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FAHKNS 161324-1

FAHKNS 3HP Electric Motor (Model 161324-1) Instruction Manual

Comprehensive guide for installation, operation, and maintenance.

1. PRODUCT OVERVIEW

This manual provides essential information for the safe and efficient use of your FAHKNS 3HP Single Phase Farm Duty Electric Motor, Model 161324-1. Please read this manual thoroughly before installation or operation.

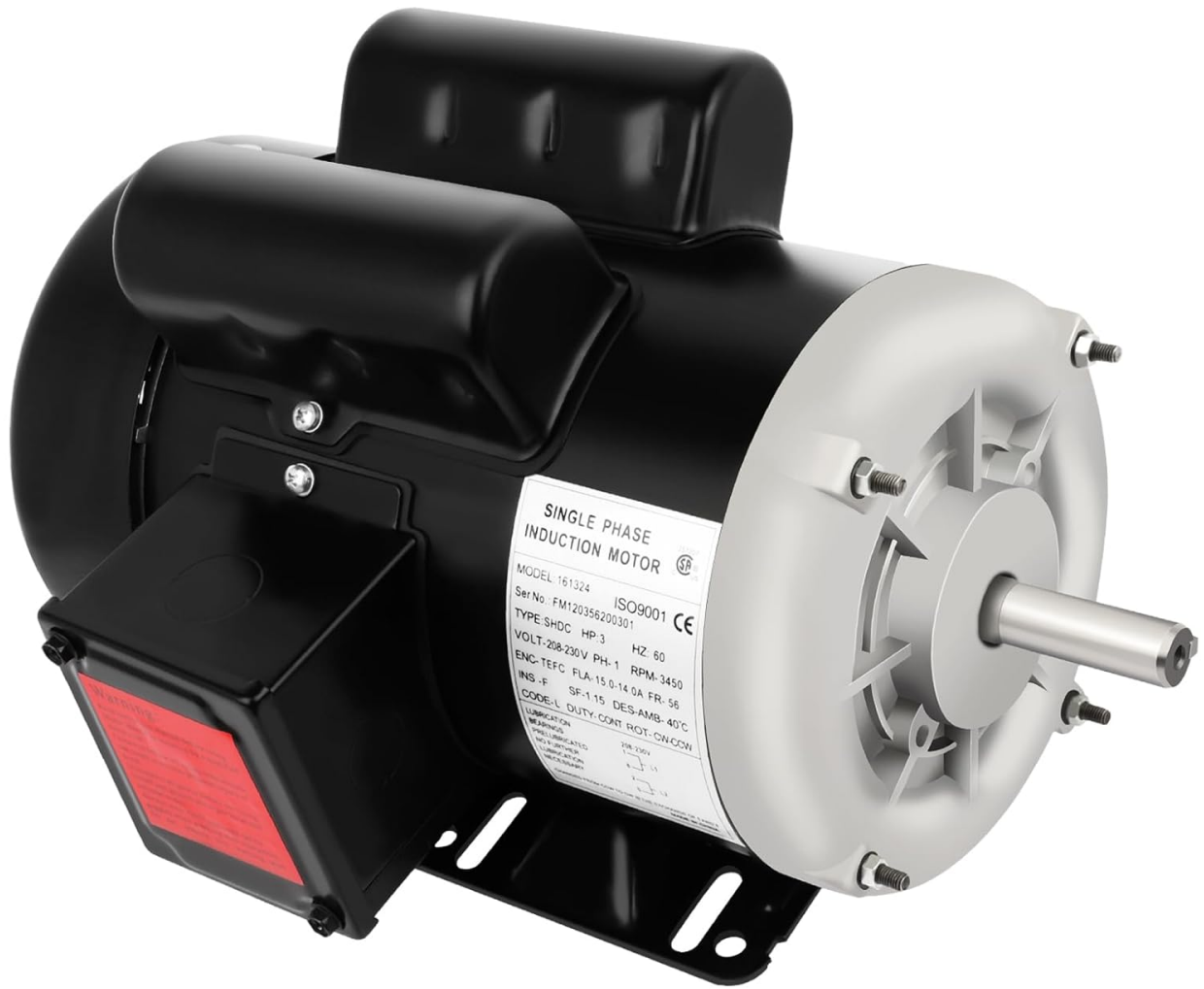


Image 1.1: Overview of the FAHNS 3HP Electric Motor.

Key Features:

- **Power:** 3 Horsepower
- **Speed:** 3450 RPM
- **Voltage:** 208-230V, Single Phase
- **Current:** 15.0-14.0A
- **Frame Type:** 56 Frame
- **Shaft Dimensions:** 5/8" diameter, 1.88" length
- **Enclosure:** TEFC (Totally Enclosed Fan Cooled)
- **Rotation:** CW/CCW (Clockwise/Counter-Clockwise) reversible
- **Certification:** CSA Certified

2. SAFETY INFORMATION

WARNING: Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire, and/or serious injury.

- Always disconnect power before installing, servicing, or performing maintenance on the motor.
- Ensure all wiring is performed by a qualified electrician and complies with local and national electrical codes.
- Verify the motor's voltage and current ratings match the power supply.
- Do not operate the motor in wet or damp conditions unless specifically designed for such environments.
- Keep hands, hair, and clothing clear of moving parts during operation.
- Ensure proper grounding to prevent electrical shock.
- Do not exceed the motor's rated load. Overloading can cause overheating and damage.



