



Manuals.plus /

› ARCTIC /

› ARCTIC F12 Silent 120mm PC Case Fan User Manual

ARCTIC F12 Silent

ARCTIC F12 Silent 120mm PC Case Fan User Manual

Model: F12 Silent

1. INTRODUCTION

The ARCTIC F12 Silent is a 120mm PC case fan designed for quiet and efficient cooling. This manual provides essential information for the proper installation, operation, and maintenance of your fan to ensure optimal performance and longevity.



Image 1.1: Front view of the ARCTIC F12 Silent 120mm PC Case Fan, showcasing its black frame and nine-blade impeller.

2. SAFETY INFORMATION

- Ensure your computer system is powered off and unplugged from the wall outlet before installation or maintenance.
- Handle the fan by its frame to avoid damaging the blades.
- Keep fingers and other objects away from the fan blades when the fan is operating.
- Do not attempt to disassemble or modify the fan. This will void the warranty.
- Use only the provided mounting screws to prevent damage.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- 1x ARCTIC F12 Silent 120mm PC Case Fan
- 4x Mounting Screws



Image 3.1: The retail packaging for the ARCTIC F12 Silent fan, showing the fan and branding.

4. PRODUCT FEATURES

- **Quiet Operation:** Engineered with a German-developed motor and an optimized alloy/lubricant combination to minimize friction and noise, ensuring almost inaudible performance at 800 RPM.
- **Optimized Airflow:** The fan blade design is specifically crafted to improve air circulation and facilitate efficient ventilation, focusing on minimizing noise while delivering effective airflow and static pressure.
- **Fluid Dynamic Bearing:** Equipped with a Fluid Dynamic Bearing that includes an oil capsule to prevent lubricant leakage, offering a service life comparable to sleeve bearings but with enhanced quietness and durability.

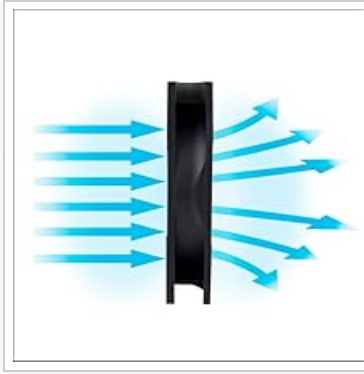


Image 4.1: Diagram illustrating the internal structure of the fan motor, highlighting the quiet operation design.

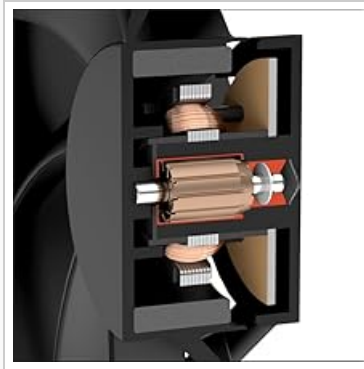


Image 4.2: Cross-section diagram of the Fluid Dynamic Bearing, showing the lubricant capsule and precision components for extended service life.

5. SETUP AND INSTALLATION

The ARCTIC F12 Silent fan supports two-way installation for flexible airflow management within your PC case.

1. **Determine Airflow Direction:** Decide whether you want the fan to draw cool air into the case (intake) or exhaust warm air out of the case (outtake). The fan's frame typically has arrows indicating airflow direction and blade rotation.
2. **Position the Fan:** Place the fan in the desired mounting location within your PC case (e.g., front, rear, top, bottom).
3. **Secure the Fan:** Use the four included mounting screws to firmly attach the fan to the case. Do not overtighten.
4. **Connect Power:** Connect the fan's 3-pin connector to an available 3-pin fan header on your motherboard or a fan controller. Ensure the connector is properly aligned before pushing it in.

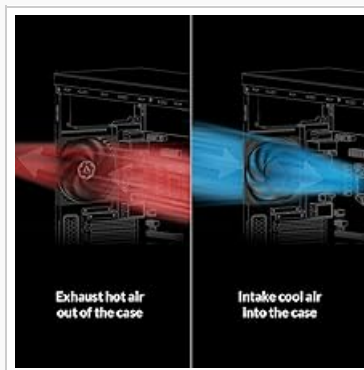


Image 5.1: Illustration demonstrating the two-way installation options: exhausting hot air out of the case (left) and drawing cool air into the case (right).

Video 5.1: A short overview video showcasing the ARCTIC F12 Silent fan from various angles, demonstrating its physical design and quiet operation.

6. OPERATING INSTRUCTIONS

Once installed and connected, the ARCTIC F12 Silent fan will operate at a fixed speed of 800 RPM. This speed is optimized for a balance between quietness and effective airflow.

- The fan is designed for continuous operation.
- Monitor your system's temperatures to ensure adequate cooling.
- The 3-pin connector provides constant power, meaning the fan speed is not controlled by PWM (Pulse Width Modulation).

7. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your fan.

- **Cleaning:** Periodically clean the fan blades and frame to remove dust buildup. Use compressed air or a soft brush. Ensure the fan is powered off and unplugged before cleaning.
- **Inspection:** Check for any obstructions around the fan that might impede airflow.
- No lubrication is required for the Fluid Dynamic Bearing as it is designed to be maintenance-free.

