Century FDL1034

Century A.O. Smith FDL1034 1/3 HP Direct Drive Blower Motor Instruction Manual

Introduction

This manual provides essential instructions for the safe and efficient installation, operation, and maintenance of your Century A.O. Smith FDL1034 Direct Drive Blower Motor. Please read this manual thoroughly before attempting to install or operate the motor. Keep this manual for future reference.
The FDL1034 is a direct drive fan and blower motor featuring reversible rotation and a reversing plug, designed for a 50-degree Celsius ambient temperature environment.

Safety Information

WARNING: Electrical shock hazard. Disconnect power before servicing. Installation and wiring must be performed by a qualified electrician in accordance with all local and national electrical codes.

- Always ensure the power supply is disconnected before installation, maintenance, or repair.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure proper grounding to prevent electrical shock.
- Do not operate the motor if it is damaged or if any wires are frayed.
- Keep hands, tools, and clothing clear of moving parts.
- This motor is designed for specific applications. Do not use it for purposes other than its intended use.

Product Overview

The Century A.O. Smith FDL1034 is a robust direct drive blower motor designed for reliable performance in various fan and blower applications. Key features include:

- 1/3 Horsepower (HP)
- 1625 Revolutions Per Minute (RPM)
- 115 Volts operating voltage

- Sleeve Bearing design
- Reversible rotation with a reversing plug

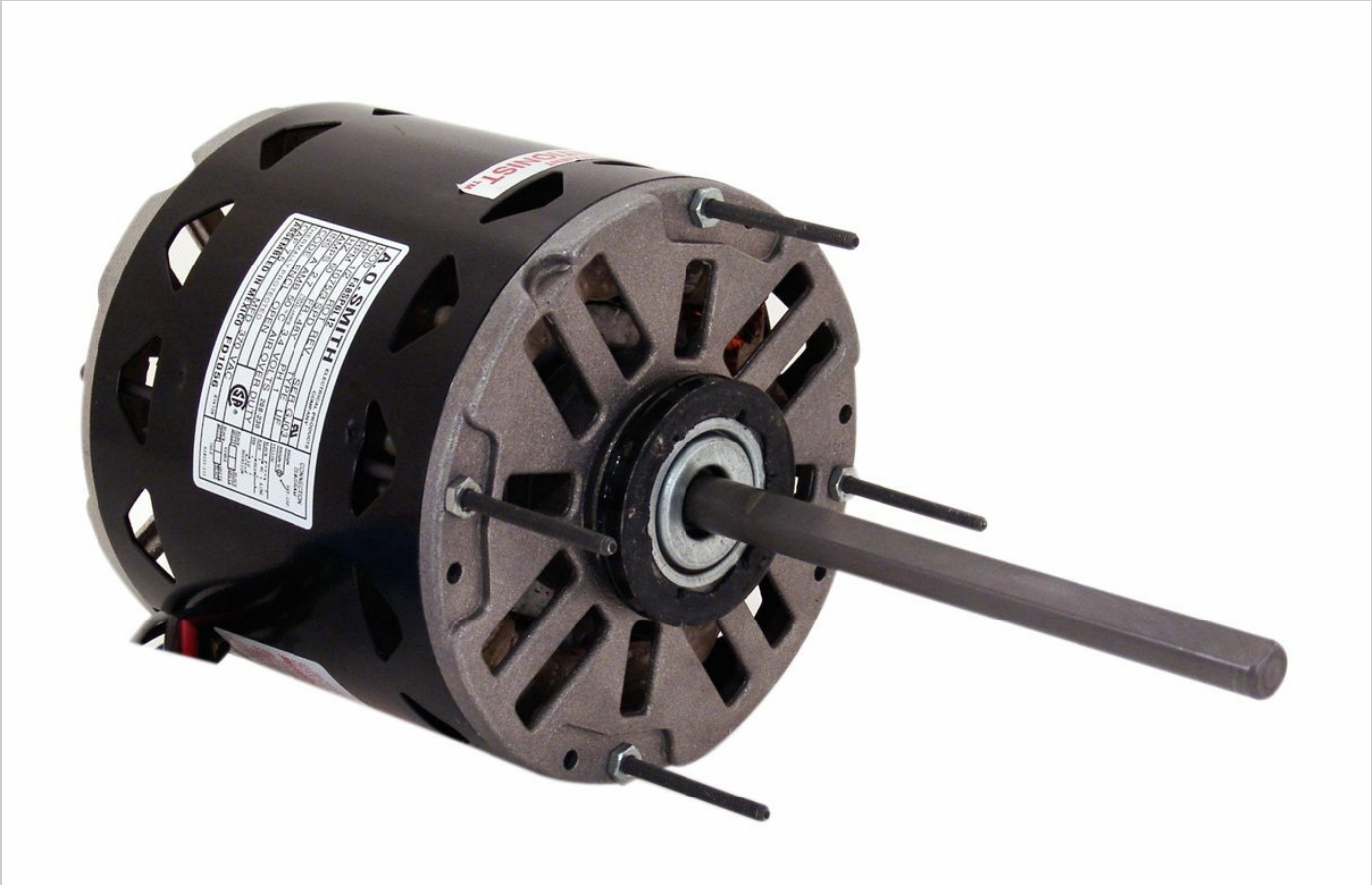

Figure 1: Century A.O. Smith FDL1034 Direct Drive Blower Motor. This image shows the general appearance of the motor, including its casing and shaft.

