

## Franklin Electric 2343188602

# Franklin Electric 2343188602 4-inch Submersible Water Well Motor User Manual

**Brand:** Franklin Electric | **Model:** 2343188602

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Franklin Electric 2343188602 4-inch Submersible Water Well Motor. This motor is designed for use in water well applications, delivering 7-1/2 horsepower, operating at 230 volts, and requiring a three-phase power supply. Please read this manual thoroughly before attempting any installation or operation.

## 2. SAFETY INFORMATION

**WARNING: Electrical shock hazard. Always disconnect power before servicing or installing this motor. Installation and service should only be performed by qualified personnel.**

- Ensure all electrical connections comply with local and national electrical codes.
- Do not operate the motor in dry conditions; it must be fully submerged in water for cooling.
- Wear appropriate personal protective equipment (PPE) during installation and maintenance.
- Verify correct voltage and phase before connecting the motor.
- Keep children and unauthorized personnel away from the installation area.

## 3. PRODUCT OVERVIEW

The Franklin Electric 2343188602 is a robust 4-inch submersible motor constructed from stainless steel, designed for durability and long-term performance in demanding well environments. It features a sealed design to prevent water intrusion and is equipped with a power cable for electrical connection.



 **Franklin Electric**  
MODEL 2343278304 HP 5 Hz 60/50  
VOLTS 460/380 PH 3 AMP 8.0/9.0  
SPIN 3450/2875 S.F. MAX AMP 8.6/9.2  
WVA CODE KVF 5.5 115/10 KV 37  
MIN. FLOW FT./SEC. 25  
2.5A CONTINUOUS DUTY 178218

**Figure 1:** Franklin Electric 4-inch Submersible Water Well Motor. This image shows the cylindrical stainless steel motor with its electrical cable connection at the top, ready for installation into a well casing.

## 4. SETUP AND INSTALLATION

Proper installation is crucial for the longevity and performance of your submersible motor. Consult a qualified well contractor for installation.

- 1. Pre-Installation Check:** Inspect the motor for any shipping damage. Verify that the motor's electrical specifications match the power supply.
- 2. Cable Splicing:** If necessary, splice the motor cable to the drop cable using waterproof splice kits designed for submersible applications. Ensure all connections are watertight and mechanically secure.
- 3. Motor Mounting:** Securely attach the motor to the pump assembly according to the pump manufacturer's instructions.
- 4. Lowering into Well:** Carefully lower the motor and pump assembly into the well, ensuring it does not hit the well casing walls. Maintain proper clearance from the bottom of the well.
- 5. Electrical Connection:** Connect the drop cable to the control box or power supply, ensuring correct phase rotation for three-phase motors. Install appropriate overcurrent and undervoltage protection.
- 6. Grounding:** Properly ground the motor and control box according to electrical codes to prevent electrical hazards.

## 5. OPERATING INSTRUCTIONS

Once installed, follow these guidelines for operating your Franklin Electric submersible motor:

- Initial Start-up:** After installation, allow the well to recover and fill with water before starting the pump. Briefly run the pump to check for proper operation and rotation.
- Continuous Operation:** The motor is designed for continuous duty when fully submerged. Avoid frequent starts and stops, as this can reduce motor life.
- Monitoring:** Periodically monitor the pump's performance, including water flow and pressure, to detect any anomalies.
- Dry Run Protection:** It is highly recommended to install a dry run protection device to prevent motor damage if the water level in the well drops too low.

## 6. MAINTENANCE

The Franklin Electric submersible motor is designed for minimal maintenance. However, periodic checks can help ensure optimal performance and extend its lifespan.

- Annual Inspection:** Have a qualified technician inspect the entire well system annually, including electrical connections, control box components, and pump performance.
- Water Quality:** If water quality issues (e.g., sand, sediment) are present, consider installing appropriate filtration or consult a well professional for solutions.
- Cable Integrity:** Ensure the motor cable and drop cable remain free from damage.
- Control Box:** Keep the control box clean and free from moisture and debris.

## 7. TROUBLESHOOTING

This section addresses common issues you might encounter with your submersible motor. For complex problems, contact a qualified service technician.

