

Fasco D818

Fasco D818 PSC Motor User Manual

Comprehensive instructions for installation, operation, and maintenance.

1. PRODUCT OVERVIEW

The Fasco D818 is a Permanent Split Capacitor (PSC) motor designed for various applications requiring reliable and efficient operation. This motor features a 5.6-inch diameter, multiple horsepower ratings (1/3, 1/5, 1/6 HP), operates at 115 Volts, and has a speed of 825 RPM. It includes three speed settings and a Clockwise (CW) rotation, equipped with sleeve bearings for smooth performance.

Key features include:

- Multiple Horsepower: 1/3 HP, 1/5 HP, 1/6 HP
- Voltage: 115 Volts
- Speed: 825 RPM
- 3 Speed settings
- Rotation: Clockwise (CW)
- Bearing Type: Sleeve Bearing
- Shaft Dimension: 1/2-Inch x 3-Inch



An image showing the Fasco D818 PSC motor, highlighting its cylindrical body, shaft, and end plate. The motor features a sleeve bearing design and ventilation slots along its casing.

2. SAFETY INFORMATION

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

- **Electrical Hazard:** Disconnect power before servicing. Ensure all wiring is performed by a qualified electrician in accordance with local and national electrical codes.
- **Moving Parts:** Keep hands, hair, and clothing away from moving parts during operation.
- **Overheating:** Ensure proper ventilation around the motor to prevent overheating. Do not block ventilation openings.
- **Capacitor:** A 12.5M 370V capacitor is required for operation (not included). Ensure the correct capacitor is used and installed properly.
- **Mounting:** Securely mount the motor to prevent vibration and movement during operation.
- **Personal Protective Equipment:** Wear appropriate safety gear, including eye protection and gloves, when handling or working near the motor.

3. PACKAGE CONTENTS

Verify that all items are present and undamaged upon unpacking.

- Fasco D818 PSC Motor (Quantity: 1)

Note: A 12.5M 370V capacitor is required for motor operation and is not included with this package.

4. SETUP AND INSTALLATION

Proper installation is crucial for the safe and efficient operation of the Fasco D818 motor.

4.1 Mounting

Mount the motor securely using appropriate fasteners and mounting brackets suitable for the motor's weight and application. Ensure the mounting surface is stable and free from excessive vibration. The motor should be mounted in a position that allows for adequate airflow around its casing to prevent overheating.

4.2 Wiring

All wiring must comply with local and national electrical codes. Consult a qualified electrician if you are unsure about any wiring procedures.

1. **Disconnect Power:** Ensure the main power supply is disconnected before beginning any wiring.
2. **Capacitor Installation:** Install a 12.5M 370V capacitor (not included) according to the motor's wiring diagram. Incorrect capacitor sizing or installation can damage the motor.
3. **Power Connection:** Connect the motor to a 115 Volt power supply.
4. **Speed Selection:** The motor features three speed settings. Refer to the motor's label or included wiring diagram for specific connections for each speed.
5. **Rotation:** The motor is designed for Clockwise (CW) rotation. Verify rotation direction after initial power-up.
6. **Grounding:** Properly ground the motor to prevent electrical shock.

Always refer to the wiring diagram printed on the motor label for precise connection details.

5. OPERATING INSTRUCTIONS

Once the motor is correctly installed and wired, follow these steps for operation:

1. **Initial Check:** Before applying power, ensure all connections are secure and there are no obstructions around the motor shaft or ventilation openings.
2. **Power On:** Restore power to the circuit.
3. **Start-up:** The motor should start smoothly. Listen for any unusual noises or vibrations.
4. **Speed Adjustment:** If applicable, select the desired speed setting via your control system.
5. **Monitoring:** During initial operation, monitor the motor for signs of overheating, excessive noise, or unusual performance.
6. **Power Off:** To stop the motor, disconnect the power supply.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your Fasco D818 motor.

6.1 Cleaning

Periodically clean the exterior of the motor to remove dust, dirt, and debris that can accumulate and impede airflow. Use a soft, dry cloth or compressed air. Do not use liquids or solvents that could damage electrical components.

6.2 Lubrication

This motor is equipped with sleeve bearings. While many modern sleeve bearings are permanently lubricated, it is advisable to check the motor's specific lubrication requirements on the motor label or manufacturer's documentation. If lubrication is required, use a high-quality motor oil as specified by Fasco, applying it to the lubrication ports if present.

6.3 Inspection

Regularly inspect the motor for:

- Loose connections or damaged wiring.
- Excessive vibration or noise.
- Signs of overheating (discoloration, burning smell).
- Wear on the shaft or mounting points.

Address any issues promptly to prevent further damage.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your Fasco D818 motor.

Problem	Possible Cause	Solution
Motor does not start	No power supply Incorrect wiring Faulty capacitor Motor overload	Check power source and circuit breaker Verify wiring against diagram Test or replace capacitor Reduce load or check for obstructions
Motor overheats	Insufficient ventilation Motor overload Incorrect voltage Worn bearings	Ensure clear airflow around motor Reduce load Verify power supply voltage Inspect and replace bearings if necessary
Excessive noise or vibration	Loose mounting Worn bearings Unbalanced load Foreign object	Tighten mounting bolts Inspect and replace bearings Balance the connected load Inspect for and remove any obstructions

Problem	Possible Cause	Solution
Motor runs slowly or with reduced power	Incorrect capacitor	Verify capacitor specifications
	Low voltage	Check power supply voltage
	Partial winding failure	Consult a qualified technician

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

8. SPECIFICATIONS

Detailed technical specifications for the Fasco D818 PSC Motor.

Specification	Value
Brand	Fasco
Model Name	D818
Horsepower (HP)	1/3 - 1/5 - 1/6 HP
Voltage	115 Volts
Speed	825 RPM
Amperage	7.3 - 5.1 - 3.9 Amps
Diameter	5.6-Inch
Shaft Dimension	1/2-Inch x 3-Inch
Rotation	CW (Clockwise)
Bearing Type	Sleeve Bearing
Material	Copper
Item Weight	16.35 pounds
Package Dimensions	16.3 x 7 x 6.3 inches
Required Capacitor	12.5M 370V (Not Included)

9. WARRANTY AND SUPPORT

9.1 Warranty Information

According to available product information, this Fasco D818 motor is sold without a manufacturer's warranty. Please refer to your point of purchase for any retailer-specific return or exchange policies.

9.2 Customer Support

For technical assistance, questions regarding installation, or troubleshooting beyond the scope of this manual, please contact Fasco customer support or a qualified HVAC/electrical technician.

Always provide the model number (D818) when seeking support.

ASK A QUESTION ABOUT THIS MANUAL

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