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Genteq 1012119 / HQ1012119EM

Genteq OEM ICP Heil Tempstar Furnace Blower Motor User Manual

Models: 1012119, HQ1012119EM, K55HXGJZ-8262

INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Genteq OEM ICP Heil Tempstar Furnace Blower Motor. This motor is a direct replacement for various ICP, Heil, and Tempstar furnace units. Please read this manual thoroughly before proceeding with any installation or service.

SAFETY INFORMATION

WARNING:

- To reduce the potential for electrical shock, always disconnect power to the furnace unit at the main breaker before servicing or installing the motor. Verify with a voltage tester.
- Follow all national and local codes for grounding and wiring.
- Insulate any unused lead wires individually to prevent short circuits.
- Installation should only be performed by a qualified HVAC technician.
- This motor is thermally protected to prevent overheating.

PRODUCT OVERVIEW

The Genteq OEM ICP Heil Tempstar Furnace Blower Motor is a 3-speed, 1/2 HP, 115V motor designed for furnace applications. It serves as an original equipment manufacturer (OEM) replacement part for ICP, Heil, and Tempstar units. The motor features a 5 5/8-inch diameter (Frame 48Y) and a 4-inch shaft extension.



Image 1: Front view of the Genteq furnace blower motor, showing the shaft, motor housing, and attached wiring harness with color-coded leads and quick-connect terminals.

SPECIFICATIONS

Specification	Value
Brand	Genteq (OEM for ICP / Heil / Tempstar)

Model Numbers	1012119, HQ1012119EM, K55HXGJZ-8262 (Emerson), Replaces 1008414, HQ1008414EM
Horsepower (HP)	1/2 HP
Voltage	115 Volts
Amperage	10.3 Amps
RPM	1100 RPM (3-Speed)
Frequency	60 Hz
Frame Size	48Y (5 5/8" diameter)
Shaft Length	4 inches (extension)
Capacitor Requirement	10 MFD, 370 VAC (<i>Note: Capacitor not included, sold separately</i>)
Thermal Protection	Yes (Code 7A010)
Insulation Class	Class B, 40°C Air Over Cont.
UPC	751109532052

INSTALLATION (SETUP)

- Safety First:** Ensure all power to the furnace unit is disconnected at the main breaker before beginning any work. Verify with a voltage tester.
- Access Old Motor:** Carefully open the furnace access panels to locate the existing blower motor.
- Disconnect Wiring:** Photograph or diagram the existing wiring connections for reference. Disconnect all electrical connections from the old motor and capacitor.
- Remove Old Motor:** Unmount and remove the old blower motor. Note the orientation and mounting method.
- Install New Capacitor (Recommended):** It is highly recommended to replace the old capacitor with a new one of the correct specifications (10 MFD, 370 VAC) when installing a new motor. An old, weak capacitor can negatively affect the performance and lifespan of the new motor.
- Mount New Motor:** Install the new Genteq blower motor in the same orientation and using the same mounting hardware as the old motor. Ensure it is securely fastened.
- Connect Wiring:** Refer to your diagram or photographs and the wiring diagram provided in this manual (see "Wiring Diagram" section) to connect the new motor. Ensure all connections are secure and insulated. Insulate any unused lead wires individually.
- Verify Installation:** Double-check all connections and ensure no tools or debris are left inside the furnace. Close all access panels.
- Restore Power:** Restore power to the furnace unit at the main breaker.
- Test Operation:** Initiate a test cycle for the furnace to ensure the blower motor operates correctly at all speeds. Listen for unusual noises or vibrations.

WIRING DIAGRAM

The following diagram illustrates the standard wiring connections for the 3-speed Genteq blower motor.

Always refer to the specific wiring diagram of your furnace unit for precise connections.



Image 2: Close-up of the motor label showing the wiring diagram. Connections include BRN (Capacitor), WHT-COM (Common), BLK-HI (High Speed), BLU-MED (Medium Speed), RED-LOW (Low Speed), and a ground wire.

Wiring Key:

- **BRN (Brown):** Connects to the capacitor. There are two brown wires, both connect to the capacitor terminals.
- **WHT-COM (White):** Common wire, connects to the neutral line (LINE).
- **BLK-HI (Black):** High speed winding.

- **BLU-MED (Blue):** Medium speed winding.
- **RED-LOW (Red):** Low speed winding.
- **Green/Yellow Wire:** Ground connection.

The motor requires a 10 MFD, 370 VAC capacitor (sold separately).

OPERATION

Once properly installed and wired, the blower motor will operate according to the commands from your furnace control board. The motor has three speeds (High, Medium, Low) which are typically selected by the furnace control for different heating or cooling demands. Ensure the furnace is set to the desired mode (e.g., Heat, Cool, Fan On) and the thermostat is calling for operation.

MAINTENANCE

This motor is designed for long-term, reliable operation with minimal maintenance. Regular maintenance should focus on the overall furnace system:

- **Air Filter:** Regularly check and replace the furnace air filter to ensure proper airflow and prevent strain on the blower motor.
- **Blower Wheel:** Periodically inspect the blower wheel for dirt and debris accumulation. A dirty blower wheel can reduce efficiency and cause imbalance, leading to premature motor wear. Clean if necessary.
- **Motor Housing:** Keep the motor housing free from dust and obstructions to allow for proper cooling.
- **Capacitor:** While the motor is new, the capacitor can degrade over time. If the motor struggles to start or runs sluggishly, consider checking and replacing the capacitor.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Motor does not start or hums but doesn't spin.	No power, faulty capacitor, incorrect wiring, seized blower wheel.	Check power supply and circuit breaker. Test/replace capacitor. Verify wiring connections. Inspect blower wheel for obstructions.
Motor runs but airflow is weak.	Dirty air filter, dirty blower wheel, incorrect speed setting.	Replace air filter. Clean blower wheel. Ensure correct speed wire is connected for desired airflow.
Motor is noisy or vibrates excessively.	Loose mounting, unbalanced blower wheel, worn bearings (unlikely for new motor).	Check motor mounting for tightness. Inspect blower wheel for debris or damage causing imbalance.
Motor overheats and shuts off.	Restricted airflow, excessive load, faulty capacitor.	Check air filter and ductwork for obstructions. Ensure blower wheel is clean. Test/replace capacitor.

Note: For complex issues or if you are unsure, contact a qualified HVAC technician.

COMPATIBLE FURNACE UNITS

This motor is compatible with a partial list of ICP/Heil/Tempstar units, including but not limited to:

- FBF075F16A4, FBF075F16A5, FBF075F16G1
- GDE075F16A2, GDE075F16A3, GDE075F16G1
- GNE075F16A1, GNE075F16A2, GNE075F16G1
- NBF075F16A2, NBF075F16A3, NBF075F16G1
- NDF075F16A1, NDF075F16G1
- NDN3075HFA1, NDN3075HFG1
- NDN6075HFA2, NDN6075HFA3, NDN6075HFG1
- NNE075F16A1, NNE075F16A2, NNE075F16G1
- NTC6075HFA1, NTC6075HFA2, NTC6075HFG1
- NTG3075HFA4, NTG3075HFA5, NTG3075HFG1
- NTN3075HFA2, NTN3075HFA3, NTN3075HFG1
- NTN6075HFA1, NTN6075HFA2, NTN6075HFG1

Always verify compatibility with your specific furnace model before purchase and installation.

WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation provided with your purchase or contact the manufacturer, Genteq, or your authorized dealer. Keep your purchase receipt for warranty claims.

For additional information, you may visit the manufacturer's website: www.usmotors.com (as indicated on the motor label).