

[Manuals.plus](#) /

› [Fasco](#) /

› Fasco D121 3.3" Frame Open Ventilated Shaded Pole General Purpose Motor Instruction Manual

Fasco D121

Fasco D121 3.3" Frame Open Ventilated Shaded Pole General Purpose Motor Instruction Manual

Model: D121 | Brand: Fasco

1. PRODUCT OVERVIEW

The Fasco D121 is a 3.3-inch frame, open ventilated, shaded pole general purpose motor designed for various applications. It features a sleeve bearing for smooth operation and is equipped with automatic thermal protection for safety. This motor is UL recognized and CSA certified, ensuring compliance with safety standards.

Key Features:

- Open ventilated shaded pole design with sleeve bearing.
- Automatic thermal protection.
- Counterclockwise shaft end rotation (CCW).
- UL recognized and CSA certified.
- Shaft dimensions: 1/4 inch diameter by 2-1/4 inches length.



Figure 1: Fasco D121 Motor. This image displays the Fasco D121 motor, a black cylindrical unit with a shaft extending from one end and six threaded mounting studs around its circumference. Two electrical wires, labeled 'WIRE' and 'LL16600 CSA CL1251 UR AWM', extend from the motor body. The motor features an open ventilated design visible through the end plate.

2. SAFETY INFORMATION

Read and understand all instructions before installing or operating this motor. Failure to follow these instructions may result in electric shock, fire, serious injury, or death.

- **Electrical Hazard:** Ensure power is disconnected at the source before performing any installation, wiring, or maintenance.
- **Qualified Personnel:** Installation and wiring should only be performed by a qualified electrician or service technician.
- **Proper Grounding:** Ensure the motor is properly grounded according to local and national electrical codes.
- **Ventilation:** Do not obstruct the motor's ventilation openings. This motor is open ventilated and relies on airflow for cooling.
- **Thermal Protection:** The motor includes automatic thermal protection. If the motor overheats and shuts off, allow it to cool completely before attempting to restart. Investigate the cause of overheating.
- **Moving Parts:** Keep hands, clothing, and tools clear of rotating parts during operation.

3. SETUP AND INSTALLATION

This section provides general guidelines for installing the Fasco D121 motor. Specific application requirements may vary.

1. **Mounting:** Secure the motor using the integrated threaded mounting studs. Ensure the motor is firmly attached to a stable surface or equipment to prevent vibration and misalignment.
2. **Electrical Connection:**
 - Verify that the power supply matches the motor's voltage and frequency requirements (115V, 60Hz).
 - Connect the motor's electrical wires to the power source. The wires are rated for 600V, FT-2, E29326, STYLE 3173, 18 AWG. Ensure all connections are secure and insulated.
 - Confirm proper grounding.
3. **Shaft Alignment:** If connecting to a load, ensure proper shaft alignment to prevent premature bearing wear and motor damage. The shaft measures 1/4 inch in diameter and 2-1/4 inches in length.
4. **Ventilation:** Position the motor in an area that allows for adequate airflow around its open ventilated frame to facilitate cooling.

4. OPERATING INSTRUCTIONS

Once properly installed and wired, the Fasco D121 motor is ready for operation.

1. **Power On:** Apply power to the motor circuit. The motor should start and operate at its rated speed of 1500 RPM.
2. **Rotation:** The motor is designed for Counterclockwise (CCW) rotation when viewed from the shaft end. Verify this rotation direction is suitable for your application.
3. **Monitoring:** During initial operation, monitor the motor for unusual noises, excessive vibration, or signs of overheating. If any issues are observed, immediately disconnect power and refer to the Troubleshooting section.

5. MAINTENANCE

The Fasco D121 motor is designed for reliable operation with minimal maintenance. However, periodic checks can extend its lifespan.

- **Cleaning:** Periodically clean the exterior of the motor to prevent dust and debris buildup, especially around the ventilation openings. Ensure power is disconnected before cleaning.
- **Bearing:** This motor utilizes sleeve bearings, which are typically self-lubricating. No routine lubrication is generally required.
- **Connections:** Annually inspect electrical connections for tightness and signs of corrosion.
- **Vibration:** Check for excessive vibration, which could indicate mounting issues or a problem with the connected load.

6. TROUBLESHOOTING

This section provides solutions to common operational issues. For problems not listed, contact Fasco customer support or a qualified technician.

Problem	Possible Cause	Solution
Motor does not start	No power supply Incorrect wiring Thermal overload tripped	Check power source and circuit breaker. Verify wiring connections against diagram. Allow motor to cool; check for obstructions or excessive load.
Motor overheats	Insufficient ventilation Excessive load Low voltage	Ensure clear airflow around motor. Reduce mechanical load on the motor. Verify power supply voltage.
Excessive noise or vibration	Loose mounting Misaligned shaft Damaged bearings	Tighten mounting bolts. Check and correct shaft alignment. Contact service for bearing inspection/replacement.

7. SPECIFICATIONS

Attribute	Value
Brand	Fasco
Model Number	D121
Motor Type	Open Ventilated Shaded Pole General Purpose Motor
Frame Size	3.3 inches
Horsepower (HP)	1/70 HP
Speed	1500 RPM
Voltage	115 Volts
Frequency	60 Hz
Amperage	0.7 Amps
Rotation	Counterclockwise (CCW) from shaft end
Bearing Type	Sleeve Bearing
Thermal Protection	Automatic
Certifications	UL Recognized, CSA Certified
Shaft Dimensions	1/4" diameter x 2-1/4" length
Product Dimensions	8.5 x 3.75 x 3.88 inches
Weight	1 Pound
Material	Copper (internal windings)

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries regarding your Fasco D121 motor, please refer to the documentation provided at the point of purchase or contact Fasco customer service directly. Keep your purchase receipt for warranty claims.

Manufacturer: Fasco Motors

Date First Available: September 25, 2005