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- › **Teco** /
- › Teco XP0152 Explosion Proof AC Electric Induction Motor User Manual

Teco XP0152

Teco XP0152 Explosion Proof AC Electric Induction Motor

USER MANUAL

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Teco XP0152 Explosion Proof AC Electric Induction Motor. Please read this manual thoroughly before attempting to install or operate the motor. Retain this manual for future reference.

The Teco XP0152 is a 15 HP, 3600 RPM, 254T Frame, 208/230/460 Volt, 3 Phase, Explosion Proof, Premium AC Electric Induction Motor designed for demanding industrial applications where hazardous atmospheres may be present. Its robust cast iron construction ensures durability and reliable performance.

2. Safety Information

WARNING: Failure to follow these safety instructions can result in serious injury, death, or property damage.

- Always disconnect power before performing any installation, maintenance, or inspection procedures.
- Ensure all wiring is performed by a qualified electrician in accordance with local and national electrical codes.
- This motor is designed for explosion-proof environments. Do not modify the motor or its enclosure. Any modifications will void the explosion-proof certification and create a hazard.
- Verify that the motor's voltage and frequency ratings match the power supply.
- Ensure proper grounding of the motor and associated equipment.
- Do not operate the motor if any damage is visible or suspected.
- Wear appropriate personal protective equipment (PPE) during installation, operation, and maintenance.

3. Setup and Installation

Proper installation is critical for the safe and efficient operation of the Teco XP0152 motor.

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 nameplate data matches your order specifications.

3.2 Mounting

- Mount the motor securely on a rigid, level foundation capable of supporting the motor's weight and operating forces.
- Ensure proper alignment with the driven equipment to prevent excessive vibration and premature bearing wear.
- Allow adequate ventilation space around the motor for cooling.

3.3 Electrical Connections

The Teco XP0152 motor is designed for 208/230/460 Volt, 3 Phase operation. Refer to the motor's nameplate and wiring diagram for specific connection details.

- Ensure the power supply is disconnected and locked out before making any electrical connections.
- Connect the motor leads to the appropriate power supply terminals according to the wiring diagram for the desired voltage (208V, 230V, or 460V).
- Properly ground the motor frame using the designated grounding terminal.
- Use appropriately sized conductors and overcurrent protection devices as required by electrical codes.
- Ensure all connections are tight and insulated.

4. Operating Instructions

Before initial startup, perform the following checks:

- Confirm all mounting bolts are tightened.
- Verify electrical connections are secure and correct.
- Check for any obstructions around the motor or driven equipment.
- Ensure proper lubrication if applicable (refer to maintenance section).

4.1 Startup Procedure

- Apply power to the motor.
- Observe the motor for any unusual noises, vibrations, or overheating during the initial startup.
- Confirm the direction of rotation. If incorrect, disconnect power and reverse two of the three phase leads.
- Allow the motor to run for a short period without load to ensure smooth operation.

4.2 Normal Operation

- Monitor motor temperature, current draw, and vibration levels periodically.
- Do not exceed the motor's rated horsepower or service factor.
- Ensure the operating environment remains within the motor's specified temperature and atmospheric conditions for explosion-proof certification.

5. Maintenance

Regular maintenance extends the life and ensures the safe operation of your Teco XP0152 motor.

5.1 Routine Inspection (Monthly)

- Check for excessive noise or vibration.
- Inspect the motor exterior for dirt, dust, or corrosion. Clean as necessary to ensure proper cooling.
- Verify that all mounting bolts and electrical connections are tight.
- Check for any signs of oil or grease leakage.

5.2 Lubrication

The motor bearings are typically pre-lubricated for a long service life. Refer to the motor's nameplate or a separate lubrication plate for specific lubrication intervals and grease types if regreasing is required. Over-lubrication can be as detrimental as under-lubrication.

5.3 Cleaning

Keep the motor's cooling fins and ventilation openings free from dust and debris to prevent overheating. Use compressed air or a soft brush for cleaning. Ensure power is disconnected before cleaning.

6. Troubleshooting

This section provides guidance for common issues. For complex problems, contact qualified service personnel.

Problem	Possible Cause	Solution
Motor does not start	No power supply, incorrect wiring, tripped breaker, open circuit	Check power, verify wiring, reset breaker, check for continuity
Motor overheats	Overload, insufficient ventilation, incorrect voltage, bearing failure	Reduce load, clear obstructions, verify voltage, inspect bearings
Excessive vibration	Misalignment, loose mounting, unbalanced rotor, worn bearings	Check alignment, tighten bolts, inspect rotor/bearings
Unusual noise	Worn bearings, foreign object, loose parts	Inspect bearings, remove foreign objects, tighten loose parts

7. Specifications

Key technical specifications for the Teco XP0152 motor:

- **Brand:** Teco
- **Model:** XP0152
- **Horsepower:** 15 HP
- **Speed:** 3600 RPM
- **Voltage:** 208/230/460 Volts
- **Phase:** 3 Phase
- **Frame:** 254T
- **Material:** Cast Iron
- **Item Weight:** 400 Pounds

- **Manufacturer:** TECO-Westinghouse

8. Warranty and Support

For warranty information, please refer to the documentation provided with your purchase or contact your authorized Teco distributor. For technical support or service inquiries, please contact TECO-Westinghouse customer service.

9. Media Information

No product images or official product videos were provided in the input data to be embedded in this manual.