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› United HVAC Motors F8MVL0901716A1 Blower Motor 3.0 1/2 HP Instruction Manual

## United HVAC Motors F8MVL0901716A1

# United HVAC Motors F8MVL0901716A1 Blower Motor 3.0 1/2 HP Instruction Manual

Your guide to safe and efficient operation of your new blower motor.

## 1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your United HVAC Motors F8MVL0901716A1 Blower Motor. This motor is designed as a direct replacement for blower motors in residential and light commercial indoor furnaces, air handlers, and package systems. Please read this manual thoroughly before installation and operation to ensure safety and optimal performance.

## 2. IMPORTANT SAFETY INFORMATION

Always observe the following safety precautions to reduce the risk of electric shock, injury, or fire:

- Disconnect all power to the HVAC unit before installing or servicing the motor.
- Installation should be performed by a qualified HVAC technician.
- Ensure all wiring connections are secure and comply with local electrical codes.
- Do not operate the motor if it is damaged or has exposed wiring.
- Wear appropriate personal protective equipment (PPE) during installation and maintenance.

## 3. PRODUCT OVERVIEW AND KEY FEATURES

The F8MVL0901716A1 is a high-efficiency ECM (Electronically Commutated Motor) blower motor, engineered for reliable performance in various HVAC applications. It is pre-programmed for plug-and-play installation.



**Figure 1:** Front view of the F8MVL0901716A1 Blower Motor, showing the motor body, shaft, and mounting brackets.

### Key Features:

- Compatible with 5SME39HXL3020 and 5SME39HXL3047 models.
- Model Number: F8MVL0901716A1.
- Speed: 1300 RPM.
- Horsepower: 1/2 HP.
- Rotation: CCW (Counter-Clockwise), Reversible.
- Voltage Compatibility: 110V-120V, 208V, 220V-240V.
- Pre-Programmed for plug-and-play installation.

## 4. IDENTIFYING YOUR MOTOR MODEL

To ensure compatibility, it is crucial to match the model number of your existing motor with the replacement. The model number is typically located on a label affixed to the motor body.



# HOW TO ORDER

In order for your new motor to work, you must order the correct program code. The model number on your motor and the motor you order must be an exact match.

To find the Motor Model #  
Remove your motor from the unit and locate the number as seen below:

**Make sure that the motor you are going to buy has the same model number as your old motor**

genteq  
ELECTRONIC PROTECTED  
Class B 60Hz A 2014  
Type Code: HHSV  
115,200,000 V  
1500 RPM  
PAT # 7,033,316  
5SME39HL0252  
SECOND LABEL  
APPLICATION  
MADE IN MEXICO

GE ECM Motors ECM 2.3  
By Regal-Beloit  
1/2 HP 115,200,000 V  
7,033,316  
www.theclearlight.com

Model 5SME39HL0252  
SECOND LABEL  
APPLICATION

**Figure 2:** Illustration showing the typical location of the model number label on a blower motor. Ensure the model number, horsepower, and RPM match your existing unit.

## 5. SPECIFICATIONS

Detailed technical specifications for the F8MVL0901716A1 Blower Motor:

<b>Specification</b>	<b>Value</b>
Brand	United HVAC Motors
Model Number	F8MVL0901716A1
Speed	1300 RPM
Voltage	110V-120V, 208V, 220V-240V
Horsepower	0.5 HP (1/2 HP)
Rotation	CCW, Reversible
Product Dimensions	5.5"W x 6.1"H



**Figure 3:** Dimensional drawing of the blower motor, indicating key measurements for shaft length, motor diameter, and overall height.

## 6. INSTALLATION INSTRUCTIONS

Proper installation is critical for the safe and efficient operation of your blower motor. It is highly recommended that installation be performed by a certified HVAC professional.

### 6.1 Pre-Installation Checks

- Verify that the new motor's model number, horsepower, and RPM match your existing motor or are compatible.

- Ensure the power supply to the HVAC unit is completely disconnected at the circuit breaker.
- Inspect the new motor for any shipping damage.

## 6.2 Installation Steps

1. **Remove Old Motor:** Carefully disconnect wiring and unmount the old blower motor from the HVAC unit. Note the orientation and wiring connections for reference.
2. **Mount New Motor:** Position the F8MVL0901716A1 motor in the blower housing. Secure it using the existing mounting points. The motor features robust mounting brackets for stable installation.