Problem	Possible Cause	Solution
Motor does not start	No power, tripped breaker, faulty control box, motor overload.	Check power supply, reset breaker, inspect control box, allow motor to cool.
Low water pressure/flow	Low well water level, clogged pump intake, worn pump components, pipe leaks.	Check well level, inspect pump, check for leaks, consult technician.
Motor runs continuously	Leaking check valve, pressure switch malfunction, continuous demand.	Inspect check valve, test pressure switch, verify system demand.
Excessive noise or vibration	Pump cavitation, worn bearings, foreign object in pump.	Check well level, inspect pump for obstructions, contact technician.

## 8. SPECIFICATIONS

Key technical specifications for the Franklin Electric 2343188602 Submersible Water Well Motor:

**Model Number:** 2343188602

**Brand:** Franklin Electric

**Horsepower (HP):** 7-1/2 HP

**Voltage:** 230 V

**Phase:** 3 PH (Three Phase)

**Motor Diameter:** 4 inches

**Material:** Stainless Steel

**Power Source:** Battery Powered (*Note: This specification from the source data might be a generic classification. For a 7.5 HP motor, it typically refers to the power source for the control system or a specific type of installation, not the primary motor power. The motor itself is 230V, 3PH.*)

**Item Weight:** 71 Pounds

**Product Dimensions:** 6 x 6 x 31 inches

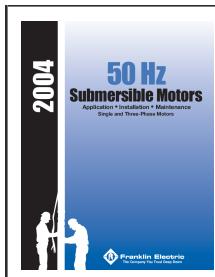
**UPC:** 737946885667

## 9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries regarding your Franklin Electric 2343188602 submersible motor, please contact Franklin Electric directly or an authorized service center. Retain your proof of purchase for warranty claims.

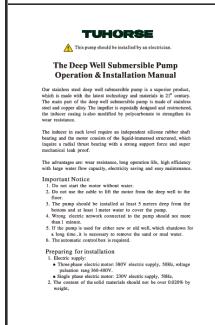
You can typically find contact information on the official Franklin Electric website or through your product distributor.

### Related Documents - 2343188602



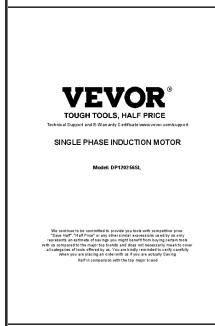
## [Franklin Electric 50 Hz Submersible Motors: Application, Installation, and Maintenance Manual](#)

A comprehensive technical manual from Franklin Electric detailing the application, installation, and maintenance of 50 Hz submersible motors. Covers single-phase and three-phase models, electrical specifications, troubleshooting, and control systems.



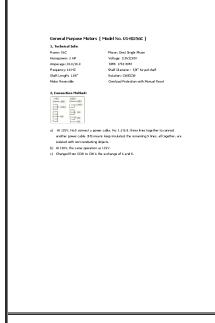
## [TUHORSE Deep Well Submersible Pump Operation and Installation Manual](#)

Detailed operation and installation guide for TUHORSE deep well submersible pumps. Covers electrical requirements, cable sizing, connection procedures, troubleshooting common issues, and system setup with an installation diagram.



## [VEVOR Single Phase Induction Motor DP120256SL - User Manual and Technical Information](#)

Detailed user manual and technical specifications for the VEVOR DP120256SL Single Phase Induction Motor, including safety warnings, connection methods, and troubleshooting guide.



## [General Purpose Motor U140256C Technical Specifications and Connection Guide](#)

Detailed technical information and connection instructions for the VEVOR General Purpose Motor, Model U140256C. Includes specifications like frame size, horsepower, voltage, RPM, and wiring diagrams for 115V and 230V connections.



## [Franklin Electric Guardian Series Three Phase Pump Controller Datasheet](#)

Datasheet for the Franklin Electric Guardian Series™ Three Phase Pump Controller, detailing its features, specifications, capabilities, and ordering information for fixed-speed submersible turbine pump applications.



## [Franklin Electric VS 4" 50 Hz Submersible Pumps for 4" or Larger Wells](#)

This catalog provides detailed information on the Franklin Electric VS 4" 50 Hz series of submersible pumps, designed for 4" or larger wells. It includes product overview, features, benefits, technical data, performance curves, and spare parts for models VS 1-2-3, VS 4-6, VS 7-8-10-15.



**4" HIGH THROTTLE SUBMERSIBLE MOTORS**

**APPLICATIONS**

These motors are designed to pump raw water from sources such as streams, rivers, lakes, and irrigation ditches. They are also used in applications such as irrigation, water supply, and drainage. These motors are designed to be used in applications where the water is not very clean, such as irrigation ditches and streams.

