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› ebm-papst 3212J/2NU-343 DC Fan User Manual

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Model: 3212J/2NU-343 | Brand: ebm-papst

1. INTRODUCTION

This user manual provides essential information for the safe and efficient installation, operation, and maintenance of your ebm-papst 3212J/2NU-343 DC Axial Fan. Please read this manual thoroughly before using the product and retain it for future reference.

2. PRODUCT OVERVIEW

The ebm-papst 3212J/2NU-343 is a high-performance DC axial fan designed for various cooling applications. It features a robust construction with IP68 protection, making it suitable for environments requiring high resistance to dust and water ingress. Its ball bearing design ensures long-term reliability and efficient airflow.



Figure 1: A front view of the ebm-papst 3212J/2NU-343 DC Axial Fan, showing its black square frame, four fan blades, and the central motor hub with visible mounting holes.

3. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the product:

- Ensure power is disconnected before installation, maintenance, or troubleshooting.
- Do not operate the fan if it is damaged or has exposed wiring.
- Keep fingers and foreign objects away from rotating blades.
- Install the fan in a well-ventilated area, away from flammable materials.
- Use only the specified voltage (12VDC) for operation.

4. SETUP AND INSTALLATION

Follow these steps for proper installation:

1. **Mounting:** Secure the fan using appropriate screws through the mounting holes on the fan frame. Ensure the fan is mounted firmly to prevent vibration. The fan dimensions are 92x38mm.
2. **Orientation:** Observe the airflow direction indicated by arrows on the fan housing to ensure proper cooling.
3. **Wiring:** Connect the fan to a stable 12VDC power source. Typically, the red wire is positive (+) and the black wire is negative (-). Ensure correct polarity to avoid damage.
4. **Power Connection:** Once mounted and wired, connect the power supply.

5. OPERATING INSTRUCTIONS

The ebm-papst 3212J/2NU-343 fan is designed for continuous operation. Once properly installed and powered, it will begin to rotate, providing airflow. The fan operates at a maximum rotational speed of 3500 RPM, generating 76.5 CFM of airflow with a noise level of 51 dB. No user intervention is typically required during normal operation.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your fan:

- **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 wear, loose connections, or unusual noises during operation. Address any issues promptly.
- **Environment:** While the fan has IP68 protection, avoid exposing it to extreme conditions beyond its specified operating range.

7. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
Fan does not start	No power, incorrect wiring, faulty power supply	Check power connection, verify wiring polarity (red to +, black to -), test power supply.
Fan runs slowly or with reduced airflow	Dust accumulation, obstruction, insufficient voltage	Clean fan blades, remove obstructions, ensure stable 12VDC supply.
Excessive noise or vibration	Loose mounting, foreign object, worn bearings	Tighten mounting screws, inspect for and remove foreign objects. If bearings are worn, replacement may be necessary.

8. SPECIFICATIONS

Specification	Value
Model	3212J/2NU-343
Brand	ebm-papst
Item Weight	1 Pounds
Voltage	12 Volts DC
Wattage	3.6 watts
Cooling Method	Air
Noise Level	51 dB
Material	Copper (internal components)
Maximum Rotational Speed	3500 RPM
Airflow	76.5 CFM
Dimensions	92x38mm (Axial)
Protection Rating	IP68
Bearing Type	Ball
UPC	653958452225

9. WARRANTY AND SUPPORT

ebm-papst products are manufactured to high quality standards. For information regarding warranty coverage, please refer to the warranty statement provided with your purchase or visit the official ebm-papst website. For technical support or further assistance, please contact ebm-papst customer service through their official channels.