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## Century EVC225

# Century Electric VGREEN® EVC225 Variable Speed Pool Pump Motor User Manual

Model: EVC225 | Brand: Century

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Century Electric VGREEN® EVC225 Variable Speed Pool Pump Motor. This motor is designed for use with swimming pool pumps, offering variable speed control for energy efficiency and optimal performance. It is compliant with the New 2021 DOE Regulations.

Please read this manual thoroughly before installation and operation to ensure proper use and to prevent damage to the motor or injury to yourself.

## 2. IMPORTANT SAFETY INFORMATION

**WARNING:** Electrical shock hazard. Always disconnect power at the circuit breaker before attempting any installation, service, or maintenance on the motor. Failure to do so can result in serious injury or death.

**NOTICE:** If the VGreen Evo motor is powered off for any reason, at least 60 seconds must pass before power is reapplied. Failure to provide an adequate delay could result in damage to the motor. This delay allows internal components to reset safely.

- Installation must be performed by a qualified electrician or pool professional in accordance with all local and national electrical codes.
- Ensure the motor is properly grounded to prevent electrical shock.
- Do not operate the motor if it is damaged or if any wiring is exposed.
- Keep children and unauthorized persons away from the motor during operation.
- Protect the motor from direct exposure to rain or excessive moisture, despite its IPX5 rating, to prolong its lifespan.

### 3. PRODUCT FEATURES

- **Variable Speed Operation:** Full variable speed range from 600-3450 RPM for optimized energy consumption and performance.
- **High Horsepower:** 2.25 Total Horsepower (THP) capable of replacing motors from 0.5 HP to 2.25 HP. (Note: At 115 Volts, the total horsepower is 1.50 THP).
- **Dual Voltage Compatibility:** Operates on 115/230 Volt power supplies with 17.4/13.5 Max Amps and a 1.0 Service Factor.
- **Standard Frame Size:** Features a 56J Frame for broad compatibility with existing pool pumps.
- **Durable Construction:** Total Enclosed Fan Cooling (TEFC) design and Class B Insulation for continuous duty and extended motor life.
- **Robust Shaft:** Equipped with a 5/8" diameter threaded stainless steel shaft.
- **Easy Integration:** Communicates easily with most automation systems, preserving automation system functionality.
- **User-Friendly Interface:** Simplified user interface for easier programming and motor setup with push-button controls.
- **Installation Versatility:** Lightweight, compact design, and rotatable mains wiring compartment for ease of installation. Available in both square flange and C-Face mounting configurations.
- **Weather Resistant:** IPX5 moisture intrusion rating and UV resistant components protect against harsh environmental conditions.

### 4. SETUP AND INSTALLATION

Installation of the Century Electric VGREEN® EVC225 motor should only be performed by a certified professional to ensure safety and compliance with all electrical codes.

#### 4.1 Pre-Installation Checklist

- Verify that the power supply matches the motor's voltage requirements (115V or 230V).
- Ensure the pump housing is clean and free of debris.
- Confirm the existing pump requires a 56J frame motor.
- Have appropriate tools and safety equipment ready.

#### 4.2 Mounting the Motor

The EVC225 motor is designed for versatility, supporting both square flange and C-Face mounting configurations. Securely attach the motor to the pump housing using appropriate hardware. Ensure a stable and level mounting surface to prevent vibration and premature wear.

#### 4.3 Electrical Connections

The motor features a rotatable mains wiring compartment for flexible electrical connections. Connect the power supply wires according to the wiring diagram provided on the motor's label and in compliance with local electrical codes. Ensure all connections are tight and insulated. Proper grounding is critical for safety.



Figure 1: Century Electric VGREEN EVC225 Variable Speed Pool Pump Motor. This image shows the black motor unit with its electrical housing on top and the threaded stainless steel shaft extending from the front. A product label with specifications is visible on the side.

## 5. OPERATION

The VGREEN® EVC225 motor features a simplified user interface for easy programming and setup. Upon initial power application, the motor will automatically run a programmed default schedule. This feature ensures the motor will restart in the event of a power outage.

### 5.1 Programming Speeds

Refer to the motor's integrated control panel or the detailed programming guide (if supplied separately) for instructions on setting desired speeds and schedules. The variable speed capability allows you to optimize pump performance for different pool operations (e.g., filtration, backwashing, heating) and save energy.

### 5.2 Automation System Integration

The motor is designed to communicate seamlessly with most pool automation systems. This allows for integrated control of your pool equipment without loss of automation system functionality. Consult your automation system's manual for specific connection and programming details.

## 6. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your VGREEN® EVC225 motor.

- **Keep Clean:** Periodically clean the exterior of the motor to prevent dust and debris buildup, which can impede cooling.
- **Inspect Wiring:** Annually inspect all electrical connections for tightness and signs of wear or corrosion.
- **Ventilation:** Ensure the motor has adequate ventilation around it. Do not obstruct the fan cooling vents.
- **Environmental Protection:** While the motor is UV and moisture resistant (IPX5), protecting it from extreme weather conditions (e.g., heavy rain, direct sunlight for prolonged periods) can extend its life.

## 7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Motor does not start or respond after power interruption.	Insufficient delay before reapplying power.	Ensure at least 60 seconds pass after power is removed before reapplying it. This allows the motor's internal systems to reset.
Motor runs but pump does not move water.	Pump issue (e.g., clogged impeller, air lock) or incorrect motor speed setting.	Check pump for clogs or air. Verify motor speed settings are appropriate for the task. Consult pump manual.
Motor is excessively noisy or vibrating.	Improper mounting, worn bearings, or foreign object.	Ensure motor is securely mounted. If noise persists, professional inspection may be required.
Motor overheats and shuts off.	Poor ventilation, excessive load, or internal fault.	Clear any obstructions around the motor. Ensure proper voltage supply. If problem persists, seek professional service.

For issues not listed here, or if troubleshooting steps do not resolve the problem, please contact a qualified service technician.

## 8. SPECIFICATIONS

Attribute	Detail
Model Number	EVC225
Horsepower (THP)	2.25 THP (1.50 THP at 115V)
Voltage	115/230 Volt
Max Amps	17.4/13.5 Amps
Speed Range	Full Variable Speed (600-3450 RPM)
Frame Type	56J Frame
Cooling	Total Enclosed Fan Cooling (TEFC)
Insulation Class	Class B
Shaft Material	Stainless Steel
Shaft Diameter	5/8" threaded
Weight	Approximately 22 pounds
Moisture Protection	IPX5 rated

## 9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or contact Century Electric customer service. Keep your proof of purchase for warranty claims.

For further assistance, please visit the manufacturer's official website or contact their support line. Contact details are typically found on the product packaging or the manufacturer's website.