

# Evergreen® OM (460V) Outdoor Fan Motor Installation Guide

#### Genteq

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G1150E
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### **▲** WARNING

- · Read and follow all instructions carefully.
- Disconnect and lock-out power before installation and maintenance.
   Working on or near energized equipment can result in severe injury or death.
- Do not operate equipment without guards in place. Exposed equipment can result in severe injury or death.

#### **▲** CAUTION

 Periodic inspections should be performed. Failure to perform proper maintenance can result in premature product failure and personal injury.

# **High Voltage POWER Connections**

- Step 1: Connect the Black L1 to Line Voltage L1 on the "LINE" side of the contactor.
- **Step 2:** Connect the Red L2 to the Line Voltage L2 on the "LINE" side of the contactor.
  - **Note:** These wires should be powered continuously when the unit disconnect is closed.
- Step 3: Connect the Green/Yellow stripe ground wire to system ground.

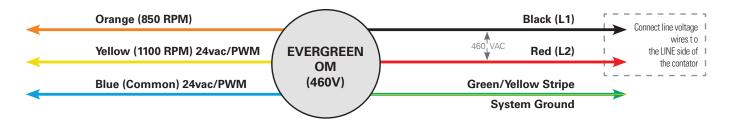
# **Low Voltage SIGNAL Connections**

### Single Speed Connection

- Step 1: Speed Connection
  - A) For 8 pole speed (850 RPM) connect the Orange wire to 24vac
  - B) For 6 pole speed (1100 RPM) connect the Yellow wire to 24vac
- Step 2: Connect Blue wire to 24vac Common

#### **PWM Connection**

- Step 1: Connect Yellow wire to PWM source
- Step 2: Connect Blue wire to PWM Common
  - Note: 1. Motor on/off operating is dictated by these inputs
    - 2. Cap off unused wire with wire nut or electrical tape



# **Changing Rotation**

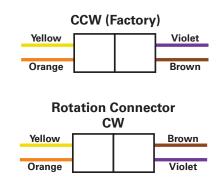
From the factory, the motor will be set up for CCW rotation as viewed from lead end

The Yellow wire connected thru the 2 pin connector to the Violet wire and the Orange wire connected thru the 2 pin connector to the Brown wire.

**Step 1:** To change the rotation from CCW to CW:

Disconnect the 2 pin connector and rotate it 180° so the Yellow wire is connected to the Brown wire thru the 2 pin connector and the Orange wire is connected to the Violet wire thru the 2 pin connector.

**CAUTION:** Secure all wires including the Rotation Connecton out of the path of the fan blade before starting the motor!





#### **Specifications**

**Voltage**: 460 (allowable voltage range 414-552) VAC, single-phase input, 50-60 Hz

**Horse Power:** 1/3HP (replaces 1/3-1/4), 1/2HP (replaces 1/2-1/4), 3/4HP (replaces 3/4-1/4)

**Speeds:** 2 operating speeds using 24vac or 300-1200 RPM using PWM (Constant Speed)

- 1100 RPM (6-pole) replaces motors rated 1000-1100 RPM, 850 RPM (8-pole) replaces motors rated 800-850 RPM
- 300-1200 RPM operating range with PWM input (PWM Signal specifications 15-23 VDC at 67-93Hz or 127-199Hz / 10% Guaranteed On and 5% Guaranteed Off Duty Cycle)

**Rotation:** CCW or CW by reversing plug (factory set to CCW)

· As viewed from lead end

**Bearing:** Permanently lubricated ball bearing **Ambient Rating:** -40° C to +60° C (-40° F to 140° F)

 $\textbf{Enclosure:} \ \, \textbf{Totally Enclosed Air Over (TEAO), NEMA 48-frame}$ 

Shaft: Single, 1/2" diameter, 6" length, 5.5" single flat

**Mounting:** Horizontal or vertical shaft-down (VSD), belly band or rear

extended clamp bolts

Leads: 54" length, bare wire strip, ground wire #10 eyelet

**UL and CSA recognized component** 

STOCK NO.	HP	VOLTAGE	FLA	ROTATION	RPM	FRAME
6903	1/3	460	1.6	CCW/CW	850/1100	NEMA 48
6905	1/2	460	2.5	CCW/CW	850/1100	NEMA 48
6907	3/4	460	3.1	CCW/CW	850/1100	NEMA 48

### **Application Note**

This product is designed to replace induction motors (shaded pole or PSC) in direct-drive fan propeller applications. **Do not use this motor to replace OEM ECM outdoor fan motors or belt drive motors. OEM ECM outdoor fan motors must be replaced with OEM equivalent.** 

#### **Operation Note**

Evergreen OM will delay on approximately 5 seconds after 24vac or PWM is applied to one of the speed wires, then ramp up to speed. The Orange and Yellow speed/PWM wires dictate the on/off command to the motor control.

# Replacing the Evergreen OM

If the motor does not operate with proper Line Voltage measured between the Red wire and the Black wire, AND proper 24vac or PWM to a signal wire and common (see wiring diagram), it is failed and will require replacement. Before replacing the motor, please call the Contractor Hotline to confirm your diagnostics if possible. **The Evergreen OM is a single component replacement. The control cannot be replaced separately from the motor.** Contact the distributor where the motor was purchased or any authorized Evergreen distributor for replacement.

Contractor Hotline 1-866-503-8566

### **Safety Considerations**

The following definitions are used as safety considerations on the Evergreen OM motor and in this manual. Please read and observe all of these safety concerns.

### Safety Symbols

**WARNING!** Warning indicates a hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION:** Caution indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

Installation and service of this motor should be performed only by trained service technicians familiar with the Evergreen OM motor.

This motor should be installed in accordance with accepted practices and installation instructions, and in compliance with all national and local codes.

**WARNING!** Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause personal injury, death, or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use the supplied or recommended parts when installing or servicing this product.

**WARNING!** Always disconnect the main power from the unit being serviced before making any wiring connections to the Evergreen OM. It is also a good practice to confirm that the power is off with an electric voltmeter.

### Terms & Conditions of Sale & Limited Warranty

Sales of the products described in this Installation Manual are subject to the "Regal Beloit Terms and Conditions of Sale" current at the time of sale. They are accessible on RegalBeloit.com – http://www.regalbeloit.com/what-we-do/products-brands/ (click "Regal Terms and Conditions of Sale").

The full Limited Warranty, including the scope and period, remedies, exclusions and disclaimers current is described in Section 10 "Limited Warranty" of the Regal Terms and Conditions of Sale.

The following is the "Scope and Period" (Section 10(a)(1)) portion of the Limited Warranty applicable to the products described in this Installation Manual:

Seller warrants that the Products shall be delivered free from defects in material, workmanship and title and shall conform to Seller's written specification agreed upon by Buyer and Seller in written and signed agreement, if applicable, for the Products. This warranty shall expire twenty-four (24) months from the fist use of the Product or thirty (30) months from date of shipment of the Product, whichever occurs first.