8. TROUBLESHOOTING

- **Fan Not Spinning:**
 - Ensure the 3-pin connector is securely plugged into the motherboard or fan controller.
 - Check if the fan header on the motherboard is supplying power. Try connecting the fan to a different header if available.
 - Verify that your power supply unit (PSU) is functioning correctly.
- **Excessive Noise:**
 - Ensure the fan is securely mounted and not vibrating against the PC case.
 - Check for any cables or objects obstructing the fan blades.
 - Clean any dust buildup on the fan blades.
- **Poor Airflow:**
 - Verify the fan is installed in the correct orientation for your desired airflow (intake or exhaust).
 - Ensure there are no obstructions blocking the fan's intake or exhaust.

9. SPECIFICATIONS

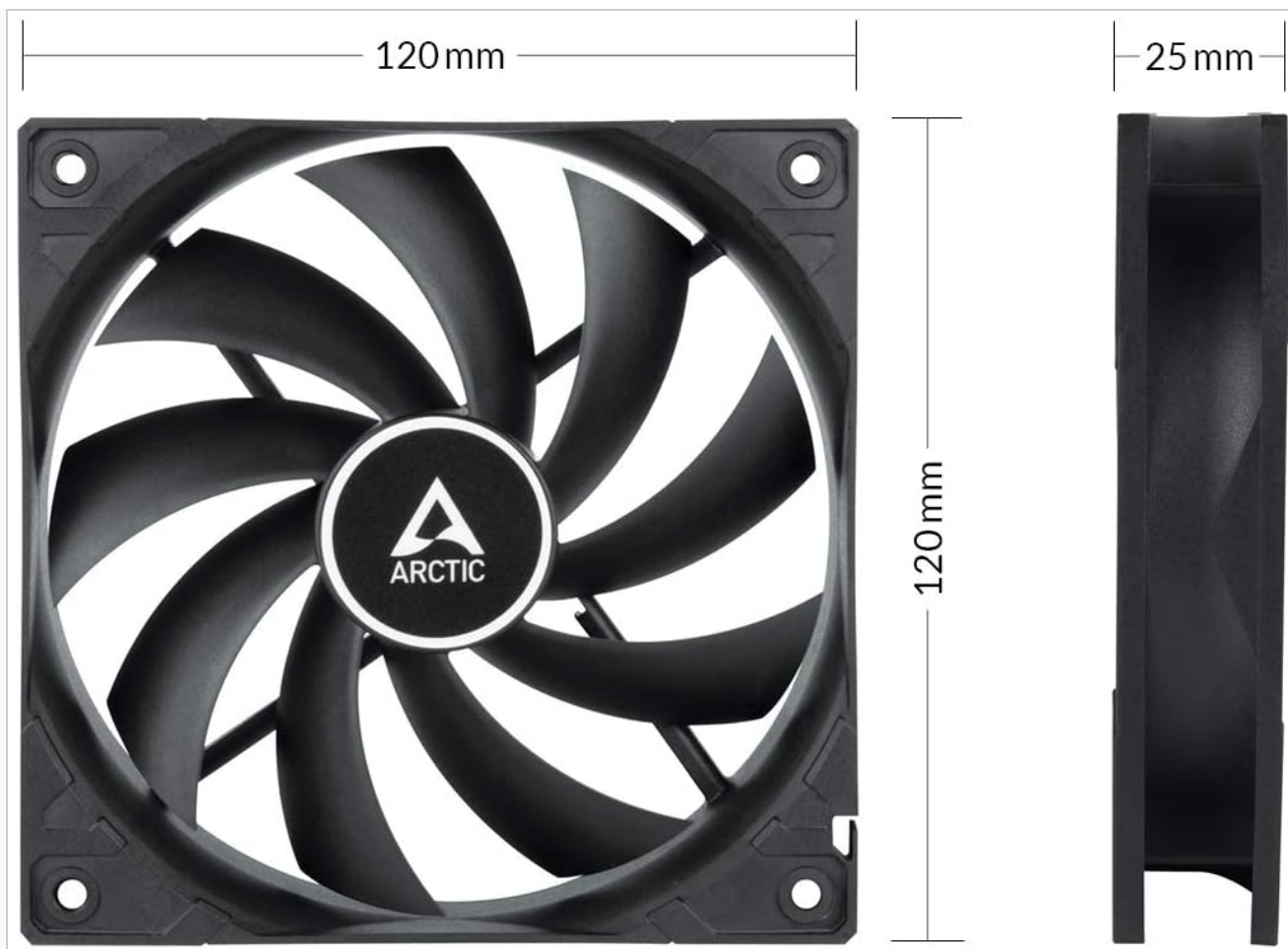


Image 9.1: Diagram showing the dimensions of the ARCTIC F12 Silent fan: 120mm x 120mm x 25mm.

Feature	Specification
Fan Speed	800 RPM
Airflow	37 CFM 62.9 m ³ /h
Noise Level	0.08 Sone
Static Pressure	0.3 mmHzO
Connector	3-pin
Voltage	12 Volts
Product Dimensions (L x W x H)	120mm x 120mm x 25mm (4.72"L x 4.72"W x 0.98"H)
Item Weight	107 Grams
Material	Metal
Bearing Type	Fluid Dynamic Bearing

10. WARRANTY AND SUPPORT

The ARCTIC F12 Silent fan comes with a **6-year warranty** from the date of purchase. For warranty claims or technical support, please contact ARCTIC customer service through their official website.

For additional information and resources, please visit the official ARCTIC website: www.arctic.ac/f12silent

