Mars 10891

Mars 10891 IP67 Evaporator/Condenser Fan Motor User Manual

Model: 10891 | Brand: Mars

INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Mars 10891 IP67 Evaporator/Condenser Fan Motor. Please read this manual thoroughly before using the product and retain it for future reference.

SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the product.

- **Electrical Safety:** Ensure power is disconnected before installation, maintenance, or troubleshooting. All electrical work should be performed by a qualified electrician in accordance with local codes and regulations.
- **Proper Handling:** Handle the motor with care to avoid dropping or damaging it.
- **Environmental Conditions:** This motor is IP67 rated, meaning it is protected against dust ingress and temporary immersion in water. However, avoid prolonged submersion or exposure to corrosive substances.
- **Ventilation:** Ensure adequate ventilation around the motor during operation to prevent overheating.

PRODUCT OVERVIEW

The Mars 10891 is a robust 4-25 watt IP67 rated motor designed for evaporator and condenser fan applications. It operates at 230 Volts and has a speed of 1550 RPM, making it suitable for various industrial and automotive cooling systems.

Figure 1: Front view of the Mars 10891 motor, showing the main body and attached power cord.

Figure 2: Side view of the Mars 10891 motor, highlighting the product label and mounting points.

Figure 3: Rear view of the Mars 10891 motor, showing the back casing and additional mounting features.

SETUP AND INSTALLATION

Before beginning installation, ensure all power to the system is turned off and locked out. Refer to your system's specific wiring diagram for proper connections.

1. **Mounting:** Securely mount the Mars 10891 motor using appropriate fasteners to a stable surface. Ensure the mounting orientation allows for proper airflow and vibration dampening.
2. **Wiring:** Connect the motor's power cord to the designated electrical supply. Verify that the voltage (230 Volts) matches the motor's requirements. Ensure all connections are tight and insulated.
3. **Fan Blade Attachment:** If replacing an existing motor, carefully attach the fan blade to the motor shaft. Ensure the blade is balanced and securely fastened to prevent vibration and damage.
4. **Final Check:** Before restoring power, double-check all connections and mounting points. Ensure no loose wires or obstructions are present.

OPERATING INSTRUCTIONS

Once installed, the Mars 10891 motor operates automatically when power is supplied to the system it is integrated into. It is designed for continuous operation within its specified parameters.

- **Power On:** Restore power to the system. The motor should begin rotating at its rated speed of 1550 RPM.
- **Monitoring:** Observe the motor during its initial operation for any unusual noises, vibrations, or signs of

overheating.

- **Normal Operation:** The motor is designed to run quietly and efficiently. Its IP67 rating ensures reliable performance in environments exposed to dust and moisture.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Mars 10891 motor. Always disconnect power before performing any maintenance.

- **Cleaning:** Periodically clean the exterior of the motor to remove dust and debris. Use a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Inspection:** Regularly inspect the motor for any signs of wear, damage, or loose connections. Check the fan blade for accumulation of dirt or damage that could cause imbalance.
- **Lubrication:** This motor is typically sealed and does not require user lubrication. Refer to the manufacturer's specifications if you suspect lubrication is needed.

TROUBLESHOOTING

If you encounter issues with your Mars 10891 motor, refer to the following common problems and solutions.

Problem	Possible Cause	Solution
Motor does not start	No power supply; Loose wiring; Motor fault	Check power source and circuit breaker; Verify all electrical connections; Consult a qualified technician if motor is faulty.
Unusual noise or vibration	Loose mounting; Damaged fan blade; Bearing wear	Tighten mounting bolts; Inspect and replace damaged fan blade; If bearings are worn, motor replacement may be necessary.
Motor overheating	Insufficient ventilation; Overload; Internal fault	Ensure clear airflow around motor; Verify motor is not operating beyond its rated capacity; Disconnect power and seek professional assistance.

SPECIFICATIONS

Attribute	Value
Brand	Mars
Model Number	10891
Type	Evaporator/Condenser Fan Motor
Horsepower	25 Watts
Voltage	230 Volts
Speed	1550 RPM
IP Rating	IP67
Material	Evaporator/condenser (referring to application)
Package Dimensions	5.51 x 5 x 4.29 inches

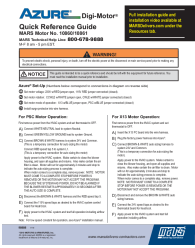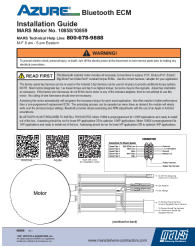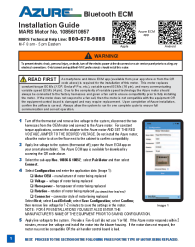| Attribute	Value
Weight	2.45 Pounds
Date First Available	November 8, 2017

WARRANTY INFORMATION

Mars products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or contact Mars customer support. Keep your proof of purchase for warranty claims.
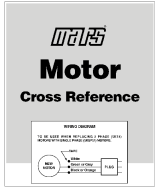
SUPPORT

If you require further assistance or have questions not covered in this manual, please contact Mars customer support. You can typically find contact information on the manufacturer's official website or on the product packaging.

For the latest information and support resources, visit the official Mars website.

Related Documents - 10891

MARS Azure Digi-Motor 10860/10861 Quick Reference Guide
Quick reference guide for installing and setting up the MARS Azure Digi-Motor models 10860 and 10861. Provides instructions for PSC and X13 motor operation, wiring, voltage and rotation setup, and auto-sizing procedures.

MARS Azure Bluetooth ECM Installation Guide for Motors 10858/10859
Comprehensive installation guide for MARS Azure Bluetooth ECM blower motors (models 10858 and 10859). Covers both Bluetooth and non-Bluetooth installation procedures, safety warnings, and setup instructions for HVAC professionals.

Azure Bluetooth ECM Motor Installation Guide - MARS 10856/10857
Comprehensive installation guide for MARS Azure Bluetooth ECM motors (models 10856 and 10857), covering setup, configuration, and compatibility checks for various HVAC systems.

	[Mars Motor Cross Reference Guide](#) A comprehensive cross-reference guide for Mars motors, helping users find replacement motor part numbers based on original manufacturer part numbers and specifications. Includes detailed cross-reference tables and notes for various motor applications.
	[MARS Motors, Components, Service & Installation, Parts & Accessories Catalog](#) Comprehensive catalog from MARS featuring a wide range of motors, components, service and installation parts, and accessories for the HVAC/R industry. Includes detailed specifications and product information.
	[MARS 24 (MW) Water-to-Water Series: Installation, Operation & Maintenance Manual](#) Comprehensive guide for the MARS 24 (MW) Water-to-Water Series, covering installation, operation, and maintenance procedures for commercial applications. Includes model nomenclature, safety warnings, refrigerant system servicing, physical data, and troubleshooting.