

# 4" HIGH THRUST SUBMERSIBLE MOTORS

## Single-Phase 3 & 5 hp & Three-Phase 3-10 hp

Motors

Drives

Controls

Protection

### Application Data:

These motors are built for superior dependability in 4" diameter or larger water wells. Temperature and time rating continuous in 86 °F (30 °C) water at 1/4 ft/sec flow past motor. Rotation: single-phase, CCW facing shaft end; three-phase, electrically reversible.

For further information, refer to Franklin Electric's Submersible Motors: Application, Installation, Maintenance Manual.

### Basic Features:

- Single-phase Voltage 230 V 60 Hz, 220 V 50 Hz
- Three-phase Voltages 200 V, 230 V, 380 V, 575 V 60 Hz, 460/380 V 60/50 Hz
- Corrosion-Resistant Construction
- Stainless Steel Splined Shaft
- Hermetically-Sealed Windings
- Anti-Track Self-Healing Resin System
- Water Lubrication
- Filter Check Valve (Water Well)
- Kingsbury-type Thrust Bearing
- Pressure Equalizing Diaphragm
- Built-in Lightning Arrestors (single-phase)
- Removable Water-Bloc™ Lead installed in 60 Hz and dual frequency rated water well motors. Consult factory for additional leads.
- NEMA Pump Mounting Dimensions
- UL 778 Recognized (North American Voltages)
- CSA C22.2 #108 Certified
- Sand Fighter Slinger

### Special Features:

- **316 Stainless Steel:** Special construction option for acid, low pH, and saline applications.
- **Oil Stripper:** Special construction option for secondary oil recovery wells, geothermal, or other applications with high ambient temperatures. Consult factory for details.
- **World Wide Adaptability:** All standard voltage and Hertz ratings are offered. Contact Franklin Electric for availability.

### Control Boxes:

- Franklin's single-phase submersible Control Boxes are suitable for outdoor mounting with operation over temperature ranges of +14 °F (-10 °C) to +122 °F (50 °C).
- Start and run winding overloads protect the motor from failure due to abnormal operating conditions.
- Available in 3 and 5 hp ratings, the DELUXE Control Box incorporates a magnetic line contactor to eliminate the need for auxiliary contactors and heavy duty pressure switches.
- A heavy duty terminal strip with box type lugs makes it easy to install up to #2 AWG wire.
- Ground lugs provide a means of grounding the motor and Control Box to the power supply ground in compliance with NEC and other national and local codes.

**WARNING:** Serious or fatal electrical shock or fire hazard may result from failure to follow the instructions for proper installation and use which accompany this equipment. Do not use motor in swimming areas.



## Availability

### Single-Phase Capacitor start, capacitor run (Control Box required)

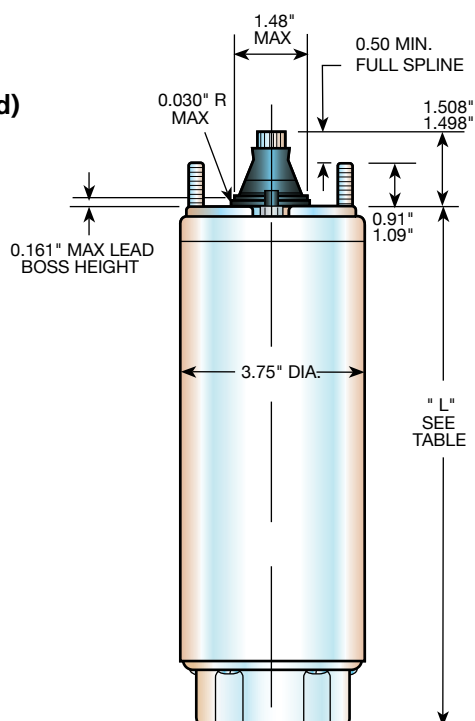
| HP | KW  | "L" DIM INS | SHIPPING WEIGHT |      |
|----|-----|-------------|-----------------|------|
|    |     |             | LBS             | KGS  |
| 3  | 2.2 | 23.2        | 56              | 25.4 |
| 5  | 3.7 | 29.2        | 71              | 32.2 |

### Three-Phase (Special control required)

| HP  | KW  | "L" DIM INS | SHIPPING WEIGHT |      |
|-----|-----|-------------|-----------------|------|
|     |     |             | LBS             | KGS  |
| 3   | 2.2 | 20.2        | 44              | 20.0 |
| 5   | 3.7 | 23.2        | 56              | 25.4 |
| 7.5 | 5.5 | 29.2        | 71              | 32.2 |
| 10  | 7.5 | 32.9        | 77              | 34.9 |

60 Hz - 3,450 rpm

50 Hz - 2,875 rpm



## Construction Materials

| Component               | Environment Type              |                             |                     |
|-------------------------|-------------------------------|-----------------------------|---------------------|
|                         | Standard Water Well           | Chemical (316 STNLS)        | Oil Stripper        |
| 1 Top Casting           | 303 SS                        | 316 SS                      | 316 SS              |
| 2 Bottom Casting        | 303 SS Over Painted Cast Iron | 316 SS                      | 316 SS              |
| 3 Stator Shell          | 301 SS                        | 316 SS                      | 316 SS              |
| 4 Stator Ends           | Low Carbon Steel              | 316 SS                      | 316 SS              |
| 5 Shaft Extension       | 17-4 SS                       | 17-4 SS                     | 17-4 SS             |
| 6 Fasteners             | 300 Series SS                 | 316 SS                      | 316 SS              |
| 7 Seal Cover            | Acetal                        | 316 SS                      | 316 SS              |
| 8 Seal                  | Nitrile Rupper Lip Seal       | Sand Fighter™ SiC Mech Seal | Sand Fighter™ Viton |
| 9 Diaphragm             | Nitrile Rubber                | Nitrile Rubber              | Viton               |
| 10 Diaphragm Cup        | 304 SS                        | 316 SS                      | 316 SS              |
| 11 Diaphragm Spring     | 316 SS                        | 316 SS                      | 316 SS              |
| 12 Diaphragm Cover      | 316 SS                        | 316 SS                      | 316 SS              |
| 13 Slinger              | Nitrile Rubber                | Nitrile Rubber              | Viton               |
| 14 Lead Wire (or Cable) | XLPE <sup>①</sup>             | XLPE <sup>①</sup>           | XLPE <sup>①</sup>   |
| 15 Lead Potting         | Epoxy                         | Epoxy                       | Epoxy               |
| 16 Lead Clamp           | 316 SS                        | 316 SS                      | 316 SS              |
| 17 Filter               | Delrin & Polyester            | 316 SS Plug                 | 316 SS Plug         |

<sup>①</sup> Removable type leads installed. Consult Submersible Service Hotline at 800.348.2420 for information regarding replacement leads.

Specifications subject to change without notice. Contact Franklin Electric if current material types are required for bid specifications.



**Franklin Electric**

400 East Spring Street, Bluffton, Indiana 46714 • Tel: 260.824.2900 Fax: 260.824.2909 • [www.franklin-electric.com](http://www.franklin-electric.com)