Setup and Installation

Before beginning installation, ensure all safety precautions are understood and followed. This motor is typically installed in HVAC systems or other equipment requiring air movement.

1. **Inspect the Motor:** Carefully unbox the motor and inspect it for any shipping damage. Do not install a damaged motor.
2. **Mounting:** The motor comes with a belly band and resilient mounting rings. Securely mount the motor in the desired position, ensuring it is stable and free from excessive vibration. Refer to the equipment manufacturer's instructions for specific mounting requirements.
3. **Wiring:**
    - Ensure the power supply matches the motor's voltage (115 Volts).
    - Connect the motor wiring to the power supply and control system according to the wiring diagram provided with your specific application or equipment.
    - Ensure all connections are tight and properly insulated.
    - **Grounding:** Properly ground the motor chassis to prevent electrical shock.
4. **Rotation Direction:** The motor features reversible rotation via a reversing plug. Consult your application's requirements to set the correct rotation direction before initial startup. Typically, this involves repositioning a plug or wires as indicated on the motor label or in the equipment's manual.
5. **Shaft Connection:** Connect the blower wheel or fan blade to the motor shaft. Ensure the connection is secure and

balanced to prevent vibration and premature wear.

6. **Final Check:** Before applying power, double-check all connections, mounting, and ensure no obstructions are present around the motor or fan.

Operating Instructions

Once installed and wired correctly, the motor is ready for operation.

1. **Initial Startup:** Apply power to the motor. Observe the motor for any unusual noises, vibrations, or smells. If any abnormalities are detected, immediately disconnect power and investigate the cause.
2. **Rotation Verification:** Confirm that the motor is rotating in the correct direction for your application. If not, disconnect power and adjust the reversing plug as per the installation instructions.
3. **Continuous Operation:** The motor is designed for continuous duty within its specified operating parameters. Monitor the motor periodically for optimal performance.

Maintenance

Regular maintenance ensures the longevity and efficient operation of your motor.

- **Cleaning:** Periodically clean the exterior of the motor to prevent dust and debris buildup, which can impede cooling. Ensure power is disconnected before cleaning.
- **Inspection:** Regularly inspect the motor for signs of wear, damage, or loose connections. Check the mounting for security.
- **Bearings:** This motor uses sleeve bearings. These are typically self-lubricating and require no additional lubrication under normal operating conditions. However, if unusual noises or excessive heat are observed, bearing inspection by a qualified technician may be necessary.
- **Ventilation:** Ensure that the motor's ventilation openings are clear and unobstructed to allow for proper cooling.

Troubleshooting

Refer to the following table for common issues and their potential solutions.

Problem	Possible Cause	Solution
Motor does not start	No power supply Incorrect wiring Thermal overload tripped Motor seized	Check power source and circuit breaker Verify wiring against diagram Allow motor to cool, reset overload if applicable Inspect for obstructions, contact support if motor is locked
Motor runs hot	Insufficient ventilation Overload Bearing issues Incorrect voltage	Clear obstructions, ensure proper airflow Reduce load on motor Inspect bearings for wear, contact support Verify supply voltage matches motor rating

Problem	Possible Cause	Solution
Excessive noise or vibration	Loose mounting Unbalanced fan/blower wheel Worn bearings Foreign object in fan/blower	Tighten mounting bolts Inspect and balance fan/blower wheel Inspect bearings, contact support Remove any obstructions
Motor runs in wrong direction	Reversing plug set incorrectly	Disconnect power and adjust reversing plug as per installation instructions

If you encounter problems not listed here or if solutions do not resolve the issue, contact a qualified technician or the manufacturer's support.

Specifications

Detailed technical specifications for the Century A.O. Smith FDL1034 Direct Drive Blower Motor:

Attribute	Value
Model Number	FDL1034
Brand	Century (A.O. Smith)
Horsepower (HP)	1/3 HP (0.33 HP)
RPM (Revolutions Per Minute)	1625 RPM
Voltage	115 Volts
Amperage	4.0-6.2 Amps
Frame Size	48 Frame
Bearing Type	Sleeve Bearing
Rotation	Reversible (with reversing plug)
Ambient Temperature Rating	50°C (122°F)
Material	Copper
Item Weight	13.55 Pounds
Included Components	Belly Band, Resilient Mounting Rings
UPC	786674020581
Manufacturer	Century Electric/AO Smith Motors Co

Warranty Information

Specific warranty details for the Century A.O. Smith FDL1034 motor are not available in the provided product data. Please refer to the documentation included with your purchase or visit the official Century Electric/A.O. Smith Motors Co. website for the most current warranty policy.

Support

For technical assistance, replacement parts, or further inquiries regarding your Century A.O. Smith FDL1034 motor, please contact the manufacturer or your authorized dealer.
Manufacturer: Century Electric/AO Smith Motors Co.
Please visit their official website for contact information and support resources.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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