HIGH HARDNESS SHAFT AND BEARING

Multiple cooling strips on both sides



Image 3.1: The motor features a fully enclosed fan for efficient cooling, indicated by airflow arrows.

3.3 Electrical Connection

Refer to the wiring diagram provided with the motor for correct electrical connections. Incorrect wiring can damage the motor and pose safety risks.

- Ensure the power supply matches the motor's voltage (208-230V) and frequency (60Hz).
- Connect the motor to a dedicated circuit with a circuit breaker rated at least three times the motor's rated current (15.0-14.0A) for safe startup, without exceeding the load.
- Properly ground the motor according to local electrical codes.
- For CW/CCW rotation changes, follow the specific wiring instructions provided with the motor.

3.4 Shaft and Pulley Installation

When installing a pulley or coupling onto the motor shaft, exercise caution.

- Do not use a hammer to force a pulley onto the shaft, as this can damage internal motor components.
- Use appropriate tools and methods, such as a shaft puller/installer, to ensure proper alignment and prevent damage.



Image 3.2: Detailed view of the motor shaft, showing 5/8" diameter and 1.88" length, with indicators for CW/CCW rotation.

4. OPERATING INSTRUCTIONS

Before initial operation, ensure all installation steps are completed and verified.

4.1 Pre-Operation Check

- Confirm all electrical connections are secure and correct.
- Ensure the motor is properly grounded.
- Check that there are no obstructions around the motor or its fan.
- Run the motor without load initially to check for normal operation, unusual noises, or vibrations.

4.2 Starting and Stopping

- To start the motor, engage the power supply.
- To stop the motor, disengage the power supply.
- Avoid frequent starting and stopping, especially under heavy load, to prolong motor life.

4.3 Load Management

Operate the motor within its rated horsepower and current limits. Continuous overloading will lead to overheating and premature failure.

WIDELY APPLICATIONS

Replace the old motor, work more efficiently



Image 4.1: Examples of typical applications for this type of electric motor, including industrial machinery and agricultural equipment.

5. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your electric motor.

5.1 General Cleaning

- Keep the motor clean and free from dust, dirt, and debris, especially around the cooling fan and vents.
- Use a soft brush or compressed air for cleaning. Do not use water or solvents directly on the motor.

5.2 Bearing Lubrication

This motor is equipped with pre-lubricated bearings designed for long-term operation. Under normal conditions, additional lubrication may not be required for a significant period. Consult a qualified technician if unusual bearing noise is detected.

5.3 Inspection Schedule

- **Monthly:** Check for unusual noises, vibrations, or excessive heat. Inspect wiring for damage or loose connections.
- **Quarterly:** Clean the motor exterior and cooling fan. Verify mounting bolts are secure.
- **Annually:** Have a qualified technician inspect the motor's internal components, including windings and bearings, if operating in demanding conditions.

MOTOR HOUSING MATERIAL

The motor housing is made of rolled steel shell



Image 5.1: The motor housing is constructed from rolled steel, offering durability and efficient heat dissipation.

6. TROUBLESHOOTING

This section provides solutions to common issues. For problems not listed here, contact customer support.

Problem	Possible Cause	Solution
Motor does not start	No power supply; Incorrect wiring; Overload protection tripped; Damaged motor.	Check power source and circuit breaker; Verify wiring against diagram; Reduce load; Consult technician.
Motor overheats	Overloading; Insufficient ventilation; High ambient temperature; Damaged bearings.	Reduce load; Clear obstructions from fan/vents; Ensure proper operating environment; Consult technician.
Excessive noise or vibration	Loose mounting; Misaligned coupling/pulley; Worn bearings; Unbalanced load.	Tighten mounting bolts; Check alignment; Consult technician for bearing replacement; Balance load.
Motor runs slowly or with reduced power	Low voltage; Overloading; Damaged windings.	Verify power supply voltage; Reduce load; Consult technician.

7. SPECIFICATIONS

Specification	Value
Brand	FAHKNS
Model Number	161324-1
Horsepower (HP)	3 HP
Rotation Speed (RPM)	3450 RPM
Voltage	208-230 Volts
Amperage	15.0-14.0 Amps
Frequency (HZ)	60 HZ
Phase	Single Phase
Frame Type	56 Frame
Shaft Diameter	5/8 inches
Shaft Length	1.88 inches
Enclosure Type	TEFC (Totally Enclosed Fan Cooled)
Insulation Class	F
Service Factor	1.15
Poles	2 Pole
Rotation	CW/CCW (Reversible)
Product Dimensions	7.95 x 7.95 x 8.6 inches
Weight	36.49 Pounds



Image 7.1: The motor's specification label provides key operational details.

8. WARRANTY AND SUPPORT

8.1 Warranty Information

Specific warranty details for this FAHKNS product are typically provided at the point of purchase or within separate documentation. Please retain your proof of purchase for warranty claims. For detailed warranty terms, refer to the documentation included with your motor or contact FAHKNS customer service.

8.2 Customer Support

If you have any questions regarding the installation, operation, maintenance, or troubleshooting of your FAHKNS electric motor, please contact FAHKNS customer support. When contacting support, please have your model number (161324-1) and purchase information ready.

For assistance, you may visit the FAHKNS Store on Amazon or refer to the contact information provided with your product.