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Trane MOT18949

Trane MOT18949 1/2HP 115V 1075RPM 48 PSC Motor Instruction Manual

Model: MOT18949

1. INTRODUCTION

This instruction manual provides essential information for the safe and efficient use of your Trane MOT18949 1/2HP 115V 1075RPM 48 PSC Motor. Please read this manual thoroughly before installation, operation, or maintenance to ensure proper handling and to prevent potential hazards. This motor is designed for specific HVAC applications as an OEM component.



Figure 1: Trane MOT18949 1/2HP 115V 1075RPM 48 PSC Motor. This image shows the motor from an angled perspective, highlighting its cylindrical body, cooling fins, shaft, and electrical wiring harness.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions could result in electric shock, fire, serious injury, or death.

- Always disconnect power before installing, servicing, or cleaning the motor.
- Installation and servicing must be performed by qualified personnel only.
- Ensure all wiring conforms to local and national electrical codes.

- Do not operate the motor if it is damaged or if any components are missing.
- Keep hands, tools, and clothing away from moving parts.
- Ensure proper grounding to prevent electrical shock.
- Use only specified replacement parts.

3. SETUP AND INSTALLATION

This motor is an OEM component designed for integration into specific Trane and American Standard HVAC systems. Refer to the specific equipment's service manual for detailed installation procedures.

3.1 Pre-Installation Check

- Verify that the motor specifications (HP, RPM, Voltage) match the requirements of the equipment.
- Inspect the motor for any shipping damage.
- Ensure all necessary tools and safety equipment are available.

3.2 Mounting

- Mount the motor securely using the resilient rings provided, ensuring proper alignment with the driven component (e.g., fan blower).
- Avoid overtightening mounting bolts, which can distort the motor housing.

3.3 Electrical Connection

- Connect the motor wiring according to the wiring diagram provided with the HVAC unit or the motor itself.
- Ensure the capacitor (15 MFD @ 370V) is correctly wired as this is a PSC (Permanent Split Capacitor) motor.
- Verify proper grounding.
- Double-check all connections for tightness and insulation.



Figure 2: Trane OEM Component Stamp. This image displays a circular stamp with "TRANE OEM COMPONENT" text, indicating the authenticity of the part.

4. OPERATING INSTRUCTIONS

Once installed and wired correctly, the motor's operation is typically controlled by the HVAC system it is integrated into. There are no direct user controls on the motor itself.

- **Initial Start-up:** After installation, restore power to the HVAC unit. The motor should start and operate smoothly when called upon by the system's thermostat or control board.
- **Normal Operation:** The motor is designed for continuous operation within its specified parameters. Monitor for unusual noises or vibrations during initial operation.
- **Shutdown:** The motor will cease operation when the HVAC system's demand is met or when power is removed.

5. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your Trane motor. Always disconnect power before performing any maintenance.

- **Cleaning:** Periodically clean the exterior of the motor to remove dust and debris that can impede cooling. Use a soft brush or compressed air. Do not use water or solvents directly on the motor.
- **Inspection:** Annually inspect the motor for signs of wear, such as loose wiring, corrosion, or unusual bearing noise. Check the mounting for security.
- **Lubrication:** This motor features sleeve bearings. Consult the specific HVAC unit's service manual for lubrication requirements, if any. Many modern motors are permanently lubricated.

6. TROUBLESHOOTING

If the motor is not functioning as expected, refer to the following common issues and their potential solutions. For complex problems, contact a qualified HVAC technician.

Problem	Possible Cause	Solution
Motor does not start.	No power, faulty capacitor, open circuit, seized bearing.	Check power supply. Test/replace capacitor. Inspect wiring. Check for obstructions or bearing failure.
Motor runs hot.	Overload, insufficient ventilation, low voltage, bearing issues.	Verify load is within motor rating. Ensure clear airflow. Check supply voltage. Inspect bearings.
Unusual noise or vibration.	Loose mounting, worn bearings, unbalanced load.	Tighten mounting bolts. Inspect/replace bearings. Check fan/blower for balance.
Motor hums but does not turn.	Faulty capacitor, seized shaft, wiring error.	Test/replace capacitor. Check for obstructions preventing shaft rotation. Verify wiring.

7. SPECIFICATIONS

The following are the key specifications for the Trane MOT18949 motor:

- **Model Number:** MOT18949
- **Horsepower (HP):** 1/2 HP (0.5 Horsepower)
- **Voltage:** 115 Volts
- **Frequency:** 60 Hz
- **Phase:** 1 Phase
- **RPM:** 1075 RPM

- **Motor Type:** PSC (Permanent Split Capacitor)
- **Frame Size:** 48 FRM
- **Rotation:** CCW (Counter-Clockwise)
- **Bearings:** Sleeve Bearings
- **Capacitor Requirement:** 15 MFD @ 370V
- **Material:** Copper (windings)
- **Item Weight:** Approximately 150 Pounds (Note: This weight seems unusually high for a 1/2HP motor, please verify with product documentation if critical.)
- **Manufacturer:** Trane

8. WARRANTY AND SUPPORT

As an OEM component, the warranty for the Trane MOT18949 motor is typically covered under the warranty of the complete HVAC system it is installed in, or by Trane's standard parts warranty. Specific warranty terms and conditions may vary. For warranty claims, technical support, or service inquiries, please contact your authorized Trane dealer or the manufacturer directly. Ensure you have your product model number (MOT18949) and the serial number of the HVAC unit available when contacting support.

Manufacturer: Trane

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Related Documents - MOT18949

 <p>System Catalog Comprehensive Chilled-Water System Design</p>	<p>Trane Comprehensive Chilled-Water System Design Catalog</p> <p>Trane's comprehensive catalog for designing advanced chilled-water systems. This guide details system components, state-of-the-art design principles, configurations, and selection criteria for chillers, cooling towers, pumps, and control valves. It focuses on achieving efficiency, reliability, and cost-effectiveness in commercial and industrial HVAC applications, including insights on Tracer Chiller Plant Control and Trane Design Assist.</p>
 <p>Installation Instructions AFDR Retrofit Air-cooled Adaptive Frequency Drive™ For Use with RTHD Chillers</p> <p>October 2022 SD-SV1044-EN</p>	<p>Trane AFDR Retrofit Installation Instructions for RTHD Chillers</p> <p>Comprehensive installation guide for Trane AFDR Retrofit Air-cooled Adaptive Frequency Drive™ for RTHD Chillers. Covers safety, environmental conditions, model details, and step-by-step installation procedures for qualified personnel.</p>

	<p>White-Rodgers 50A55-3797 Integrated Furnace Control: Installation, Operation, and Troubleshooting</p> <p>Comprehensive installation, operation, and troubleshooting guide for the White-Rodgers 50A55-3797 Integrated Furnace Control. Includes detailed specifications, wiring diagrams, safety precautions, and diagnostic information for HVAC professionals.</p>
	<p>Trane Air-Fi™ Wireless Communications Sensor (WCS) Quick Reference Guide</p> <p>This guide provides quick reference information for the Trane Air-Fi™ Wireless Communications Sensor (WCS), detailing how to adjust room temperature, system settings, fan speed, manage occupancy, and understand error codes. It includes safety warnings and battery life indicators.</p>
	<p>Trane Building Automation System (BAS) and HVAC Components Price List</p> <p>Comprehensive price list for Trane Building Automation Systems (BAS), HVAC equipment, and related components, including controllers, sensors, chillers, air handlers, and accessories. Details product codes, model numbers, and pricing for commercial and industrial applications.</p>

Documents - Trane – MOT18949



[\[pdf\] Warranty](#)

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