

Fasco D117

Fasco D117 Fan Motor Instruction Manual

Model: D117

1. INTRODUCTION

This instruction manual provides essential information for the safe and efficient installation, operation, and maintenance of the **Fasco D117 Fan Motor**. Please read this manual thoroughly before attempting to install or operate the motor to ensure proper function and to prevent injury or damage.

2. SAFETY INFORMATION

Always observe the following safety precautions to minimize the risk of electric shock, fire, or personal injury:

- **Disconnect Power:** Always ensure the power supply is disconnected before installing, servicing, or performing any maintenance on the motor.
- **Qualified Personnel:** Installation and wiring should only be performed by qualified electricians in accordance with all local and national electrical codes.
- **Proper Voltage:** Verify that the power supply voltage matches the motor's rated voltage (115 Volts).
- **Grounding:** Ensure the motor is properly grounded to prevent electrical shock.
- **Ventilation:** Ensure adequate ventilation around the motor to prevent overheating.
- **Moving Parts:** Keep hands, tools, and clothing clear of moving parts during operation.
- **Thermal Protection:** This motor features automatic thermal protection. If the motor overheats and shuts off, allow it to cool before attempting to restart. Investigate the cause of overheating.

3. PRODUCT OVERVIEW

The Fasco D117 is a versatile shaded pole fan motor designed for various applications. It features multiple horsepower ratings and speeds, making it adaptable to different operational requirements.



Figure 3.1: Fasco D117 Fan Motor. An image showing the Fasco D117 fan motor, highlighting its cylindrical body, exposed windings, and extended shaft. The motor features mounting studs around its circumference.

Key Features:

- **Power:** 2.4 amps @ 115 Volts, 60Hz.
- **Shaft Dimensions:** 1/2" x 7 1/2" shaft.
- **Rotation:** Counter Clockwise (CCW) shaft end.
- **Mounting Options:** Belly Band Mount or Stud Mount with a 3.89" bolt circle.
- **Compact Design:** Motor length less shaft is 3".
- **Multi-Speed:** 4 speeds for varied performance.
- **Automatic Thermal Protection:** Enhances safety and motor longevity.

4. SETUP AND INSTALLATION

Proper installation is crucial for the motor's performance and safety. Follow these steps carefully:

1. **Unpacking:** Carefully remove the motor from its packaging. Inspect for any shipping damage.
2. **Mounting:**
 - The motor can be mounted using a *Belly Band Mount* or *Stud Mount*.
 - For stud mounting, utilize the bolt circle with a diameter of 3-29/32 inches (3.89").
 - Ensure the motor is securely fastened to a stable surface to prevent vibration and movement during operation.
3. **Shaft Connection:** The motor features a 1/2" diameter shaft extending 7 1/2" from the motor body. Connect the fan blade or driven component securely to this shaft.
4. **Electrical Wiring:**
 - This motor operates on 115 Volts, 60 Hz, Single Phase.

- The motor has 4 speeds. Refer to the wiring diagram (if provided with the motor, not in this manual) for specific connections for each speed setting.
 - Ensure all electrical connections are tight and insulated.
 - Confirm the rotation is Counter Clockwise (CCW) from the shaft end. If not, consult a qualified technician.
5. **Final Check:** Before applying power, double-check all connections and mounting to ensure everything is secure and correctly installed.

5. OPERATING INSTRUCTIONS

Once installed, the Fasco D117 motor is ready for operation. It is designed for continuous duty within its specified parameters.

- **Power On:** Apply 115 Volts AC power to the motor.
- **Speed Selection:** Depending on your wiring configuration, select the desired speed. The motor operates at 1550 RPM at its highest speed setting.
- **Monitoring:** During initial operation, monitor the motor for unusual noises, excessive vibration, or signs of overheating.
- **Horsepower Range:** The motor can operate across a horsepower range of 1/15 HP down to 1/40 HP, depending on the load and speed setting.

6. MAINTENANCE

Regular maintenance helps prolong the life and efficiency of your Fasco D117 motor.

- **Cleaning:** Keep the motor clean and free from dust, dirt, and debris. Accumulated dirt can impede cooling and lead to overheating.
- **Bearings:** This motor uses sleeve bearings. These are typically self-lubricating and do not require external lubrication under normal operating conditions. Avoid applying lubricants unless specifically instructed by Fasco.
- **Connections:** Periodically check all electrical connections for tightness and signs of corrosion.
- **Vibration:** Inspect for excessive vibration, which could indicate a loose mounting or an unbalanced fan blade.

7. TROUBLESHOOTING

If you encounter issues with your Fasco D117 motor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Motor does not start	No power, incorrect wiring, thermal overload tripped, seized bearings.	Check power supply, verify wiring, allow motor to cool if thermal protection activated, inspect shaft for free rotation.
Motor overheats	Insufficient ventilation, excessive load, low voltage, dirty motor.	Ensure proper airflow, reduce load if possible, check voltage supply, clean motor housing.
Excessive noise or vibration	Loose mounting, unbalanced fan blade, worn bearings.	Tighten mounting bolts, balance or replace fan blade, consult for bearing replacement if necessary.
Motor runs slowly	Low voltage, excessive load, incorrect speed wiring.	Check voltage, reduce load, verify speed wiring connections.

If troubleshooting steps do not resolve the issue, contact Fasco customer support or a qualified technician.

8. SPECIFICATIONS

Attribute	Detail
Brand	Fasco
Model Name	D117
Motor Type	Shaded Pole
RPM	1550 RPM
Horsepower (HP)	1/15 - 1/25 - 1/30 - 1/40
Voltage	115 Volts
Amperage	2.4-1.4-1.1-.9 Amps
Frequency	60 Hz
Phase	Single Phase
Thermal Protection	Automatic
Speeds	4
Rotation	CCW (Counter Clockwise) Shaft End
Bearings	Sleeve
Enclosure Type	Open Frame
Frame Size	4.4" Frame
Motor Diameter	4.4 inches
Motor Length (less shaft)	3 inches
Shaft Dimensions	1/2" diameter X 7 1/2" length
Bolt Circle	3-29/32 inches (3.89")
Material	Copper
Item Weight	0.01 Ounces
UPC	663001023654
Part Number	D117

9. WARRANTY AND SUPPORT

Warranty Information:

The Fasco D117 Fan Motor comes with a **1 Year Manufacturer Warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

Customer Support:

For technical assistance, warranty claims, or further information regarding your Fasco D117 motor, please contact Fasco customer support. Refer to the official Fasco website or product packaging for the most current contact details.