

## Fasco D109

# Fasco D109 General Purpose Motor User Manual

Model: D109

## 1. INTRODUCTION

This manual provides essential information for the safe and effective use of the Fasco D109 General Purpose Motor. It covers product specifications, installation guidelines, operational procedures, maintenance recommendations, and troubleshooting tips. Please read this manual thoroughly before installation and operation.

## 2. SAFETY INFORMATION

**WARNING:** Electrical components can cause injury or death. Always disconnect power before servicing or installing the motor. Installation and maintenance should only be performed by qualified personnel.

**SAFETY WARNING:** This motor must be grounded in accordance with local or national electrical codes to prevent possible injury due to electrical shock.

- Ensure all wiring connections are secure and comply with local electrical codes.
- Do not operate the motor if it is damaged or has exposed wiring.
- Keep hands and loose clothing away from moving parts during operation.
- Protect the motor from moisture and extreme temperatures unless specifically designed for such environments.

## 3. PRODUCT FEATURES

The Fasco D109 motor is designed for general purpose applications, featuring:

- 1/15 Horsepower (HP)
- 115 Volts operating voltage
- 1600 Revolutions Per Minute (RPM)
- Single speed operation
- 2.1 Amps current draw
- OAO (Open Air Over) Enclosure type
- CWSE (Clockwise Shaft End) Rotation

- Sleeve Bearing design
- Includes shaft bushing, 5/16-Inch x 3-Inch shaft

#### 4. SPECIFICATIONS



**Figure 1:** Fasco D109 General Purpose Motor. This image shows the black motor casing with ventilation slots, the copper windings visible inside, and the metal shaft extending from one end. A product label with safety warnings and specifications is visible on the side.

| Specification      | Value                      |
|--------------------|----------------------------|
| Brand              | Fasco                      |
| Model Name         | D109                       |
| Horsepower (HP)    | 1/15 HP                    |
| Voltage            | 115 Volts                  |
| Speed              | 1600 RPM                   |
| Amperage           | 2.1 Amps                   |
| Enclosure Type     | OAO (Open Air Over)        |
| Rotation           | CWSE (Clockwise Shaft End) |
| Bearing Type       | Sleeve Bearing             |
| Shaft Dimensions   | 5/16-Inch x 3-Inch         |
| Material           | Copper (windings)          |
| Item Weight        | 3 Pounds                   |
| Product Dimensions | 8 x 3.38 x 3.38 inches     |

| Specification | Value        |
|---------------|--------------|
| UPC           | 707022318143 |

## 5. SETUP AND INSTALLATION

Proper installation is crucial for the safe and efficient operation of the Fasco D109 motor. Refer to the specific equipment manufacturer's instructions for detailed mounting procedures.

- Power Disconnection:** Ensure all power to the installation area is disconnected at the circuit breaker or fuse box before beginning any work.
- Mounting:** Securely mount the motor using appropriate fasteners and brackets. The motor includes a shaft bushing and a 5/16-inch x 3-inch shaft, which should be aligned correctly with the driven component.
- Wiring:** Connect the motor to the power supply according to the wiring diagram provided with your equipment and all applicable local and national electrical codes. Ensure proper grounding as specified in the safety warnings.
- Shaft Connection:** Attach the fan blade or other driven component to the motor shaft. Ensure it is securely fastened and balanced to prevent vibration.
- Final Check:** Before restoring power, double-check all connections, mounting, and clearances to ensure no obstructions or loose components.

## 6. OPERATION

Once installed, the Fasco D109 motor is designed for straightforward operation.

- Initial Start-up:** Restore power to the circuit. The motor should start smoothly and reach its operating speed of 1600 RPM.
- Monitoring:** During initial operation, observe the motor for any unusual noises, vibrations, or excessive heat. If any anomalies are detected, immediately shut off power and investigate the cause.
- Continuous Operation:** The motor is designed for continuous duty within its specified voltage and amperage ratings.

## 7. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable performance of your Fasco D109 motor.

- Cleaning:** Periodically clean the exterior of the motor to prevent dust and debris buildup, which can impede cooling. Ensure ventilation openings are clear.
- Inspection:** Annually inspect the motor for signs of wear, loose connections, or damage to wiring. Check mounting bolts for tightness.
- Lubrication:** This motor features sleeve bearings. Consult the equipment manufacturer's guidelines for any specific lubrication requirements. Generally, sleeve bearings may require periodic lubrication, but many modern motors are designed for maintenance-free operation.
- Environmental Protection:** Ensure the motor remains protected from excessive moisture or corrosive environments.

## 8. TROUBLESHOOTING

This section addresses common issues you might encounter with the Fasco D109 motor.

| Problem | Possible Cause | Solution |
|---------|----------------|----------|
|---------|----------------|----------|

| Problem                      | Possible Cause                                                                 | Solution                                                                                            |
|------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Motor does not start         | No power, faulty wiring, seized bearing, overloaded circuit.                   | Check power supply, verify wiring connections, inspect for obstructions, check circuit breaker.     |
| Motor runs hot               | Overload, insufficient ventilation, high ambient temperature, faulty bearings. | Reduce load, clear ventilation openings, ensure proper airflow, inspect bearings.                   |
| Excessive noise or vibration | Loose mounting, unbalanced load (e.g., fan blade), worn bearings.              | Tighten mounting bolts, balance or replace load, inspect and replace bearings if necessary.         |
| Motor trips circuit breaker  | Short circuit, motor overload, faulty wiring.                                  | Inspect wiring for damage, check motor for signs of internal fault, ensure motor is not overloaded. |

If troubleshooting steps do not resolve the issue, consult a qualified technician.

## 9. WARRANTY AND SUPPORT

According to the product specifications, the Fasco D109 motor is sold without a manufacturer's warranty. For technical support or further assistance, please refer to the vendor or distributor from whom the product was purchased.

© 2023 Fasco. All rights reserved.

This manual is for informational purposes only. Fasco is not responsible for any damages or injuries resulting from improper installation or use of this product.