ebm-papst RG125-19/12N/12

ebm-papst RG125-19/12N/12 DC Flatpak Fan Blower User Manual

Model: RG125-19/12N/12

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the ebm-papst RG125-19/12N/12 DC Flatpak Fan Blower. This unit is a 12VDC fan designed for thermal management applications, featuring a square configuration and wire leads for connection. Please read this manual thoroughly before using the product.

2. Safety Information

- Always disconnect power before installation, maintenance, or troubleshooting.
- Ensure proper voltage (12V DC) is supplied to prevent damage to the fan.
- Avoid contact with moving parts during operation.
- Do not operate the fan in environments exceeding its specified temperature limits (-30°C to +75°C).
- Ensure adequate ventilation around the fan to prevent overheating.
- Installation should be performed by qualified personnel familiar with electrical components.

3. Product Overview

The ebm-papst RG125-19/12N/12 is a high-performance DC fan blower designed for effective thermal management. It features a robust construction and is equipped with wire leads for direct electrical connection. Its compact, square design allows for versatile integration into various systems requiring forced air cooling.

Image showing the ebm-papst RG125-19/12N/12 DC Flatpak Fan Blower, highlighting its square form factor and wire leads.

Key Features:

- DC Blower Fan for efficient cooling.
- Compact Flatpak design.
- Equipped with wire leads for easy connection.

4. Setup and Installation

1. **Mounting:** Securely mount the fan blower in the desired location using appropriate fasteners. Ensure the mounting surface is stable and can support the fan's weight and operational vibrations.
2. **Electrical Connection:** Connect the fan's wire leads to a stable 12V DC power source. Observe correct polarity to prevent damage. The fan typically uses a 3-pin power connector type, but direct wire leads are provided for flexible integration.
3. **Airflow Direction:** Ensure the fan is oriented to provide the intended airflow direction for your application (e.g., intake or exhaust).
4. **Power On:** Once securely mounted and wired, apply 12V DC power to the fan.

5. Operating Instructions

The RG125-19/12N/12 fan blower is designed for continuous operation within its specified voltage and temperature ranges. Once powered, the fan will begin to rotate, providing forced air cooling. Monitor the fan's performance periodically to ensure optimal operation.

- **Voltage:** Operate the fan strictly at 12 Volts DC.
- **Temperature:** Ensure the ambient operating temperature remains between -30°C and +75°C.
- **Noise Level:** The fan operates at a nominal noise level of 58 dBA. Any significant increase in noise may indicate an issue.

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your fan blower.

- **Cleaning:** Periodically inspect the fan blades and housing for dust and debris accumulation. Disconnect power and use a soft brush or compressed air to gently clean the fan. Do not use liquid cleaners directly on the fan.
- **Inspection:** Check for any signs of physical damage, loose connections, or unusual wear. Ensure the mounting remains secure.
- **Bearing:** This fan uses ball bearings, which are generally maintenance-free. Avoid lubricating the bearings unless specifically instructed by the manufacturer.

7. Troubleshooting

If you encounter issues with your fan blower, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Fan does not start	No power, incorrect wiring, faulty power supply, motor failure.	Check power connections and voltage. Verify power supply functionality. Consult a qualified technician if motor failure is suspected.
Reduced airflow	Dust accumulation on blades, obstruction in airflow path, fan speed reduction.	Clean fan blades and clear any obstructions. Ensure proper voltage is supplied.
Excessive noise or vibration	Loose mounting, damaged blades, worn bearings, foreign object.	Check mounting screws. Inspect blades for damage. Disconnect power and carefully remove any foreign objects. If bearings are worn, replacement may be necessary.

If problems persist after attempting these solutions, contact ebm-papst support or a qualified service professional.

8. Specifications

Detailed technical specifications for the ebm-papst RG125-19/12N/12 DC Flatpak Fan Blower:

Manufacturer: ebm-papst

Part Number: RG125-19/12N/12 (9594310135)

Series: RG125DC Series

Voltage Rating: 12 V DC

Power Rating: 5.2 W

Current: 0.43 A

Air Flow: 51.5 CFM (1.46 m³/min)

Speed: 2550 RPM

Noise Level: 58 dBA

Bearing Type: Ball

Configuration: Square

Dimensions (L x W x H): 180 x 180 x 40 mm (7.1 x 7.1 x 1.6 inches)

Weight: 0.73 kg (approx. 1.6 lbs)

Housing Material: Plastic

Internal Material: Copper

Minimum Operating Temperature: -30°C

Maximum Operating Temperature: +75°C

Termination: Wire Leads

Power Connector Type: 3-Pin (internal wiring)

Cooling Method: Forced Air

Compatible Devices: Desktop (general application)

9. Warranty and Support

For warranty information, technical support, or service inquiries, please contact the manufacturer, ebm-papst, or your authorized reseller. Keep your purchase receipt for warranty claims. Specific warranty terms and conditions may vary by region and retailer.