Figure 4: Bottom view of the motor, highlighting the mounting points for secure installation within the HVAC unit.

3. **Connect Wiring:** This ECM motor is pre-programmed and designed for plug-and-play functionality. Connect the wiring harness from the HVAC unit to the motor's terminal block. Ensure connections are firm and correct according to the unit's wiring diagram.
4. **Install Blower Wheel:** Attach the blower wheel to the motor shaft. Ensure it is properly balanced and secured.



Figure 5: Top view of the motor, showing the shaft where the blower wheel is attached.

5. **Secure Access Panels:** Close and secure all access panels on the HVAC unit.
6. **Restore Power:** Restore power to the HVAC unit at the circuit breaker.
7. **Test Operation:** Initiate a test cycle for the HVAC system to confirm the blower motor operates correctly and quietly.

## 7. OPERATION

Once correctly installed, the F8MVL0901716A1 Blower Motor operates automatically in conjunction with your HVAC system's thermostat and control board. The motor's ECM technology allows it to adjust speed and torque to maintain optimal airflow and efficiency across its compatible voltage range (110V-120V, 208V, 220V-240V).

## 8. MAINTENANCE

The F8MVL0901716A1 Blower Motor is designed for minimal maintenance. However, periodic checks can help ensure its longevity and efficient operation:

- **Annual Inspection:** Have a qualified technician inspect the motor and blower assembly annually for

signs of wear, dust accumulation, or unusual noise.

- **Cleanliness:** Ensure the area around the motor and blower wheel remains free of dust, debris, and obstructions to prevent overheating and maintain airflow.
- **Air Filter:** Regularly replace or clean your HVAC system's air filter to reduce strain on the blower motor.

## 9. TROUBLESHOOTING

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If you experience issues with your blower motor, consider the following common troubleshooting steps:

- **Motor Not Running:** Check if power is supplied to the HVAC unit. Verify that the thermostat is set to a mode that calls for blower operation (e.g., Fan ON, Heat, Cool). Inspect wiring connections for looseness or damage.
- **Unusual Noise:** Disconnect power and inspect the blower wheel for obstructions or damage. Ensure the motor is securely mounted. If noise persists, contact customer support.
- **Reduced Airflow:** Check and replace dirty air filters. Ensure no vents are blocked.

For complex issues or if troubleshooting steps do not resolve the problem, contact United HVAC Motors customer support or a qualified HVAC technician.

## 10. WARRANTY INFORMATION

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The United HVAC Motors F8MVL0901716A1 Blower Motor comes with a **TWO YEAR Replacement Warranty**. This warranty covers defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims.



Figure 6: Image indicating the 2-year replacement warranty provided with the product.

## 11. CUSTOMER SUPPORT

For technical assistance, warranty claims, or any questions regarding your United HVAC Motors product, please contact our customer support team. Our team is based in Florida, USA, and is available to assist you.

**CUSTOMER SUPPORT**  
English & Español

United HVAC Motors logo

Elvis

Matthew

Monday - Saturday  
7:00 AM - 5:30 PM EST

Based in Florida, USA

The banner features a green background with white and red text. It includes circular icons for the United States and Spain flags, a white telephone icon, a clock icon, and a location pin icon next to a map outline of Florida. The names 'Elvis' and 'Matthew' are displayed in red boxes over their respective photos. The service hours and location information are presented in white text on green and black backgrounds.

Figure 7: United HVAC Motors customer support team members, Elvis and Matthew, available Monday - Saturday, 7:00 AM - 5:30 PM EST.

**Contact Information:**

**Phone:** 813-440-8108

**Hours:** Monday - Saturday, 7:00 AM - 5:30 PM EST

**12. COMPATIBILITY**

This motor is compatible with a wide range of HVAC systems and is a direct replacement for models such as 5SME39HXL3020 and 5SME39HXL3047. It is designed to work with various brands of residential and light commercial furnaces, air handlers, and package systems.

# COMPATIBLE

## WITH THESE BRANDS and more

We can program motors specifically for your AC System. If you couldn't find your motor in our catalog, it doesn't mean we can't help you!

Simply find your AC serial # and motor #, then give us a call 813-440-8108



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**Figure 8:** Visual representation of various HVAC brands compatible with United HVAC Motors products, including Lennox, Trane, Carrier, York, Goodman, Ruud, Bryant, Amana, ICP, Rheem, and American Standard.

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