**FEATURES**

- Single-Phase 1-Phase 230V or 230V + 40W
- Three-Phase 1-Phase 230V or 230V + 40W, 460V or 1-Phase 460V
- 100% NEMA Protection
- Stainless Steel Spherical Shaft
- Reliance Power Drive 240V-250V to maximize efficiency and reduce noise and weight
- Internally Sealed Bearings
- Cast Iron Pump Body
- Water Lubrication
- Other Check Valve (Water Valve)

**SPECIAL FEATURES**

- **100% Stainless Steel:** Special coated carbon steel is used, low cost, and safe applications.
- **Water Lubrication:** The pump is designed to be used in applications where the water is not very clean, such as irrigation ditches and streams.
- **High Output Torque:** The pump is designed to be used in applications where the water is not very clean, such as irrigation ditches and streams.
- **Wide Voltage Adaptability:** All standard voltage and frequency ratings are offered. Contact Franklin Electric for availability.

**CONTROL BOXES**

- Franklin single phase submersible control box is designed for outdoor mounting with options for 100' or 200' cable lengths.
- Start and run wiring is included per the NEC. Failure to follow NEC will void the warranty.
- Available in 1 or 3 wire ratings. The NEC code does not require a separate lead conductor to connect the motor to the control box.
- Inlets have strain relief and the top box makes it easy to install 10 AWG wire.
- Ground provides a source of grounding for the motor and control box to the ground wire present in the control box.

**WARNING:** Use of a surge arrest device is required. Read the User's Manual to follow the instructions for proper installation and use and accept this equipment.



**Franklin Electric**



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**4 HIGH THRUST SUBMERSIBLE MOTORS APPLICATIONS** These motors are built for superior dependability in 4 diameter or larger water wells. Temperature and time rating continuous in 30 0C 86 0F water at 0.25 ft/sec flow past motor. Single-phase rotation, CCW facing shaft end; three-phase, electrically...

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PRODUCT CATALOG

[\[pdf\]](#) Specifications Dimension Guide Accessories Catalog

Franklin Electric Motors Drives Controls Catalog Franklin 2343188602 High Thrust Water Well Motor 4 7 5  
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7485 franklinmotorsdrivesandcontrolscatalog23 |||

## PRODUCT CATALOG MOTORS CONTROL BOXES franklinwater.com

### SUBMERSIBLE MOTORS CONTROL BOXES 4 Submersible

Motors..... 2 Specifications  
and Materials.....

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**4" SUBMERSIBLE MOTORS**

These motors are built for dependable operation in 4" diameter or larger water wells.

**BASIC FEATURES**

- Single stage, vertical design
- Stationary cover plate
- Removable outer housing
- Standard "well" cover plate
- Removable base
- Motor protection
- Impeller type: vertical
- Propeller type: horizontal
- Single-phase or three-phase
- Single-phase service: ball-spring phase
- Removable "B" flange
- Franklin manufactured cartridges available for single-phase operation.
- 100% NEMA certified
- UL listed
- CSA certified
- NFPA 22 listed
- UL listed
- NEMA certified
- Motor classified NEMA non-enclosed

**SEAL FEATURES**

- Standard: mechanical seal required to be at 85°F (19°C) maximum through 12hp
- New: one and one-half stage design will fit larger pump components and do not require an oil bath, features Franklin's丞™ wear Babbitt coating™ seal, which provides unique impact absorption during start-up and prevents extreme fast cycling wear, while logically reducing the potential for seal damage.
- New: two stage seal. Includes three wear Babbitt coating™ seal combination with the standard Babbitt coating™ seal, this will also provide the operator an additional seal.
- Single-phase motor design will withstand pump components to protect against the severe environmental conditions that can damage electrical components.

**PROTECTION RECOVERY SYSTEM**

- Protects the pump motor, as well as your system, from pump damage, wells in which hydrocarbons and other chemicals are present
- Inverse time relays purchased as a chemical resistant material, listed in the contractor materials chart.





[\[pdf\]](#) Dimension Guide Catalog

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4 SUBMERSIBLE MOTORS These motors are built for dependable operation in 4 diameter or larger water wells. BASIC FEATURES Corrosion-resistant stainless steel exterior Stainless steel splined shaft Hermetically-sealed windings StatorShield™ resin system Filter check valve Water lubrication K...

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