Leeson 111275

Leeson Electric Motor User Manual

Model: 111275 | 5 HP, 1 Phase, 230 Volt, 3450 RPM

1. Safety Information

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

General Safety Precautions

- Always disconnect power before working on the motor or connected equipment.
- Ensure proper grounding to prevent electrical shock.
- Installation and wiring should be performed by qualified personnel in accordance with all local and national electrical codes.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Do not operate the motor in hazardous or explosive atmospheres unless it is specifically designed and certified for such environments.
- Keep hands, tools, and clothing clear of rotating parts.
- Ensure adequate ventilation around the motor to prevent overheating.

2. Product Overview

This manual provides instructions for the Leeson Model 111275 electric motor. This is a 5 horsepower, single-phase

motor designed for various industrial and commercial applications requiring reliable power. It operates on 230 volts and has a speed of 3450 RPM with a 5/8 inch shaft.

Figure 2.1: Side view of the Leeson Electric Motor, Model 111275. This image shows the general casing and cooling fins of the motor.

Figure 2.2: Front view of the Leeson Electric Motor, Model 111275, showing the output shaft. The shaft is 5/8 inch in diameter.

Figure 2.3: Rear view of the Leeson Electric Motor, Model 111275, displaying the product label and warning information. Always refer to the motor's nameplate for specific electrical data.

3. Setup & Installation

3.1 Unpacking and Inspection

- Carefully remove the motor from its packaging.
- Inspect the motor for any signs of shipping damage. Report any damage to the carrier immediately.
- Verify that the motor's nameplate specifications match your application requirements.

3.2 Mounting

- Mount the motor securely on a rigid, level surface capable of supporting its weight and operating forces.
- Ensure proper alignment with the driven equipment to prevent excessive vibration and premature bearing wear.
- Use appropriate fasteners and torque them to the manufacturer's recommendations for the mounting base.

3.3 Electrical Connections

WARNING: Electrical work should only be performed by a qualified electrician. Ensure power is disconnected at the source before making any connections.

1. Refer to the motor's wiring diagram, typically located on the motor's nameplate or inside the terminal box cover.
2. Connect the motor to a 230 Volt, single-phase power supply.
3. Ensure all connections are tight and insulated.
4. Properly ground the motor frame according to local and national electrical codes.
5. Install appropriate overcurrent protection (fuses or circuit breakers) as specified by electrical codes and the motor's nameplate.

4. Operating Instructions

4.1 Pre-Operation Checks

- Confirm all electrical connections are secure and correct.
- Ensure the motor is properly mounted and aligned with the driven load.
- Check that there are no obstructions around the motor's cooling vents.
- Verify that the driven equipment is ready for operation.

4.2 Starting the Motor

- Apply power to the motor. The motor should start smoothly and reach its operating speed of 3450 RPM.
- Listen for any unusual noises or vibrations. If detected, immediately shut off power and investigate the cause.
- Monitor the motor's temperature during initial operation. It should not exceed the maximum operating temperature specified on the nameplate.

4.3 Stopping the Motor

- Disconnect power to the motor using the designated control switch or circuit breaker.
- Allow the motor to come to a complete stop before performing any work or inspection.

5. Maintenance

Regular maintenance is crucial for extending the life and ensuring the reliable operation of your Leeson electric motor. Always disconnect power before performing any maintenance.

5.1 Routine Checks (Monthly/Quarterly)

- **Cleaning:** Keep the motor exterior clean and free of dust, dirt, and debris, especially around cooling fins and vents, to ensure proper heat dissipation.
- **Vibration:** Check for excessive vibration. Increased vibration can indicate bearing wear, misalignment, or an unbalanced load.
- **Noise:** Listen for unusual noises, which may indicate bearing issues or other mechanical problems.
- **Temperature:** Monitor the motor's operating temperature. Overheating can lead to premature insulation failure.
- **Fasteners:** Inspect all mounting bolts and electrical connections for tightness.

5.2 Bearing Lubrication

This motor may feature sealed bearings that do not require lubrication for their expected lifespan. Refer to the motor's nameplate or specific documentation for lubrication requirements. If lubrication is required, use the specified type and amount of grease at the recommended intervals.

6. Troubleshooting

This section provides solutions to common issues. For problems not listed or if solutions do not resolve the issue, contact qualified service personnel.

Problem	Possible Cause	Solution
Motor does not start	No power supply Incorrect wiring Overload protection tripped Faulty capacitor (for single-phase motors)	Check power source and circuit breaker Verify wiring against diagram Reset overload, check for mechanical binding Inspect/replace capacitor
Motor overheats	Overload Insufficient ventilation Low voltage Bearing failure	Reduce load Clear obstructions, ensure airflow Check supply voltage Inspect/replace bearings
Excessive noise or vibration	Misalignment Loose mounting Worn bearings Unbalanced load	Check and correct alignment Tighten mounting bolts Inspect/replace bearings Balance or adjust load
Motor runs slowly	Low voltage Overload Faulty capacitor	Check supply voltage Reduce load Inspect/replace capacitor

7. Specifications

The following are the key specifications for the Leeson Electric Motor Model 111275:

- **Brand:** Leeson
- **Model Number:** 111275
- **Horsepower (HP):** 5 HP
- **Phase:** 1 Phase
- **Voltage:** 230 Volts
- **Speed:** 3450 RPM
- **Frame Size:** 56 Frame
- **Shaft Diameter:** 5/8 inch
- **Material:** Copper windings
- **Manufacturer:** Leeson
- **UPC:** 682962303230

8. Warranty & Support

8.1 Warranty Information

Leeson electric motors are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the warranty statement provided with your purchase or visit the official Leeson website. Keep your proof of purchase for warranty claims.

8.2 Customer Support

If you require technical assistance, replacement parts, or have questions regarding the operation or maintenance of your Leeson motor, please contact Leeson customer support or an authorized service center. Provide your motor's model number (111275) and serial number (if applicable) when contacting support.
For the most current contact information, please visit the official Leeson website:www.leeson.com