防止异物卷入叶轮导致风机损坏。

Do not touch the rotating impeller with bare hands to avoid hand injuries or foreign objects being caught, which could damage the fan.

5. 不可自行拆解、改装、维修风机，内部无用户可维修部件，改装后丧失质保，易引发安全问题。

The fan cannot be disassembled, modified, or repaired independently, as it contains no user-repairable internal components. Modifications void the warranty and may lead to safety hazards.

6. 长时间停机使用，需通电检测运行状态，避免积尘卡顿导致运行异常。

After prolonged shutdown, power the device to check its operating status and prevent operational abnormalities caused by dust accumulation or blockages.

7. 产品工作时轻微发热、震动属于正常现象，若出现异响、卡死、冒烟、异常发烫，立即断电停止使用。

Slight heating and vibration during operation are normal phenomena. If abnormal noises, jamming, smoking, or excessive heating occur, immediately disconnect the power and cease use.

六、维护与保养 Maintenance and Care

1. 定期清理风机进风口、出风口、叶轮表面积尘，保持风道通畅，保证吹风效率，延长使用寿命；

Regularly clean dust from the fan's inlet, outlet, and impeller surface to maintain air passage clarity, ensure efficient airflow, and extend service life.

2. 清洁时断开电源，用干燥毛刷、压缩空气除尘，禁止用水、有机溶剂直接冲洗、浸泡风机；

During cleaning, disconnect the power supply and use a dry brush or compressed air for dust removal. Do not rinse or soak the fan directly with water or organic solvents.

3. 长期存放需置于干燥、通风、避光环境，避免潮湿、高温、重压，防止产品受潮变形；

For long-term storage, keep the product in a dry, well-ventilated, and light-free environment, avoiding moisture, high temperatures, and heavy pressure to prevent deformation due to humidity.

4. 正常使用情况下，轴承无需额外加油维护，保持使用环境清洁即可。

Under normal operating conditions, bearings require no additional lubrication or maintenance; simply maintain a clean working environment.

七、质保说明 Quality Assurance Guidelines

1. 产品正常使用、非人为损坏，享受 1 年质保服务；

For normal use and non-human-induced damage, a 1-year warranty is provided.

2. 以下情况不属于质保范围：The following situations are not covered by the warranty:

◦ 接线反接、超压供电、接错电源导致产品烧毁；

Reversed wiring, overvoltage supply, or incorrect power source connection can cause the product to burn out.

◦ 人为拆解、改装、磕碰、挤压、浸水造成的损坏；

Damages caused by manual disassembly, modification, impact, compression, or water immersion;

◦ 恶劣环境使用、安装不当、异物卡入导致的故障；

Malfunctions caused by harsh environmental conditions, improper installation, or foreign object obstruction;

◦ 不可抗力、非正常使用造成的产品损坏。

Product damage caused by force majeure or improper use.

八、安全警示 Safety Warning

1. 严格按照额定电压、接线规范使用，严防短路、触电、烧毁风险；

Use strictly in accordance with the rated voltage and wiring specifications to prevent risks of short circuits, electric shocks, or damage;

2. 远离儿童、易燃易爆物品，杜绝安全隐患；

Keep away from children and flammable or explosive materials to eliminate safety hazards.

3. 废弃产品请按照环保标准分类处理，勿随意丢弃。

Dispose of waste products according to environmental standards; do not discard them indiscriminately.